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MULTI-PIN CONNECTORS



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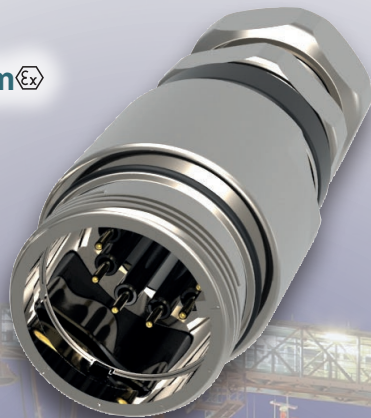


CONNECTIVITY
HAWKE CONNECTORS

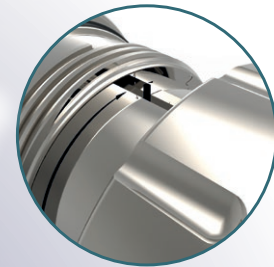
COMMON FEATURES



Instrum 



Impossible to Crossmate



Ingress and Deluge Protected



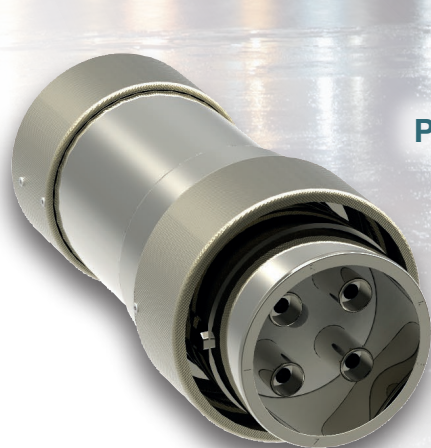
High Reliability Contacts



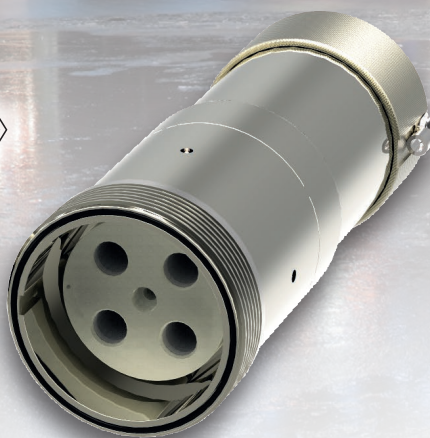
Retro Fit Flange Option



Control 



Power 



Robust Design



SELECTION OVERVIEW

FEATURES-SPECIFICATIONS

Features

There are several innovative features common across the range of Hawke connectors. Despite their highly advanced design and technical features, the range is extremely simple to use and quick to terminate.

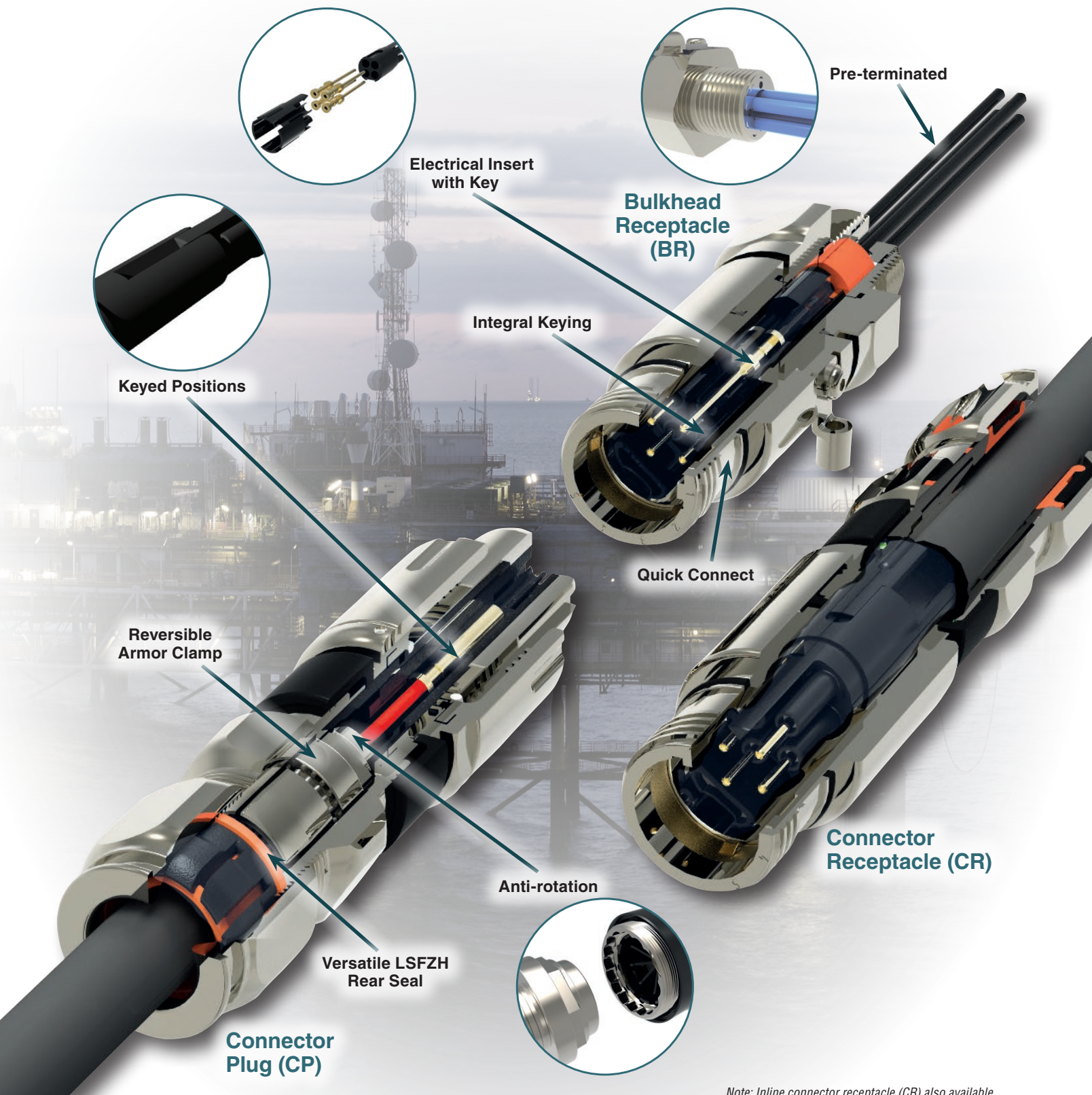
- IMPOSSIBLE TO CROSS MATE** – The unique mechanical keying system prevents contact damage and ensures safe use by eliminating the possibility of misconnection of circuits. Machined key and keyway also ensures connector alignment
- INGRESS AND DELUGE PROTECTED** – All Hawke ATEX connectors meet the requirements of IP66 and IP67 to IEC60529. They are also deluge protected to DTS01 offering long term protection in onerous environments.
- HIGH RELIABILITY CONTACTS** – Each pin and socket is fitted with multilam technology to ensure reliable low resistance connection on each coupling.
- RETRO FIT FLANGE OPTION** – Each connector plug and receptacle can be fitted with an optional mounting flange, either at point of order or retro fitted as required, allowing easy mounting of the connectors without the need to disassemble the units
- ROBUST DESIGN** – Designed and constructed for the most demanding environments, Hawke connectors are durable in almost any environment, requiring no routine maintenance to ensure continued performance.

APPLICATION							
CONNECTOR TYPE	MINIMUM NUMBER OF PINS	MAXIMUM NUMBER OF PINS	MINIMUM CROSS SECTIONAL AREA OF CONDUCTOR MM ²	MAXIMUM CONDUCTOR MM ²	MAXIMUM VOLTAGE	MAXIMUM CURRENT (AMPS)	LIVE DEMATE
Instrum [Ⓢ]	1	9	0.14	2.5	250V	10	✓
Control [Ⓢ]	3	60	0.5	35	750V	125	X
Power [Ⓢ]	1	4	50	630	750V*	780	X

* Other voltages available on special request.



FEATURES



Pre-terminated

Bulkhead Receptacle (BR)

Electrical Insert with Key

Integral Keying

Quick Connect

Keyed Positions

Reversible Armor Clamp

Connector Receptacle (CR)

Anti-rotation

Versatile LSFZH Rear Seal


Connector Plug (CP)

Note: Inline connector receptacle (CR) also available



FEATURES






Tamb: -40°C to +60°C  II2 GD Exdbe IIC
Extb IIIC Db T85
IP66, 67 & DTS01 deluge protected
Certificate No's Baseefa06ATEX0061X &
IECEX BAS 06.0018X



FEATURES-SPECIFICATIONS

Features

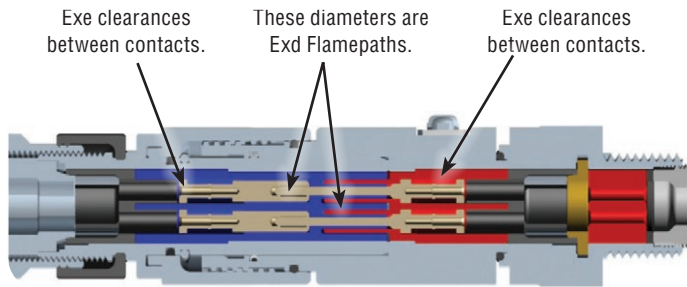
This revolutionary design allows the live mate and de-mating of signal and low power in hazardous areas safely and quickly. The Instrum  connector is available in two sizes. The 4-way and the 9-way options will accept cores ranging between 0.5mm² and 2.5mm² and can operate up to a maximum current of 10A (AC1) at 250V AC and 2.5A (DC1) 60V DC. The 8-way option, designed predominantly for Ethernet applications, will accept cores ranging between 0.14mm² and 0.37mm² and can carry 1A (AC1) at 60V AC and 0.5A (DC1) 60V DC. Instrum  connectors include an integral Hawke cable gland for easy termination of both armoured and un-armoured cables.

- **ELECTRICAL INSERT WITH KEY** – Easy to assemble electrical insert allows crimped or soldered connections.
- **KEYED POSITIONS** – Secondary keying on the actual insert bodies guarantees contact alignment, preventing pin damage.
- **INTEGRAL KEYING** – Machined key and keyway ensures connector alignment. Unique 5 position insert keying system prevents cross-mating.
- **QUICK CONNECT** – Unique 4 start ACME thread offers a smooth and quick fully mating action in less than two turns. Earth continuity is achieved via a 360° contact clip.
- **ANTI-ROTATION** – Profiled Spigot and connector body prevent cable rotation, eliminating cable damage.
- **REVERSIBLE ARMOR CLAMP** – The Instrum  incorporates Hawke's proven and patented armor termination method to accommodate different types of armor or braid.
- **VERSATILE LSFZH REAR SEAL** – Accommodates a wide range of cable sizes and provides highly effective cable grip and ingress protection.
- **PRE-TERMINATED** – All BR connectors are supplied with pre-terminated tails to suit your requirements.



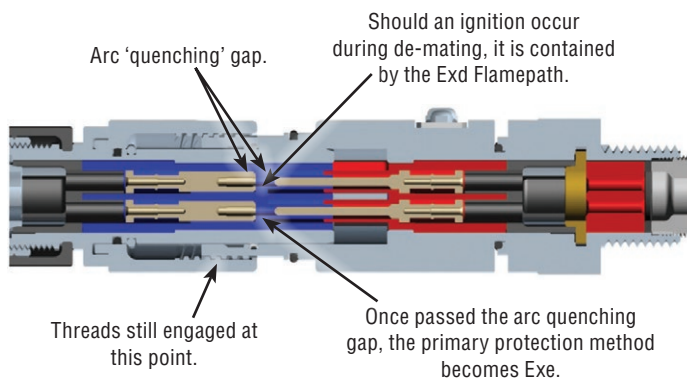
HOW IT WORKS

The **INSTRUM**  connectors are designed to provide ease of installation and speed of use whilst providing a flexible, safe and reliable method for **MATING AND DISCONNECTION OF CIRCUITS WHICH ARE ENERGISED.**



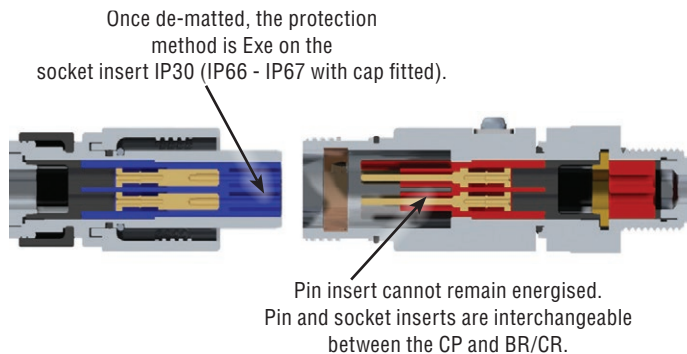
Stage 1

The two mating halves are easily engaged and disengaged by two full turns of the ACME custom engaging thread, during which time the pins and socket are protected by the Exd flameproof protection concept. The outer shell of the connector combined with the integral Hawke cable gland seal ensure that the internal connections are protected to the Exe increased safety protection concept.



Stage 2

During connector engagement and disengagement any sparking of the contacts is contained within an arc 'quenching section' which is housed within the Exd flamepath areas.



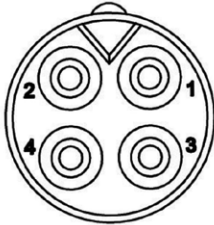
Stage 3

When the connector halves are disengaged, the socket section is protected to IP30 and must have the protective cap fitted immediately to restore the full Exe increased safety requirements and IP rating. The pins and socket inserts are interchangeable between all three connector components: i.e. Bulkhead receptacle, in-line receptacle and connector plug. **In all installations, the "live" side of the connector must always contain the socket insert.**



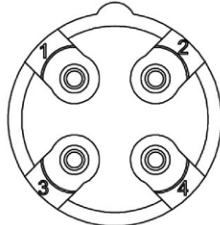
INSERTS

Front View of Socket Insert



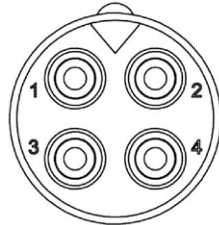
4 x 0.5 - 1mm²
4 x 1.5 - 2.5mm²

Back View of Socket Insert



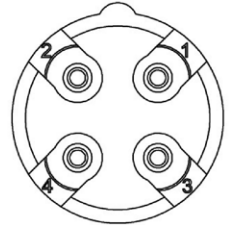
4 x 0.5 - 1mm²
4 x 1.5 - 2.5mm²

Front View of Pin Insert

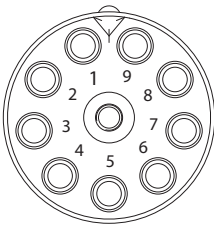


4 x 0.5 - 1mm²
4 x 1.5 - 2.5mm²

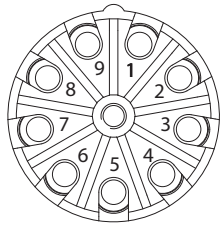
Back View of Pin Insert



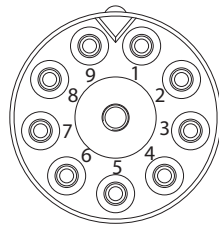
4 x 0.5 - 1mm²
4 x 1.5 - 2.5mm²



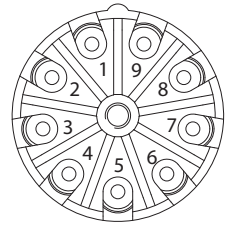
9 x 0.5 - 1mm²
9 x 1.5 - 2.5mm²



9 x 0.5 - 1mm²
9 x 1.5 - 2.5mm²

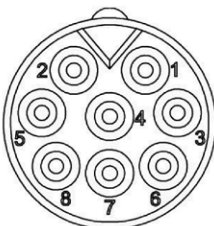


9 x 0.5 - 1mm²
9 x 1.5 - 2.5mm²



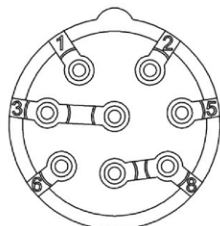
9 x 0.5 - 1mm²
9 x 1.5 - 2.5mm²

Front View of Socket Insert



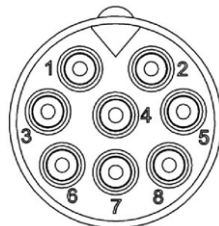
8 x 0.14 - 0.37mm²

Back View of Socket Insert



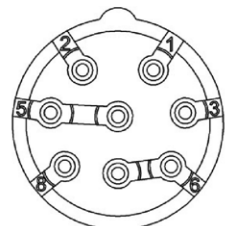
8 x 0.14 - 0.37mm²

Front View of Pin Insert



8 x 0.14 - 0.37mm²

Back View of Pin Insert



8 x 0.14 - 0.37mm²



Dual Crimp

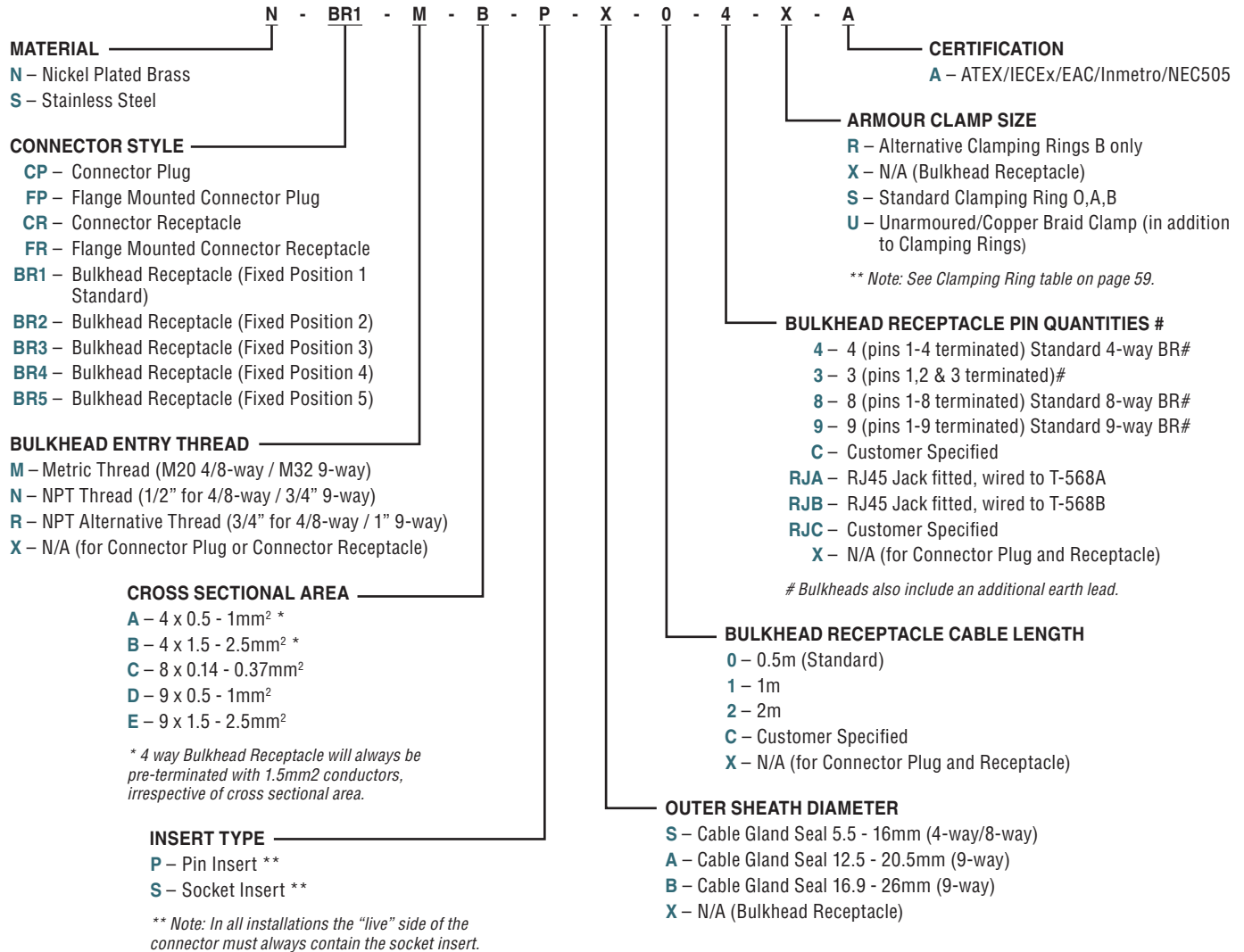
Two crimping locations on the 4 & 9 way contacts allow for only two contact sizes to cover a far greater range than conventional contacts. This allows termination of cores ranging between 0.5 and 2.5mm².

Contacts must be crimped using the Hawke supplied crimping tool part No. HCT1.



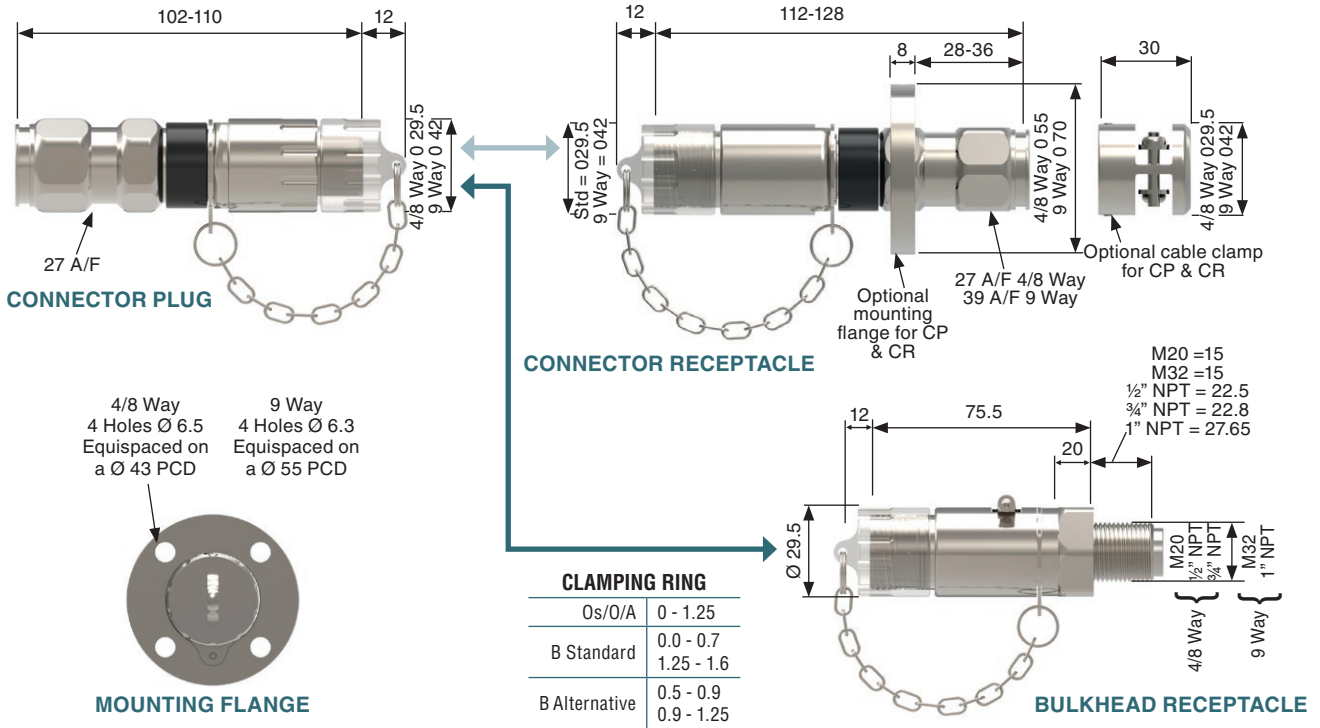
CATALOG LOGIC

When ordering, select relevant code from each block as shown in the example below: **Instrum / N-BR1-M-B-P-X-0-4-X-A**





DIMENSIONS



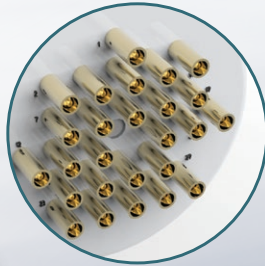
All dimensions in mm unless otherwise stated.

TECHNICAL DATA - 4 WAY / 9 WAY	
EXPLOSION PROTECTION	⊕ IIC GD Exdbe IIC Gb Extb IIIC Db T85°C
AMBIENT TEMPERATURE	-40°C to +60°C
CERTIFICATION	Baseefa 06 ATEX 0061X
	IECEX BAS06.0018X
RATINGS 4 / 9 WAY	Voltage AC 250V RMS
	Current AC EN 60947-4-3 10A (AC21)
	Current AC EN 60947-4-1 10A (AC1)
	Current AC EN 60947-4-1 1A (AC3)
	Frequency 50/60 Hz
	Power Factor 0.9
	Voltage DC 60V
	Current DC EN 60947-4-3 2.5A (DC21)
	Current DC EN 60947-4-1 2.5A (DC1)
Current DC EN 60947-4-1 0.5A (DC3)	
FUSE RATING 4 / 9 WAY	10 amp without thermal protection
	20A gL with thermal protection
MAX NO. OF MAKE & BREAK OPERATIONS (EN61984)	On load 150
	Off load 500
IP RATING	IP66, IP67 and DTS01 deluge protected. <i>Note: Caps to be fitted to maintain IP ratings when the connector halves are separated.</i>
STORAGE TEMPERATURE	-50°C to +70°C

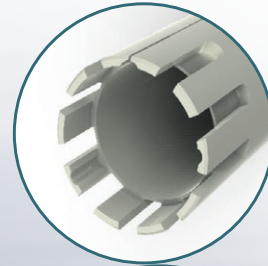
TECHNICAL DATA - 8 WAY	
EXPLOSION PROTECTION	⊕ IIC GD Exdbe IIC Gb Extb IIIC Db T85°C
AMBIENT TEMPERATURE	-40°C to +60°C
CERTIFICATION	Baseefa 06 ATEX 0061X
	IECEX BAS06.0018X
RATINGS 8 WAY	Voltage AC 60V RMS
	Current AC EN 60947-4-3 1A (AC21)
	Current AC EN 60947-4-1 1A (AC1)
	Current AC EN 60947-4-1 0.1A (AC3)
	Frequency 50/60 Hz
	Power Factor 0.9
	Voltage DC 60V
	Current DC EN 60947-4-3 0.5A (DC21)
	Current DC EN 60947-4-1 0.5A (DC1)
Current DC EN 60947-4-1 0.1A (DC3)	
FUSE RATING 8 WAY	0.5 amp without thermal protection
	1A gL with thermal protection
MAX NO. OF MAKE & BREAK OPERATIONS (EN61984)	On load 150
	Off load 500
IP RATING	IP66, IP67 and DTS01 deluge protected. <i>Note: Caps to be fitted to maintain IP ratings when the connector halves are separated.</i>
STORAGE TEMPERATURE	-50°C to +70°C



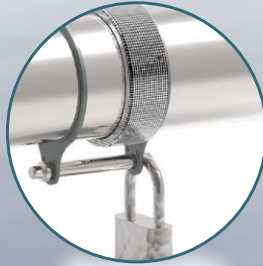
FEATURES



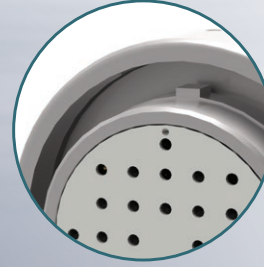
Easy
Fieldwireable



Internal Keyway
Spacer



Locking Pin



Keying
Position



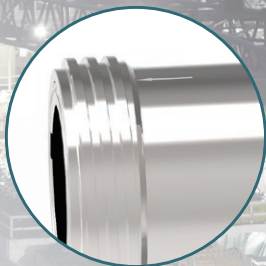
Connector Plug-CP



Bulkhead-BR



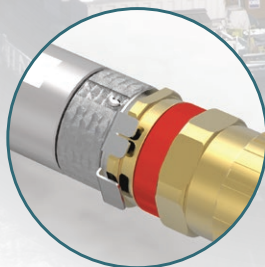
Running
Coupler



Acme Thread
at Mating
Interface



Fully Inspectable
Flameproof Barrier



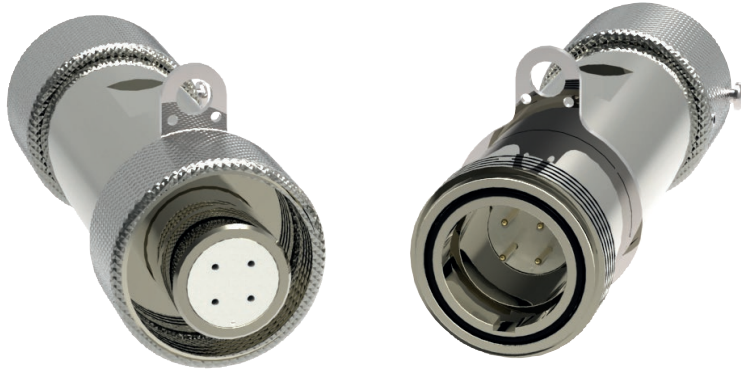
Anti-
Rotation
Device



Connector Receptacle - CR



FEATURES




Tamb: -40°C to +60°C  II2 GD Exdb IIC
Gb, Extb IIIC Db T95
IP66, 67 & DTS01 deluge protected
Certificate No's Baseefa12ATEX0014X &
IECEX BAS 12.0006X.



FEATURES-SPECIFICATIONS

Features

The 4th generation of Control  connectors include many features and refinements as a result of consumer feedback, which makes them particularly suitable for control and low/medium power applications. The robust stainless steel body can hold up to 60 contacts and will accept conductor sizes ranging between 0.5mm² and 35mm², operating up to 125A and 750V.

- **EASY FIELDWIREABLE** – Pin and socket inserts are numbered front and back to assist wiring and avoid termination errors. Crimp and solder inserts available.
- **INTERNAL KEYWAY SPACER** – Eases accessibility for termination as tube fitted after termination complete, along with allowing easy installation into the required keyed position (See ④)
- **LOCKING PIN** – Optional locking pin provides the facility for mated connectors to be permanently locked, via the use of a padlock, ensuring they cannot be separated under load. (Padlock not supplied)
- **KEYING POSITION** – The unique visual 5 position insert keying system (3 on Ex16) along with the integral machined keyways prevent contact damage and ensures safe use by eliminating the possibility of misconnection of adjacent circuits.
- **RUNNING COUPLER** – Allows the connector to be installed onto a pre-assembled cable gland. Connector is rear loading and includes locking engaging nut.
- **ACME THREAD AT MATING INTERFACE** – Unique ACME thread offers a smooth and quick fully mating action.
- **FULLY INSPECTABLE FLAMEPROOF BARRIER** – Provides direct inspection of the flameproof seal and offers users the peace of mind that the connector is safe for installation.
- **ANTI-ROTATION DEVICE** – Connector plugs and receptacles come complete with anti-rotation ring, which when fitted between the connector and gland, helps to eliminate the possibility of the gland loosening, locking this in position.



INSERTS

Ex16 - 3 x 1.5 Ex16 - 4 x 1.5 Ex25 - 4 x 1.5 Ex25 - 9 x 1.5 Ex25 - 12 x 1.5 Ex25 - 4 x 2.5 Ex25 - 7 x 2.5 Ex25 - 4 x 6
Soldered Only

Ex32 - 12 x 1.5 Ex32 - 19 x 1.5 Ex32 - 10 x 2.5 Ex32 - 12 x 2.5 Ex32 - 4 x 6

Ex32 - 6 x 6 Ex32 - 3 x 10 Ex32 - 4 x 10 Ex32 - 3 x 16 Ex32 - 4 x 16

Ex40 - 24 x 1.5 Ex40 - 30 x 1.5 Ex40 - 19 x 2.5 Ex40 - 8 x 6 Ex40 - 5 x 10

Ex40 - 5 x 16 Ex40 - 4 x 25 Ex40 - 4 x 35

Ex40 - 60 x 1.5

Ex50 - 37 x 1.5 Ex50 - 27 x 2.5 Ex50 - 13 x 6 Ex63 - 37 x 2.5 Ex63 - 49 x 1.5

INSERT SIZE	INTERNAL DIAMETER OF CUP (MM) NOMINAL	
	SOLDERED	CRIMPED
	1.5mm ²	2
2.5mm ²	3	3
6mm ²	3.5	3.2
10mm ²	7	4
16mm ²	7	5
25mm ²	8	6.5
35mm ²	8	8.3

INSERT SELECTION TABLE					
CONFIGURATION					
SHELL SIZE 16	SHELL SIZE 25	SHELL SIZE 32	SHELL SIZE 40	SHELL SIZE 50	SHELL SIZE 63
3 x 1.5mm ² + Earth	4 x 1.5mm ² + Earth	12 x 1.5mm ² + Earth	24 x 1.5mm ² + Earth	37 x 1.5mm ² + Earth	49 x 1.5mm ² + Earth
4 x 1.5mm ² + Earth	9 x 1.5mm ² + Earth	19 x 1.5mm ² + Earth	30 x 1.5mm ² + Earth	27 x 2.5mm ² + Earth	60 x 1.5mm ² + Earth
-	12 x 1.5mm ² + Earth	10 x 2.5mm ² + Earth	19 x 2.5mm ² + Earth	13 x 6mm ² + Earth	37 x 2.5mm ² + Earth
-	4 x 2.5mm ² + Earth	12 x 2.5mm ² + Earth	4 x 25mm ² + Earth	-	-
-	7 x 2.5mm ² + Earth	4 x 6mm ² + Earth	4 x 35mm ² + Earth	-	-
-	4 x 6mm ² + Earth	6 x 6mm ² + Earth	-	-	-
-	-	3 x 10mm ² + Earth	-	-	-
-	-	4 x 10mm ² + Earth	-	-	-
-	-	3 x 16mm ² + Earth	-	-	-
-	-	4 x 16mm ² + Earth	-	-	-

Note: Inserts for use in bulkhead receptacles are solder termination only for contact sizes of 6mm² and above.

Hawke Control connectors have a maximum working voltage of 660V DC (660V AC) as standard. 3rd & 4th generation Control connectors can be connected together within certification.

Other voltages available on special request.

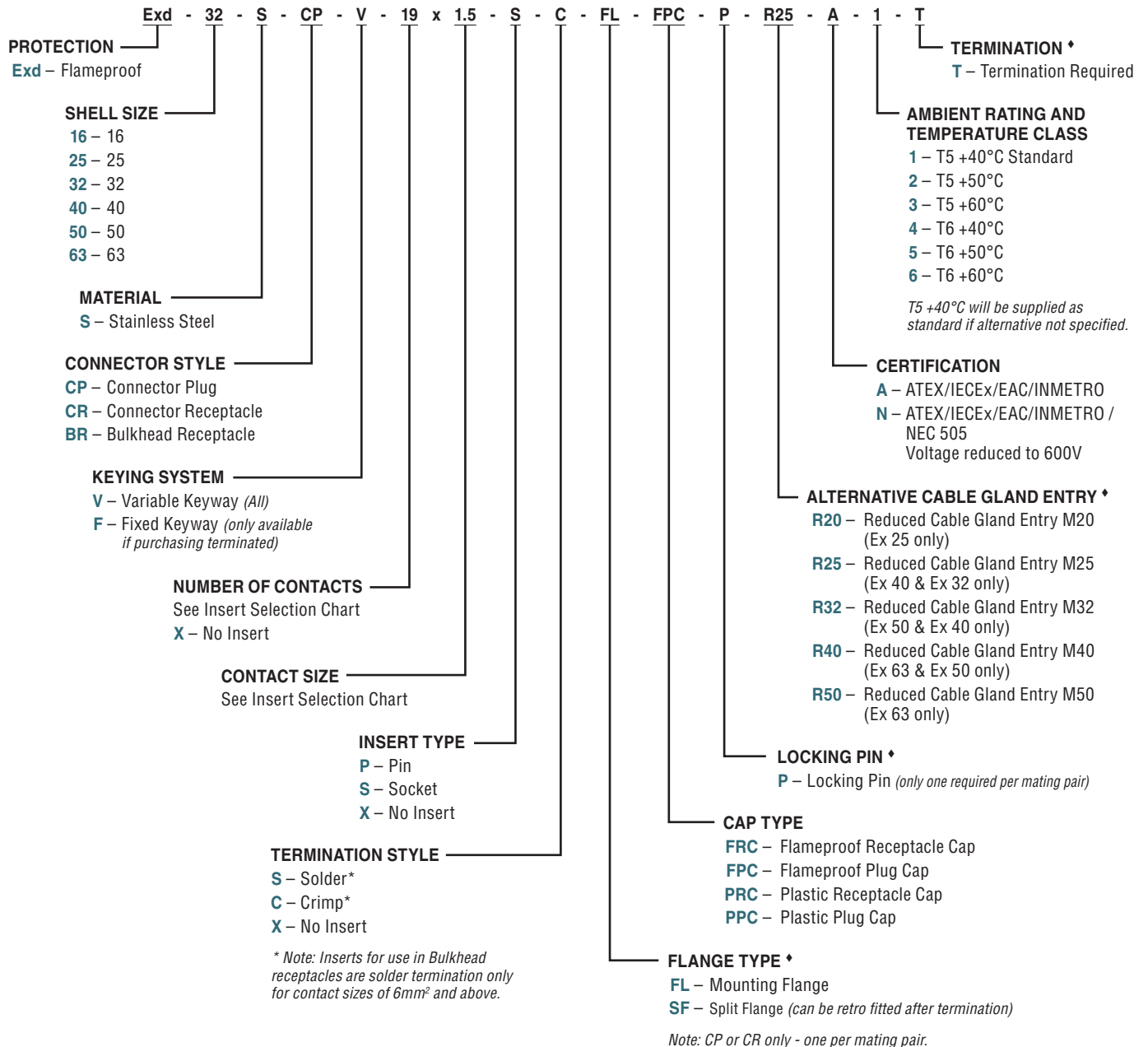


CATALOG LOGIC

Hawke International does not recommend the use of their ControlEx Connectors in applications where rigid PVC/SWA/PVC power cabling (typically to BS 6346 standards or equivalents) is used in portable/semi-portable applications.

When ordering, select relevant code from each block as shown in the example below:

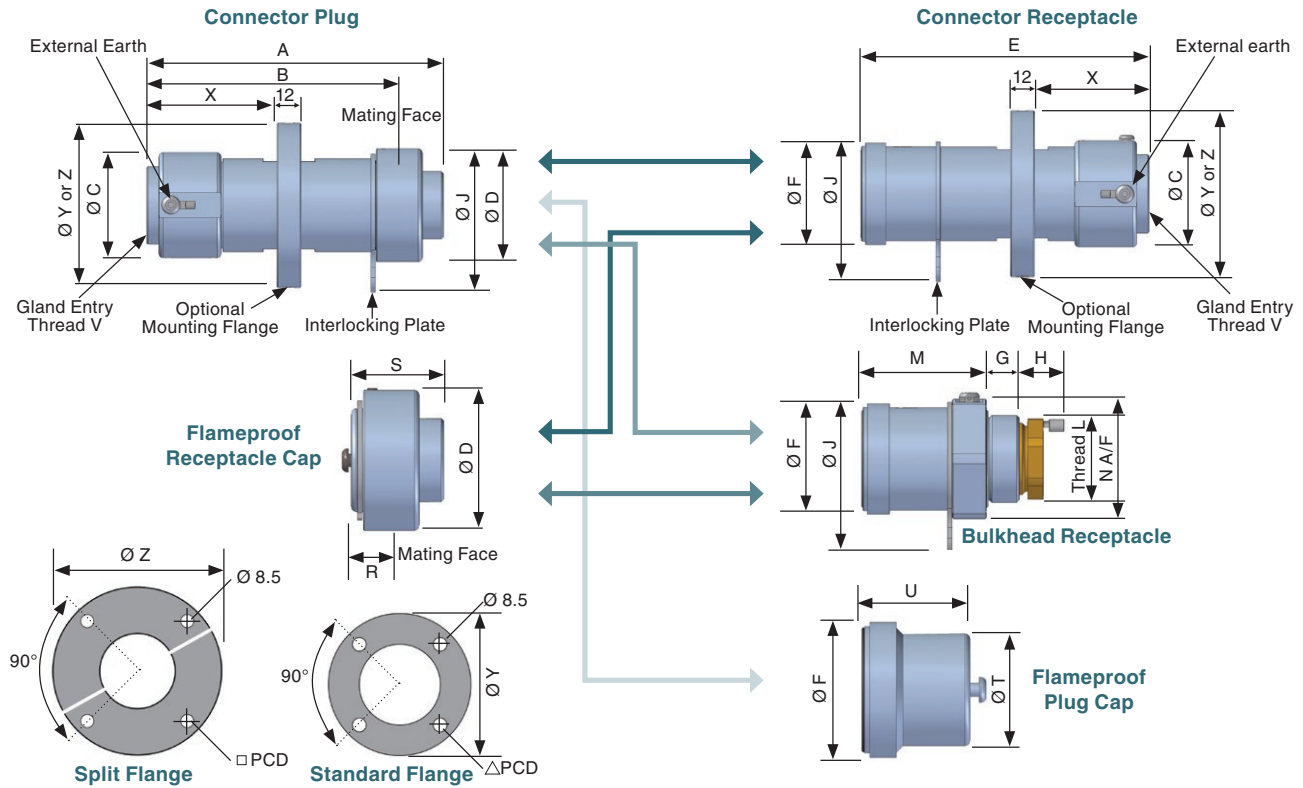
ControlEx / Exd-32-S-CP-V-19 x 1.5-S-C-FL-FPC-P-R25-A-1-T



Ⓞ If not required, omit selection character from order code.



DIMENSIONS



The flameproof cap must be fitted to the connector before the power is restored to the disconnected circuit. The receptacle cap and plug cap are available in acetel and provide an IP rating of IP66/67. They may only be used when the socket or plug is not re-energised following disconnection.

For connector plugs and connector receptacles cable glands are required to terminate incoming cables. Hawke recommend the ICG 653/UNIV cable gland is used.

HAWKE EX SERIES DIMENSIONS (MM)						
DIMENSION	EX16	EX25	EX32	EX40	EX50	EX63
A	127	152	152	152	152	148
B	105	128	129	129	129	126
Ø C	36	46	53	60	66	83
Ø D	37	49	57	65	76	90
E	128	152	152	152	152	152
Ø F	32	45	51	59	70	83
G	15	15	15	15	15	15
H (nominal)	20	20	20	20	20	20
J (Aperture Clearance Hole)	55	65	75	85	95	115
*Thread L (1.5mm Pitch)	M25	M32	M40	M50	M63	M75
M	54	54	56	56	56	56
N A/F	36	46	55	65	80	95
R	15	15	15	16	16	17
S	38	38	38	39	39	40
Ø T	28	34	42	51	60	73
U	40	40	40	40	40	40
Thread V (1.5mm Pitch)	M20	M25	M32	M40	M50	M63
X (nominal)	54	70	70	70	70	67
Ø Y	66	76	83	91	102	117
	49	59	66	74	85	100
Ø Z	87	99	105	117	129	147
	70	82	88	100	112	130

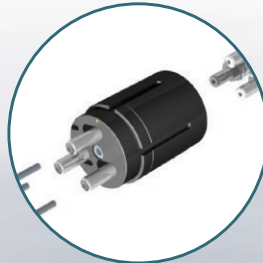
*Bulkhead entry thread L can be adapted to other sizes. This may affect the overall length of unit.



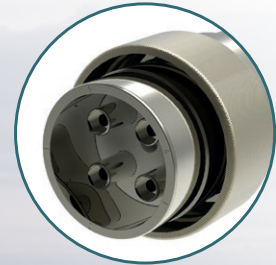
FEATURES



**Running
Coupler**



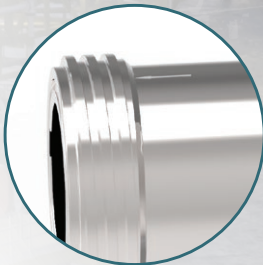
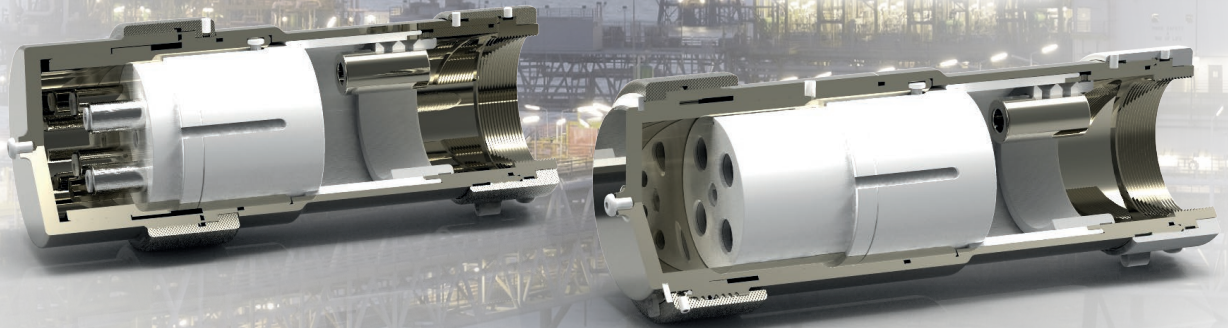
**Easy
Fieldwireable**



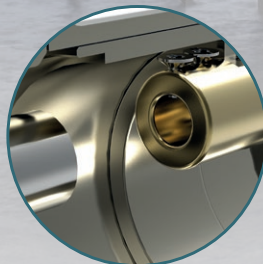
**Keying
Position**

Connector Receptacle - CR

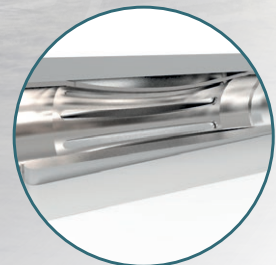
Connector Plug - CP



**Acme Thread
at Mating
Interface**



Internal Earth



**Multilam
Technology**



FEATURES




Tamb: -40°C to +60°C  II2 GD Exdb IIC
Extb IIIC Db T85
IP66, 67 & DTS01 deluge protected
Certificate No's Baseefa06ATEX0062X &
IECEX BAS 06.0019X



FEATURES-SPECIFICATIONS

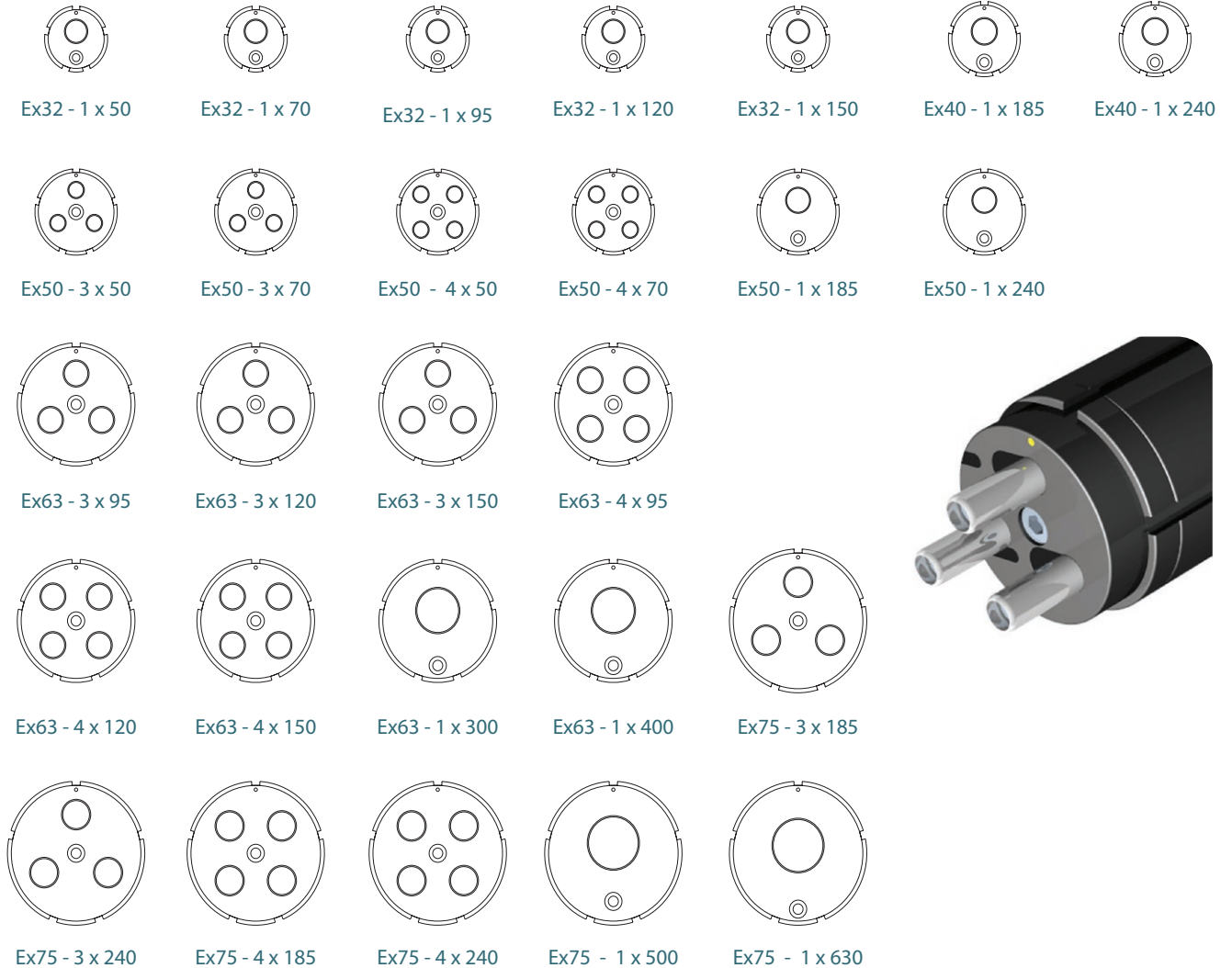
Features

The Power  range of connectors have been designed specifically for the extremely demanding requirements of higher power applications. Inserts are available with 1 to 4 contacts with a conductor acceptance range of between 50mm² and 630mm² operating up to 780A and 750V as standard. Other voltages available on special request.

- **RUNNING COUPLER** – Allows the connector to be installed onto a pre-assembled cable gland.
- **EASY FIELDWIREABLE** – Insert assembled outside connector shell to assist wiring and allow greater flexibility.
- **KEYING POSITION** – The unique visual 5 position insert keying system along with the integral machined keyway prevents contact damage and ensures safe use by eliminating the possibility of misconnection of adjacent circuits.
- **ACME THREAD AT MATING INTERFACE** – Unique ACME thread offers a smooth and quick fully mating action.
- **INTERNAL EARTH** – Internal earth fitted as standard. Size to suit cables earthing facility.
- **MULTILAM TECHNOLOGY** – Tried and tested multiple high contact force, low resistance multilams used in all contacts.



INSERTS



HAWKE EX SERIES DIMENSIONS (MM)

CONFIGURATION				
SHELL SIZE 32	SHELL SIZE 40	SHELL SIZE 50	SHELL SIZE 63	SHELL SIZE 75
1 x 50mm ² + Earth	1 x 185mm ² + Earth	3 x 50mm ² + Earth	3 x 95mm ² + Earth	3 x 185mm ² + Earth
1 x 70mm ² + Earth	1 x 240mm ² + Earth	3 x 70mm ² + Earth	3 x 120mm ² + Earth	3 x 240mm ² + Earth
1 x 95mm ² + Earth	-	4 x 50mm ² + Earth	3 x 150mm ² + Earth	4 x 185mm ² + Earth
1 x 120mm ² + Earth	-	4 x 70mm ² + Earth	4 x 95mm ² + Earth	4 x 240mm ² + Earth
1 x 150mm ² + Earth	-	1 x 185mm ² + Earth	4 x 120mm ² + Earth	1 x 500mm ² + Earth
-	-	1 x 240mm ² + Earth	4 x 150mm ² + Earth	1 x 630mm ² + Earth
-	-	-	1 x 300mm ² + Earth	-
-	-	-	1 x 400mm ² + Earth	-

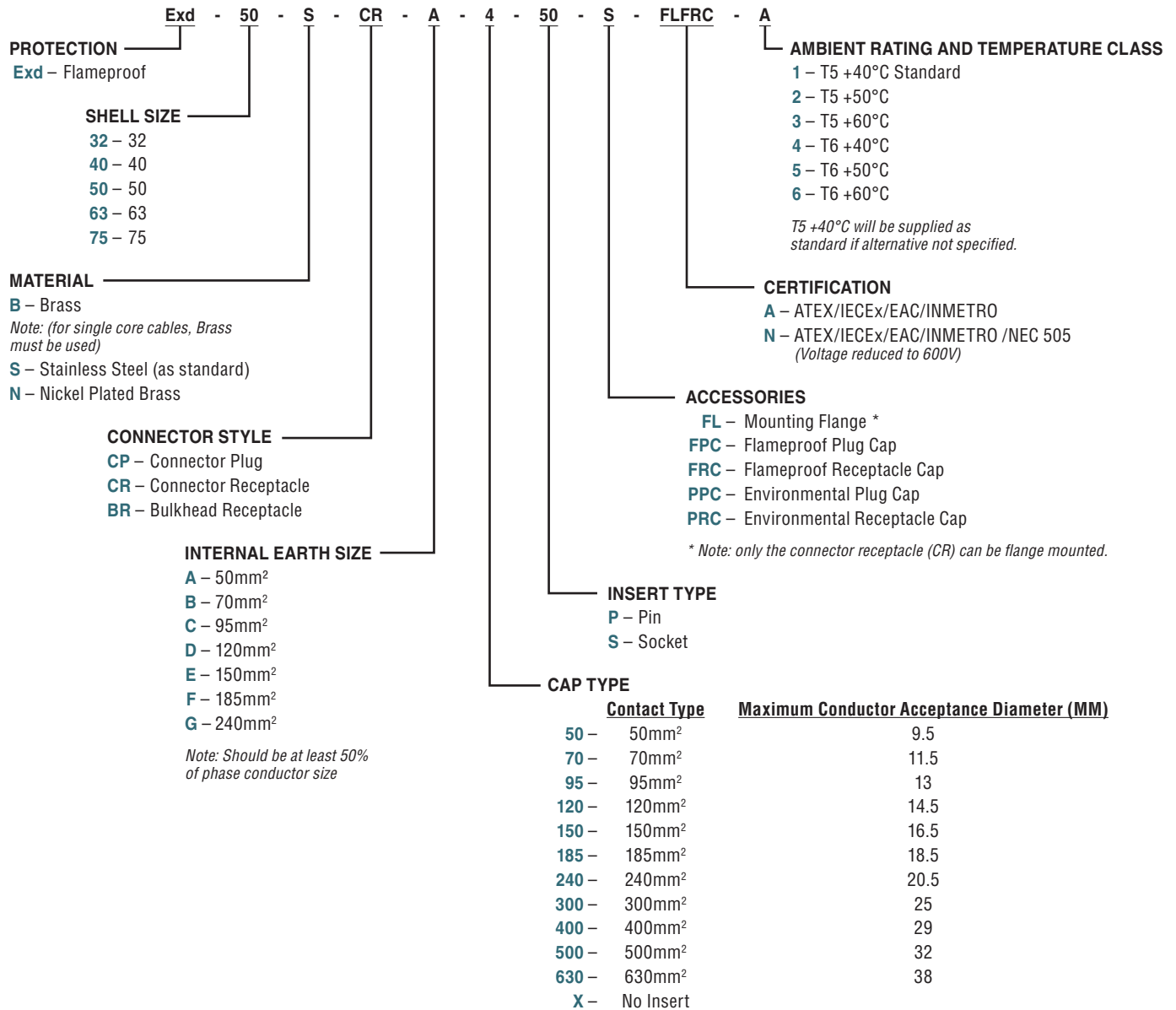
All Hawke Power[®] connectors have a maximum working voltage of (750V AC).
Other voltages and contact configurations also available. contact Hawke International for details.



CATALOG LOGIC

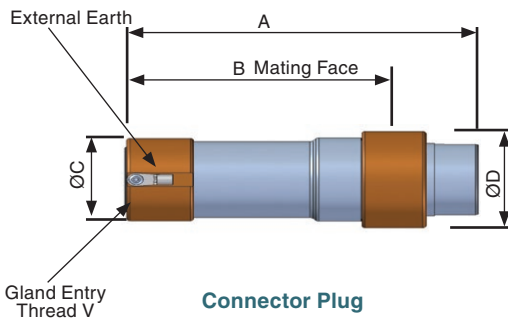
When ordering, select relevant code from each block as shown in the example below:

Power / Exd-50-S-CR-A-4-50-S-FLFRC-A

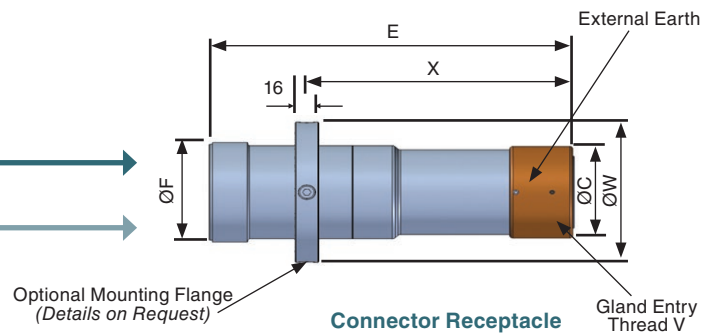




DIMENSIONS

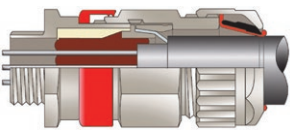


Connector Plug



Connector Receptacle

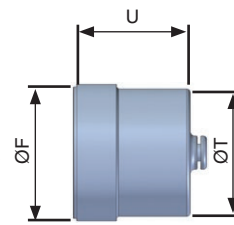
For connector plugs and connector receptacles, cable glands are required to terminate incoming cables. These can be selected from our cable gland section or our website.



These glands include but are restricted to 501/453/UNIV and the ICG 653/UNIV. For portable application Hawke recommend the ICG 653/UNIV cable gland.

ICG 653/UNIV Cable Gland

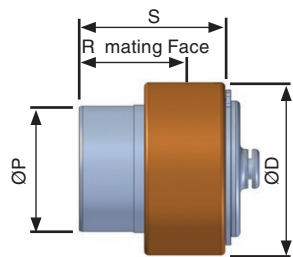
Optional Mounting Flange
(Details on Request)



Flameproof Plug Cap

The flameproof cap must be fitted to the connector before the power is restored to the disconnected circuit.

The receptacle cap and plug cap are available in acetal and provide an IP rating of IP66/67. They may only be used when the socket or plug is not re-energised following disconnection



Flameproof Receptacle Cap

HAWKE EX SERIES DIMENSIONS (MM)

DIMENSION	EX32P	EX40P	EX50P	EX63P	EX75P
A	228	228	228	228	238
B	168	168	168	168	178
ØC	60	66	76	89	101
ØD	73	79	89	102	114
E	251	251	251	251	261
ØF	67	73	82.5	95	108
ØP	48	55	65	78	90
R	60	60	60	60	60
S	75.5	75.5	75.5	75.5	76
ØT	61	68	77	90	102
U	68.5	68.5	68.5	68.5	68.5
Thread V (1.5mm Pitch)	M32*	M40*	M50*	M63*	M75*
ØW	100	106	116	129	141
X	184	184	184	184	194

*Other entry threads also available.



CALCULATIONS

To select the shell size of the connector, it is essential that you calculate the dissipated wattage of the arrangement. This ensures that the arrangement does not exceed the maximum permitted temperature classification with regard to the upper ambient temperature for the area of installation. (Please refer to Table 1 for the maximum allowable dissipated wattage per connector size).

TABLE 1						
CONNECTOR SIZE	UPPER AMBIENT TEMPERATURE OF +40°C		UPPER AMBIENT TEMPERATURE OF +50°C		UPPER AMBIENT TEMPERATURE OF +60°C	
	TEMPERATURE CLASS		TEMPERATURE CLASS		TEMPERATURE CLASS	
	T6	T5	T6	T5	T6	T5
Ex16	5W	7W	4W	6W	2.6W	4.6W
Ex25	8W	11W	6W	10W	4W	7W
Ex32	10.5W	14.5W	8W	12W	5.4W	9W
Ex40	12W	17W	9W	14W	5.5W	10.5W
Ex50	13W	20W	10W	17W	6.5W	12.5W
Ex63	17W	29W	13W	24W	8.5W	17W
Ex32P	20.5W	27.5W	15.75W	26W	7.5W	15.75W
Ex40P	22.5W	30.5W	17.5W	28W	8.7W	17.5W
Ex50P	25.8W	35.3W	20W	32.25W	10W	20W
Ex63P	30.2W	41.5W	23.5W	37.7W	11.7W	23.5W
Ex75P	36.3W	49.5W	28.25W	45.25W	14W	28.25W
Maximum allowable dissipated wattage						

Other ambient temperature options can be extrapolated from Table 1 above, or contact Hawke International for more information.

DISSIPATED WATTAGE CALCULATION

Equation Definitions

- W = Dissipated wattage factor of the connector
- N = The number of conductors to be terminated/number of contacts required.
(Note: A contact comprises of a pin and socket).
- I = The current requirement per contact.
(Note: This must be equal to or less than the maximum current rating of the contact, as shown in table 2).
- R = The combined cable and contact resistance (see table 2)

Values pertinent to these definitions must then be input into the following equation to calculate the dissipated wattage (w) of your chosen arrangement:

$$W = N \times I^2 \times R$$

(Note: The results must be lower than the maximum figure shown in table 1 for the appropriate temperature class and ambient temperature).

e.g. T6 40°C ambient application with 4 x 95mm² conductors, running at 160 amps.

$$N = 4 \text{ CONTACTS} \quad I = 160 \text{ AMPS} \quad R = 0.000283\Omega \quad (95\text{MM}^2 \text{ SOLDERED COMBINED CABLE AND CONTACT RESISTANCE})$$

$$\text{THEREFORE } W = 4 \times 25600 \times 0.000283\Omega = 28.9 \text{ WATTS.}$$

Therefore, an Ex63P Connector should be specified for this application as the shell size can accommodate the required 4 x 95mm² pin/socket inserts (SEE PAGE 68 - Insert Selection Table) and the resultant dissipated wattage (28.9 watts) is below the maximum permitted 30.2 watts (See Table 1).

This equation can also be transposed to facilitate the calculation of the maximum number of conductors permitted in your selected connector j and the maximum allowable current within the upper ambient temperature of our location ②.

$$\textcircled{1} \quad N = \frac{W}{R \times I^2} \qquad \textcircled{2} \quad I = \sqrt{\frac{W}{N \times R}}$$

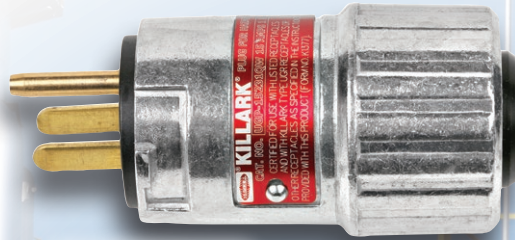
(Note: The result of equation ② must not exceed the maximum current rating of contacts (see Table 2).

Note: Unless otherwise requested, connectors will be marked as T5 with an upper ambient temperature of +40°C.

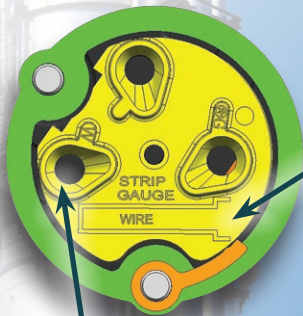
TABLE 2			
CONTACT SIZE	COMBINED CABLE & CONTACT RESISTANCE μ (OHMS)	CONTACT CURRENT RATING	
50mm ²	514	190amps	
70mm ²	387	240amps	
95mm ²	283	290amps	
120mm ²	239	340amps	
150mm ²	202	385amps	
185mm ²	170	440amps	
240mm ²	144	520amps	
300mm ²	82	590amps	
400mm ²	67	670amps	
500mm ²	54	720amps	
630mm ²	45	780amps	
	SOLDERED	CRIMPED	
1.5mm ²	0.0166 Ω	0.0173 Ω	10 amps
2.5mm ²	0.0102 Ω	0.0109 Ω	17 amps
6mm ²	0.0047 Ω	0.0054 Ω	30 amps
10mm ²	0.0027 Ω	0.0033 Ω	78 amps
16mm ²	0.0018 Ω	0.0024 Ω	78 amps
25mm ²	0.0012 Ω	0.0018 Ω	125 amps
35mm ²	0.0009 Ω	0.0015 Ω	125 amps



ACCEPTOR QUICK WIRE PLUG

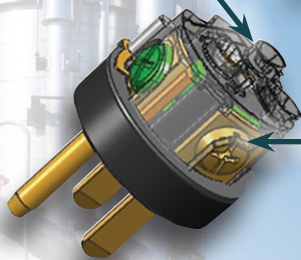


UGPQW PLUG



Built-in wire strip gauge

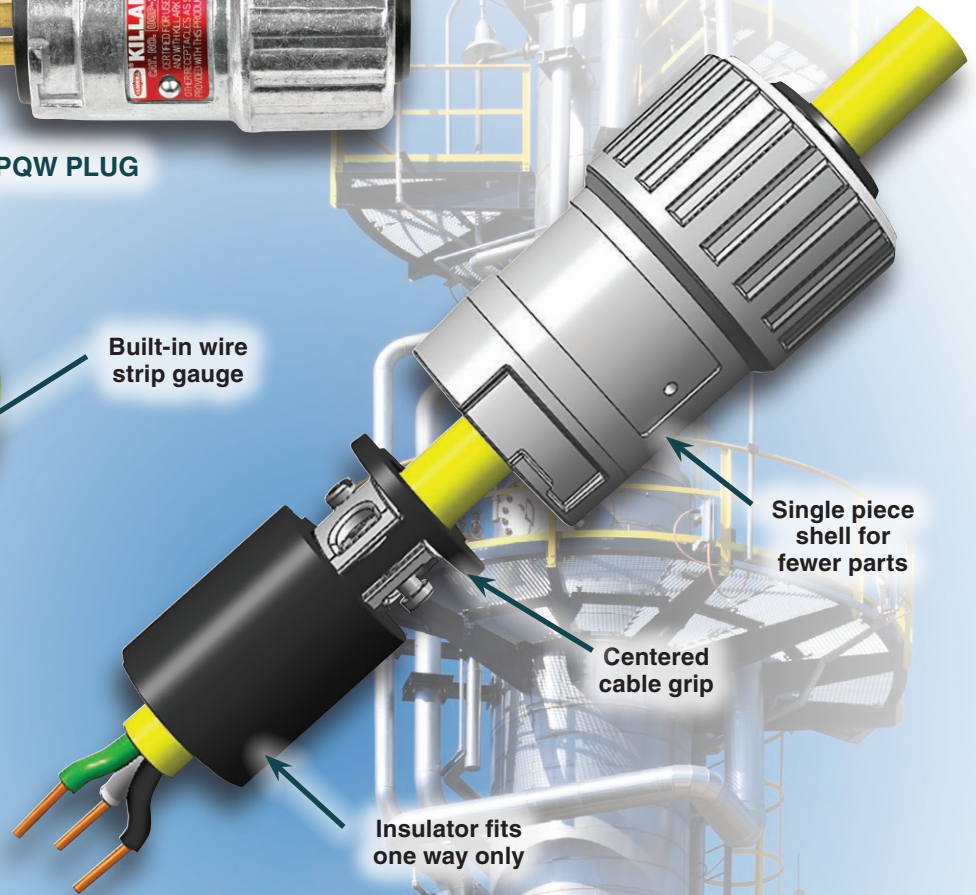
Wire guides enables easy conductor installation



Side tightening terminals use full sized #2 screwdriver (either Flat or Phillips)



Old style insulator requires miniature screwdriver



Single piece shell for fewer parts

Centered cable grip

Insulator fits one way only





CONNECTIVITY
ACCEPTOR® SERIES

UGP BLADED RECEPTACLES

ACCEPTOR®



UGPQW Plug



Quick Wiring Terminals

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB+H2, IIA
Class II, Div. 1 & 2, Groups F, G
Class III
Type 3*

 File No. E91049 and/or E53660

 Certified File No. LR14667

* Type 3 rating is achieved with non-Group B configurations when a suitable drain is installed.



FEATURES-SPECIFICATIONS

Features

- The Acceptor Series uses a delayed action, twist-to-lock feature to prevent an engaged plug from being removed under load.
- Intermateable with similar competitive products, including classified for use with Crouse-Hinds® Ark-Gard®2 and Appleton® U-Line® devices.
- Factory sealed chamber in UGR receptacle contains switch's arcing components
- No additional external seals are required, except in Group B applications
- Spring loaded receptacle cover closes when plug is removed to provide protection when not in use

Materials

- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion
- Electrostatically applied and baked powder epoxy/polyester finish
- All external hardware is 316 stainless steel to provide low maintenance and long life

Electrical Ratings

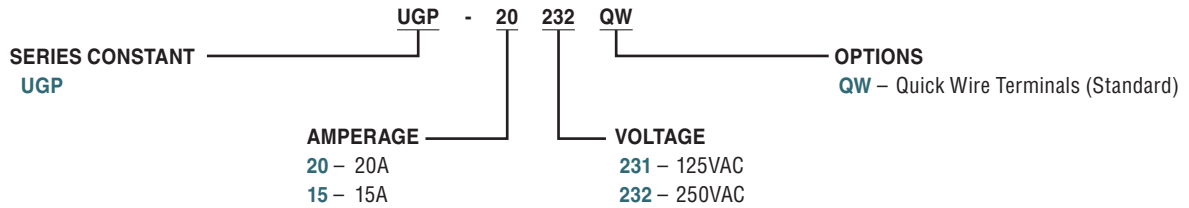
- Amperage = 15A or 20A
- Voltage = 125VAC or 250VAC
- Horsepower = 1 HP @ 125VAC / 2 HP @ 250VAC
- Frequency = 50/60 Hz
- Wire Size = Suitable for #14 - #10 AWG SOOW or similar cable


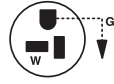


Ark-Gard® is a registered trademark of Crouse-Hinds®.
U-Line® is a registered trademark of Appleton Electric Company®.

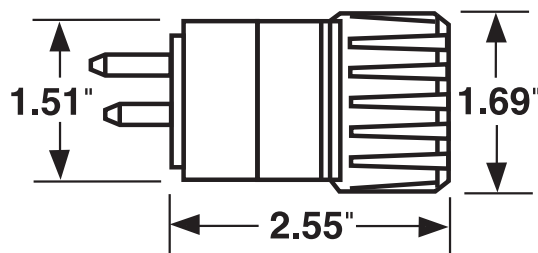


UGP BLADED RECEPTACLES CATALOG LOGIC

UGP PLUGS



VOLTAGE	NEMA CONFIGURATION	CATALOG NUMBER	NEMA CONFIGURATION	CATALOG NUMBER
		15 AMP PLUG W/ QUICK WIRING		20 AMP PLUG W/ QUICK WIRING
125VAC	 5-15P	UGP-15231QW	 5-20P	UGP-20231QW
250VAC	 6-15P	UGP-15232QW	 6-20P	UGP-20232QW



Plug Dimensions



CONNECTIVITY
ACCEPTOR® SERIES

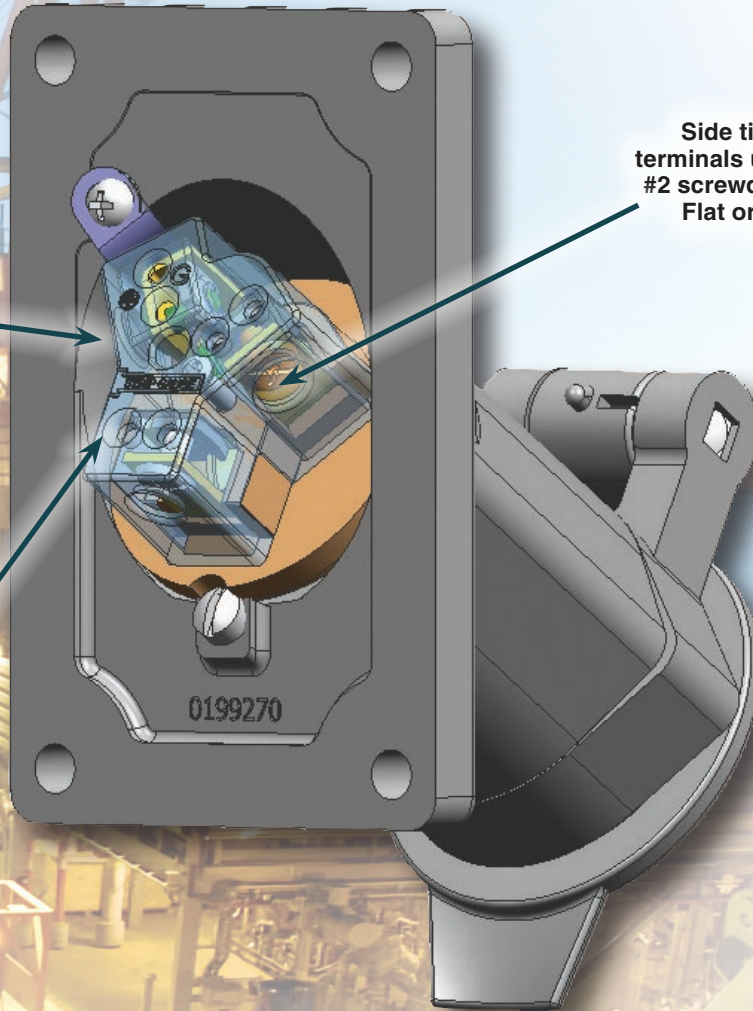
ACCEPTOR QUICK WIRE RECEPTACLE

One or two
conductors per
phase

2nd conductor set feeds
next receptacle in circuit

Wire Guides enable easy
conductor insertion

Side tightening
terminals use full sized
#2 screwdriver (either
Flat or Phillips)



Old Style Terminals

- Recessed – Difficult to attach conductors
- Conductor must be curled – Full engagement uncertain
- Flat Screwdriver only
- Designed for one conductor – required jumper or “double wiring”



UGR BLADED RECEPTACLES

ACCEPTOR®



UGR Receptacle

Class I, Div. 1 & 2, Groups B^①, C, D
Class I, Zones 1 & 2, Groups IIB+H2, IIA
Class II, Div. 1 & 2, Groups F, G
Class III
Type 3*

 File No. E91049 and/or E53660

 Certified File No. LR14667

* Type 3 rating is achieved with non-Group B configurations when a suitable drain is installed.

FEATURES-SPECIFICATIONS

Features

- The Acceptor Series uses a delayed action, twist-to-lock feature to prevent an engaged plug from being removed under load.
- Intermateable with similar competitive products, including classified for use with Crouse-Hinds® Ark-Gard®2 and Appleton® U-Line® devices.
- Factory sealed chamber in UGR receptacle contains switch's arcing components
- No additional external seals are required (Group B rated configurations to be sealed within 6").
- Spring loaded receptacle cover closes when plug is removed to provide protection when not in use
- Replacement Flip Lid Kit = KIT-173
- "T-Slot" Receptacles allow for use of 15 or 20A plugs.

Materials

- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion
- Electrostatically applied and baked powder epoxy/polyester finish
- All external hardware is 316 stainless steel to provide low maintenance and long life
- Cover Bolts = Stainless Steel

Electrical Ratings

- Amperage = 15A or 20A
- Voltage = 125VAC or 250VAC
- Horsepower = 1 HP @ 125VAC / 2 HP @ 250VAC
- Frequency = 50/60 Hz
- Wire Size = Suitable for #14 - #10 AWG SOOW or similar cable

Ark-Gard® is a registered trademark of Crouse-Hinds®.

U-Line® is a registered trademark of Appleton Electric Company®.

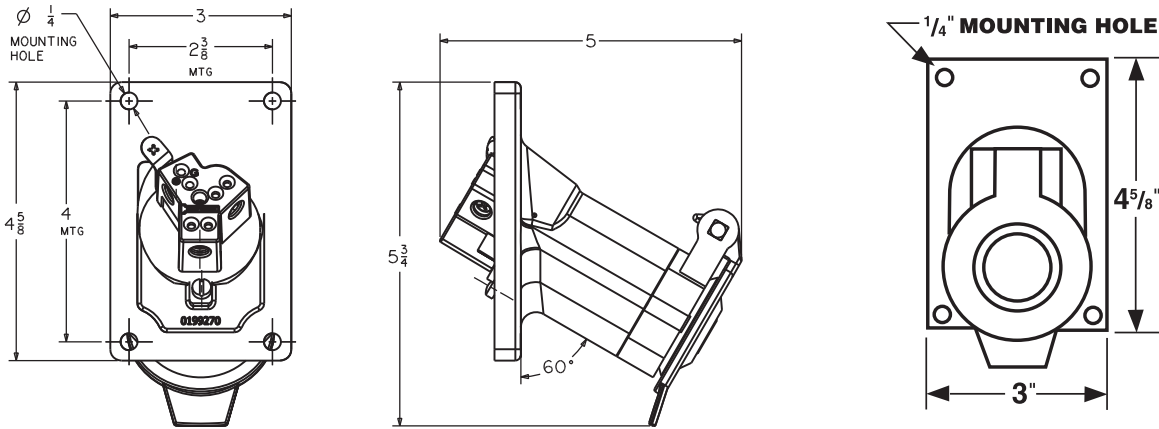
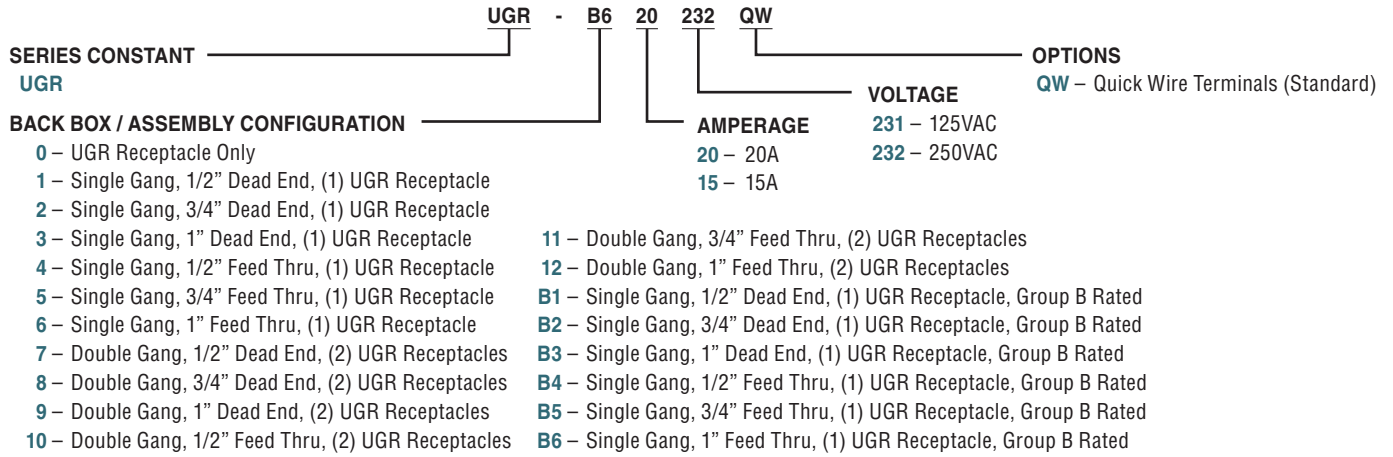
① Plugs rated Group B when used with properly rated and installed receptacles.



CONNECTIVITY
ACCEPTOR® SERIES

UGR BLADED RECEPTACLES CATALOG LOGIC

UGR RECEPTACLES



Receptacle Dimensions



UNIVERSAL ADAPTER KIT

ACCEPTOR® receptacles are available with an adapter kit for mounting to Crouse-Hinds® EDS Series or Appleton® EFD Series back boxes.

ACCEPTOR® receptacles properly installed with these adapter kits are U.L. Listed for use in Class I, Div. 2, Groups B,C,D hazardous locations and Zone II, Groups IIB + H2, IIA.

Kit contains one ACCEPTOR® receptacle plus adapter plate and mounting bolts.

Listed File No. E91049

Certified LR14667

UGRA ADAPTER KIT	
NEMA RATING & CONFIGURATION	ADAPTER KIT CATALOG NUMBER
20 Amp 125 Volt 2 POLE 3 WIRE 5-20R	UGRA-20231
20 Amp 250 Volt 2 POLE 3 WIRE 6-20R	UGRA-20232



UGR RECEPTACLE CONFIGURATION TABLE



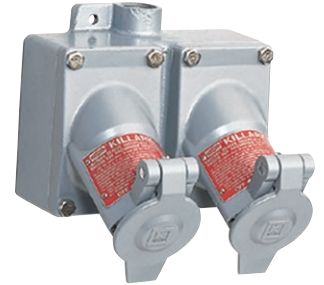
SWB-1, 2, 3




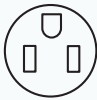


SWB-4, 5, 6



Single Gang



Double Gang

RECEPTACLES AND ASSEMBLIES ^④					
NEMA RATING & CONFIGURATION	ENCLOSURE STYLE	HUB SIZE	SINGLE GANG	DOUBLE GANG	SINGLE GANG GROUP B RATED
20 Amp 125 Volt 2 POLE 3 WIRE  5-20R	RECEPTACLE ONLY	—	UGR0-20231QW	UGR0-20231QW	—
	DEAD END	1/2"	UGR1-20231QW	UGR7-20231QW	UGRB1-20231QW
		3/4"	UGR2-20231QW	UGR8-20231QW	UGRB2-20231QW
		1"	UGR3-20231QW	UGR9-20231QW	UGRB3-20231QW
	FEED-THRU	1/2"	UGR4-20231QW	UGR10-20231QW	UGRB4-20231QW
		3/4"	UGR5-20231QW	UGR11-20231QW	UGRB5-20231QW
		1"	UGR6-20231QW	UGR12-20231QW	UGRB6-20231QW
15 Amp 125 Volt 2 POLE 3 WIRE  5-15R	RECEPTACLE ONLY	—	UGR0C-15231QW	UGR0C-15231QW	—
	DEAD END	1/2"	UGR1C-15231QW	UGR7C-15231QW	UGRB1C-15231QW
		3/4"	UGR2C-15231QW	UGR8C-15231QW	UGRB2C-15231QW
		1"	UGR3C-15231QW	UGR9C-15231QW	UGRB3C-15231QW
	FEED-THRU	1/2"	UGR4C-15231QW	UGR10C-15231QW	UGRB4C-15231QW
		3/4"	UGR5C-15231QW	UGR11C-15231QW	UGRB5C-15231QW
		1"	UGR6C-15231QW	UGR12C-15231QW	UGRB6C-15231QW
20 Amp 250 Volt 2 POLE 3 WIRE  6-20R	RECEPTACLE ONLY	—	UGR0-20232QW	UGR0-20232QW	—
	DEAD END	1/2"	UGR1-20232QW	UGR7-20232QW	UGRB1-20232QW
		3/4"	UGR2-20232QW	UGR8-20232QW	UGRB2-20232QW
		1"	UGR3-20232QW	UGR9-20232QW	UGRB3-20232QW
	FEED-THRU	1/2"	UGR4-20232QW	UGR10-20232QW	UGRB4-20232QW
		3/4"	UGR5-20232QW	UGR11-20232QW	UGRB5-20232QW
		1"	UGR6-20232QW	UGR12-20232QW	UGRB6-20232QW
15 Amp 250 Volt 2 POLE 3 WIRE  6-15R	RECEPTACLE ONLY	—	UGR0C-15232QW	UGR0C-15232QW	—
	DEAD END	1/2"	UGR1C-15232QW	UGR7C-15232QW	UGRB1C-15232QW
		3/4"	UGR2C-15232QW	UGR8C-15232QW	UGRB2C-15232QW
		1"	UGR3C-15232QW	UGR9C-15232QW	UGRB3C-15232QW
	FEED-THRU	1/2"	UGR4C-15232QW	UGR10C-15232QW	UGRB4C-15232QW
		3/4"	UGR5C-15232QW	UGR11C-15232QW	UGRB5C-15232QW
		1"	UGR6C-15232QW	UGR12C-15232QW	UGRB6C-15232QW



CONNECTIVITY
ACCEPTOR® SERIES

UGRC IN-LINE CONNECTOR RECEPTACLES

ACCEPTOR®



Connector with
Breech-Lock Cap



"3rd Hand"
Operation

Class I, Div. 1 & 2, Groups B, C, D
(Canada Only)
Class I, Zones 1 & 2, Groups IIB+H2, IIA
Class II, Div. 1 & 2, Groups F, G
Class III
Type 3, 4X

 Certified File No. 2177259



Connector shown
with ACCEPTOR UGRP
receptacle mounted
in explosion proof
Quantum® enclosure



Flip Cap

FEATURES-SPECIFICATIONS

Features

- The Acceptor Series uses a delayed action, twist-to-lock feature to prevent an engaged plug from being removed under load.
- Intermateable with similar competitive products, including certified for use with Crouse-Hinds® Ark-Gard®2 and Appleton® U-Line® devices.
- Available with the exclusive **BREECH-LOCK CAP** – patented notch provides "3rd Hand" operation, so the lid stays open while engaging plug
- Factory Sealed Construction
- Dead Front Construction with integral switch – requires Hazardous Rated NEMA Bladed plug for operation
- Breech Cap models Type 4X rated with lid closed and turned, Type 3 when plug engaged. Flip Lid models Type 3 with hinge in up position.
- "T-Slot" Receptacles allow for use of 15 or 20A plugs.
- Replacement Breech Cap Lid Kit = KIT-173B
- Replacement Flip Lid Kit = KIT-173

Materials

- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion
- Electrostatically applied and baked powder epoxy/polyester finish

Electrical Ratings

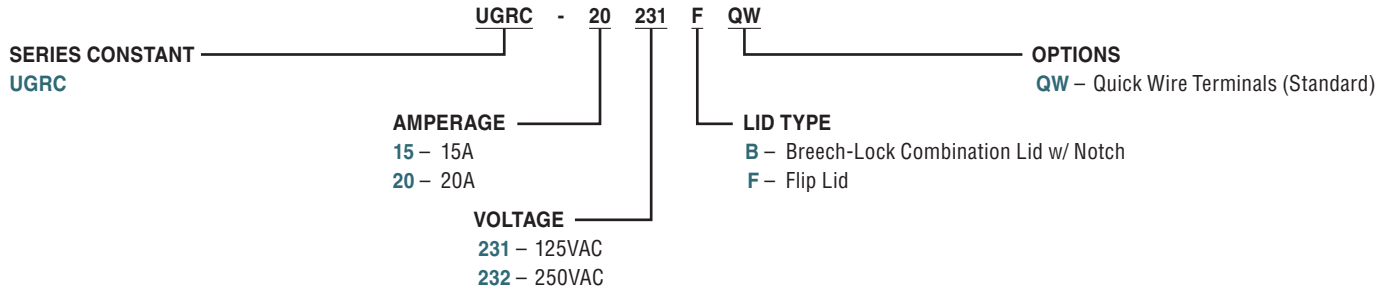
- Amperage = 15A or 20A
- Voltage = 125VAC or 250VAC
- Horsepower = 1 HP @ 125VAC / 2 HP @ 250VAC
- Frequency = 50/60 Hz
- Wire Size = Suitable for 14-10 gauge SOOW or similar cable





Ark-Gard® is a registered trademark of Crouse-Hinds®.
U-Line® is a registered trademark of Appleton Electric Company®.



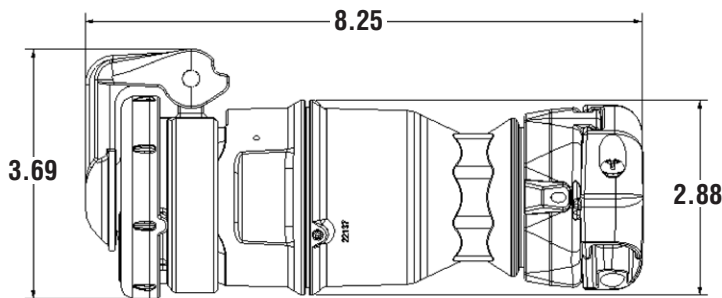
UGRC IN-LINE CONNECTOR RECEPTACLES CATALOG LOGIC

UGRC CONNECTOR RECEPTACLES

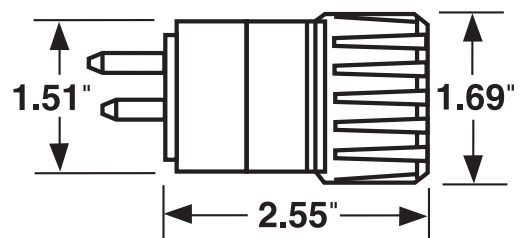


NEMA CONFIGURATION	125V CONNECTOR CAP STYLE	CATALOG NUMBER
15 AMP 125 VOLT 2 POLE 3 WIRE  5-15R	Breech-Lock with Notch Flip Type	UGRC-15231BQW UGRC-15231FQW
	Killark 125V Plugs 15 Amp	UGP-15231QW
20 AMP 125 VOLT 2 POLE 3 WIRE  5-20R with T-slots	Breech-Lock with Notch Flip Type	UGRC-20231BQW UGRC-20231FQW
	Killark 125V Plugs 20 Amp 15 Amp	UGP-20231QW UGP-15231QW
250V CONNECTOR CAP STYLE		
15 AMP 250 VOLT 2 POLE 3 WIRE  6-15R	Breech-Lock with Notch Flip Type	UGRC-15232BQW UGRC-15232FQW
	Killark 250V Plugs 15 Amp	UGP-15232QW
20 AMP 250 VOLT 2 POLE 3 WIRE  6-20R with T-slots	Breech-Lock with Notch Flip Type	UGRC-20232BQW UGRC-20232FQW
	Killark 250V Plugs 20 Amp 15 Amp	UGP-20232QW UGP-15232QW

DIMENSIONS



UGRC Connector
Breech cap model shown, Flip cap model
dimensions are similar



UGP Plug



CONNECTIVITY ACCEPTOR® SERIES

UGRP PANEL RECEPTACLES

ACCEPTOR®



Breech Cap Model



Flip Cap



Typical Installation

Class I, Div. 1 & 2, Groups B, C, D^①
Class I, Zones 1 & 2, Groups IIB+H2, IIA
Class II, Div. 1 & 2, Groups F, G
Class III
Type 3, 4X

 Certified File No. 2218704

FEATURES-SPECIFICATIONS

Features

- The Acceptor Series uses a delayed action, twist-to-lock feature to prevent an engaged plug from being removed under load.
- Intermateable with similar competitive products, including certified for use with Crouse-Hinds® Ark-Gard®2 and Appleton® U-Line® devices.
- Available with the exclusive **BREECH-LOCK CAP** – patented notch provides “3rd Hand” operation, so the lid stays open while engaging plug
- Factory Sealed Construction
- Dead Front Construction with integral switch – requires Hazardous Rated NEMA Bladed plug for operation
- Class I Div.1 B,C,D in enclosures certified to 325 explosive PSI (2”-11½ NPSM threads). Class I Div. 2 in standard location enclosures using only non-arcing components.
- Breech Cap models Type 4X rated with lid closed and turned, Type 3 when plug engaged. Flip Lid models Type 3 with hinge in up position.
- “T-Slot” Receptacles allow for use of 15 or 20A plugs.
- Replacement Breech Cap Lid Kit = KIT-173B
- Replacement Flip Lid Kit = KIT-173

Materials

- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion
- Electrostatically applied and baked powder epoxy/polyester finish

Electrical Ratings

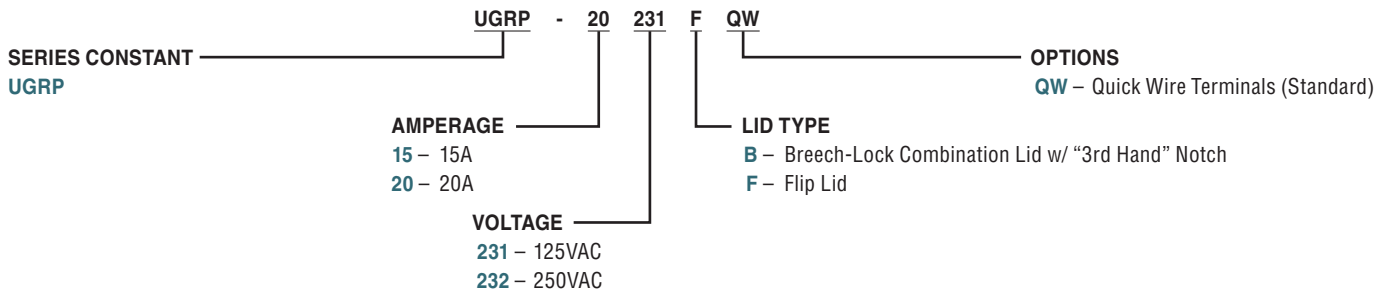
- Amperage = 15A or 20A
- Voltage = 125VAC or 250VAC
- Horsepower = 1 HP @ 125VAC / 2 HP @ 250VAC
- Frequency = 50/60 Hz
- Wire Size = Suitable for 14-10 gauge SOOW or similar cable





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U-Line® is a registered trademark of Appleton Electric Company®.



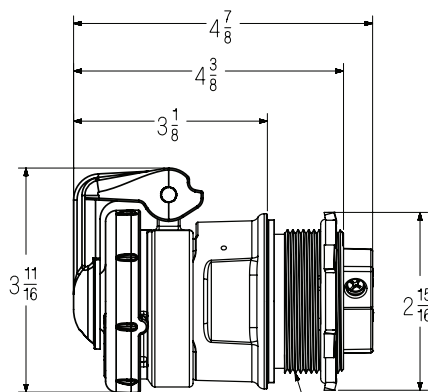
UGRP PANEL RECEPTACLES CATALOG LOGIC

UGRP PANEL MOUNT RECEPTACLES

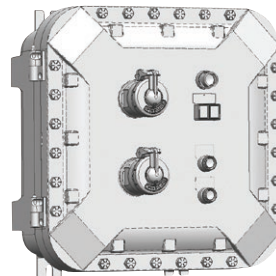


NEMA CONFIGURATION	125V PANEL RECEPTACLE CAP STYLE	CATALOG NUMBER
15 AMP 125 VOLT 2 POLE 3 WIRE  5-15R	Breech-Lock with Notch Flip Type	UGRP-15231BQW UGRP-15231FQW
	Killark 125V Plugs 15 Amp	UGP-15231QW
20 AMP 125 VOLT 2 POLE 3 WIRE  5-20R with T-slots	Breech-Lock with Notch Flip Type	UGRP-20231BQW UGRP-20231FQW
	Killark 125V Plugs 20 Amp 15 Amp	UGP-20231QW UGP-15231QW
250V PANEL RECEPTACLE CAP STYLE		
15 AMP 250 VOLT 2 POLE 3 WIRE  6-15R	Breech-Lock with Notch Flip Type	UGRP-15232BQW UGRP-15232FQW
	Killark 250V Plugs 15 Amp	UGP-15232QW
20 AMP 250 VOLT 2 POLE 3 WIRE  6-20R with T-slots	Breech-Lock with Notch Flip Type	UGRP-20232BQW UGRP-20232FQW
	Killark 250V Plugs 20 Amp 15 Amp	UGP-20232QW UGP-15232QW

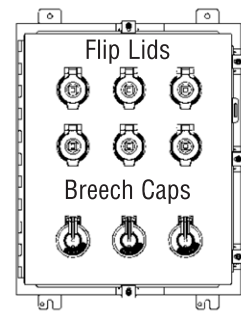
DIMENSIONS



Breech Cap model shown.
Flip Cap model dimensions are similar



Typical CLI Div. I
application



Typical CLI Div. 2
application



CONNECTIVITY
ACCEPTOR® SERIES

UGRS RECEPTACLES

ACCEPTOR®



Breech Cap Model



Flip Cap

Class I, Div. 2, Groups B, C, D
Class I, Zone 2, Groups IIB+H2, IIA
Class II, Div. 1 & 2, Groups F, G
Class III
Type 3, 4X



Certified File No. 2218704

FEATURES-SPECIFICATIONS

Features

- The Acceptor Series uses a delayed action, twist-to-lock feature to prevent an engaged plug from being removed under load.
- Intermateable with similar competitive products, including certified for use with Crouse-Hinds® Ark-Gard®2 and Appleton® U-Line® devices.
- Available with the exclusive **BREECH-LOCK CAP** – patented notch provides “3rd Hand” operation, so the lid stays open while engaging plug
- Breech Cap models Type 4X rated with lid closed and turned, Type 3 when plug engaged. Flip Lid models Type 3 with hinge in up position.
- “T-Slot” Receptacles allow for use of 15 or 20A plugs.
- Replacement Breech Cap Lid Kit = KIT-173B
- Replacement Flip Lid Kit = KIT-173
- Utilize Versamate mounting boxes, with a rotateable design to allow more installation options.
- Suitable for install on sheet metal enclosures which contain no arcing or sparking devices.

Materials

- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion.
- Electrostatically applied and baked powder epoxy / polyester finish.
- Gaskets = Rubber
- External Hardware = Stainless Steel

Electrical Ratings

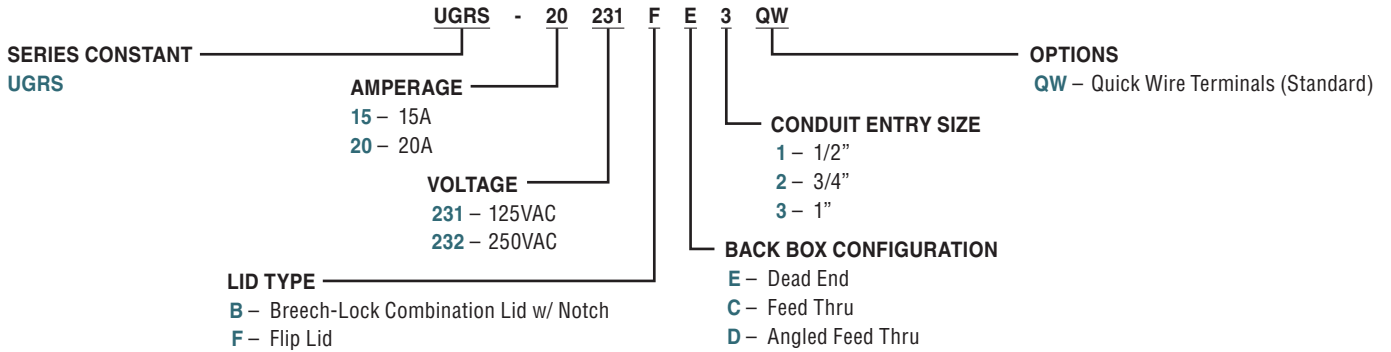
- Amperage = 15A or 20A
- Voltage = 125VAC or 250VAC
- Horsepower = 1 HP @ 125VAC / 2 HP @ 250VAC
- Frequency = 50/60 Hz

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UGRS RECEPTACLES CATALOG LOGIC

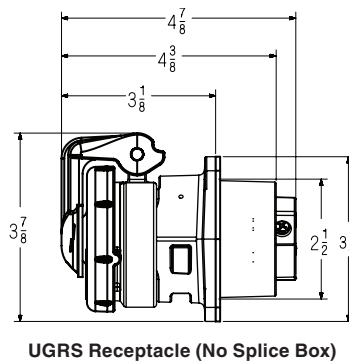
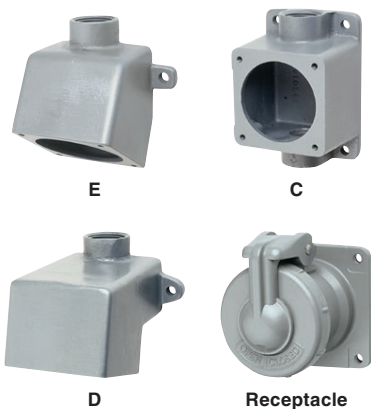
UGRS SQUARE MOUNT RECEPTACLES



UGRS RECEPTACLE & BACKBOXES				
	E TYPE DEAD END	C TYPE FEED THRU	D TYPE ANGLED FEED THRU	RECEPTACLE ONLY
15A 125V	UGRS-15231BE2QW	UGRS-15231BC2QW	UGRS-15231BD2QW	UGRS-15231BQW
20A 125V	UGRS-20231BE2QW	UGRS-20231BC2QW	UGRS-20231BD2QW	UGRS-20231BQW
15A 250V	UGRS-15232BE2QW	UGRS-15232BC2QW	UGRS-15232BD2QW	UGRS-15232BQW
20A 250V	UGRS-20232BE2QW	UGRS-20232BC2QW	UGRS-20232BD2QW	UGRS-20232BQW

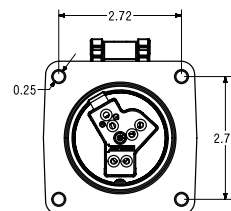
Boxes listed are for 3/4" NPT entries. For 1/2" NPT entries, change the bold digit to "1"; for 1" entries, change the bold digit to "3".

NEMA CONFIGURATION	125V SQUARE RECEPTACLE CAP STYLE	CATALOG NUMBER
15 AMP 125 VOLT 5-15R 2 POLE 3 WIRE	Breech-Lock with Notch Flip Type	UGRS-15231BQW UGRS-15231FQW
	Killark 125V Plugs 15 Amp	UGP-15231QW
20 AMP 125 VOLT 5-20R with T-slots 2 POLE 3 WIRE	Breech-Lock with Notch Flip Lid Type	UGRS-20231BQW UGRS-20231FQW
	Killark 125V Plugs 20 Amp 15 Amp	UGP-20231QW UGP-15231QW
250V SQUARE RECEPTACLE CAP STYLE		
15 AMP 250 VOLT 6-15R 2 POLE 3 WIRE	Breech-Lock with Notch Flip Type	UGRS-15232BQW UGRS-15232FQW
	Killark 250V Plugs 15 Amp	UGP-15232QW
20 AMP 250 VOLT 6-20R with T-slots 2 POLE 3 WIRE	Breech-Lock with Notch Flip Lid Type	UGRS-20232BQW UGRS-20232FQW
	Killark 250V Plugs 20 Amp 15 Amp	UGP-20232QW UGP-15232QW

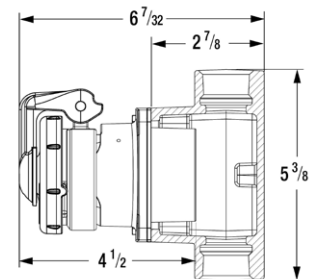


UGRS Receptacle (No Splice Box)

DIMENSIONS



UGRS Receptacle Mounting Dimensions



Example UGRS Complete Assembly

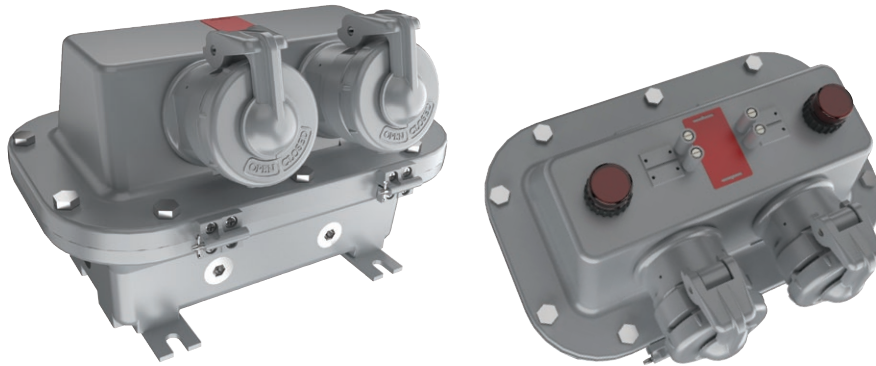
Breech Cap model shown.
Flip Cap model dimensions are similar



CONNECTIVITY
UGR4X SERIES

UGR4X DUPLEX GFCI RECEPTACLE

ACCEPTOR[®]



Class I, Div. 1 & 2, Groups C, D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups F,G
Class III
Type 3, 4, 4X



Certified File No. 70169491

FEATURES-SPECIFICATIONS

Features

- The Acceptor UGR4X receptacle complements the UGP/UGR Series of plugs and receptacles.
- Used with Acceptor plugs, the UGR4X offers a duplex design for multiple equipment hookup in hazardous location areas, while providing Type 4X ratings when not in use.
- GFCI option also provides circuit protection, for connected apparatus, against current overload and short circuits (20A/125VAC configuration only). Indicating lights and GFCI Resets provide full status and functionality indication.
- UGR4X Receptacles are interchangeable and certified for use with other NEMA bladed type explosion-proof and dust ignition proof plugs, including Crouse-Hinds[®] Ark-Gard[®]2 and Appleton[®] U-Line[®] equipment.
- Exclusive Breech-Lock Cap - patented notch provides “3rd Hand” operation, so the lid stays open while engaging plug.
- Factory Sealed Construction (Non-GFCI Version)
- Dead Front Construction with integral switch - requires Hazardous Rated NEMA Bladed plug for operation.

Materials

- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion
- Electrostatically applied and baked powder epoxy / polyester finish
- Gasket = Silicone
- External Hardware = Stainless Steel

Electrical Ratings

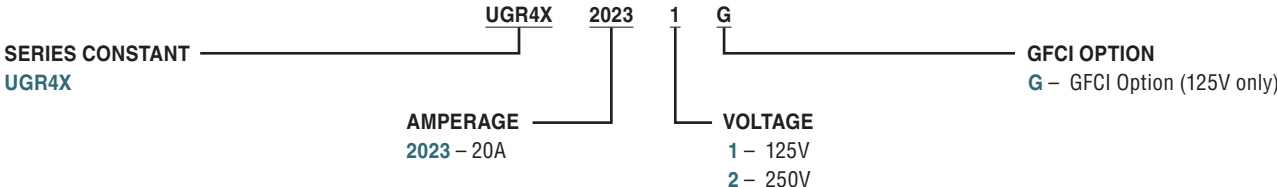
- Amperage = 15A or 20A
- Voltage = 125VAC or 250VAC
- Frequency = 60Hz
- GFCI = 5mA Trip

*Ark-Gard[®] is a registered trademark of Crouse-Hinds[®].
U-Line[®] is a registered trademark of Appleton Electric Company[®].*

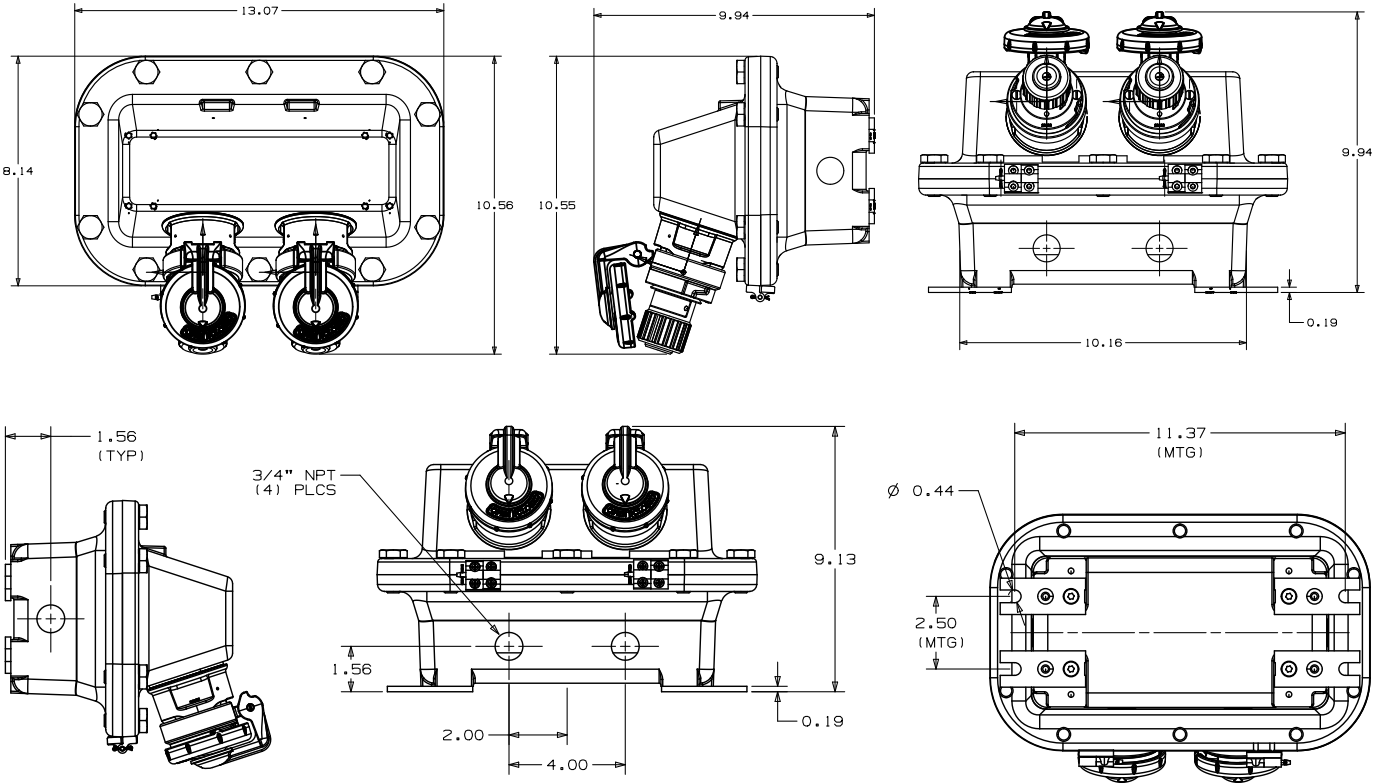


UGR4X DUPLEX GFCI RECEPTACLE CATALOG LOGIC

UGR4X CATALOG LOGIC



DIMENSIONS





CONNECTIVITY
ACCEPTOR® SERIES

UGFI / UGRGF GROUND FAULT PROTECTOR RECEPTACLES

ACCEPTOR®



UGRGF



UGFI Adapter Unit

UGRGF

- Class I, Div. 1 & 2, Groups C, D
- Class I, Zones 1 & 2, Groups IIB, IIA
- Class II, Div. 1 & 2, Groups F, G
- Class III
- Type 3



UGFI Adapter Unit

- Class I, Div. 2, Groups B, C, D
- Class I, Zone 2, Groups IIB+H2, IIA
- Class II, Div. 1 & 2, Groups F, G
- Class III, Div. 1 & 2
- Type 3

UGFI Hard-Wired Unit

- Class I, Div. 1 & 2, Groups B, C, D
- Class I, Zones 1 & 2, Groups IIB+ H2, IIA
- Class II, Div. 1 & 2, Groups F, G
- Class III, Div. 1 & 2
- Type 3



FEATURES-SPECIFICATIONS

Features

- The Acceptor Series uses a delayed action, twist-to-lock feature to prevent an engaged plug from being removed under load.
- Intermateable with similar competitive products, including certified / classified for use with Crouse-Hinds® Ark-Gard®2 and Appleton® U-Line® devices.
- Factory Sealed (Hard Wired GFCI Units in Group B areas to be sealed within 6" of enclosure)
- Type 3 Weather Ratings
- GFCI Protection for superior protection.

UGRGF Features

- Test/Reset Push Buttons provided as standard, with optional indicating Pilot Light

UGFI Features

- Adapter Unit provided with 36" cord and Acceptor Plug
- Indicating Pilot Light included as standard
- Units can be padlocked in the "OFF" position for added safety features

Materials

- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion.
- Electrostatically applied and baked powder epoxy / polyester finish.
- Gasket = Silicone
- External Hardware = Stainless Steel

Electrical Rating

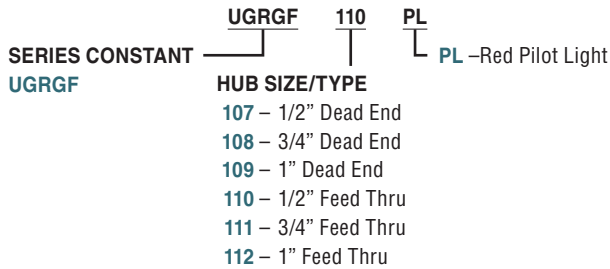
- Amperage = 15A or 20A
- Voltage = 125VAC or 250VAC
- Frequency = 50/60 Hz
- GFI Units rated 20A, 125V, 60Hz, Class A
- 5 milliamp trip setting
- UGFI 2-Pole 250V configurations are only suitable for "2-hot wire" connections, such as 120/240V or 120/208 'Wye / Y' Grounded power supply systems. "Delta" supply systems are not supported.

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U-Line® is a registered trademark of Appleton Electric Company®.*

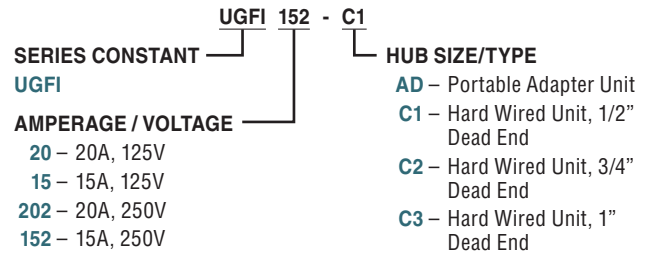


UGFI / UGRGF GROUND FAULT PROTECTOR RECEPTACLES - CATALOG LOGIC

UGRGF GFCI RECEPTACLES



UGFI GFCI RECEPTACLES

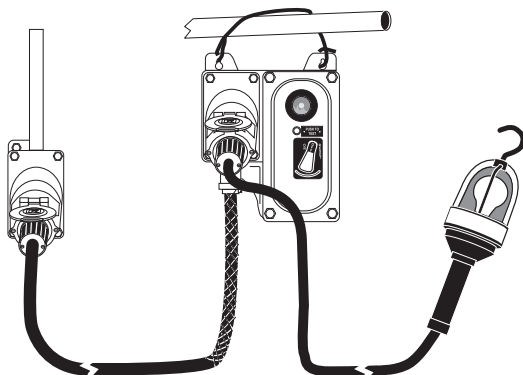


NEMA RATING & CONFIGURATION	ENCLOSURE STYLE	HUB SIZE	CATALOG NUMBER
20A, 125V, 2P, 3W	Dead End	1/2"	UGRGF107
	Dead End	3/4"	UGRGF108
	Dead End	1"	UGRGF109
	Feed Thru	1/2"	UGRGF110
	Feed Thru	3/4"	UGRGF111
	Feed Thru	1"	UGRGF112

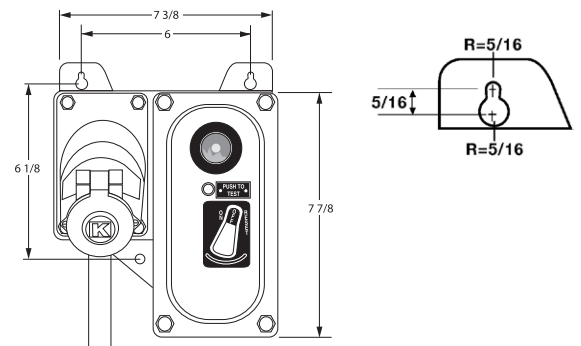
GFCI RECEPTACLE ADAPTER (W/CORD SET)		
20A 125V ②	UGFI20AD	 5-20R
15A 125V ②	UGFI15AD	 5-15R
20A 250V ②③	UGFI202AD	 6-20R
15A 250V ②③	UGFI152AD	 6-15R

HARD WIRED (PERMANENTLY MOUNTED) GFCI RECEPTACLE			
20A 125V ②	 5-20R	1/2" HUB 3/4" HUB 1" HUB	UGFI20C1 UGFI20C2 UGFI20C3
15A 125V ②	 5-15R	1/2" HUB 3/4" HUB 1" HUB	UGFI15C1 UGFI15C2 UGFI15C3
20A 250V ②③	 6-20R	1/2" HUB 3/4" HUB 1" HUB	UGFI202C1 UGFI202C2 UGFI202C3
15A 250V ②③	 6-15R	1/2" HUB 3/4" HUB 1" HUB	UGFI152C1 UGFI152C2 UGFI152C3

UGFI ADAPTER UNIT



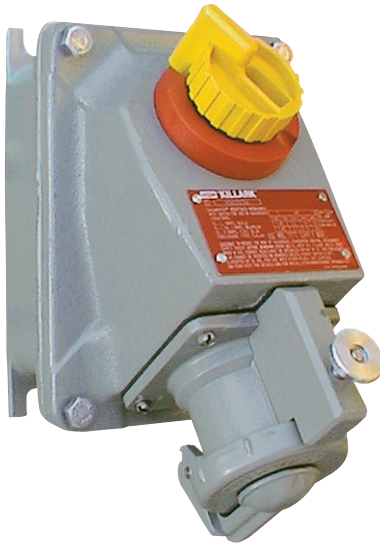
UGFI HARD-WIRED UNIT





CONNECTIVITY
VERSAMATE® SERIES

VSQ/VWSQ SWITCHED RECEPTACLES



Plug

VSQ Hazardous Location Ratings

- Class I, Div. 1 & 2, Groups B, C, D
- Class I, Zones I & 2, Groups IIB+H2, IIA
- Class II, Div. 1 & 2, Groups F & G
- Class III
- Type 3, 4, 4X

VWSQ for Wet & Corrosive Locations

- Type 3, 4, 4X

VSQ  File No. LR14667

VWSQ  File No. E216488

FEATURES-SPECIFICATIONS

Features

- Type 4X with receptacle lid turned shut or with plug locking ring tightened
- Compact size and footprint
- Plug Interlock Mechanism for Dead-front construction. Switch cannot be turned “ON” without fully inserted plug. Plug cannot be removed with switch in “ON” position
- Plug held in place when switch is “Off” for convenience. Pull operated release mechanism. Plug and wiring do not have to be twisted or held to operate switch
- Factory Wired Receptacle; easy to wire line side of switch
- Easily visible “On-Off” indicator handle
- “Off” position is padlockable for maintenance safety
- Feed-through construction
- Horsepower rated (Internal Switch Only) as “Motor Disconnect”
- VSQ/VWSQ 30 Amp models come standard with 1” drilled and tapped conduit openings top and bottom plus two 1” x 3/4” reducers and one 3/4” close-up plug for maximum flexibility.
- 60 amp models come with 1-1/2” openings top and bottom and one 1-1/2” close-up plug.
- VSQ & VWSQ Receptacle covers are NOT interchangeable.
- Ordinary twist type wire connectors are used for final connections on 30A. 60A devices have terminal blocks
- UL 1686-C1 Intermateable with similar competitive products, including classified / certified for use with Crouse-Hinds® Arkтите® and Appleton® Powertite® devices.

Arkтите® is a registered trademark of Crouse-Hinds®.

Powertite® is a registered trademark of Appleton Electric Company®.

Materials

- Copper-free aluminum construction with electrostatically applied polyester/epoxy finish.
- Handle mechanism is chemical resistant Valox® (TM General Electric).
- External Hardware = Stainless

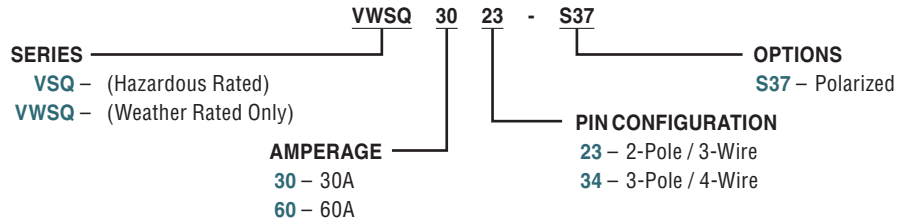
Electrical Ratings

- Amperage = 30A or 60A
- Voltage = Up to 600VAC
- Frequency = 50/60 Hz
- Wire Range
 - » 30 Amp Regular Stranding Max #10
 - » 60 Amp Regular Stranding Max #4
- Auxiliary Contact (late-make early-break) contact rated 10 Amp, 1/3 HP at 125/250 VAC. Can be used for operating pilot lights or starter coils (standard model only)

HORSEPOWER RATINGS (VAC)		120	240	480	600
30A	1Ø	2	5	10	15
	3Ø	3	7.5	15	20
60A	1Ø	–	10	15	20
	3Ø	–	10	25	30



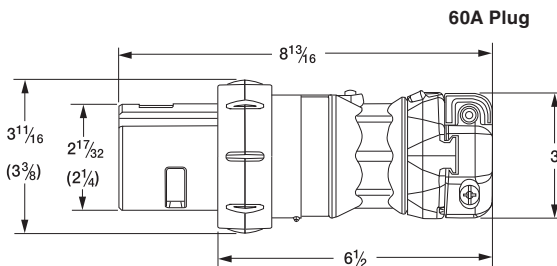
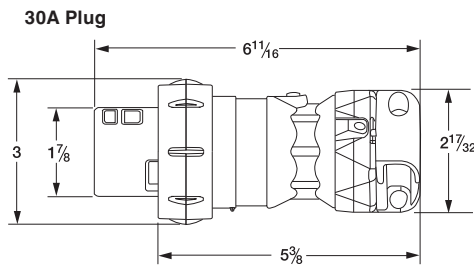
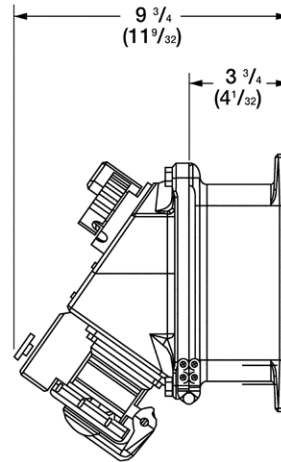
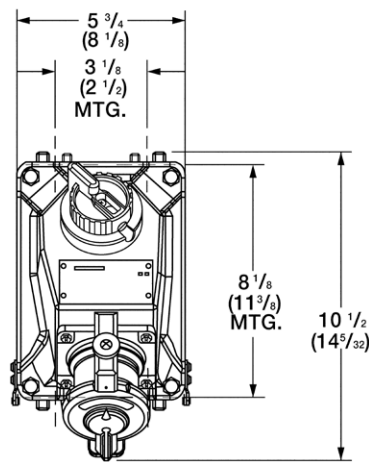
VSQ SWITCHED RECEPTACLES



VSQ & VWSQ RECEPTACLES

AMPS	CIRCUIT	CATALOG NUMBER		
		VSQ HAZARDOUS	VWSQ WEATHER RATED ONLY	MATING PLUG
30	2P3W	VSQ3023	VWSQ3023	VP3023
	3P4W	VSQ3034	VWSQ3034	VP3034
60	2P3W	VSQ6023	VWSQ6023	VP6023
	3P4W	VSQ6034	VWSQ6034	VP6034

DIMENSIONS

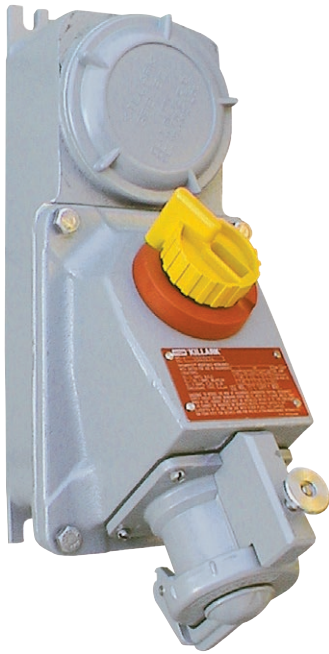


Dimensions shown are in inches for 30 AMP. 60 Amp dimensions in ().



CONNECTIVITY
VERSAMATE® SERIES

VSQ-FS FACTORY SEALED



Plug

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones I & 2, Groups IIB+H2, IIA
Class II, Div. 1 & 2, Groups F & G
Class III
Type 3, 4, 4X



Certified File No. LR14667

FEATURES-SPECIFICATIONS

Features – same as VSQ plus:

- Factory Sealed Construction eliminates need for conduit sealing at the device
- Saves Installation Time & Labor – facilitates rework
- Switch has factory wired line and load terminals. Load terminals feed sealed receptacle as in a standard VSQ. Line wiring is passed from the sealed compartment into the wiring chamber
- Receptacles may be loosened from back box and turned 180 degrees to adjust for top or bottom feed.
- Ordinary twist type wire connectors are used for final connections on 30A. 60A devices have terminal blocks
- VSQ-FS 30 Amp models come standard with one 1” drilled and tapped conduit openings into the wiring chamber plus one 1” x 3/4” reducer.
- VSQ-FS 60 Amp models come standard with one 1-1/2” drilled and tapped conduit openings into the wiring chamber plus one 1-1/2” x 1-1/4” reducer.
- VSQ-FS models not available with auxiliary contacts.
- Horsepower rated (Internal Switch Only) as “Motor Disconnect”

Materials

- Copper-free aluminum construction with electrostatically applied polyester/ epoxy finish.
- Handle mechanism is chemical resistant Valox® (TM General Electric).
- External Hardware = Stainless

Electrical Ratings

- Amperage = 30A or 60A
- Voltage = Up to 600VAC
- Frequency = 50/60 Hz

Wire Range

- 30 Amp Regular Stranding Max #10
- 60 Amp Regular Stranding Max #4

HORSEPOWER RATINGS (VAC)		120	240	480	600
30A	1Ø	2	5	10	15
	3Ø	3	7.5	15	20
60A	1Ø	–	10	15	20
	3Ø	–	10	25	30



VSQ-FS FACTORY SEALED

VSQ - FS RECEPTACLES

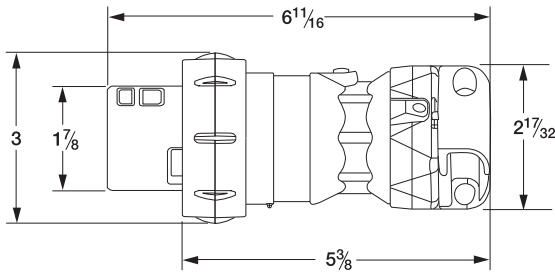
AMPS	CIRCUIT	CATALOG NUMBER	
		VSQ-FS HAZARDOUS	MATING PLUG
30	2P3W	VSQ3023FS	VP3023
30	3P4W	VSQ3034FS	VP3034
60	2P3W	VSQ6023FS	VP6023
60	3P4W	VSQ6034FS	VP6034

MODIFICATIONS*

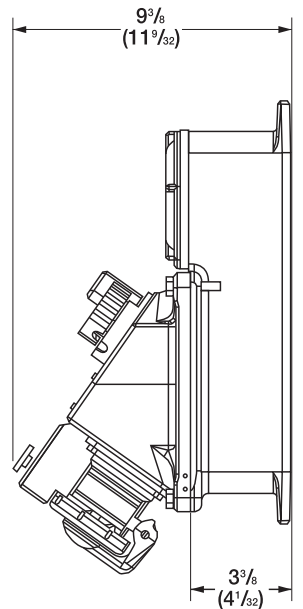
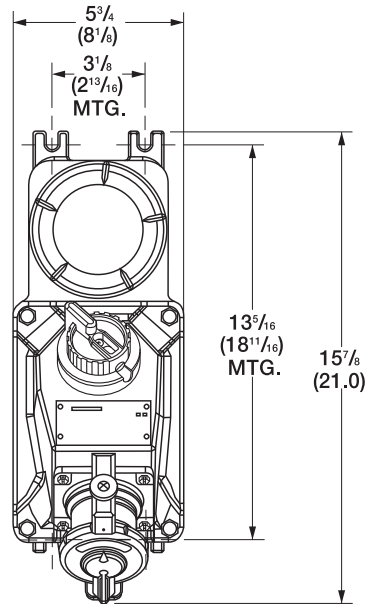
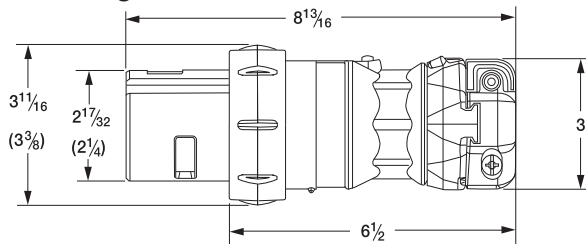
CATALOG NUMBER	DESCRIPTION
S37	Polarization for receptacles & plugs

DIMENSIONS

30A Plug



60A Plug

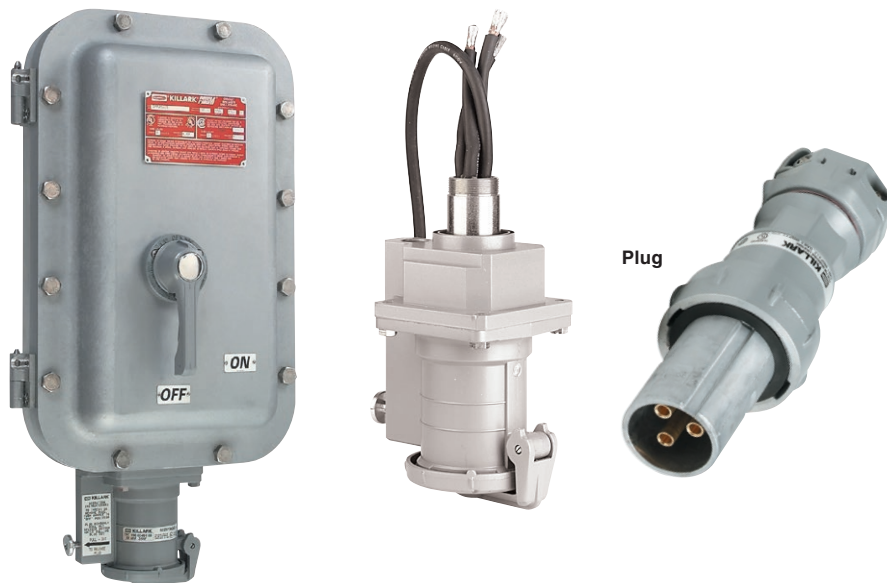


Dimensions shown are in inches for 30 AMP. 60 AMP Dimensions in ().



CONNECTIVITY VERSAMATE® SERIES

VBQ CIRCUIT BREAKER PROTECTED RECEPTACLES



Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB+H2, IIA
Class II, Div. 1 & 2, Groups F & G
Class III
Type 3, 4, 4X

 File No. E184637

FEATURES-SPECIFICATIONS

Features

- Type 4X with receptacle lid turned shut or with plug locking ring tightened
- Plug held in place when switch is “Off” for convenience. Pull button operated release mechanism. Plug does not have to be twisted to operate switch
- Dead-front construction when receptacle is off. Switch cannot be turned “ON” without fully inserted plug. Plug cannot be removed with switch in “ON” position
- Receptacle assembly is field replaceable for maintenance.
- Ductile Mounting Lugs to adjust to uneven surfaces
- Quick Release Cover Bolts with Triple Leads – only 3-1/2 turns to disengage
- Visible “ON” external Breaker Handle has provisions for locking “ON” or “OFF” with up to three Padlocks
- Internal Lock-Off provision for maintenance when no hazardous materials are present
- UL 1686-C1 Intermateable with similar competitive products, including classified / certified for use with Crouse-Hinds® Arktite® and Appleton® Powertite® devices.

*Arktite® is a registered trademark of Crouse-Hinds®.
Powertite® is a registered trademark of Appleton Electric Company®.*

Materials

- Copper-free construction with 316 grade Stainless Steel External Hardware
- Electrostatically applied polyester/epoxy finish

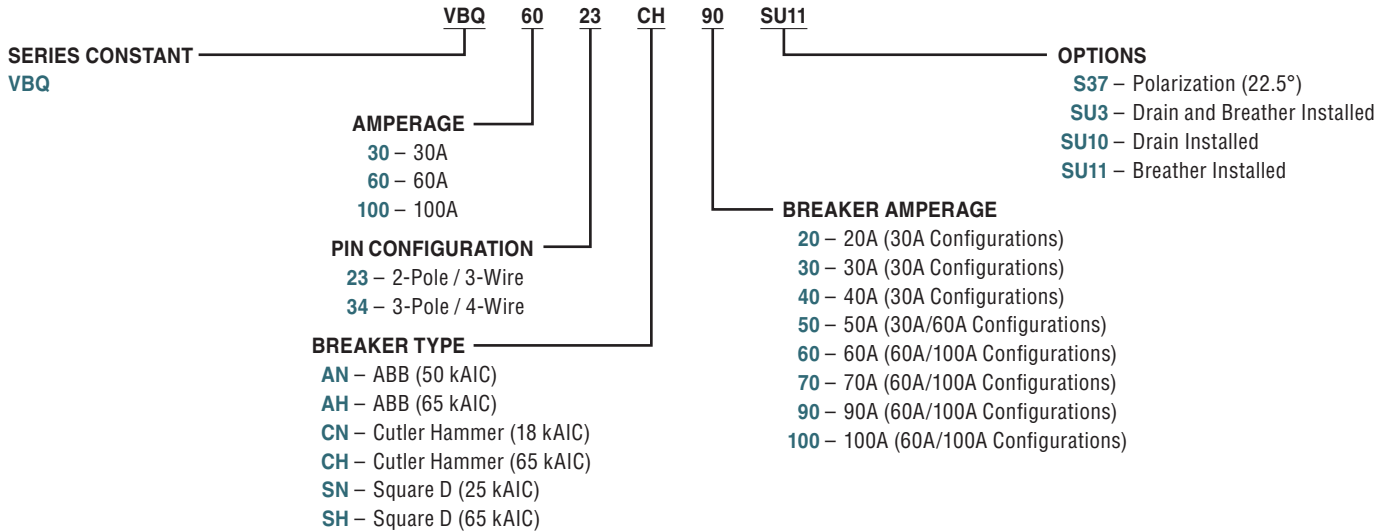
Electrical Ratings

- Amperage = 30A, 60A, 100A
- Voltage = Up to 600VAC, 250VDC
- Frequency = 50/60 Hz
- GFCI = 5mA Trip Setting

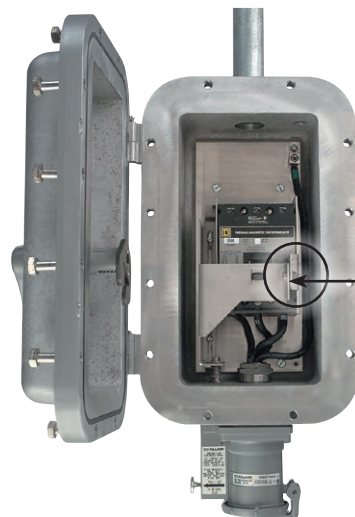
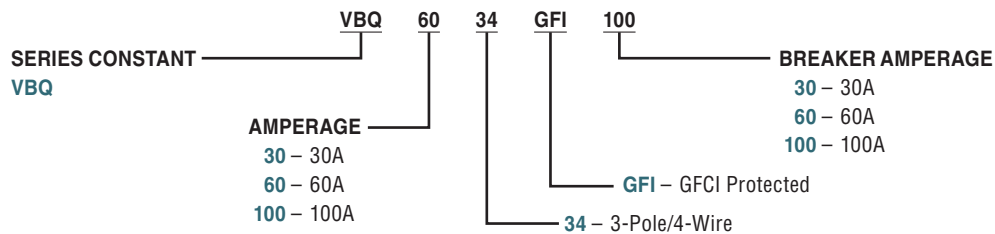


VBQ CIRCUIT BREAKER PROTECTED RECEPTACLES - CATALOG LOGIC

VBQ RECEPTACLES



VBQ GFCI PROTECTED RECEPTACLE



Internal Lock-Off provision for maintenance when no hazardous materials are present



CONNECTIVITY
VERSAMATE® SERIES

VBQ CIRCUIT BREAKER PROTECTED RECEPTACLES

VBQ RECEPTACLES							
RECEPTACLE	CIRCUIT	BREAKER	CATALOG NUMBER				PLUG
			SQUARE D		CUTLER-HAMMER		
			BDL SERIES	BGL SERIES	EHD SERIES	FD SERIES	
30	2P3W	20	VBQ3023SN20	VBQ3023SH20	VBQ3023CN20	VBQ3023CH20	VP3023
		30	VBQ3023SN30	VBQ3023SH30	VBQ3023CN30	VBQ3023CH30	
		40	VBQ3023SN40	VBQ3023SH40	VBQ3023CN40	VBQ3023CH40	
		50	VBQ3023SN50	VBQ3023SH50	VBQ3023CN50	VBQ3023CH50	
	3P4W	20	VBQ3034SN20	VBQ3034SH20	VBQ3034CN20	VBQ3034CH20	VP3034
		30	VBQ3034SN30	VBQ3034SH30	VBQ3034CN30	VBQ3034CH30	
		40	VBQ3034SN40	VBQ3034SH40	VBQ3034CN40	VBQ3034CH40	
		50	VBQ3034SN50	VBQ3034SH50	VBQ3034CN50	VBQ3034CH50	
60	2P3W	50	VBQ6023SN50	VBQ6023SH50	VBQ6023CN50	VBQ6023CH50	VP6023
		60	VBQ6023SN60	VBQ6023SH60	VBQ6023CN60	VBQ6023CH60	
		70	VBQ6023SN70	VBQ6023SH70	VBQ6023CN70	VBQ6023CH70	
		90	VBQ6023SN90	VBQ6023SH90	VBQ6023CN90	VBQ6023CH90	
		100	VBQ6023SN100	VBQ6023SH100	VBQ6023CN100	VBQ6023CH100	
	3P4W	50	VBQ6034SN50	VBQ6034SH50	VBQ6034CN50	VBQ6034CH50	VP6034
		60	VBQ6034SN60	VBQ6034SH60	VBQ6034CN60	VBQ6034CH60	
		70	VBQ6034SN70	VBQ6034SH70	VBQ6034CN70	VBQ6034CH70	
		90	VBQ6034SN90	VBQ6034SH90	VBQ6034CN90	VBQ6034CH90	
		100	VBQ6034SN100	VBQ6034SH100	VBQ6034CN100	VBQ6034CH100	
100	2P3W	50	VBQ1023SN50	VBQ1023SH50	VBQ1023CN50	VBQ1023CH50	VP1023
		70	VBQ1023SN70	VBQ1023SH70	VBQ1023CN70	VBQ1023CH70	
		90	VBQ1023SN90	VBQ1023SH90	VBQ1023CN90	VBQ1023CH90	
		100	VBQ1023SN100	VBQ1023SH100	VBQ1023CN100	VBQ1023CH100	
	3P4W	50	VBQ1034SN50	VBQ1034SH50	VBQ1034CN50	VBQ1034CH50	VP1034
		70	VBQ1034SN70	VBQ1034SH70	VBQ1034CN70	VBQ1034CH70	
		90	VBQ1034SN90	VBQ1034SH90	VBQ1034CN90	VBQ1034CH90	
		100	VBQ1034SN100	VBQ1034SH100	VBQ1034CN100	VBQ1034CH100	

VBQ GFCI RECEPTACLES		
RECEPTACLE	CIRCUIT	CATALOG NUMBER
30A	3P4W	VBQ3034GFI30
60A	3P4W	VBQ6034GFI60
100A	3P4W	VBQ1034GFI100

CIRCUIT BREAKER INTERRUPTING RATINGS (kAIC)	208/240 VAC	480 VAC	600 VAC	250 VDC†
ABB XT1N	50	25	—	—
ABB XT2N	65	25	18	—
Cutler-Hammer EHD	18	14	—	10
Cutler-Hammer FD	65	25	18	10
Square D BDL	25	18	14	20
Square D BGL	65	35	18	20

CIRCUIT BREAKER	WIRE RANGE
ABB	Up to 30A = #14-4 AWG (Cu); 35-100 Amp = #14-1/0 AWG (Cu)
Cutler-Hammer	Up to 20A = #14-10 AWG (Cu); 30-100 Amp = #14-1/0 AWG (Cu)
Square D	Up to 30A = #14-4 AWG (Cu); 35-100 Amp = #14-1/0 AWG (Cu)

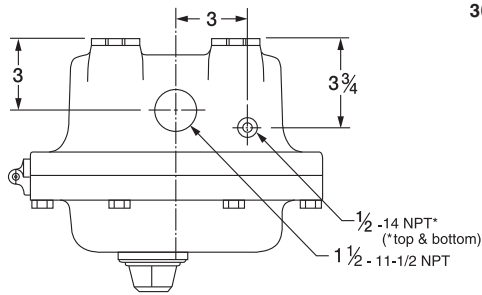
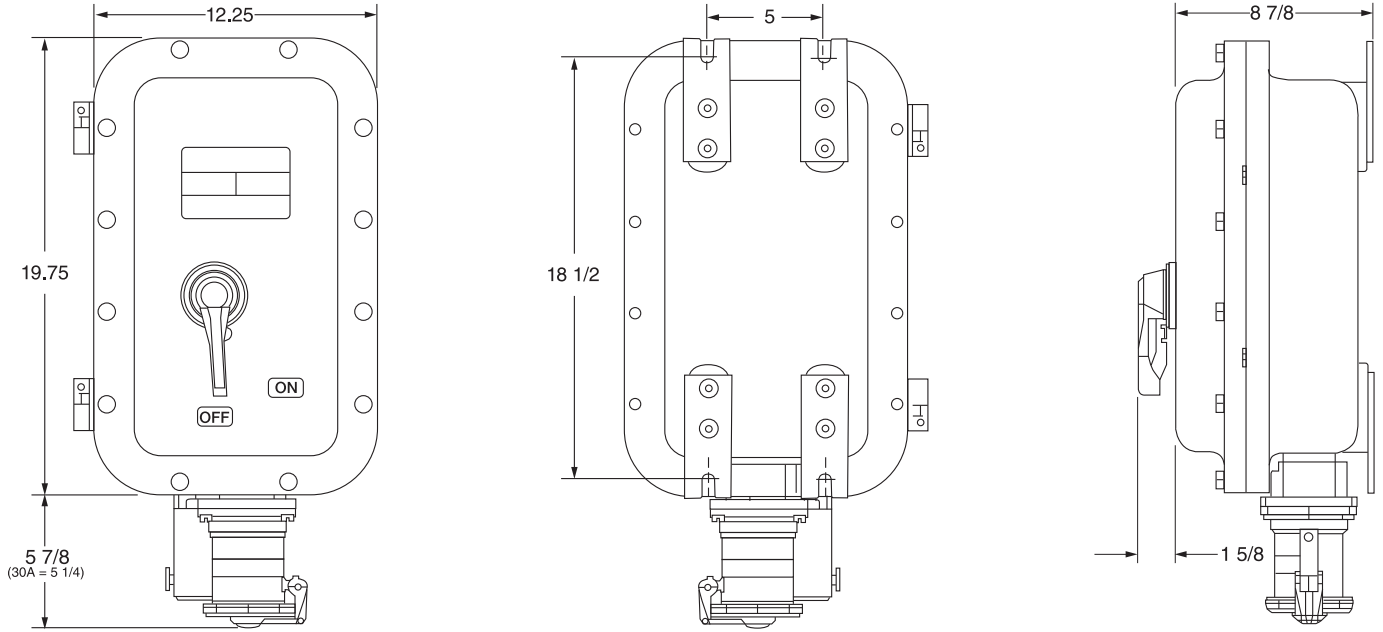
REPLACEMENT PARTS	
CATALOG NUMBER	DESCRIPTION
VBQ-HANDLEASSEMBLY	External circuit breaker handle kit
VBQRA3023	30A 2-Pole / 3-Wire Replacement Receptacle Assembly
VBQRA3034	30A 3-Pole / 4-Wire Replacement Receptacle Assembly
VBQRA6023	60A 2-Pole / 3-Wire Replacement Receptacle Assembly
VBQRA6034	60A 3-Pole / 4-Wire Replacement Receptacle Assembly
VBQRA1023	100A 2-Pole / 3-Wire Replacement Receptacle Assembly
VBQRA1034	100A 3-Pole / 4-Wire Replacement Receptacle Assembly



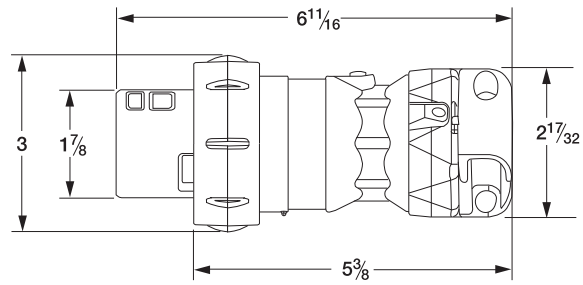


VBQ CIRCUIT BREAKER PROTECTED RECEPTACLES

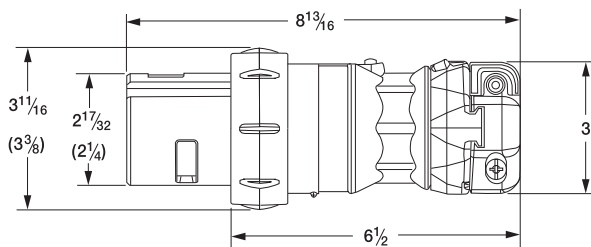
DIMENSIONS



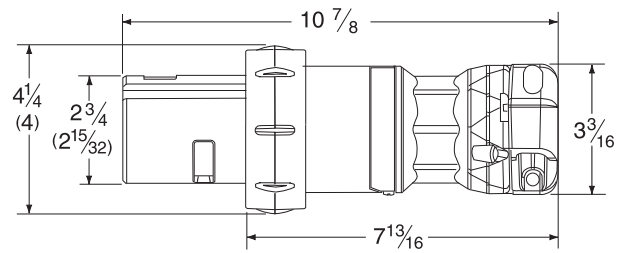
30A Plug



60A Plug



100A Plug





CONNECTIVITY
VERSAMATE® SERIES

VSI NON-METALLIC PLUGS AND SWITCHED RECEPTACLES



Class I, Div. 2, Groups A, B, C, D
Class I, Zones 1 & 2, Groups IIC, IIB, IIA
AEx de IIC T6
Class II, Div. 1 & 2, Groups E, F, G
Class III
Type 3, 4, 4X, IP66



File 3014299



Certified - File LR240743

FEATURES-SPECIFICATIONS

Features

- Color coding and pin configuration makes it physically impossible to mate plugs and receptacles of different voltages and current ratings
- Interlocked switch mechanism prevents accidental removal of plug from receptacle under load
- Horsepower rated disconnect switch
- Dust caps* included with 20A and 30A plugs as standard
- No seal required within Class I, Division 2 applications.
- Provision for up to two optional auxiliary contact blocks, useful for signaling circuits or starter coils.
- Horsepower rated disconnect switch includes 1 auxiliary contact (late make, early break) for signaling circuits.

Materials

- Housing = Non-Metallic Polyamide
- Hardware = Stainless Steel

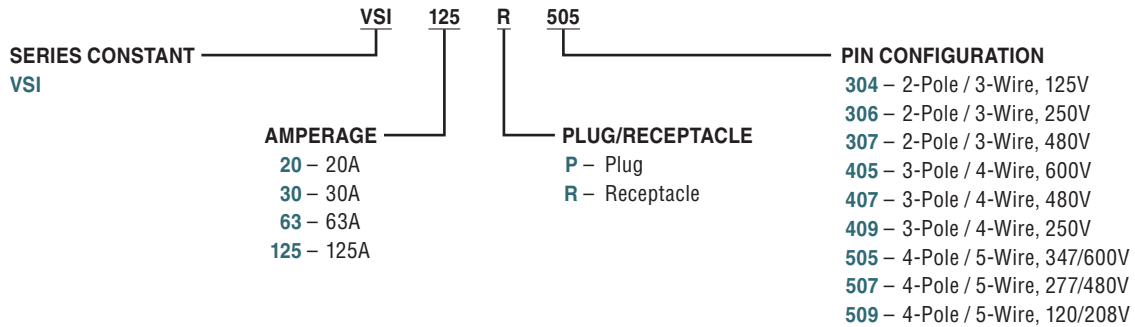
Electrical Ratings

- Amperage = 20 / 30 / 63 / 125A
- Voltage = Up to 600VAC
- Frequency = 50/60 Hz

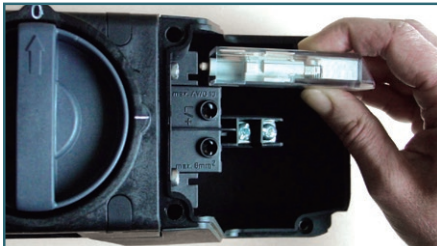


VSI NON-METALLIC PLUGS AND SWITCHED RECEPTACLES

VBQ RECEPTACLES



VSI SERIES PLUGS & SWITCHED RECEPTACLES					
DESCRIPTION		CATALOG NUMBER			
AC VOLTAGE AND COLOR CODE		20 AMP		30 AMP	
		RECEPTACLE	PLUG	RECEPTACLE	PLUG
2 Pole 3 Wire	125 Yellow	VSI20R304	VSI20P304	—	—
	250 Blue	VSI20R306	VSI20P306	—	—
	480 Red	VSI20R307	VSI20P307	—	—
3 Pole 4 Wire	3 Ø 250 Blue	VSI20R409	VSI20P409	VSI30R409	VSI30P409
	3 Ø 480 Red	VSI20R407	VSI20P407	VSI30R407	VSI30P407
	3 Ø 600 Black	VSI20R405	VSI20P405	VSI30R405	VSI30P405
4 Pole 5 Wire	3 ØY 120/208 Blue	VSI20R509	VSI20P509	VSI30R509	VSI30P509
	3 ØY 277/480 Red	VSI20R507	VSI20P507	VSI30R507	VSI30P507
	3 ØY 347/600 Black	VSI20R505	VSI20P505	VSI30R505	VSI30P505



Snap into side(s) of terminal block

PARTS AND ACCESSORIES	PART NUMBER
Auxiliary Contact Block NC, A600 ①	VSIAXNC
Auxiliary Contact Block NO, A600 ①	VSIAXNO

① 10A rating for one auxiliary block; 5A if two are used. Position noted (NC or NO) is when main switch is off.

TECHNICAL DATA				
RECEPTACLE		20 AMP		30 AMP
ENCLOSURE MATERIAL		POLYAMIDE		
AMBIENT TEMPERATURE, TA		-30°C (-22°F) to +55°C (131°F)		
TERMINAL CAPACITY		2 wires, rated 75°C (Ta<45°C) or 90°C (Ta>45°C)		
		16-10 AWG		14-8 AWG
SWITCH RATING	(Horsepower)	1-phase	3-phase	3-phase
	120 VAC	1.5 HP	—	—
	240 VAC	3 HP	5 HP	10 HP
	480 VAC	5 HP	10 HP	20 HP
	600 VAC	—	15 HP	25 HP
LINE SUPPLY FUSE		CLASS J - size per NEC/CEC requirement, upstream ahead of unit		
BOTTOM ENTRY		3/4" NPT		1" NPT

TECHNICAL DATA				
PLUG		20 AMP		30 AMP
ENCLOSURE MATERIAL		POLYAMIDE		
TERMINAL CAPACITY		1 wire, rated 75°C (Ta<45°C) or 90°C (Ta>45°C)		
		16-10 AWG		14-8 AWG
CORD OUTER DIA.		0.3" - 0.8"		0.6" - 1.1"



CONNECTIVITY
VERSAMATE® SERIES

VSI NON-METALLIC PLUGS AND SWITCHED RECEPTACLES

VSI SERIES PLUGS & SWITCHED RECEPTACLES					
DESCRIPTION		CATALOG NUMBER			
	AC VOLTAGE AND COLOR CODE	63 AMP		125 AMP	
		RECEPTACLE	PLUG	RECEPTACLE	PLUG
3 Pole 4 Wire	3 Ø 250 Blue	VSI63R409	VSI63P409	VSI125R409	VSI125P409
	3 Ø 480 Red	VSI63R407	VSI63P407	VSI125R407	VSI125P407
	3 Ø 600 Black	VSI63R405	VSI63P405	VSI125R405	VSI125P405
4 Pole 5 Wire	3 ØY 120/208 Blue	VSI63R509	VSI63P509	VSI125R509	VSI125P509
	3 ØY 277/480 Red	VSI63R507	VSI63P507	VSI125R507	VSI125P507
	3 ØY 347/600 Black	VSI63R505	VSI63P505	VSI125R505	VSI125P505

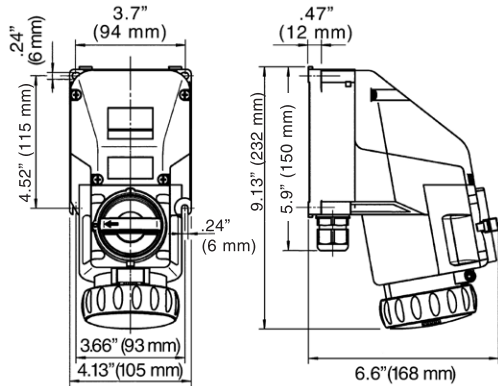
TECHNICAL DATA			
RECEPTACLE	63 AMP	125 AMP	
ENCLOSURE MATERIAL	FIBER REINFORCED POLYESTER		
AMBIENT TEMPERATURE, TA	-20°C (-4°F) to +40°C (104°F)		
TERMINAL CAPACITY	2 wires, 90°C rated		
	6-1/0 AWG	1/0-3/0 AWG	
SWITCH RATING	(Horsepower)	3-phase	3-phase
	120 VAC	10 HP	20 HP
	240 VAC	20 HP	40 HP
	480 VAC	40 HP	100 HP
	600 VAC	60 HP	125 HP
LINE SUPPLY FUSE	CLASS J - size per NEC/CEC requirement, upstream ahead of unit		
BOTTOM ENTRY	1-1/2" NPT	2" NPT	

PLUG DUST CAP	
FOR PLUG TYPE	CATALOG NUMBER
VSI63P4__	VSI63801140
VSI63P5__	VSI63801140

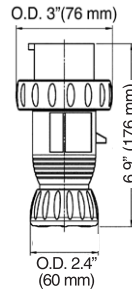
TECHNICAL DATA		
PLUG	63 AMP	125 AMP
ENCLOSURE MATERIAL	POLYAMIDE	
TERMINAL CAPACITY	1 wire, 90°C rated	
	10-4 AWG	6-1/0 AWG
CORD OUTER DIA.	0.94" - 1.4"	1.2" - 2"



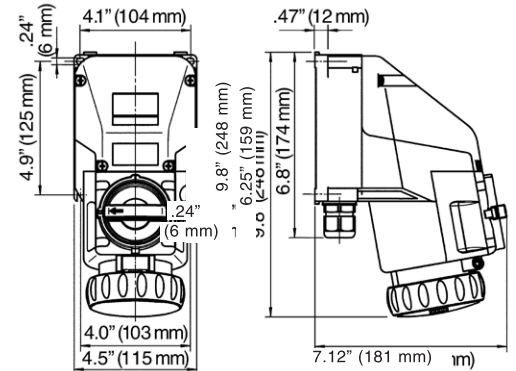
VSI NON-METALLIC PLUGS AND SWITCHED RECEPTACLES



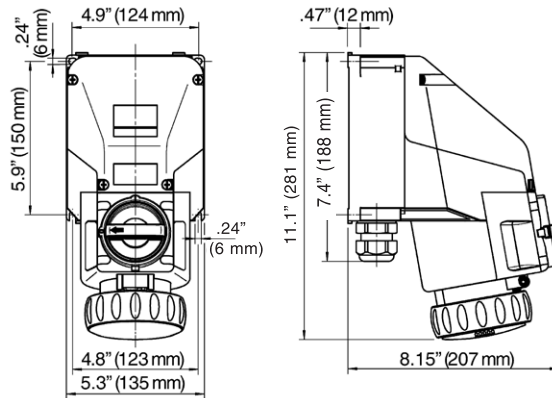
RECEPTACLE 20A
2 POLE - 3 WIRE



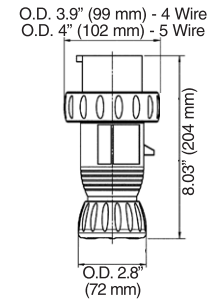
PLUG 20A



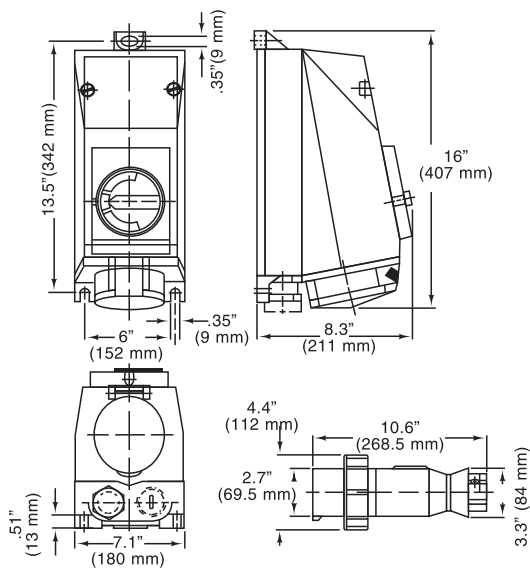
RECEPTACLE 20A
3 POLE - 4 WIRE AND 4 - POLE 5 WIRE



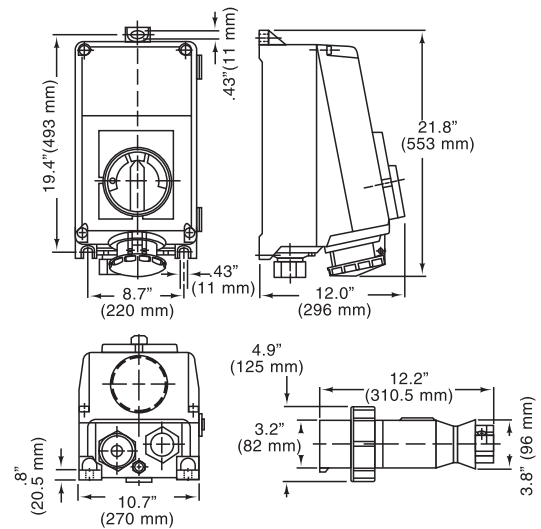
RECEPTACLE 30A
3 POLE - 4 WIRE AND 4 POLE - 5 WIRE



PLUG 30A



RECEPTACLE & PLUG 63A
3 POLE - 4 WIRE AND 4 POLE - 5 WIRE



RECEPTACLE & PLUG 125A
3 POLE - 4 WIRE AND 4 POLE - 5 WIRE



CONNECTIVITY VSIH SERIES

VSIH NON-METALLIC PLUGS AND SWITCHED RECEPTACLES

VersaMATE



IEC-STYLE NON-METALLIC PLUGS AND SOCKETS

Ex **ATEX Certificate: INERIS 20 ATEX 0022X**

CE **Socket: II 2G Ex db eb IIC T3/T4/T5/T6 Gb**

2813 **Plug: II 2G Ex eb IIC T3/T4/T5/T6 Gb
II 2D Ex tb IIIC T800C Db IP 66 Ta=
-50°C to +60°C**

IECEx Certificate: IECEx INE 20.0020X

Socket: Ex db eb IIC T3/T4/T5/T6 Gb

Plug: Ex eb IIC T3/T4/T5/T6 Gb

Ex tb IIIC T800C Db IP 66

Ta= -50°C to +60°C

FEATURES-SPECIFICATIONS

Features

- Color coding and pin configuration makes it physically impossible to mate plugs and receptacles of different voltages and current ratings.
- Interlocked switch mechanism prevents accidental removal of plug from receptacle under load.
- Explosion Protected Internal Disconnect Switch
- Operating Temperature of -50°C to +60°C
- Earthing Stud and Earthing Plate available for earthing/grounding purposes.
- Provision for up to two optional auxiliary contact blocks, useful for signaling circuits or starter coils.

Materials

- Enclosure = Impact Resistant (7 Joules), Non-Metallic, Anti-Static, Glass-Fibre Reinforced Polyester (GRP)
- Gasket = Silicone
- Pins = Nickel Plated Brass
- Earth Stud = Brass
- Earthing Plate = Brass

Electrical Ratings

Plugs/Sockets

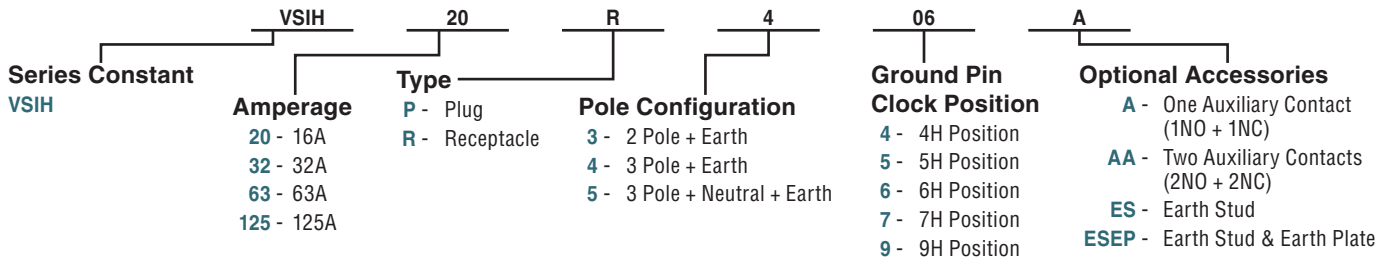
- Amperage Configurations = 16A / 32A / 63A / 125A
- Voltage Configurations = 110VAC -690VAC

Auxiliary Contacts

- Amperage Configurations = 4A Max
- Voltage Configurations = 415VAC Max



CATALOG LOGIC



VSIH SERIES PLUGS & SWITCHED RECEPTACLES

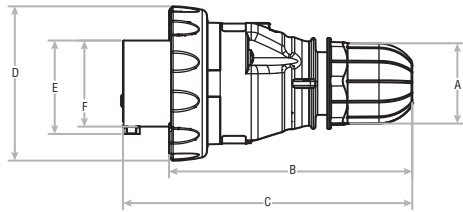
POLE CONFIG.	VOLTAGE	FREQUENCY (HZ)	GROUND POSITION (HR)	COLOR		CATALOG NUMBER							
				16/32/63A	125A	16A		32A		63A		125A	
						PLUG	RECEPT.	PLUG	RECEPT.	PLUG	RECEPT.	PLUG	RECEPT.
2P+E	100-130 VAC	50/60	4	Yellow	—	VSIH20P304	VSIH20R304	VSIH32P304	VSIH32R304	—	—	—	—
	200-250 VAC	50/60	6	Blue	—	VSIH20P306	VSIH20R306	VSIH32P306	VSIH32R306	—	—	—	—
	480-500 VAC	50/60	7	Red	—	VSIH20P307	VSIH20R307	—	—	—	—	—	—
3P+E	200-250 VAC	50/60	9	Blue	Black	VSIH20P409	VSIH20R409	VSIH32P409	VSIH32R409	VSIH63P409	VSIH63R409	VSIH125P409	VSIH125R409
	380-415 VAC	50/60	6	Red	Black	VSIH20P406	VSIH20R406	VSIH32P406	VSIH32R406	VSIH63P406	VSIH63R406	VSIH125P406	VSIH125R406
	480-500 VAC	50/60	7	Red	Black	VSIH20P407	VSIH20R407	VSIH32P407	VSIH32R407	VSIH63P407	VSIH63R407	VSIH125P407	VSIH125R407
	600-690 VAC	50/60	5	Red	Black	VSIH20P405	VSIH20R405	VSIH32P405	VSIH32R405	VSIH63P405	VSIH63R405	VSIH125P405	VSIH125R405
3P+N+E	208-250 VAC	50/60	9	Blue	Black	VSIH20P509	VSIH20R509	VSIH32P509	VSIH32R509	VSIH63P509	VSIH63R509	VSIH125P509	VSIH125R509
	346-415 VAC	50/60	6	Red	Black	VSIH20P506	VSIH20R506	VSIH32P506	VSIH32R506	VSIH63P506	VSIH63R506	VSIH125P506	VSIH125R506
	480-500 VAC	50/60	7	Red	Black	VSIH20P507	VSIH20R507	VSIH32P507	VSIH32R507	VSIH63P507	VSIH63R507	VSIH125P507	VSIH125R507
	600-690 VAC	50/60	5	Red	Black	VSIH20P505	VSIH20R505	VSIH32P505	VSIH32R505	VSIH63P505	VSIH63R505	VSIH125P505	VSIH125R505

VSIH SERIES PLUGS & SWITCHED RECEPTACLES (TECHNICAL DATA)

RECEPTACLE	16A	32A	63A	125A
WIRING TERMINAL CAPACITY (CONDUCTOR CROSS SECTIONAL AREA)	4 mm ² - 10 mm ²	6 mm ² - 10 mm ²	16 mm ² - 25 mm ²	50 mm ² - 70 mm ²
WIRING TERMINAL CAPACITY (TIGHTENING TORQUE)	0.8 N·m	0.8 N·m	2.5 N·m	3.5 N·m
GROUND TERMINAL CAPACITY (CONDUCTOR CROSS SECTIONAL AREA)	10 mm ² (Finely Stranded) 16 mm ² (Solid)	10 mm ² (Finely Stranded) 16 mm ² (Solid)	2.5 mm ² - 35 mm ²	50 mm ² - 70 mm ²
GROUND TERMINAL CAPACITY (TIGHTENING TORQUE)	1.2 N·m	1.2 N·m	3.5 N·m	3.5 N·m
ENTRY SIZE (LOCATION)	1 x M25 (Bottom)	1 x M32 (Bottom)	1 x M40 (Bottom)	1 x M50 (Bottom)
AMBIENT TEMPERATURE	-50°C to +50°C (T6) -50°C to +60°C (T5)	-50°C to +60°C (T4) -50°C to +40°C (T5)	-35°C to +60°C (T3) -35°C to +40°C (T4)	-35°C to +40°C (T4)
AMBIENT TEMPERATURE (W/ OPTIONAL AUXILIARY CONTACTS)	-50°C to +50°C (T6) -50°C to +60°C (T5)	-50°C to +40°C (T5)	-35°C to +40°C (T4)	—
PLUG	16A	32A	63A	125A
WIRING TERMINAL CAPACITY (CONDUCTOR CROSS SECTIONAL AREA)	4 mm ²	6 mm ²	16 mm ²	50 mm ²
WIRING TERMINAL CAPACITY (TIGHTENING TORQUE)	1 N·m	1.5 N·m	2 N·m	4 N·m
CORD DIAMETER	10.9-14 mm (2P+E) 12.1-15.5 mm (3P+E) 13.3-17 mm (3P+N+E)	15.7-20 mm (2P+E) 15.7-20 mm (3P+E) 17.5-22.5 mm (3P+N+E)	19.1 - 31.5 mm	33-40 mm

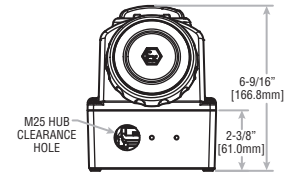
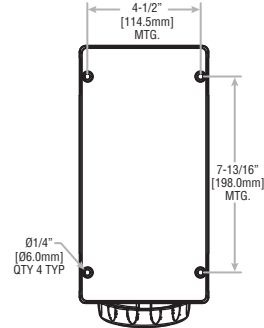
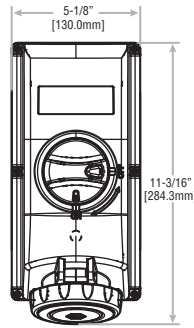


CONNECTIVITY
VSIH SERIES

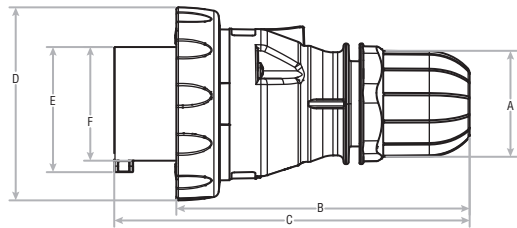


POLE	A	B	C	D	E	F
3P	1-5/8" [40.6mm]	4-13/16" [122.9mm]	5-3/4" [146.2mm]	3-1/16" [78.0mm]	1-7/8" [47.2mm]	1-11/16" [43.5mm]
4P	1-5/8" [40.6mm]	5-1/8" [129.9mm]	6-1/16" [153.2mm]	3-3/8" [85.1mm]	2-1/8" [53.7mm]	1-15/16" [49.5mm]
5P	2-1/8" [53.4mm]	5-3/4" [145.8mm]	6-11/16" [170.1mm]	3-5/8" [92.8mm]	2-3/8" [60.8mm]	2-3/16" [56.0mm]

VSIH 16AMP Plug

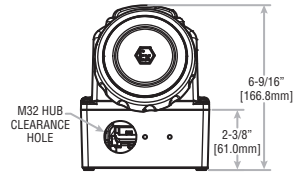
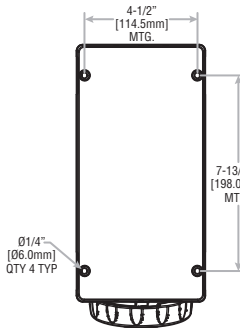
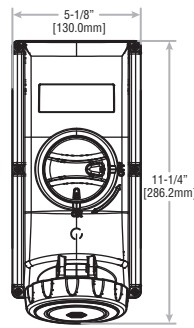


VSIH 16AMP Receptacle

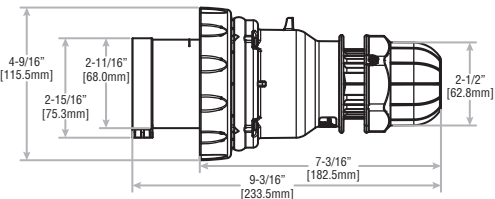


POLE	A	B	C	D	E	F
3/4P	2-1/8" [53.4mm]	5-13/16" [147.8mm]	7-1/16" [179.1mm]	3-13/16" [97.3mm]	2-1/2" [63.1mm]	2-1/4" [57.3mm]
5P	2-3/8" [59.8mm]	6-1/8" [154.8mm]	7-5/16" [186.1mm]	4-1/8" [104.4mm]	2-3/4" [69.7mm]	2-1/2" [63.3mm]

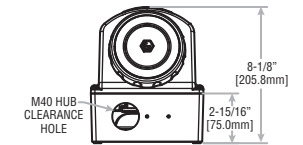
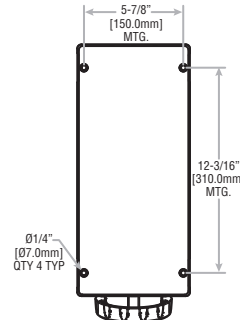
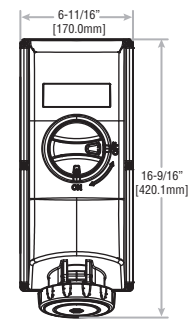
VSIH 32AMP Plug



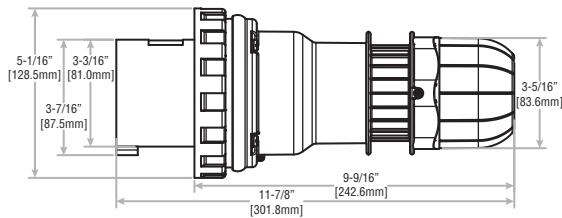
VSIH 32AMP Receptacle



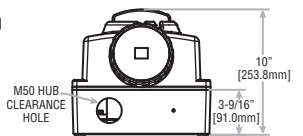
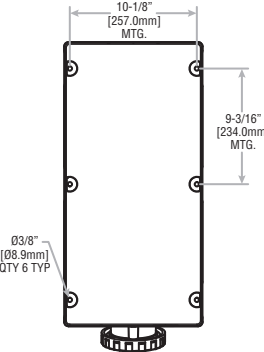
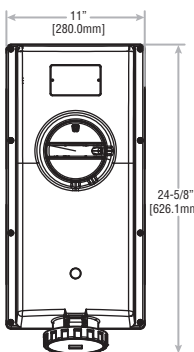
VSIH 63AMP Plug



VSIH 63AMP Receptacle



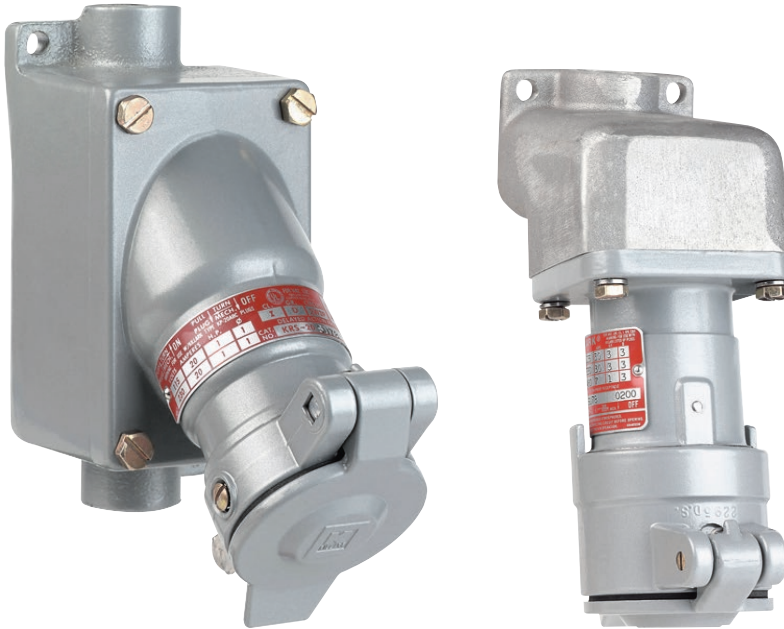
VSIH 125AMP Plug



VSIH 125AMP Receptacle



HAZARDOUS LOCATION – DELAYED ACTION



**Class I, Div. 1 & 2, Groups C, D
Class I, Zones 1 & 2, IIB, IIA**

E23572

Certified LR14667 (20A version)

FEATURES-SPECIFICATIONS

Features

- Factory sealed receptacles
- Straight or angle type receptacles
- Delayed action contacts (See Time Delay Inset on next page)
- Plugs with a wide range of grommet openings
- Extra long grounding pole makes contact first and breaks contact last
- Heavy duty construction to withstand rough and constant usage
- Plugs come with soldered terminals as standard.
- Receptacles come factory potted with flying wire leads as standard.
- KRS configurations are rated for Class I Group D only.

Materials

- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion
- Electrostatically applied and baked powder epoxy / polyester finish
- Hardware = Stainless Steel

Electrical Ratings

- Amperage = 20 / 30 / 60 A

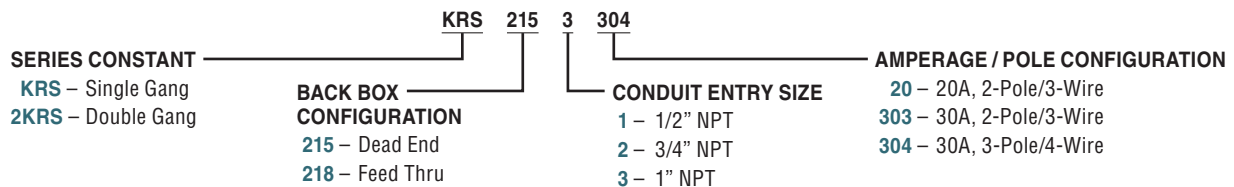
ELECTRICAL RATINGS					
TYPE	AMPERAGE	VOLTAGE VAC	CIRCUIT	H.P.	HERTZ
20 AMP	20	115/230	2W3P	1	60
30 AMP	7	460	2W3P	1/2	60
	7	460	3W4P	1	60
	30	115/230	2W3P	1-1/2	60
	30	115/230	3W4P	3	60
60 AMP	30	460	2W3P	3	60
	30	460	3W4P	5	60
	60	115/230	2W3P	5	60
	60	115/230	3W4P	5	60



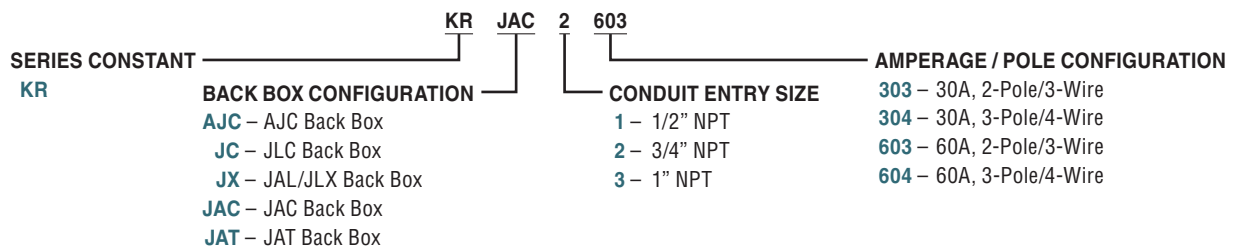
CONNECTIVITY
KR SERIES

HAZARDOUS LOCATION – DELAYED ACTION

KR RECEPTACLES (20/30A)



KR RECEPTACLES (30/60A)



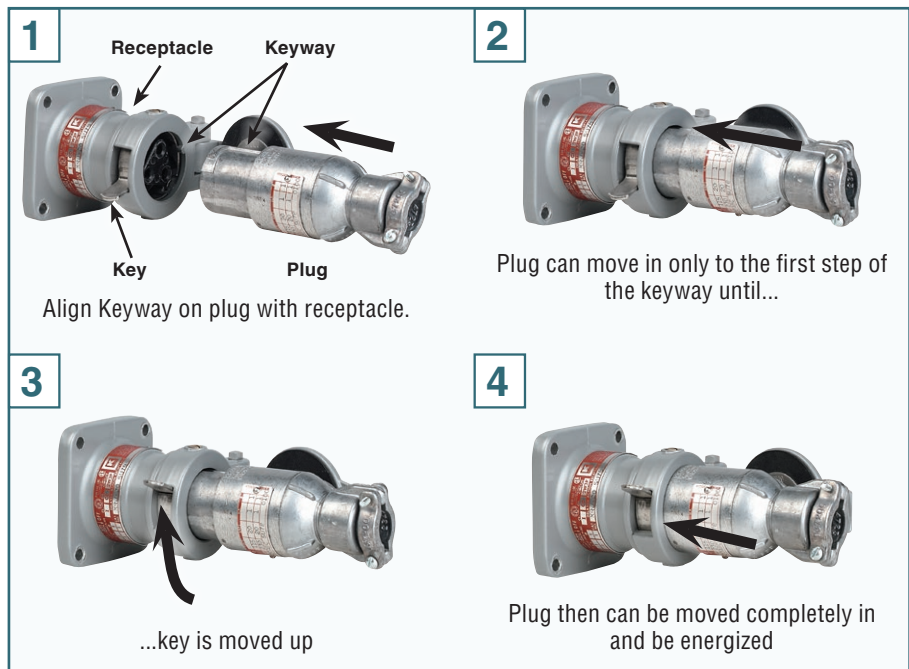
Details of Safety Time Delay Feature

The key slot provided in the receptacle engages the key of the plug permitting entrance of the plug in the receptacle in only one position. See steps 1-4.

The contacts are enclosed in long accurate insulating cavities. It is in these cavities that the arcs are extinguished. All contacts are made through round tellurium copper tubing which is extra heavy to withstand arcing as required on the various ampere ratings.

Both plugs and receptacles are equipped with an extra long grounding pole which establishes grounding before the power contacts are engaged. These grounding poles are also the last to break contact. This assures bonding of the portable device to the electrical conduit system.

Safety Time Delay Feature





20 AMP 115/230 V.A.C • 1Ø 2 WIRE, 3 POLE



KRS Series



KRA

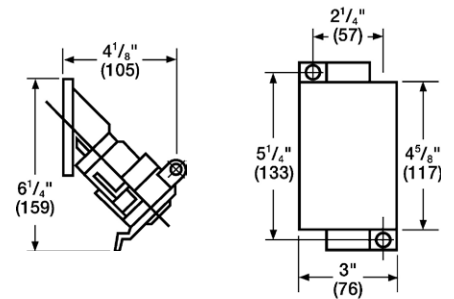


Plug

KRS 20A 1Ø 2W RECEPTACLE WITH SWB BOX ②

HUB SIZE	CATALOG NUMBER							
	SINGLE RECEPTACLE & DEAD END BOX	BOX ONLY	SINGLE RECEPTACLE & FEED-THRU BOX	BOX ONLY	DOUBLE RECEPTACLE & DEAD END BOX	BOX ONLY	DOUBLE RECEPTACLE & FEED-THRU BOX	BOX ONLY
1/2"	KRS-215-120	SWB-1	KRS-218-120	SWB-4	2KRS-215-120	SWB-7	2KRS-218-120	SWB-10
3/4"	KRS-215-220	SWB-2	KRS-218-220	SWB-5	2KRS-215-220	SWB-8	2KRS-218-220	SWB-11
1"	KRS-215-320	SWB-3	KRS-218-320	SWB-6	2KRS-215-320	SWB-9	2KRS-218-320	SWB-12

RECEPTACLE ONLY – CATALOG NUMBER KRS-20



KRS-Series

KRJ RECEPTACLE WITH AJ OR JL BOX

HUB SIZE	CATALOG NUMBER		
	AJC	JLC	JLX
1/2"	—	KRJC-120	KRJX-120
3/4"	KRAJC-220	KRJC-220	KRJX-220
1"	KRAJC-320	—	—

BACK BOX ONLY

1/2"	—	JLC-1	JLX-1
3/4"	AJC-2	JLC-2	JLX-2
1"	AJC-3	—	—

RECEPTACLE ONLY – CATALOG NUMBER KRJ-20

ELECTRICAL RATING

CIRCUIT	RATING (60 HERTZ)
1Ø 2W3P	20 AMPS, 115/230 V.A.C., 1 H.P.



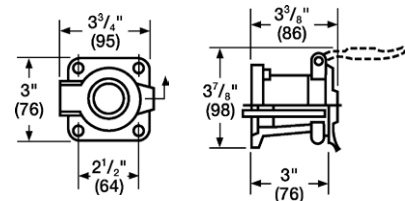
AJC



JLC



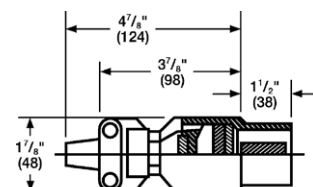
JLX



KRJ-Series

KP 20 AMP PLUG

CATALOG NO.	DESCRIPTION
KP-20ABC	Plug furnished with 3 grommets range .250 - .625





CONNECTIVITY
KR SERIES

30 AMP 115/230 V.A.C. • 7 AMP 460 V.A.C

KRS/KRJ Series Plug



KRS Series



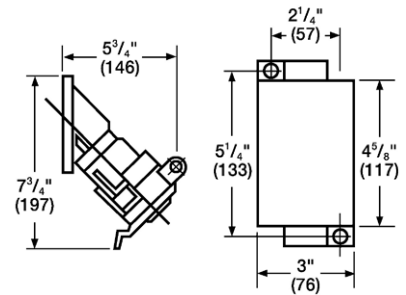
KRA Series



Plug

KRS RECEPTACLE WITH SWB BOX²

HUB SIZE	CATALOG NUMBER - SINGLE GANG ONLY							
	1Ø, 2-WIRE, 3-POLE DEAD END BOX	BOX ONLY	1Ø, 2-WIRE, 3-POLE FEED THRU BOX	BOX ONLY	3Ø, 3-WIRE, 4-POLE DEAD END BOX	BOX ONLY	3Ø, 3-WIRE, 4-POLE FEED THRU BOX	BOX ONLY
1/2"	KRS-215-1303	SWB-1	KRS-218-1303	SWB-4	KRS-215-1304	SWB-1	KRS-218-1304	SWB-4
3/4"	KRS-215-2303	SWB-2	KRS-218-2303	SWB-5	KRS-215-2304	SWB-2	KRS-218-2304	SWB-5
1"	KRS-215-3303	SWB-3	KRS-218-3303	SWB-6	KRS-215-3304	SWB-3	KRS-218-3304	SWB-6
RECEPTACLE ONLY	KRS-303				KRS-304			



KRS-Series

KRJ RECEPTACLE WITH AJ OR JL BOX

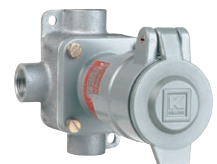
CIRCUIT	HUB SIZE	CATALOG NUMBER		
		AJC	JLC	JLX
1Ø 2-Wire 3-Pole	1/2"	—	KRJC-1303	KRJX-1303
	3/4"	KRAJC-2303	KRJC-2303	KRJX-2303
	1"	KRAJC-3303	—	—
RECEPTACLE ONLY – CATALOG NUMBER KRJ-303				
3Ø 3-Wire 4-Pole	1/2"	—	KRJC-1304	KRJX-1304
	3/4"	KRAJC-2304	KRJC-2304	KRJX-2304
	1"	KRAJC-3304	—	—
RECEPTACLE ONLY – CATALOG NUMBER KRJ-304				
Back Box Only	1/2"	—	JLC-1	JLX-1
	3/4"	AJC-2	JLC-2	JLX-2
	1"	AJC-3	—	—



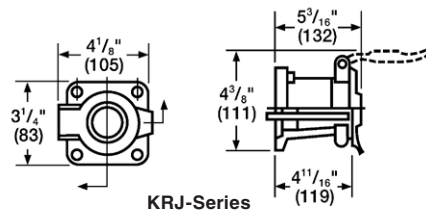
AJC



JLC



JLX



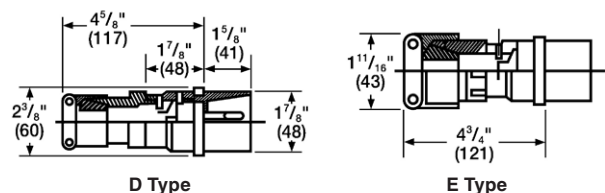
KRJ-Series

ELECTRICAL RATING

CIRCUIT	RATING (60 HERTZ)
1 Ø	7 Amps, 460 V.A.C., 1 1/2 H.P.
2-Wire	— OR —
3-Pole	30 Amps, 115/230 V.A.C., 1-1 1/2 H.P.
3 Ø	7 Amps, 460 V.A.C., 1 H.P.
3-Wire	— OR —
4-Pole	30 Amps, 115/230 V.A.C., 3 H.P.

KP 30 AMP PLUG

CATALOG NUMBER		PLUG TYPE	GROMMET RANGE
1Ø, 2-WIRE, 3-POLE	3Ø, 3-WIRE, 4-POLE		
KP-303D23	KP-304D23	D	.375-.625
KP-303D45	KP-304D45	D	.625-.875
KP-303E45	KP-304E45	E	.875-1.125
KP-303E67	KP-304E67	E	1.125-1.375



D Type

E Type



60 AMP 115/230 V.A.C. • 30 AMP/460 V.A.C.



KRJ Series

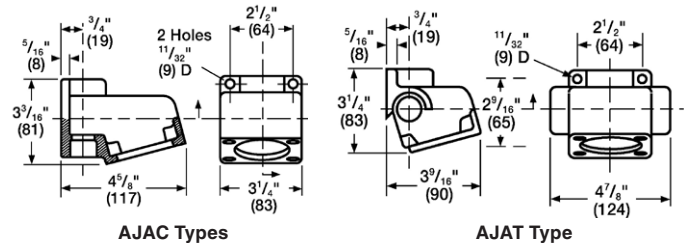
KRA Series

Plug

KR RECEPTACLE ASSEMBLIES

HUB SIZE	BOX STYLE	HUB STYLE	CATALOG NUMBER		
			1Ø, 2-WIRE 3-POLE	3Ø, 3-WIRE 4-POLE	SPLICE BOX ONLY
1"	JAL Series Boxes	"X"-3 Close-up Plugs Supplied	KRJX-3603	KRJX-3604	JALX-3
1-1/4"			KRJX-4603	KRJX-4604	JALX-4
1-1/4"	AJA Series Boxes	Feed Thru Top and Bottom	KRAJAC-4603	KRAJAC-4604	AJAC-4
1-1/2"			KRAJAC-5603	KRAJAC-5604	AJAC-5
2"			KRAJAC-6603	KRAJAC-6604	AJAC-6
1-1/4"		T Sides and Top	KRAJAT-4603	KRAJAT-4604	AJAT-4
1-1/2"			KRAJAT-5603	KRAJAT-5604	AJAT-5
RECEPTACLE ONLY			KRJ-603	KRJ-604	—

DIMENSIONS-BACK BOXES

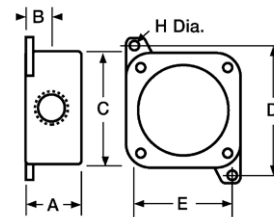


AJAC Types

AJAT Type

ELECTRICAL RATING

CIRCUIT	RATING (60 HERTZ)
1 Ø 2-Wire 3-Pole	30 Amps, 460 V.A.C., 3 H.P. — OR — 60 Amps, 115/230 V.A.C., 3 H.P.
3 Ø 3-Wire 4-Pole	30 Amps, 460 V.A.C., 5 H.P. — OR — 60 Amps, 115/230 V.A.C., 5 H.P.



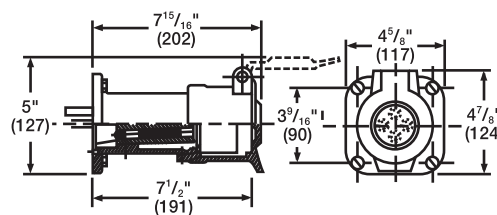
JAL Type

JAL TYPE MOUNTING BOXES

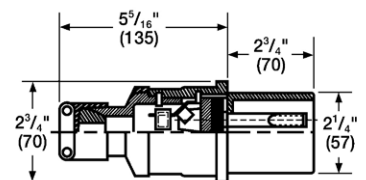
HUB	A	B	C	D	E	H
1"	2-3/8"	1-5/32"	4-5/8"	5-1/4"	4-1/8"	5/16"
1-1/4"	3-1/8"	1-17/32"	4-5/8"	5-1/4"	4-1/8"	5/16"

KR 60 AMP PLUGS

CATALOG NUMBER		GROMMET RANGE
1Ø, 2-WIRE, 3-POLE	3Ø, 3-WIRE 4-POLE	
KP-603D345	KP-604D345	.500-.875
KP-603E45	KP-604E45	.875-1.125
KP-603E67	KP-604E67	1.125-1.375
—	KP-604F34	1.250-1.500
—	KP-604F56	1.500-1.750



KRJ-60 Type Receptacles



KP Type Plugs



XP STARLINE FEATURES

**NEC/CEC Certifications**

Class I, Div. 1 & 2, Groups C & D at 480VAC; 60/400 Hz, Circuit-Breaking



Class I, Div 1 & 2, Groups B, C & D Class II, Div.1, Groups F & G at 600VAC, 60/400 Hz, Circuit-Breaking.

AEx d IIC T6

ATEX/IECEx Certifications

II 2 GD Ex d IIC IP 66/67 T 70°C 1000VAC, 500VDC

FEATURES-SPECIFICATIONS**Features**

- **SEALING.** All junction box, NPT and panel mount receptacles are pre-wired and factory sealed eliminating the need for external seals.
- **COVERS.** Environmental threaded covers are standard with all connectors.
- **PIGTAILS.** Receptacle leads may be ordered in any length.
- **REVERSE SERVICE** Vantage connectors were the first explosionproof connectors to secure both UL and CSA listing with reverse service inserts. Their ATEX listing also supports reverse service. This feature provides electrical safety where lineside power is carried from the plug to a receptacle.
- **KEYING.** Inserts can be keyed for phase and voltage separation.
- **COLOR CODING.** Connectors may be ordered in a range of colors and combinations of color.
- **CUSTOM ASSEMBLIES.** Available to user's specifications.
- **CIRCUIT-BREAKING:** UL and CSA Listed to make/break at full rated load. These connectors were required to pass an overload test of 50 cycles at 150% of their ampere rating in a chamber filled with a test mixture of hazardous vapors.

- **INSERT PATTERNS** Grounding inserts with 3, 4, 5, and 6 contacts are described as 2 Pole / 3 Wire, 3 Pole / 4 Wire, 4 Pole / 5 Wire, and 3 Pole / 4 Wire plus 2 relay length contacts. The ground pin is longer and will make first - break last, an important safety feature.
- **COLOR CODING** Plugs and receptacles are available with color coding variations for specific application identification. This coding could include the plug coupling nut and cover with matching colors on various receptacle components.

**Materials**

- **CORROSION RESISTANCE** Designed for corrosive environments, junction boxes are sand cast, copper-free aluminum, protected by our VanGuard baked polymer finish system. Plug and receptacle shells are machined from 6061-T6 aluminum (0.15 to 0.40% copper by weight) and finished by hard anodizing. SD/SF plug and receptacle shells are machined from 316 stainless steel.

Electrical Ratings

- **CONTROL INSERTS:** Multi-pin inserts can be specified for either crimp or solder termination with contacts whose size and amp ratings are as follows (inserts with the highest contact density per shell size are):

Shell 16	61 - #18 AWG contacts
Shell 20	90 - #18 AWG contacts
Shell 24	100 - #16 AWG contacts

CONTROL CONNECTORS

- Amperage = Up to 30A
- Voltage = Up to 250VAC, 125VDC
- Frequency = 50/60/400 Hz

POWER CONNECTORS

- Amperage = Up to 200A
- Voltage = Up to 1000VAC, 500VDC
- Frequency = 50/60/400 Hz

PIN - SOCKET WIRE SIZE	AMPS	
	US	
18 AWG (.75 mm ²)	3.5	10
16 AWG (1.5 mm ²)	6.5	15
12 AWG (4.0 mm ²)	10	20
8 AWG / (10 mm ²)	30	32
4 AWG / (25 mm ²)	60	63
1/0 AWG / (55 mm ²)	100	125
4/0 (120 mm ²)	200	260

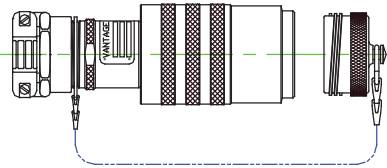




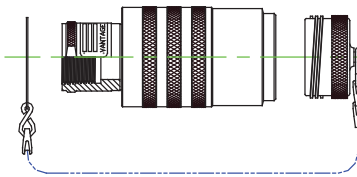
XP STARLINE FEATURES

The **VANTAGE XP STAR-LINE SERIES** of explosionproof connectors is offered in a variety of materials and configurations. Product options and an array of third party listings mean we have a solution for your application. Note, options and features may vary based on third party listing.

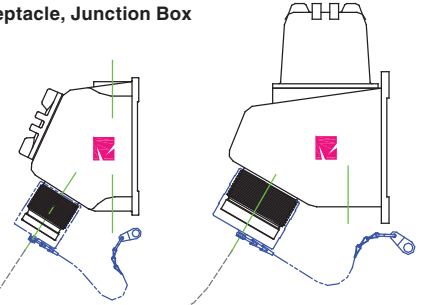
Plug, Attachment (Mechanical Clamp)



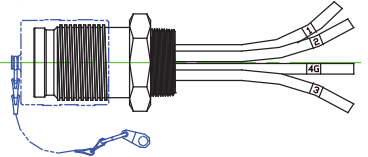
Plug, Tapped NPT (for use with Cable Gland)



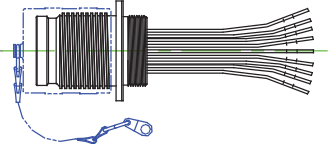
Receptacle, Junction Box



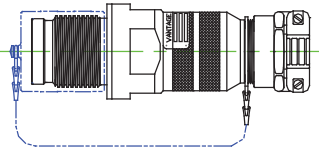
Receptacle, NPT Panel Mount



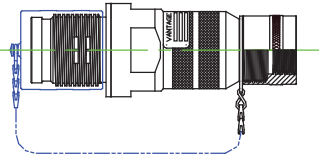
Receptacle, Panel Mount



Receptacle, Attachment (Mechanical Clamp)



Receptacle, Tapped NPT (for use with Cable Gland)



VICTORY SERIES MACHINED, HARD ANODIZED ALUMINUM			
GD POWER	II 2 GD EEx d IIC T6 IP 66/67 T 70°C	Class I, Division 1, Groups B, C & D	Class I, Division 1, Groups C & D
AF CONTROL		Class II, Division 1, Groups F & G	
MILLENNIUM SERIES STAINLESS STEEL, ALLOY 316			
SD POWER	II 2 GD EEx d IIC T6 IP 66/67 T 70°C	Class I, Division 1, Groups B, C & D	
SF CONTROL		Class II, Division 1, Groups F & G	

RECEPTACLE STYLES				
JUNCTION BOX	ATTACHMENT (MECHANICAL CLAMP)	PANEL MOUNT	NPT PANEL MOUNT	TAPPED NPT

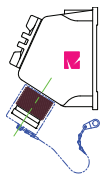
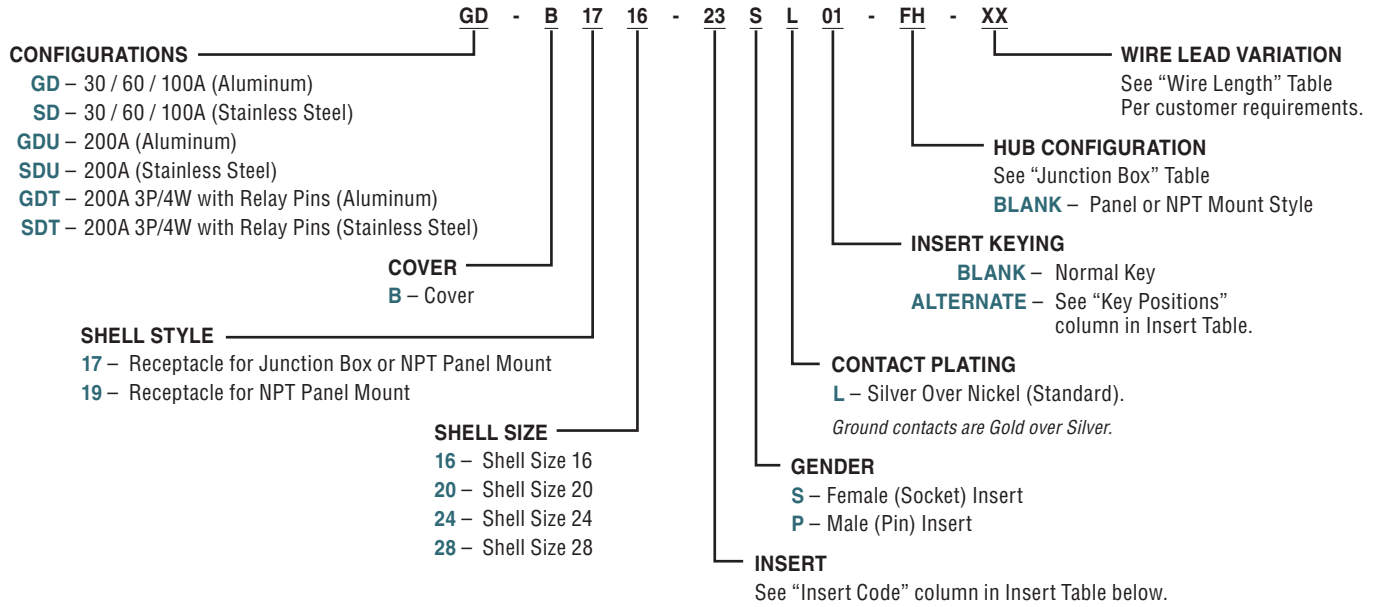


CONNECTIVITY

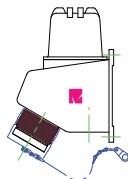
EXPLOSIONPROOF STARLINE

CODE LOGIC • GD & SD RECEPTACLES

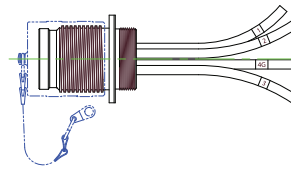
CATALOG LOGIC



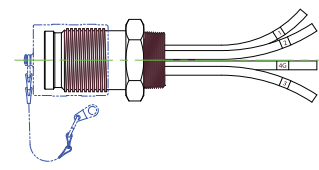
Receptacle, Junction Box



Receptacle, Junction Box



Receptacle, Panel Mount



Receptacle, NPT Panel Mount

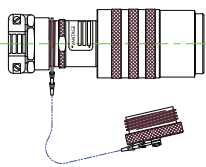
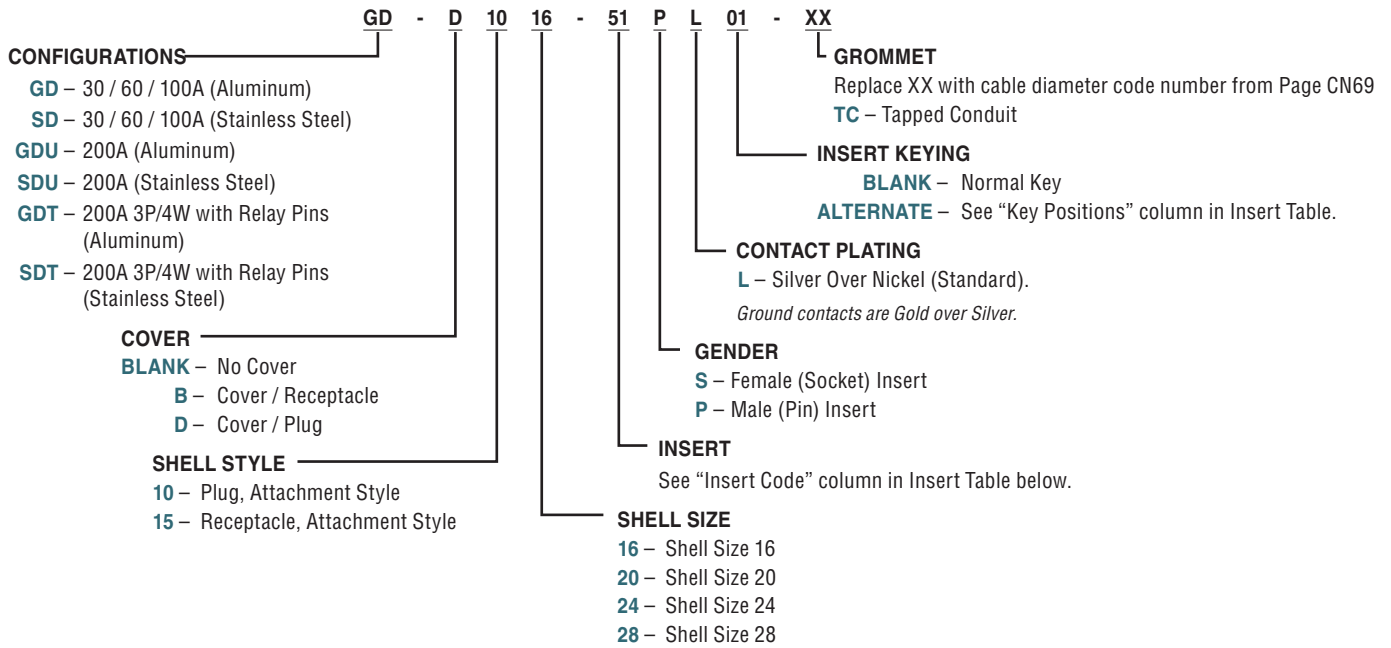
INSERT TABLE						
AMPERES			INSERT	SHELL SIZE	INSERT CODE	KEY POSITIONS (N = NORMAL POSITION)
UL	CS US	Ex				
30	32		2 POLE, 3 WIRE	16	51	N + 5
			3 POLE, 4 WIRE	16	23	N + 5
			4 POLE, 5 WIRE	20	36	N + 2
60	63		2 POLE, 3 WIRE	20	61	N + 7
			3 POLE, 4 WIRE	20	40	N + 4
			4 POLE, 5 WIRE	24	29	N + 3
100	125		2 POLE, 3 WIRE	24	60	N + 7
			3 POLE, 4 WIRE	24	39	N + 5
			4 POLE, 5 WIRE	28	23	N + 3
200	260		2 POLE, 3 WIRE	28	30	N + 9
			3 POLE, 4 WIRE	28	31	N + 10
			5 POLE 6 WIRE (3 POLE 4 WIRE and 2 relay contacts)	28	42	N + 3

WIRE LENGTH		
CODE	LENGTH	
	INCHES	METERS
L12	12	0.31
L24	24	0.61
L36	36	0.91
Etc	Etc	

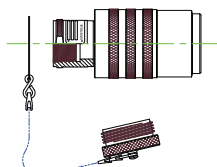
JUNCTION BOX		
SHELL SIZE	CONDUIT HUB LOCATION	CONDUIT HUB SIZE (INCHES)
16 & 20	'F' TOP & BOTTOM	'H' 1½ - 11½ NPT
24	'B' BOTTOM	'K' 2½ - 8 NPT
28	'B' BOTTOM	'L' 3 - 8 NPT



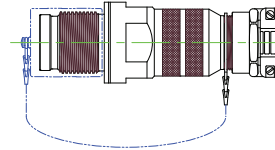
CODE LOGIC • GD & SD ATTACHMENT CONNECTORS



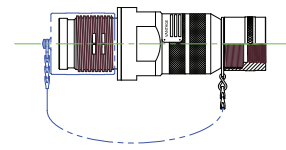
Plug, Attachment



Plug, Tapped Conduit



Receptacle, Attachment



Receptacle, Tapped Conduit

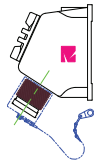
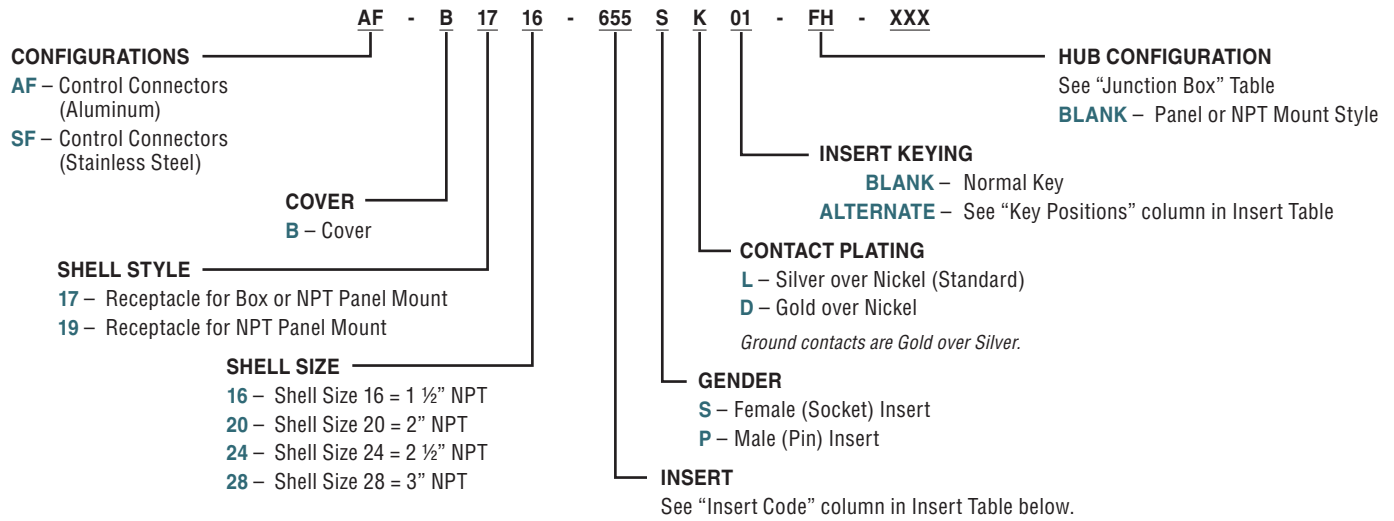
INSERT TABLE						
AMPERES			INSERT	SHELL SIZE	INSERT CODE	KEY POSITIONS (N = NORMAL POSITION)
UL	SP	Ex				
30	32		2 POLE, 3 WIRE	16	51	N + 5
			3 POLE, 4 WIRE	16	23	N + 5
			4 POLE, 5 WIRE	20	36	N + 2
60	63		2 POLE, 3 WIRE	20	61	N + 7
			3 POLE, 4 WIRE	20	40	N + 4
			4 POLE, 5 WIRE	24	29	N + 3
100	125		2 POLE, 3 WIRE	24	60	N + 7
			3 POLE, 4 WIRE	24	39	N + 5
			4 POLE, 5 WIRE	28	23	N + 3
200	260		2 POLE, 3 WIRE	28	30	N + 9
			3 POLE, 4 WIRE	28	31	N + 10
			5 POLE 6 WIRE (3 POLE 4 WIRE and 2 relay contacts)	28	42	N + 3



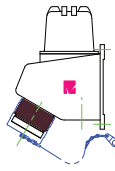
CONNECTIVITY

EXPLOSIONPROOF STARLINE

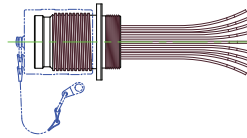
CODE LOGIC • AF & SF RECEPTACLES



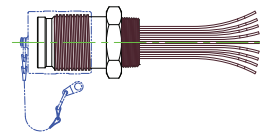
Receptacle, Junction Box



Receptacle, Junction Box



Receptacle, Panel Mount



Receptacle, NPT Panel Mount

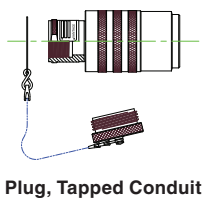
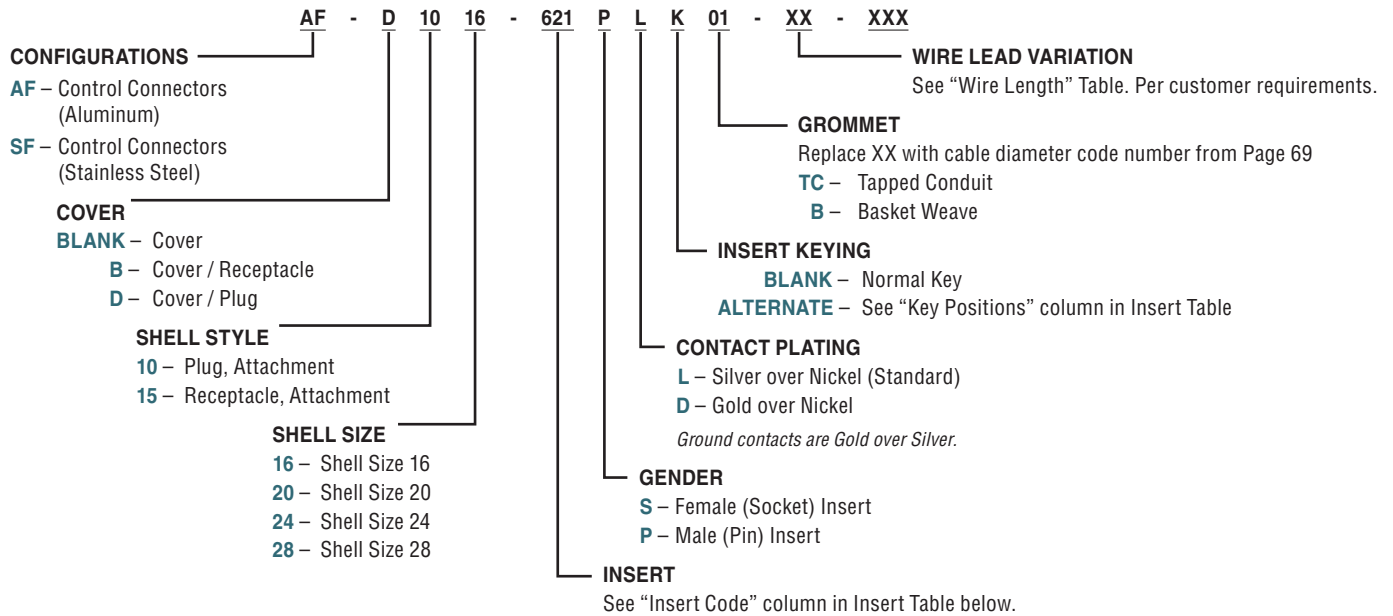
INSERT TABLE				
CONTACT QUANTITY	PIN SIZE AWG (MM ²)	SHELL SIZE	INSERT CODE	KEY POSITIONS (N = NORMAL POSITION)
10	#12 (4.0)	16	681	N + 4
10	#12 / G (4.0)	16	676	N + 1
19	#12 / G (4.0)	16	612	N + 4
19	#12 (4.0)	16	677	N + 1
19	#12 (4.0)	20	676	N + 5
19	#12 / G (4.0)	20	688	N
19	#16 (1.5)	16	655	N + 9
20	#12 (4.0)	20	632	N + 3
20	#12 / G (4.0)	20	687	N + 1
37	#12 (4.0)	20	686	N
37	#12 / G (4.0)	20	650	N + 3
37	#16 (1.5)	16	621	N + 9
55	#18 (.75)	16	640	N + 10
61	#18 (.75)	16	633	N + 4
68	#16 (1.5)	20	613	N + 4
100	#16 (1.5)	24	613	N + 4

CODE	WIRE LENGTH	
	INCHES	METERS
L12	12	0.31
L24	24	0.61
L36	36	0.91
Etc		Etc

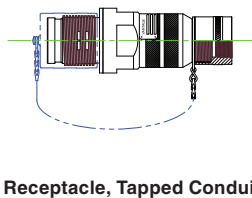
JUNCTION BOX		
SHELL SIZE	CONDUIT HUB LOCATION	CONDUIT HUB SIZE (INCHES)
16 & 20	'F' TOP & BOTTOM	'H' 1½ - 11½ NPT
24	'B' BOTTOM	'K' 2½ - 8 NPT
28	'B' BOTTOM	'L' 3 - 8 NPT



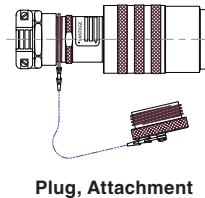
CODE LOGIC • AF & SF ATTACHMENT CONNECTORS



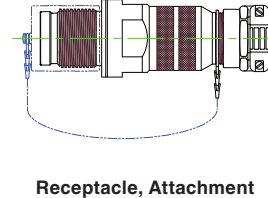
Plug, Tapped Conduit



Receptacle, Tapped Conduit



Plug, Attachment



Receptacle, Attachment

INSERT TABLE

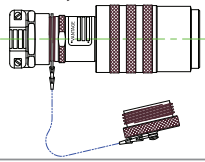
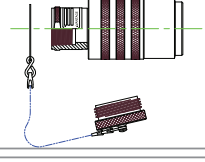
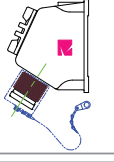
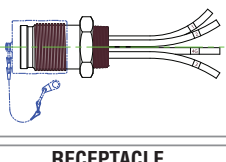
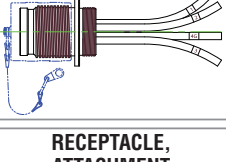
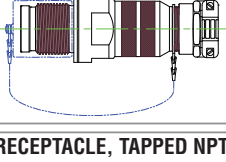
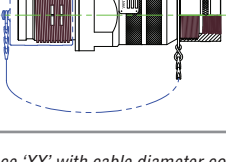
CONTACT QUANTITY	PIN SIZE AWG (MM ²)	SHELL SIZE	INSERT CODE	KEY POSITIONS (N = NORMAL POSITION)
10	#12 (4.0)	16	681	N + 4
10	#12 / G (4.0)	16	676	N + 1
19	#12 / G (4.0)	16	612	N + 4
19	#12 (4.0)	16	677	N + 1
19	#12 (4.0)	20	676	N + 5
19	#12 / G (4.0)	20	688	N
19	#16 (1.5)	16	655	N + 9
20	#12 (4.0)	20	632	N + 3
20	#12 / G (4.0)	20	687	N + 1
37	#12 (4.0)	20	686	N
37	#12 / G (4.0)	20	650	N + 3
37	#16 (1.5)	16	621	N + 9
55	#18 (.75)	16	640	N + 10
61	#18 (.75)	16	633	N + 4
68	#16 (1.5)	20	613	N + 4
100	#16 (1.5)	24	613	N + 4



CONNECTIVITY

EXPLOSIONPROOF STARLINE

GD PART NUMBERS

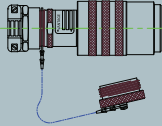
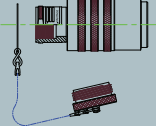



	AMPERES		2 POLE, 3 WIRE	3 POLE, 4 WIRE	3 POLE, 4 WIRE + 2 RELAY	4 POLE, 5 WIRE
	UL	Ex				
PLUG, ATTACHMENT 	30 / 32		GD-D1016-51PL-XX	GD-D1016-23PL-XX	—	GD-D1020-36PL-XX
	60 / 63		GD-D1020-61PL-XX	GD-D1020-40PL-XX	GD-D1020-56PL-XX	GD-D1024-29PL-XX
	100 / 125		GD-D1024-60PL-XX	GD-D1024-39PL-XX	GD-D1024-32PL-XX	GD-D1028-23PL-XX
	200 / 260		GDU-D1028-30PL-XX	GDU-D1028-31PL-XX	GDT-D1028-42PL-XX	—
PLUG, TAPPED NPT 	30 / 32		GD-D1016-51PL-TC	GD-D1016-23PL-TC	—	GD-D1020-36PL-TC
	60 / 63		GD-D1020-61PL-TC	GD-D1020-40PL-TC	GD-D1020-56PL-TC	GD-D1024-29PL-TC
	100 / 125		GD-D1024-60PL-TC	GD-D1024-39PL-TC	GD-D1024-32PL-TC	GD-D1028-23PL-TC
	200 / 260		GDU-D1028-30PL-TC	GDU-D1028-31PL-TC	GDT-D1028-42PL-TC	—
RECEPTACLE, JUNCTION BOX 	30 / 32		GD-B1716-51SL-FH	GD-B1716-23SL-FH	—	GD-B1720-36SL-FH
	60 / 63		GD-B1720-61SL-FH	GD-B1720-40SL-FH	GD-B1720-56SL-FH	GD-B1724-29SL-BK
	100 / 125		GD-B1724-60SL-BK	GD-B1724-39SL-BK	GD-B1724-32SL-BK	GD-B1728-23SL-BL
	200 / 260		GDU-B1728-30SL-BL	GDU-B1728-31SL-BL	GDT-B1728-42SL-BL	—
RECEPTACLE, NPT PANEL MOUNT 	30 / 32		GD-B1916-51SL-L48	GD-B1916-23SL-L48	—	GD-B1920-36SL-L48
	60 / 63		GD-B1920-61SL-L48	GD-B1920-40SL-L48	GD-B1920-56SL-L48	GD-B1924-29SL-L48
	100 / 125		GD-B1924-60SL-L48	GD-B1924-39SL-L48	GD-B1924-32SL-L48	GD-B1928-23SL-L48
	200 / 260		GDU-B1928-30SL-L48	GDU-B1928-31SL-L48	GDT-B1928-42SL-L48	—
RECEPTACLE, PANEL MOUNT 	30 / 32		GD-B1716-51SL-L36	GD-B1716-23SL-L36	—	GD-B1720-36SL-L36
	60 / 63		GD-B1720-61SL-L36	GD-B1720-40SL-L36	GD-B1720-56SL-L36	GD-B1724-29SL-L36
	100 / 125		GD-B1724-60SL-L36	GD-B1724-39SL-L36	GD-B1724-32SL-L36	GD-B1728-23SL-L36
	200 / 260		GDU-B1728-30SL-L36	GDU-B1728-31SL-L36	GDT-B1728-42SL-L36	—
RECEPTACLE, ATTACHMENT 	30 / 32		GD-B1516-51SL-XX	GD-B1516-23SL-XX	—	GD-B1520-36SL-XX
	60 / 63		GD-B1520-61SL-XX	GD-B1520-40SL-XX	GD-B1520-56SL-XX	GD-B1524-29SL-XX
	100 / 125		GD-B1524-60SL-XX	GD-B1524-39SL-XX	GD-B1524-32SL-XX	GD-B1528-23SL-XX
	200 / 260		GDU-B1528-30SL-XX	GDU-B1528-31SL-XX	GDT-B1528-42SL-XX	—
RECEPTACLE, TAPPED NPT 	30 / 32		GD-B1516-51SL-TC	GD-B1516-23SL-TC	—	GD-B1520-36SL-TC
	60 / 63		GD-B1520-61SL-TC	GD-B1520-40SL-TC	GD-B1520-56SL-TC	GD-B1524-29SL-TC
	100 / 125		GD-B1524-60SL-TC	GD-B1524-39SL-TC	GD-B1524-32SL-TC	GD-B1528-23SL-TC
	200 / 260		GDU-B1528-30SL-TC	GDU-B1528-31SL-TC	GDT-B1528-42SL-TC	—

Replace 'XX' with cable diameter code number from XP Starline Environmental Sealing chart
 Pre-wired lead length can be specified to suit application. Consult factory

CONNECTIVITY EXPLOSIONPROOF STARLINE



AF PART NUMBERS

PIN QUANTITY	PIN SIZE AWG (MM2) 'G' = WITH GROUND PIN	AMPS @ 250 VAC ¹		PLUG, ATTACHMENT 	PLUG, TAPPED CONDUIT 	RECEPTACLE, JUNCTION BOX 
						
10	#12 (4.0)	10.0	20	AF-D1016-681PL-XX	AF-D1016-681PL-TC	AF-B1716-681SL-FH
10	#12 G (4.0)	10.0	20	AF-D1016-676PL-XX	AF-D1016-676PL-TC	AF-B1716-676SL-FH
19	#12 G (4.0)	10.0	20	AF-D1016-612PL-XX	AF-D1016-612PL-TC	AF-B1716-612SL-FH
19	#12 (4.0)	10.0	20	AF-D1016-677PL-XX	AF-D1016-677PL-TC	AF-B1716-677SL-FH
19	#12 (4.0)	10.0 ¹	20	AF-D1020-676PL-XX	AF-D1020-676PL-TC	AF-B1720-676SL-FH
19	#12 G (4.0)	10.0 ¹	20	AF-D1020-688PL-XX	AF-D1020-688PL-TC	AF-B1720-688SL-FH
19	#16 (1.5)	6.5	15	AF-D1016-655PL-XX	AF-D1016-655PL-TC	AF-B1716-655SL-FH
20	#12 (4.0)	10.0	20	AF-D1020-632PL-XX	AF-D1020-632PL-TC	AF-B1720-632SL-FH
20	#12 G (4.0)	10.0	20	AF-D1020-687PL-XX	AF-D1020-687PL-TC	AF-B1720-687SL-FH
37	#12 (4.0)	10.0	20	AF-D1020-686PL-XX	AF-D1020-686PL-TC	AF-B1720-686SL-FH
37	#12 G (4.0)	10.0	20	AF-D1020-650PL-XX	AF-D1020-650PL-TC	AF-B1720-650SL-FH
37	#16 (1.5)	6.5	15	AF-D1016-621PL-XX	AF-D1016-621PL-TC	AF-B1716-621SL-FH
55	#18 (.75)	3.5	10	AF-D1016-640PL-XX	AF-D1016-640PL-TC	AF-B1716-640SL-FH
61	#18 (.75)	3.5	10	AF-D1016-633PL-XX	AF-D1016-633PL-TC	AF-B1716-633SL-FH
68	#16 (1.5)	6.5	15	AF-D1020-613PL-XX	AF-D1020-613PL-TC	AF-B1720-613SL-FH
100	#16 (1.5)	5.0	15	AF-D1024-613PL-XX	AF-D1024-613PL-TC	AF-B1724-613SL-BK

Replace 'XX' with cable diameter code number from XP Starline Environmental Sealing chart

Pre-wired lead length can be specified to suit application. Consult factory



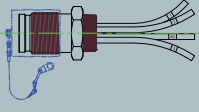
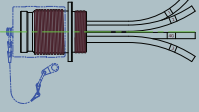
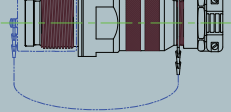
¹ = Insert is also rated 480 VAC non-circuit breaking.



CONNECTIVITY

EXPLOSIONPROOF STARLINE

AF PART NUMBERS

PIN QUANTITY	PIN SIZE AWG (MM ²) 'G' = WITH GROUND PIN	AMPS @ 250 VAC ¹		RECEPTACLE, NPT	RECEPTACLE, PANEL MOUNT	RECEPTACLE, ATTACHMENT
						
10	#12 (4.0)	10.0	20	AF-B1916-681SL-L48	AF-B1716-681SL-L36	AF-B1516-681SL-XX
10	#12 G (4.0)	10.0	20	AF-B1916-676SL-L48	AF-B1716-676SL-L36	AF-B1516-676SL-XX
19	#12 G (4.0)	10.0	20	AF-B1916-612SL-L48	AF-B1716-612SL-L36	AF-B1516-612SL-XX
19	#12 (4.0)	10.0	20	AF-B1916-677SL-L48	AF-B1716-677SL-L36	AF-B1516-677SL-XX
19	#12 (4.0)	10.0 ¹	20	AF-B1920-676SL-L48	AF-B1720-676SL-L36	AF-B1520-676SL-XX
19	#12 G (4.0)	10.0 ¹	20	AF-B1920-688SL-L48	AF-B1720-688SL-L36	AF-B1520-688SL-XX
19	#16 (1.5)	6.5	15	AF-B1916-655SL-L48	AF-B1716-655SL-L36	AF-B1516-655SL-XX
20	#12 (4.0)	10.0	20	AF-B1920-632SL-L48	AF-B1720-632SL-L36	AF-B1520-632SL-XX
20	#12 G (4.0)	10.0	20	AF-B1920-687SL-L48	AF-B1720-687SL-L36	AF-B1520-687SL-XX
37	#12 (4.0)	10.0	20	AF-B1920-686SL-L48	AF-B1720-686SL-L36	AF-B1520-686SL-XX
37	#12 G (4.0)	10.0	20	AF-B1920-650SL-L48	AF-B1720-650SL-L36	AF-B1520-650SL-XX
37	#16 (1.5)	6.5	15	AF-B1916-621SL-L48	AF-B1716-621SL-L36	AF-B1516-621SL-XX
55	#18 (.75)	3.5	10	AF-B1916-640SL-L48	AF-B1716-640SL-L36	AF-B1516-640SL-XX
61	#18 (.75)	3.5	10	AF-B1916-633SL-L48	AF-B1716-633SL-L36	AF-B1516-633SL-XX
68	#16 (1.5)	6.5	15	AF-B1920-613SL-L48	AF-B1720-613SL-L36	AF-B1520-613SL-XX
100	#16 (1.5)	5.0	15	AF-B1924-613SL-L48	AF-B1724-613SL-L36	AF-B1524-613SL-XX

Replace 'XX' with cable diameter code number from XP Starline Environmental Sealing chart

Pre-wired lead length can be specified to suit application. Consult factory

¹ = Insert is also rated 480 VAC non-circuit breaking.



SD PART NUMBERS

	AMPERES		2 POLE, 3 WIRE	3 POLE, 4 WIRE	3 POLE, 4 WIRE + 2 RELAY	4 POLE, 5 WIRE
	UL	Ex				
PLUG, ATTACHMENT 	30 / 32		SD-D1016-51PL-XX	SD-D1016-23PL-XX	—	SD-D1020-36PL-XX
	60 / 63		SD-D1020-61PL-XX	SD-D1020-40PL-XX	SD-D1020-56PL-XX	SD-D1024-29PL-XX
	100 / 125		SD-D1024-60PL-XX	SD-D1024-39PL-XX	SD-D1024-32PL-XX	SD-D1028-23PL-XX
	200 / 260		SDU-D1028-30PL-XX	SDU-D1028-31PL-XX	SDT-D1028-42PL-XX	—
PLUG, TAPPED NPT 	30 / 32		SD-D1016-51PL-TC	SD-D1016-23PL-TC	—	SD-D1020-36PL-TC
	60 / 63		SD-D1020-61PL-TC	SD-D1020-40PL-TC	SD-D1020-56PL-TC	SD-D1024-29PL-TC
	100 / 125		SD-D1024-60PL-TC	SD-D1024-39PL-TC	SD-D1024-32PL-TC	SD-D1028-23PL-TC
	200 / 260		SDU-D1028-30PL-TC	SDU-D1028-31PL-TC	SDT-D1028-42PL-TC	—
RECEPTACLE, JUNCTION BOX 	30 / 32		SD-B1716-51SL-FH	SD-B1716-23SL-FH	—	SD-B1720-36SL-FH
	60 / 63		SD-B1720-61SL-FH	SD-B1720-40SL-FH	SD-B1720-56SL-FH	SD-B1724-29SL-BK
	100 / 125		SD-B1724-60SL-BK	SD-B1724-39SL-BK	SD-B1724-32SL-BK	SD-B1728-23SL-BL
	200 / 260		SDU-B1728-30SL-BL	SDU-B1728-31SL-BL	SDT-B1728-42SL-BL	—
RECEPTACLE, NPT PANEL MOUNT 	30 / 32		SD-B1916-51SL-L48	SD-B1916-23SL-L48	—	SD-B1920-36SL-L48
	60 / 63		SD-B1920-61SL-L48	SD-B1920-40SL-L48	SD-B1920-56SL-L48	SD-B1924-29SL-L48
	100 / 125		SD-B1924-60SL-L48	SD-B1924-39SL-L48	SD-B1924-32SL-L48	SD-B1928-23SL-L48
	200 / 260		SDU-B1928-30SL-L48	SDU-B1928-31SL-L48	SDT-B1928-42SL-L48	—
RECEPTACLE, PANEL MOUNT 	30 / 32		SD-B1716-51SL-L36	SD-B1716-23SL-L36	—	SD-B1720-36SL-L36
	60 / 63		SD-B1720-61SL-L36	SD-B1720-40SL-L36	SD-B1720-56SL-L36	SD-B1724-29SL-L36
	100 / 125		SD-B1724-60SL-L36	SD-B1724-39SL-L36	SD-B1724-32SL-L36	SD-B1728-23SL-L36
	200 / 260		SDU-B1728-30SL-L36	SDU-B1728-31SL-L36	SDT-B1728-42SL-L36	—
RECEPTACLE, ATTACHMENT 	30 / 32		SD-B1516-51SL-XX	SD-B1516-23SL-XX	—	SD-B1520-36SL-XX
	60 / 63		SD-B1520-61SL-XX	SD-B1520-40SL-XX	SD-B1520-56SL-XX	SD-B1524-29SL-XX
	100 / 125		SD-B1524-60SL-XX	SD-B1524-39SL-XX	SD-B1524-32SL-XX	SD-B1528-23SL-XX
	200 / 260		SDU-B1528-30SL-XX	SDU-B1528-31SL-XX	SDT-B1528-42SL-XX	—
RECEPTACLE, TAPPED NPT 	30 / 32		SD-B1516-51SL-TC	SD-B1516-23SL-TC	—	SD-B1520-36SL-TC
	60 / 63		SD-B1520-61SL-TC	SD-B1520-40SL-TC	SD-B1520-56SL-TC	SD-B1524-29SL-TC
	100 / 125		SD-B1524-60SL-TC	SD-B1524-39SL-TC	SD-B1524-32SL-TC	SD-B1528-23SL-TC
	200 / 260		SDU-B1528-30SL-TC	SDU-B1528-31SL-TC	SDT-B1528-42SL-TC	—

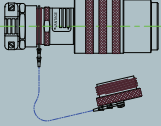
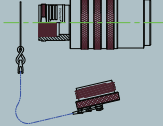



Replace 'XX' with cable diameter code number from XP Starline Environmental Sealing chart
Pre-wired lead length can be specified to suit application. Consult factory



CONNECTIVITY

EXPLOSIONPROOF STARLINE

SF PART NUMBERS

PIN QUANTITY	PIN SIZE AWG (MM ²) 'G' = WITH GROUND PIN	AMPS @ 250 VAC ¹		PLUG, ATTACHMENT 	PLUG, TAPPED CONDUIT 	RECEPTACLE, JUNCTION BOX 
						
10	#12 (4.0)	10.0	20	SF-D1016-681PL-XX	SF-D1016-681PL-TC	SF-B1716-681SL-FH
10	#12 G (4.0)	10.0	20	SF-D1016-676PL-XX	SF-D1016-676PL-TC	SF-B1716-676SL-FH
19	#12 G (4.0)	10.0	20	SF-D1016-612PL-XX	SF-D1016-612PL-TC	SF-B1716-612SL-FH
19	#12 (4.0)	10.0	20	SF-D1016-677PL-XX	SF-D1016-677PL-TC	SF-B1716-677SL-FH
19	#12 (4.0)	10.0 ¹	20	SF-D1020-676PL-XX	SF-D1020-676PL-TC	SF-B1720-676SL-FH
19	#12 G (4.0)	10.0 ¹	20	SF-D1020-688PL-XX	SF-D1020-688PL-TC	SF-B1720-688SL-FH
19	#16 (1.5)	6.5	15	SF-D1016-655PL-XX	SF-D1016-655PL-TC	SF-B1716-655SL-FH
20	#12 (4.0)	10.0	20	SF-D1020-632PL-XX	SF-D1020-632PL-TC	SF-B1720-632SL-FH
20	#12 G (4.0)	10.0	20	SF-D1020-687PL-XX	SF-D1020-687PL-TC	SF-B1720-687SL-FH
37	#12 (4.0)	10.0	20	SF-D1020-686PL-XX	SF-D1020-686PL-TC	SF-B1720-686SL-FH
37	#12 G (4.0)	10.0	20	SF-D1020-650PL-XX	SF-D1020-650PL-TC	SF-B1720-650SL-FH
37	#16 (1.5)	6.5	15	SF-D1016-621PL-XX	SF-D1016-621PL-TC	SF-B1716-621SL-FH
55	#18 (.75)	3.5	10	SF-D1016-640PL-XX	SF-D1016-640PL-TC	SF-B1716-640SL-FH
61	#18 (.75)	3.5	10	SF-D1016-633PL-XX	SF-D1016-633PL-TC	SF-B1716-633SL-FH
68	#16 (1.5)	6.5	15	SF-D1020-613PL-XX	SF-D1020-613PL-TC	SF-B1720-613SL-FH
100	#16 (1.5)	5.0	15	SF-D1024-613PL-XX	SF-D1024-613PL-TC	SF-B1724-613SL-BK

Replace 'XX' with cable diameter code number from XP Starline Environmental Sealing chart



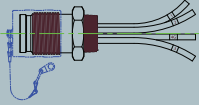
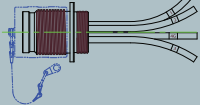
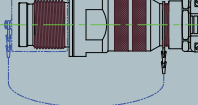
Pre-wired lead length can be specified to suit application. Consult factory

¹ = Insert is also rated 480 VAC non-circuit breaking.

CONNECTIVITY EXPLOSIONPROOF STARLINE



SF PART NUMBERS CONTINUED

PIN QUANTITY	PIN SIZE AWG (MM ²) 'G' = WITH GROUND PIN	AMPS @ 250 VAC ¹		RECEPTACLE, NPT	RECEPTACLE, PANEL MOUNT	RECEPTACLE, ATTACHMENT
						
10	#12 (4.0)	10.0	20	SF-B1916-681SL-L48	SF-B1716-681SL-L36	SF-B1516-681SL-XX
10	#12 G (4.0)	10.0	20	SF-B1916-676SL-L48	SF-B1716-676SL-L36	SF-B1516-676SL-XX
19	#12 G (4.0)	10.0	20	SF-B1916-612SL-L48	SF-B1716-612SL-L36	SF-B1516-612SL-XX
19	#12 (4.0)	10.0	20	SF-B1916-677SL-L48	SF-B1716-677SL-L36	SF-B1516-677SL-XX
19	#12 (4.0)	10.0 ¹	20	SF-B1920-676SL-L48	SF-B1720-676SL-L36	SF-B1520-676SL-XX
19	#12 G (4.0)	10.0 ¹	20	SF-B1920-688SL-L48	SF-B1720-688SL-L36	SF-B1520-688SL-XX
19	#16 (1.5)	6.5	15	SF-B1916-655SL-L48	SF-B1716-655SL-L36	SF-B1516-655SL-XX
20	#12 (4.0)	10.0	20	SF-B1920-632SL-L48	SF-B1720-632SL-L36	SF-B1520-632SL-XX
20	#12 G (4.0)	10.0	20	SF-B1920-687SL-L48	SF-B1720-687SL-L36	SF-B1520-687SL-XX
37	#12 (4.0)	10.0	20	SF-B1920-686SL-L48	SF-B1720-686SL-L36	SF-B1520-686SL-XX
37	#12 G (4.0)	10.0	20	SF-B1920-650SL-L48	SF-B1720-650SL-L36	SF-B1520-650SL-XX
37	#16 (1.5)	6.5	15	SF-B1916-621SL-L48	SF-B1716-621SL-L36	SF-B1516-621SL-XX
55	#18 (.75)	3.5	10	SF-B1916-640SL-L48	SF-B1716-640SL-L36	SF-B1516-640SL-XX
61	#18 (.75)	3.5	10	SF-B1916-633SL-L48	SF-B1716-633SL-L36	SF-B1516-633SL-XX
68	#16 (1.5)	6.5	15	SF-B1920-613SL-L48	SF-B1720-613SL-L36	SF-B1520-613SL-XX
100	#16 (1.5)	5.0	15	SF-B1924-613SL-L48	SF-B1724-613SL-L36	SF-B1524-613SL-XX

Replace 'XX' with cable diameter code number from XP Starline Environmental Sealing chart

Pre-wired lead length can be specified to suit application. Consult factory

¹' = Insert is also rated 480 VAC non-circuit breaking.

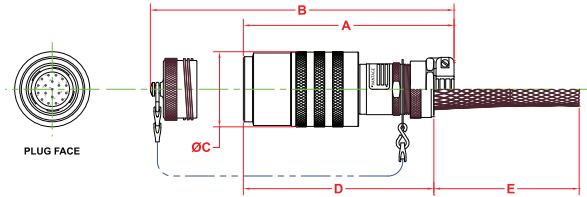


XP STARLINE DIMENSIONS

ATTACHMENT PLUG

	SHELL SIZE	A INCHES ±0.3 (MM ±8)	B INCHES ±0.3 (MM ±8)	C INCHES (MM)	D INCHES ±0.3 (MM ±8)	E INCHES (MM)	WEIGHT ¹ LBS (KG)
AF/SF GD/SD BM Stainless Steel Weight Factor 2.0	16	9.3 (236)	10.3 (262)	2.977 (75.6)	8.4 (213)	3.75 - 10.25 (95 - 260)	4.0 (1.8)
	20	10.0 (254)	11.0 (279)	3.577 (90.9)	9.0 (229)	5.75 - 14.25 (146 - 362)	5.2 (2.4)
	24	10.4 (264)	11.4 (290)	4.182 (106.2)	9.4 (239)	8.25 - 17.25 (210 - 438)	7.2 (3.3)
	28	10.9 (277)	11.9 (302)	4.814 (122.3)	9.8 (249)	13.75 - 19.75 (349 - 502)	9.1 (4.1)
GB/SB GDU/SDU Stainless Steel Weight Factor 2.0	16	10.3 (262)	11.3 (287)	2.977 (75.6)	9.4 (238)	3.75 - 10.25 (95 - 260)	3.9 (1.8)
	20	11.0 (279)	12.0 (305)	3.577 (90.9)	10.0 (254)	5.75 - 14.25 (146 - 362)	6.0 (2.7)
	24	11.4 (290)	12.4 (315)	4.182 (106.2)	10.4 (264)	8.25 - 17.25 (210 - 438)	8.4 (3.8)
	28	11.9 (302)	12.9 (328)	4.814 (122.3)	10.8 (274)	13.75 - 19.75 (349 - 502)	12.1 (5.5)

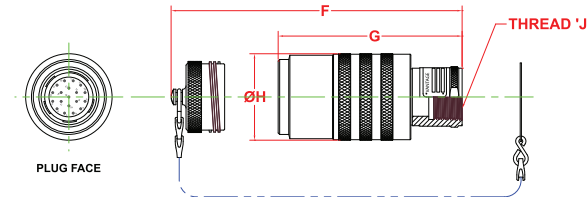
1. Weights provided for Victory Series (aluminum) with mechanical clamp configuration. Multiply by "Stainless Steel Weight Factor" to determine weight for Millennium Series (stainless steel).



NPT TAPPED PLUG

	SHELL SIZE	F INCHES (MM)	G INCHES (MM)	H INCHES (MM)	NPT THREAD 'J'	WEIGHT ¹ LBS (KG)	WEIGHT ¹ LBS (KG)
AF/SF GD/SD BM Stainless Steel Weight Factor 2.4	16	7.9 (200)	6.9 (175)	2.977 (75.6)	1 ¼ - 11 ½	2.9 (1.3)	4.0 (1.8)
	20	8.2 (208)	7.2 (183)	3.577 (90.9)	1 ½ - 11 ½	4.0 (1.8)	5.2 (2.4)
	24	8.4 (213)	7.4 (188)	4.182 (106.2)	2 - 11 ½	5.4 (2.5)	7.2 (3.3)
	28	8.8 (224)	7.8 (198)	4.814 (122.3)	2 ½ - 8	7.2 (3.3)	9.1 (4.1)
GB/SB GDU/SDU Stainless Steel Weight Factor 2.4	16	8.9 (226)	7.9 (201)	2.977 (75.6)	1 ¼ - 11 ½	3.4 (1.5)	3.9 (1.8)
	20	9.2 (234)	8.2 (208)	3.577 (90.9)	1 ½ - 11 ½	5.0 (2.3)	6.0 (2.7)
	24	9.4 (239)	8.4 (213)	4.182 (106.2)	2 - 11 ½	7.4 (3.4)	8.4 (3.8)
	28	9.8 (249)	8.8 (224)	4.814 (122.3)	2 ½ - 8	9.5 (4.3)	12.1 (5.5)

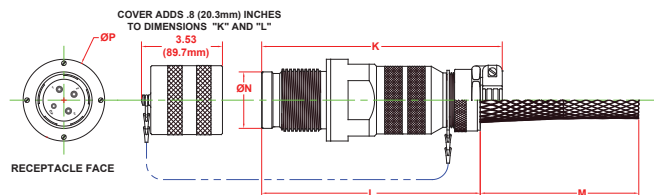
1. Weights provided for Victory Series (aluminum). Multiply by "Stainless Steel Weight Factor" to determine weight for Millennium Series (stainless steel).



ATTACHMENT RECEPTACLE

	SHELL SIZE	K INCHES ±0.3 (MM ±8)	L INCHES ±0.3 (MM ±8)	M INCHES (MM)	N INCHES (MM)	P INCHES (MM)	WEIGHT ¹ LBS (KG)
AF/SF GD/SD BM Stainless Steel Weight Factor 2.0	16	10.0 (254)	9.1 (231)	3.75 - 10.25 (95 - 260)	1.969 (50.1)	3.063 (77.8)	3.4 (1.5)
	20	10.7 (272)	9.7 (246)	5.75 - 14.25 (146 - 362)	2.469 (62.7)	3.563 (90.5)	4.7 (2.1)
	24	11.1 (282)	10.1 (257)	8.25 - 17.25 (210 - 438)	2.969 (75.4)	4.188 (106.4)	6.4 (2.9)
	28	11.4 (290)	10.3 (262)	13.75 - 19.75 (349 - 502)	3.469 (88.1)	4.688 (119.1)	8.1 (3.7)
GB/SB GDU/SDU Stainless Steel Weight Factor 2.0	16	11.0 (279)	10.1 (257)	3.75 - 10.25 (95 - 260)	1.969 (50.1)	3.063 (77.8)	3.6 (1.6)
	20	11.7 (297)	10.7 (272)	5.75 - 14.25 (146 - 362)	2.469 (62.7)	3.563 (90.5)	4.9 (2.2)
	24	12.1 (307)	11.1 (282)	8.25 - 17.25 (210 - 438)	2.969 (75.4)	4.188 (106.4)	6.7 (3.0)
	28	12.4 (315)	11.3 (287)	13.75 - 19.75 (349 - 502)	3.469 (88.1)	4.688 (119.1)	8.6 (3.9)

1. Weights provided for Victory Series (aluminum) with mechanical clamp configuration. Multiply by "Stainless Steel Weight Factor" to determine weight for Millennium Series (stainless steel).





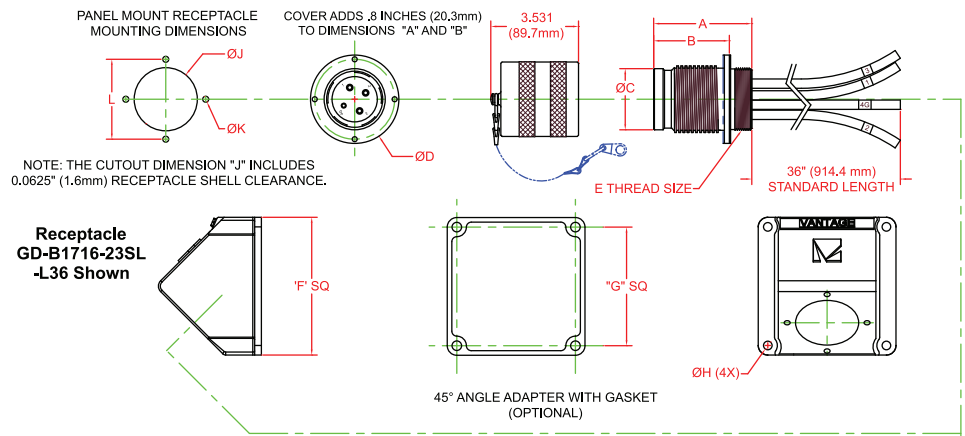
XP STARLINE DIMENSIONS

PANEL MOUNT RECEPTACLE

MOUNTING DIMENSIONS						
SHELL SIZE	F INCHES (MM)	G INCHES (MM)	H INCHES (MM)	J INCHES (MM)	K INCHES (MM)	L INCHES (MM)
16	4.5 (114.3)	3.875 (98.4)	0.284 (7.2)	2.063 (52.4)	0.195 (5.0)	2.610 (66.3)
20	4.5 (114.3)	3.875 (98.4)	0.284 (7.2)	2.563 (65.1)	0.195 (5.0)	3.110 (79.0)
24	8 (203.2)	7 (177.8)	0.534 (13.6)	3.063 (77.8)	0.195 (5.0)	3.735 (94.9)
28	8 (203.2)	7 (177.8)	0.534 (13.6)	3.563 (90.5)	0.195 (5.0)	4.235 (107.6)

	SHELL SIZE	A INCHES ¹ (MM)	B INCHES ¹ (MM)	C INCHES (MM)	D INCHES (MM)	THREAD 'E' G-16UN	WEIGHT ² LBS (KG)
AF/SF GD/SD BM Stainless Steel Weight Factor 2.0	16	4.063 (103.2)	3.063 (77.8)	1.969 (50.0)	3.063 (77.8)	2	3 (1.4)
	20	4.063 (103.2)	3.063 (77.8)	2.469 (62.7)	3.563 (90.5)	2 ½	4 (1.8)
	24	4.063 (103.2)	3.063 (77.8)	2.969 (75.4)	4.188 (106.4)	3 1/8	8 (3.6)
	28	4.063 (103.2)	3.063 (77.8)	3.469 (88.1)	4.688 (119.1)	3 5/8	13 (5.9)
GB/SB GDU/SDU Stainless Steel Weight Factor 2.0	16	5.063 (128.6)	4.063 (103.2)	1.969 (50.0)	3.063 (77.8)	2	3 (1.4)
	20	5.063 (128.6)	4.063 (103.2)	2.469 (62.7)	3.563 (90.5)	2 ½	5 (2.3)
	24	5.063 (128.6)	4.063 (103.2)	2.969 (75.4)	4.188 (106.4)	3 1/8	8 (3.6)
	28	5.063 (128.6)	4.063 (103.2)	3.469 (88.1)	4.688 (119.1)	3 5/8	14 (6.4)

1. Subtract 0.5 inches (12.7mm) from dimensions A and B for AF/SF style.
2. Weights provided for Victory Series (aluminum). Multiply by "Stainless Steel Weight Factor" to determine weight for Millennium Series (stainless steel).



ANGLE ADAPTER WITH GASKET	
CATALOG NUMBER	SHELL SIZE
VT-AF10-2516-12A	16
VT-AF10-2520-12A	20
VT-AF10-2524-12A	24
VT-AF10-2528-12A	28



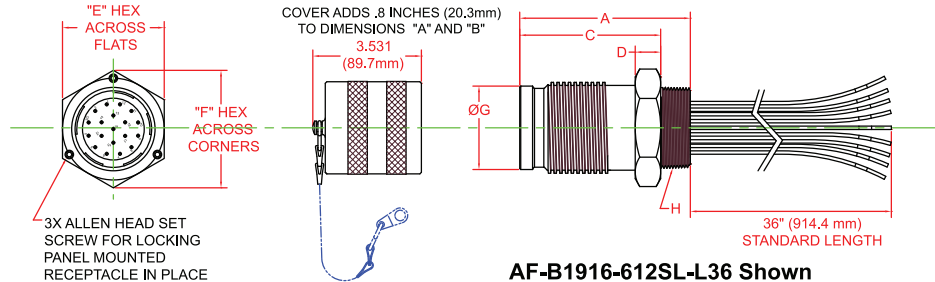
XP STARLINE DIMENSIONS

NPT MOUNT RECEPTACLE

MOUNTING DIMENSIONS						
SHELL SIZE	F INCHES (MM)	G INCHES (MM)	H INCHES (MM)	J INCHES (MM)	K INCHES (MM)	L INCHES (MM)
16	4.5 (114.3)	3.875 (98.4)	0.284 (7.2)	2.063 (52.4)	0.195 (5.0)	2.610 (66.3)
20	4.5 (114.3)	3.875 (98.4)	0.284 (7.2)	2.563 (65.1)	0.195 (5.0)	3.110 (79.0)
24	8 (203.2)	7 (177.8)	0.534 (13.6)	3.063 (77.8)	0.195 (5.0)	3.735 (94.9)
28	8 (203.2)	7 (177.8)	0.534 (13.6)	3.563 (90.5)	0.195 (5.0)	4.235 (107.6)

	SHELL SIZE	M INCHES (MM)	N INCHES (MM)	P INCHES' (MM)	Q INCHES' (MM)	NPT THREAD 'R'	S INCHES (MM)	WEIGHT LBS ² (KG)
AF/SF GD/SD BM Stainless Steel Weight Factor 2.0	16	2.5 (63.5)	2.875 (73.0)	4.5 (114.3)	3.656 (92.9)	1 ½ - 11 ½	1.969 (50.0)	3 (1.4)
	20	3 (76.2)	3.469 (88.1)	4.531 (115.1)	3.656 (92.9)	2 - 11 ½	2.469 (62.7)	5 (2.3)
	24	3.5 (88.9)	4.031 (102.4)	4.906 (124.6)	3.656 (92.9)	2 ½ - 8	2.969 (75.4)	8 (3.6)
	28	4 (101.6)	4.625 (117.5)	4.969 (126.2)	3.656 (92.9)	3 - 8	3.469 (88.1)	13 (5.9)
GB/SB GDU/SDU Stainless Steel Weight Factor 2.0	16	2.5 (63.5)	2.875 (73.0)	5 (127.0)	4.156 (105.6)	1 ½ - 11 ½	1.969 (50.0)	3 (1.4)
	20	3 (76.2)	3.469 (88.1)	5.031 (127.8)	4.156 (105.6)	2 - 11 ½	2.469 (62.7)	5 (2.3)
	24	3.5 (88.9)	4.031 (102.4)	5.406 (137.3)	4.156 (105.6)	2 ½ - 8	2.969 (75.4)	9 (4.1)
	28	4 (101.6)	4.625 (117.5)	5.469 (138.9)	4.156 (105.6)	3 - 8	3.469 (88.1)	14 (6.4)

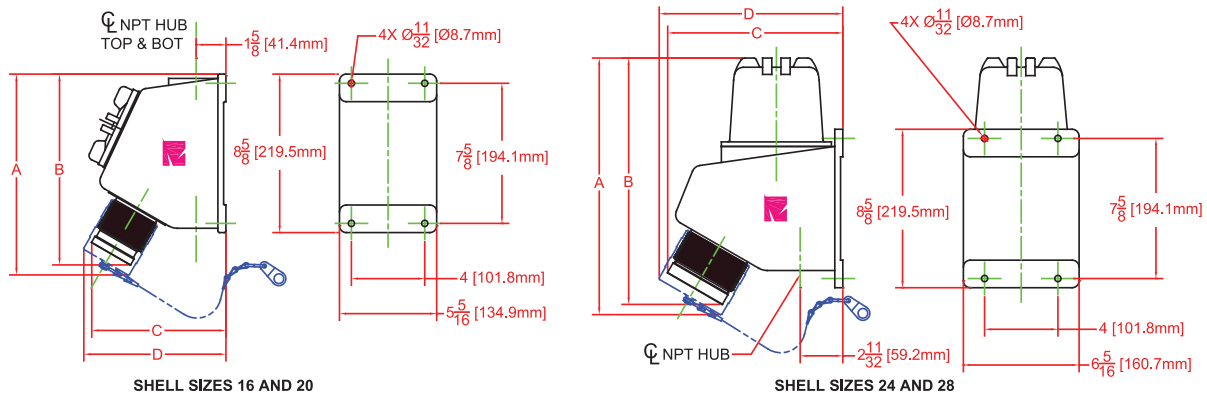
1. Subtract 0.5 inches (12.7mm) from dimensions P and Q for AF/SF style.
2. Weights provided for Victory Series (aluminum). Multiply by "Stainless Steel Weight Factor" to determine weight for Millennium Series (stainless steel).



JUNCTION BOX RECEPTACLE

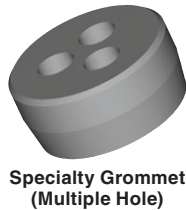
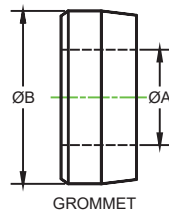
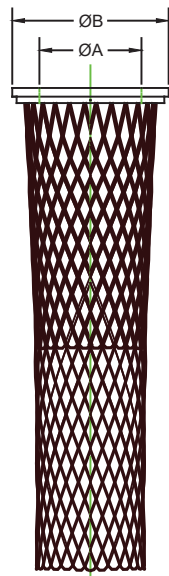
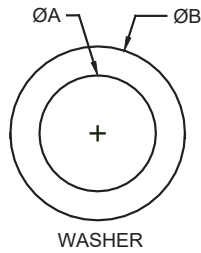
	SHELL SIZE	A INCHES (MM)	B INCHES (MM)	C INCHES (MM)	D INCHES (MM)	WEIGHT LBS ¹ (KG)
AF/SF GD/SD BM Stainless Steel Weight Factor 2.0	16	10.063 (255.6)	10.25 (260.4)	7.375 (187.3)	7.75 (196.9)	12.9 (5.9)
	20	10.063 (255.6)	10.25 (260.4)	7.375 (187.3)	7.75 (196.9)	13.7 (6.2)
	24	14.563 (370.0)	14 (355.6)	9.688 (246.1)	10.125 (257.2)	21.9 (9.9)
	28	14.563 (370.0)	14 (355.6)	9.688 (246.1)	10.125 (257.2)	22.8 (10.3)
GB/SB GDU/SDU Stainless Steel Weight Factor 2.0	16	11.563 (293.7)	11.125 (282.6)	7.875 (200.0)	8.25 (209.6)	13.0 (5.9)
	20	11.563 (293.7)	11.125 (282.6)	7.875 (200.0)	8.25 (209.6)	13.9 (6.3)
	24	15.438 (392.1)	14.875 (377.8)	10.188 (258.8)	10.625 (269.9)	22.5 (10.2)
	28	15.438 (392.1)	14.875 (377.8)	10.188 (258.8)	10.625 (269.9)	23.2 (10.5)

1. Weights provided for Victory Series (aluminum). Multiply by "Stainless Steel Weight Factor" to determine weight for Millennium Series (stainless steel).





XP STARLINE ENVIRONMENTAL SEALING



SHELL SIZE DIM B INCHES (MM)	CABLE DIAMETER DIMENSION A INCHES (MM)		CABLE DIAMETER CODE NUMBER*	GROMMET PART NUMBER	WASHER PART NUMBER	BASKET WEAVE GRIP PART NUMBER
	MIN.	MAX.				
16 1 23/32 (43.7)	.250 (6.35)	.375 (9.53)	06	VT-6316-6C	VT-8016-8E	VT-5016-6E VT-5016-8E
	.375 (9.53)	.500 (12.7)	08	VT-6316-8C		
	.500 (12.7)	.625 (15.9)	10	VT-6316-10C	VT-8016-12E	VT-5016-10E VT-5016-12E
	.625 (15.9)	.750 (19.1)	12	VT-6316-12C		
	.750 (19.1)	.875 (22.2)	14	VT-6316-14C	VT-8016-16E	VT-5016-14E VT-5016-16E
	.875 (22.2)	1.000 (25.4)	16	VT-6316-16C		
20 2 7/32 (56.4)	1.000 (25.4)	1.125 (28.6)	18	VT-6316-18C	VT-8016-20E	VT-5016-18E VT-5016-20E
	1.125 (28.6)	1.250 (31.8)	20	VT-6316-20C		
	1.250 (31.8)	1.375 (34.9)	22	VT-6316-22C	VT-8016-23E	VT-5016-22E VT-5016-23E
	1.375 (34.9)	1.437 (36.5)	23	VT-6316-23C		
	.500 (12.7)	.625 (15.9)	10	VT-6320-10C	VT-8020-12E	VT-5020-10E VT-5020-12E
	.625 (15.9)	.750 (19.1)	12	VT-6320-12C		
24 2 23/32 (69.1)	.750 (19.1)	.875 (22.2)	14	VT-6320-14C	VT-8020-16E	VT-5020-14E VT-5020-16E
	.875 (22.2)	1.000 (25.4)	16	VT-6320-16C		
	1.000 (25.4)	1.125 (28.6)	18	VT-6320-18C	VT-8020-20E	VT-5020-18E VT-5020-20E
	1.125 (28.6)	1.250 (31.8)	20	VT-6320-20C		
	1.250 (31.8)	1.375 (34.9)	22	VT-6320-22C	VT-8020-24E	VT-5020-22E VT-5020-24E
	1.375 (34.9)	1.500 (38.1)	24	VT-6320-24C		
28 3 5/32 (80.2)	1.500 (38.1)	1.625 (41.3)	26	VT-6320-26C	VT-8020-28E	VT-5020-26E VT-5020-28E
	1.625 (41.3)	1.750 (44.5)	28	VT-6320-28C		
	1.750 (44.5)	1.875 (47.6)	30	VT-6320-30C	VT-8020-31E	VT-5020-30E VT-5020-31E
	1.875 (47.6)	1.937 (49.2)	31	VT-6320-31C		
	.875 (22.2)	1.000 (25.4)	16	VT-6324-16C	VT-8024-16E	VT-5024-16E
	1.000 (25.4)	1.125 (28.6)	18	VT-6324-18C		
24 2 23/32 (69.1)	1.125 (28.6)	1.250 (31.8)	20	VT-6324-20C	VT-8024-20E	VT-5024-18E VT-5024-20E
	1.250 (31.8)	1.375 (34.9)	22	VT-6324-22C		
	1.375 (34.9)	1.500 (38.1)	24	VT-6324-24C	VT-8024-24E	VT-5024-22E VT-5024-24E
	1.500 (38.1)	1.625 (41.3)	26	VT-6324-26C		
	1.625 (41.3)	1.750 (44.5)	28	VT-6324-28C	VT-8024-28E	VT-5024-26E VT-5024-28E
	1.750 (44.5)	1.875 (47.6)	30	VT-6324-30C		
28 3 5/32 (80.2)	1.875 (47.6)	2.000 (50.8)	32	VT-6324-32C	VT-8024-32E	VT-5024-30E VT-5024-32E
	2.000 (50.8)	2.125 (54.0)	34	VT-6324-34C		
	2.125 (54.0)	2.250 (57.2)	36	VT-6324-36C	VT-8024-36E	VT-5024-34E VT-5024-36E
	2.250 (57.2)	2.375 (60.3)	38	VT-6324-38C		
	2.375 (60.3)	2.437 (61.9)	39	VT-6324-39C	VT-8024-39E	VT-5024-38E VT-5024-39E
	1.375 (34.9)	1.500 (38.1)	24	VT-6328-24C		
1.500 (38.1)	1.625 (41.3)	26	VT-6328-26C			
28 3 5/32 (80.2)	1.625 (41.3)	1.750 (44.5)	28	VT-6328-28C	VT-8028-28E	VT-5028-26E VT-5028-28E
	1.750 (44.5)	1.875 (47.6)	30	VT-6328-30C		
	1.875 (47.6)	2.000 (50.8)	32	VT-6328-32C	VT-8028-32E	VT-5028-30E VT-5028-32E
	2.000 (50.8)	2.125 (54.0)	34	VT-6328-34C		
	2.125 (54.0)	2.250 (57.2)	36	VT-6328-36C	VT-8028-36E	VT-5028-34E VT-5028-36E
	2.250 (57.2)	2.375 (60.3)	38	VT-6328-38C		
28 3 5/32 (80.2)	2.375 (60.3)	2.500 (63.5)	40	VT-6328-40C	VT-8028-40E	VT-5028-38E VT-5028-40E
	2.500 (63.5)	2.625 (66.7)	42	VT-6328-42C		
	2.625 (66.7)	2.750 (68.9)	44	VT-6328-44C	VT-8028-44E	VT-5028-42E VT-5028-44E
	2.750 (68.9)	2.875 (73.0)	46	VT-6328-46C		
	2.750 (68.9)	2.875 (73.0)	46	VT-6328-46C	VT-8028-46E	VT-5028-46E



CONNECTIVITY

EXPLOSIONPROOF STARLINE

TOOLING

Vantage offers a full line of tooling to assist in the termination and assembly of our attachment plugs and receptacles. The StarLine power connectors feature pressure termination and come with all required tooling. For StarLine control connectors, the AF/SF Series, installation requires using a full-cycle eight indent crimp tool. Please contact us for assistance in specifying your tooling needs.

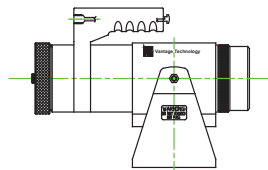
Crimp Tools



Pressure Termination for safe and reliable assembly in the field.



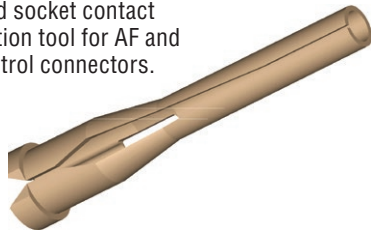
T-104-CT-K Crimp Tool Kit. Hand tool with accessories for contacts #18 through #10 (carrying case and tool inspection gage not shown).



T-105-HE, Pneumatic Crimp Tool. Available with dies, locators and inspection gages for #18 through #4/0 contacts. A foot control is also available. Operates on shop air and inert gas cylinders at 100 PSI.

Contact Extraction Tool

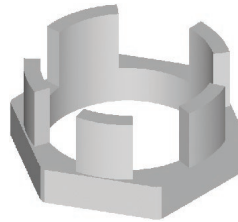
Pin and socket contact extraction tool for AF and SF control connectors.



CONTACT SIZE	EXTRACTION TOOL PART NUMBER
18	T-106-18
16	T-106-16
12	T-106-12
10	T-106-10

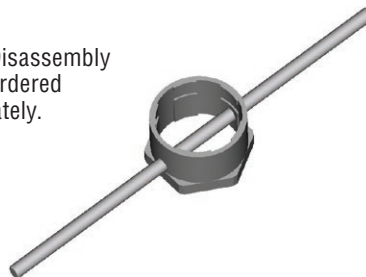
Assembly Tools

Plug Assembly Tool Furnished with plug.



SHELL SIZE	PART NUMBER	
	PLUG ASSEMBLY TOOL	PLUG DISASSEMBLY TOOL
16	T-101-16A	T-102-16R
20	T-101-20A	T-102-20R
24	T-101-24A	T-102-24R
28	T-101-28A	T-102-28R

Plug Disassembly Tool Ordered separately.



Cable Assemblies



Complete cable assemblies and receptacle distribution boxes are available incorporating Vantage Technology connectors. Please contact us regarding specification options.



XP STARLINE INSERT AND CONTACT FEATURES

Inserts

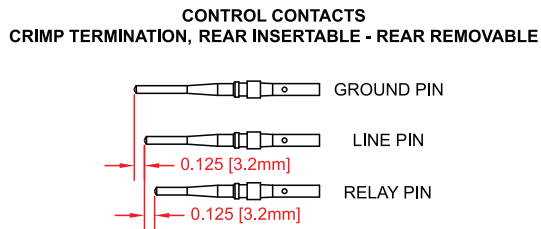
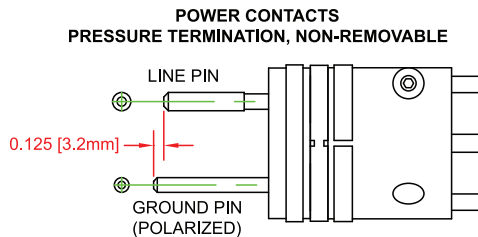
Vantage inserts come in power (30 thru 260A) and control (10 thru 100 contacts) versions. Within these power and control versions many options are available. See depictions of inserts for electrical ratings, certifications and available key positions. Inserts are designed for simplified field termination. Power inserts feature captive contacts that utilize pressure termination. Control inserts utilize crimp contacts that are rear insertable, rear removable. Consult factory for replacements.

Grounding

Power inserts feature ground contacts which provide shell grounding, polarization, and make-first, break last function. Many control inserts feature ground contacts which provide shell grounding and make-first, break last function.

Relay Circuits

Some inserts are available with a pair of relay contacts that are shorter than all other contacts to provide a time delay during breaking and making.



Plating Options

Control contacts come standard with silver plating. Gold plating is available for added corrosion resistance. The following plating options are available.

SYMBOL	FINISH
L	Silver
K	Gold over Silver
D	Gold over Nickel

Ferrules

Ferrules are designed to serve as a compression supporting member when an undersized wire is crimp terminated into a larger contact. Ferrules are gold plated.



PART NUMBER	CONTACT SIZE AWG (MM ²) PIN OR SOCKET		
	10 (6)	12 (4)	16 (1.5)
VT-70065-1012K	12		
VT-70065-1014K	14		
VT-70065-1016K	16		
VT-70065-1216K		16	
VT-70065-1218K		18	
VT-70065-1220K		20	
VT-70065-1620K			20
VT-70065-1622K			22

Example: To transition From #12 contact to #20 wire, use V-70065-1220K.

Thermocouple Contacts

AF / SF inserts with 16 AWG contacts can be ordered with thermocouple contacts.

Termination Information

All inserts are designed for simplified field termination. Control inserts require the use of Vantage crimp tools for safe and reliable circuits.

PART NUMBER/ GENDER	ISA SYMBOL	THERMOCOUPLE MATERIAL	ISA COLOR CODING			TEMPERATURE RANGE	
			(+)	(-)	JACKET	DEGREES CONTINUOUS	SHORT TIME
VT-4016-50MF / PIN	J	Iron (Magnetic)	White	Red	Black	0-1100° C	to 1100° C
VT-4116-50MF / SOCKET	J						
VT-4016-50NF / PIN	J	Constantan (Non-Magnetic)	Yellow	Red	Yellow	0-1100° C	to 1350° C
VT-4116-50NF / SOCKET	J						
VT-4016-50PO / PIN	K	Chromel (Non-Magnetic)	Yellow	Red	Yellow	0-1100° C	to 1350° C
VT-4116-50PO / SOCKET	K						
VT-4016-50RO / PIN	K	Alumel (Magnetic)	Yellow	Red	Yellow	0-1100° C	to 1350° C
VT-4116-50RO / SOCKET	K						



XP STARLINE INSERT CONFIGURATIONS

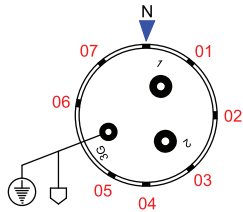
The **Vantage Inserts** presented in this section illustrate the contact configurations available in the StarLine series. Most inserts are available in alternate key positions to prevent the intermating of like configurations in your system. Power inserts (GD/SD) are designed with oversized contacts to maximize cooling. Wire size indicates maximize wire gauge that can be terminated to contact.

3 CONTACTS

Insert Reference

Pins: GD-16-51PL

Sockets: GD-16-51SL



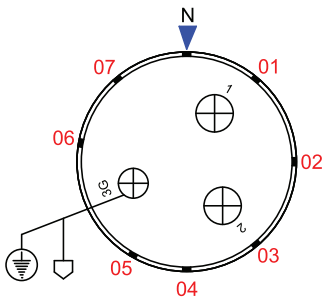
	CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
	3	4 (25)	8 (10)	16
	1000 VAC 50/60/400Hz Non-Circuit Breaking	32 AMP	KEY	
			POSITION	
	600 VAC 60/400Hz Circuit Breaking	30 AMP	N	0°
			01	40°
	480 VAC 60/400Hz Circuit Breaking	30 AMP	02	90°
			03	140°
			04	180°
			05	210°
			06	280°
			07	320°

3 CONTACTS

Insert Reference

Pins: GD-20-61PL

Sockets: GD-20-61SL



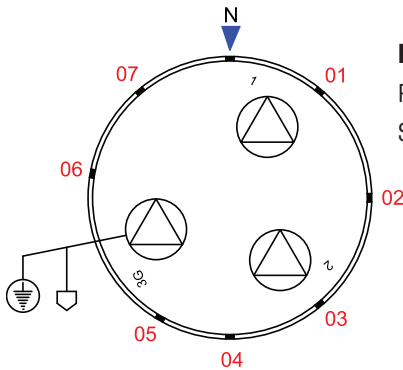
	CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
	3	1/0 (55)	4 (25)	20
	1000 VAC 50/60/400Hz Non-Circuit Breaking	63 AMP	KEY	
			POSITION	
	600 VAC 60/400Hz Circuit Breaking	60 AMP	N	0°
			01	40°
	480 VAC 60/400Hz Circuit Breaking	60 AMP	02	90°
			03	140°
			04	180°
			05	210°
			06	280°
			07	320°

3 CONTACTS

Insert Reference

Pins: GD-24-60PL

Sockets: GD-24-60SL



	CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
	3	4/0 (120)	1/0 (55)	24
	1000 VAC 50/60/400Hz Non-Circuit Breaking	125 AMP	KEY	
			POSITION	
	600 VAC 60/400Hz Circuit Breaking	100 AMP	N	0°
			01	40°
	480 VAC 60/400Hz Circuit Breaking	100 AMP	02	90°
			03	140°
			04	180°
			05	210°
			06	280°
			07	320°

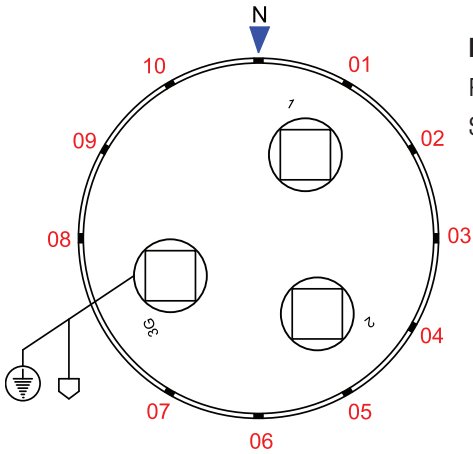
View Shown: Male insert (pins) from front of connector. The female insert (sockets) view is mirrored.

Symbol: Contact grounded to connector shell. Ground pins are longer to make first - break last.	CONTACT SYMBOLS	CONTACT SYMBOLS									
		CONTACT SIZE	AWG	18	16	12	10	8	4	1/0	4/0
PRESSURE CRIMP	CONTACT SIZE	AWG	18	16	12	10	8	4	1/0	4/0	350 MCM
	mm ²	0.75	1.5	4	6	10	25	55	120	185	
CRIMP	WIRE SIZE	AWG	18	16	12	10	8	8	4	1/0	4/0
	mm ²	0.75	1.5	4	6	10	10	25	55	120	



XP STARLINE INSERT CONFIGURATIONS

3 CONTACTS



Insert Reference

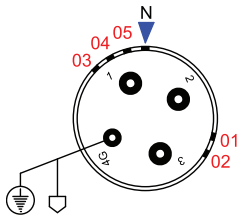
Pins: GD-28-30PL

Sockets: GD-28-30SL

CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
3	350 MCM (185)	4/0 (120)	28

KEY	POSITION
N	0°
01	40°
02	90°
03	140°
04	180°
05	210°
06	280°
07	320°
08	270°
09	300°
10	330°

4 CONTACTS



Insert Reference

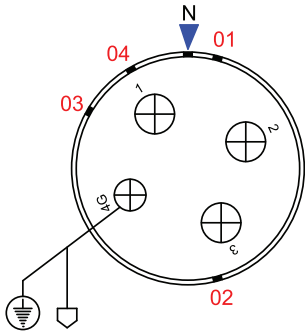
Pins: GD-16-23PL

Sockets: GD-16-23SL

CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
4	4 (25)	8 (10)	16

KEY	POSITION
N	0°
01	105°
02	120°
03	315°
04	330°
05	345°

4 CONTACTS



Insert Reference

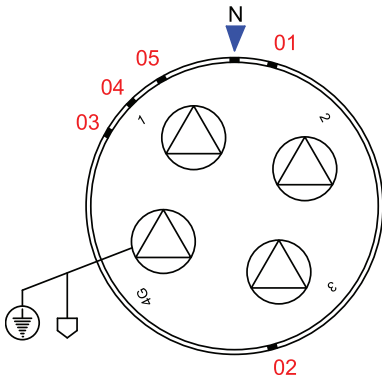
Pins: GD-20-40PL

Sockets: GD-20-40SL

CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
4	1/0 (55)	4 (25)	20

KEY	POSITION
N	0°
01	15°
02	165°
03	300°
04	330°

4 CONTACTS



Insert Reference

Pins: GD-24-39PL

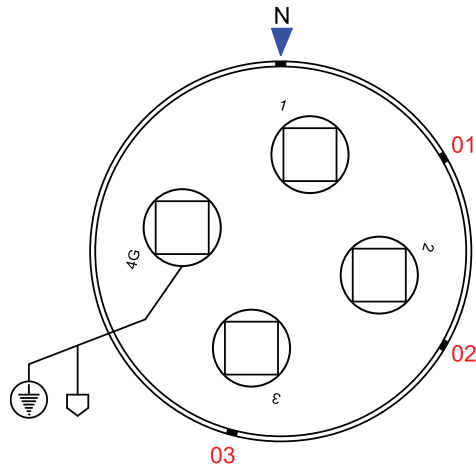
Sockets: GD-24-39SL

CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
4	4/0 (120)	1/0 (55)	24

KEY	POSITION
N	0°
01	15°
02	165°
03	300°
04	315°
05	330°



XP STARLINE INSERT CONFIGURATIONS



Insert Reference

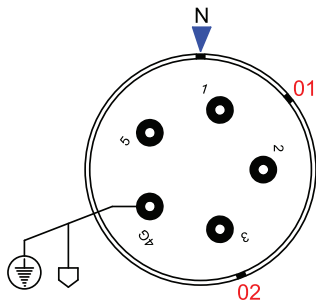
Pins: GDU-28-31PL
Sockets: GDU-28-31SL

4 CONTACTS

CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
4	350 MCM (185)	4/0 (120)	28

KEY	POSITION
N	0°
01	60°
02	120°
03	195°

	1000 VAC 50/60/400Hz Non-Circuit Breaking	260 AMP
	600 VAC 60/400Hz Circuit Breaking	200 AMP
	480 VAC 60/400Hz Circuit Breaking	200 AMP



Insert Reference

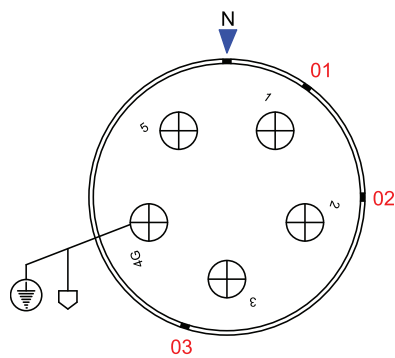
Pins: GD-20-36PL
Sockets: GD-20-36SL

5 CONTACTS

CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
5	4 (25)	8 (10)	20

KEY	POSITION
N	0°
01	51°
02	159°

	1000 VAC 50/60/400Hz Non-Circuit Breaking	32 AMP
	600 VAC 60/400Hz Circuit Breaking	30 AMP
	480 VAC 60/400Hz Circuit Breaking	30 AMP



Insert Reference

Pins: GD-24-29PL
Sockets: GD-24-29SL

5 CONTACTS

CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
5	1/0 (55)	4 (25)	24

KEY	POSITION
N	0°
01	36°
02	90°
03	198°

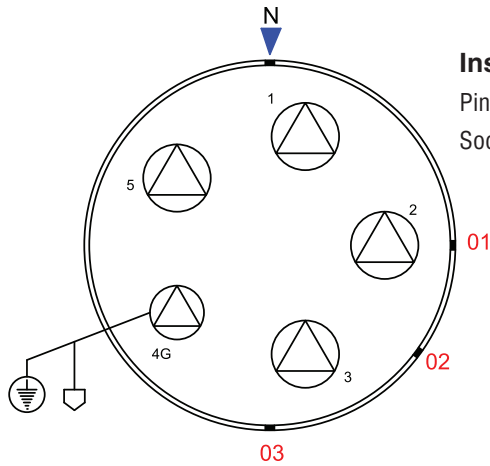
	1000 VAC 50/60/400Hz Non-Circuit Breaking	63 AMP
	600 VAC 60/400Hz Circuit Breaking	60 AMP
	480 VAC 60/400Hz Circuit Breaking	60 AMP

View Shown: Male insert (pins) from front of connector. The female insert (sockets) view is mirrored.

CONTACT SYMBOLS	CONTACT SIZE	AWG	18	16	12	10	8	4	1/0	4/0	350 MCM
		mm ²	0.75	1.5	4	6	10	25	55	120	185
CONTACT SYMBOLS	WIRE SIZE	AWG	18	16	12	10	8	8	4	1/0	4/0
		mm ²	0.75	1.5	4	6	10	10	25	55	120



XP STARLINE INSERT CONFIGURATIONS



Insert Reference

Pins: GD-28-23PL

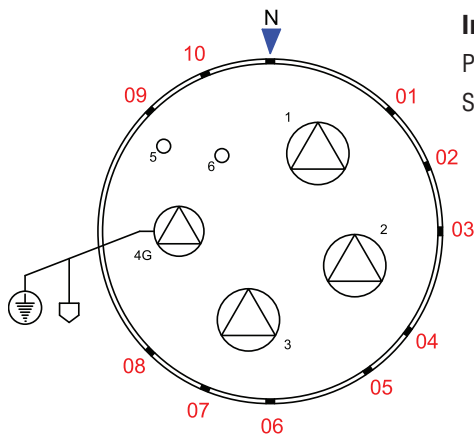
Sockets: GD-28-23SL

5 CONTACTS

CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
5	4/0 (120)	1/0 (55)	28

KEY	POSITION
N	0°
01	90°
02	126°
03	180°

	1000 VAC 50/60/400Hz Non-Circuit Breaking	125 AMP
	600 VAC 60/400Hz Circuit Breaking	100 AMP
	480 VAC 60/400Hz Circuit Breaking	100 AMP



Insert Reference

Pins: GD-28-42PL

Sockets: GD-28-42SL

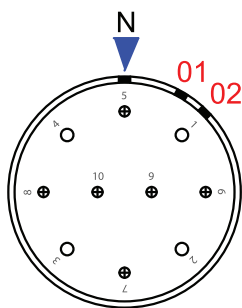
6 CONTACTS

CONTACT QUANTITY	CONTACT AWG (MM ²)	WIRE AWG (MM ²)	SHELL SIZE
4 2	4/0 (120) 10 (6)	4/0 (120) 10 (6)	28

KEY	POSITION
N	0°
01	45°
02	67.5°
03	90°
04	126°
05	145°
06	180°
07	202.5°
08	225°
09	315°
10	337.5°

	1000 VAC 50/60/400Hz Non-Circuit Breaking	260 AMP
	600 VAC 60/400Hz Circuit Breaking	200 AMP
	480 VAC 60/400Hz Circuit Breaking	200 AMP

NOTE: Relay pins 5 & 6 are shorter to make last / break first



Insert Reference

Pins: VT-16-681PL

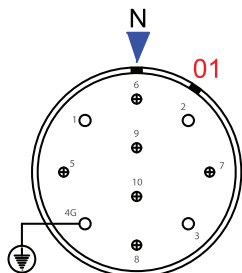
Sockets: VT-16-681SL

10 CONTACTS

CONTACT QUANTITY	CONTACT AWG (MM ²)	SHELL SIZE
6 4	12 (4.0) 10 (6.0)	16

KEY	POSITION
N	0°
01	30°
02	45°

	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	20/30 AMP
	250 VAC 60Hz Circuit Breaking	10 AMP



Insert Reference

Pins: VT-16-676PL

Sockets: VT-16-676SL

10 CONTACTS

CONTACT QUANTITY	CONTACT AWG (MM ²)	SHELL SIZE
6 4	12 (4.0) 10 (6.0)	16

KEY	POSITION
N	0°
01	35°

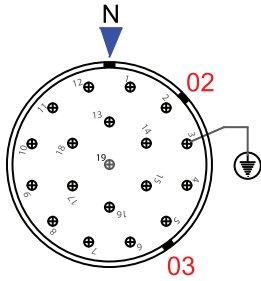
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	20/30 AMP
	250 VAC 60Hz Circuit Breaking	10 AMP



CONNECTIVITY

EXPLOSIONPROOF STARLINE

XP STARLINE INSERT CONFIGURATIONS



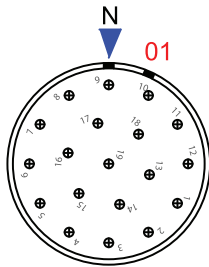
Insert Reference

Pins: VT-16-612PL

Sockets: VT-16-612SL

19 CONTACTS

CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
19		12 (4)	16	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	20 AMP	KEY	POSITION
			N	0°
	250 VAC 60Hz Circuit Breaking	10 AMP	02	48°
			03	144°



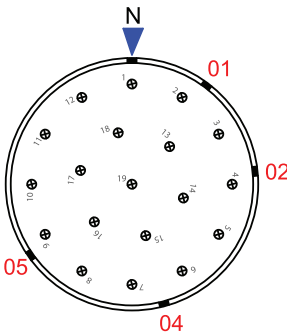
Insert Reference

Pins: VT-16-677PL

Sockets: VT-16-677SL

19 CONTACTS

CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
19		12 (4)	16	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	20 AMP	KEY	POSITION
			N	0°
	250 VAC 60Hz Circuit Breaking	10 AMP	01	24°



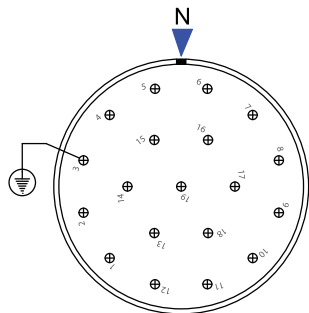
Insert Reference

Pins: VT-20-676PL

Sockets: VT-20-676SL

19 CONTACTS

CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
19		12 (4)	20	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	20 AMP	KEY	POSITION
			N	0°
	480 VAC Non-Circuit Breaking 250 VAC Circuit Breaking 60Hz	10 AMP	01	37°
			02	84°
			04	165°
			05	235°



Insert Reference

Pins: VT-20-688PL

Sockets: VT-20-688SL

19 CONTACTS

CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
19		12 (4)	20	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	20 AMP	KEY	POSITION
			N	0°
	480 VAC Non-Circuit Breaking 250 VAC Circuit Breaking 60Hz	10 AMP		

View Shown: Male insert (pins) from front of connector. The female insert (sockets) view is mirrored.

Symbol: Contact grounded to connector shell. Ground pins are longer to make first - break last.	 PRESSURE CRIMP	CONTACT SYMBOLS		○	●	⊕	○	⦿	●	⊕	△	□
		CONTACT SIZE	AWG	18	16	12	10	8	4	1/0	4/0	350 MCM
		mm ²	0.75	1.5	4	6	10	25	55	120	185	
		WIRE SIZE	AWG	18	16	12	10	8	8	4	1/0	4/0
		mm ²	0.75	1.5	4	6	10	10	25	55	120	



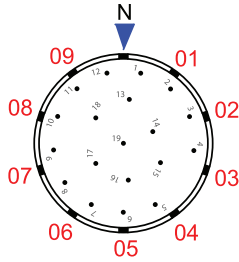
XP STARLINE INSERT CONFIGURATIONS

19 CONTACTS

Insert Reference

Pins: VT-16-655PL

Sockets: VT-16-655SL



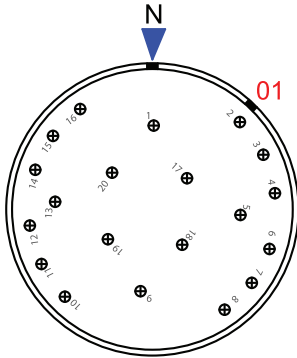
CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
19		16 (1.5)	16	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	15 AMP	KEY	POSITION
			N	0°
	250 VAC 60Hz Circuit Breaking	6.5 AMP	01	36°
			02	72°
			03	108°
			04	144°
			05	180°
			06	216°
			07	252°
			08	288°
			09	324°

20 CONTACTS

Insert Reference

Pins: VT-20-632PL

Sockets: VT-16-632SL



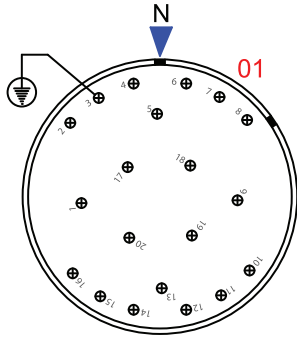
CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
20		12 (4)	20	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	20 AMP	KEY	POSITION
			N	0°
	250 VAC 60Hz Circuit Breaking	10 AMP	01	42.5°

20 CONTACTS

Insert Reference

Pins: VT-20-687PL

Sockets: VT-20-687SL



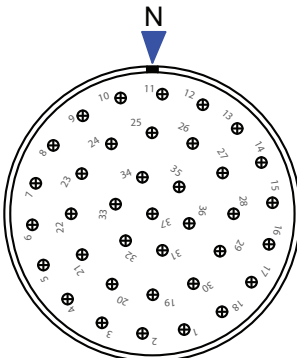
CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
19		12 (4)	20	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	20 AMP	KEY	POSITION
			N	0°
	250 VAC 60Hz Circuit Breaking	10 AMP	01	56°

37 CONTACTS

Insert Reference

Pins: VT-20-686PL

Sockets: VT-20-686SL



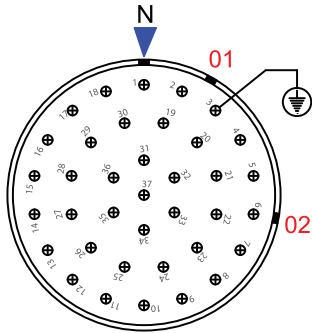
CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
37		12 (4)	20	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	20 AMP	KEY	POSITION
			N	0°
	250 VAC 60Hz Circuit Breaking	10 AMP		



CONNECTIVITY

EXPLOSIONPROOF STARLINE

XP STARLINE INSERT CONFIGURATIONS



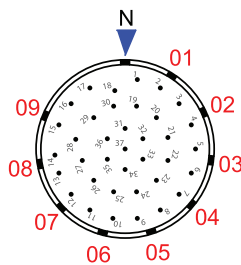
Insert Reference

Pins: VT-20-650PL

Sockets: VT-20-650SL

37 CONTACTS

CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
37		12 (4)	20	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	20 AMP	KEY	POSITION
	N	0°	01	30°
	250 VAC 60Hz Circuit Breaking	10 AMP	02	100°



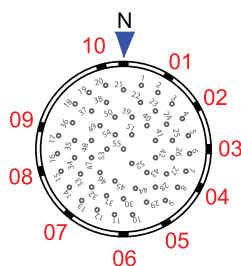
Insert Reference

Pins: VT-16-621PL

Sockets: VT-16-621SL

37 CONTACTS

CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
37		16 (1.5)	16	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	15 AMP	KEY	POSITION
	N	0°	01	32.5°
	250 VAC 60Hz Circuit Breaking	6.5 AMP	02	65°
			03	97.5°
			04	130°
			05	162.5°
			06	195°
			07	227.5°
			08	260°
			09	292.5°



Insert Reference

Pins: VT-16-640PL

Sockets: VT-16-640SL

55 CONTACTS

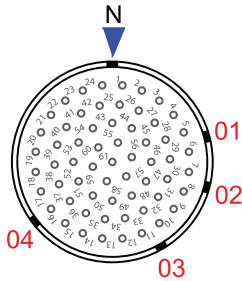
CONTACT QUANTITY		CONTACT AWG (MM ²)	SHELL SIZE	
55		18 (0.75)	16	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	10 AMP	KEY	POSITION
	N	0°	01	32°
	250 VAC 60Hz Circuit Breaking	3.5 AMP	02	60°
			03	90°
			04	117°
			05	150°
			06	180°
			07	220°
			08	255°
			09	285°
			10	345°

View Shown: Male insert (pins) from front of connector. The female insert (sockets) view is mirrored.

Symbol: Contact grounded to connector shell. Ground pins are longer to make first - break last.	PRESSURE CRIMP	CONTACT SYMBOLS		○	●	⊕	○	⊙	●	⊕	△	□
		CONTACT SIZE	AWG	18	16	12	10	8	4	1/0	4/0	350 MCM
		mm ²	0.75	1.5	4	6	10	25	55	120	185	
		WIRE SIZE	AWG	18	16	12	10	8	8	4	1/0	4/0
		mm ²	0.75	1.5	4	6	10	10	25	55	120	



XP STARLINE INSERT CONFIGURATIONS



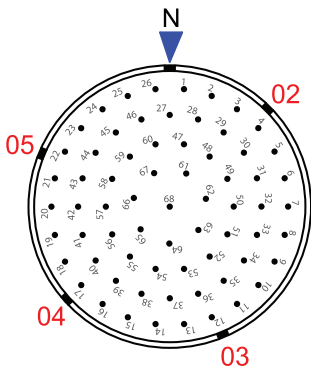
Insert Reference

Pins: VT-16-633PL

Sockets: VT-16-633SL

61 CONTACTS

	CONTACT QUANTITY	CONTACT AWG (MM ²)	SHELL SIZE	
	61	18 (0.75)	16	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	10 AMP	KEY	POSITION
			N	0°
	250 VAC 60Hz Circuit Breaking	3.5 AMP	01	75°
			02	105°
			03	150°
			04	232.5°



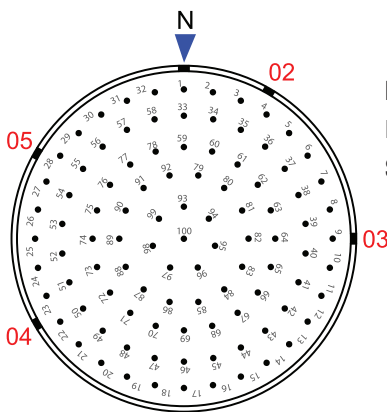
Insert Reference

Pins: VT-20-613PL

Sockets: VT-20-613SL

68 CONTACTS

	CONTACT QUANTITY	CONTACT AWG (MM ²)	SHELL SIZE	
	68	16 (1.5)	20	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	15 AMP	KEY	POSITION
			N	0°
	250 VAC 60Hz Circuit Breaking	6.5 AMP	02	45°
			03	157.5°
			04	228°
			05	292.5°



Insert Reference

Pins: VT-24-613PL

Sockets: VT-24-613SL

100 CONTACTS

	CONTACT QUANTITY	CONTACT AWG (MM ²)	SHELL SIZE	
	100	16 (1.5)	24	
	250 VAC 50/60/400Hz 125 VDC Non-Circuit Breaking	15 AMP	KEY	POSITION
			N	0°
	250 VAC 60Hz Circuit Breaking	5.0 AMP	02	30°
			03	90°
			04	240°
			05	300°

View Shown: Male insert (pins) from front of connector. The female insert (sockets) view is mirrored.

Symbol: Contact grounded to connector shell. Ground pins are longer to make first - break last.	PRESSURE CRIMP	CONTACT SYMBOLS		○	●	⊕	○	⊙	●	⊕	△	□
		CONTACT SIZE	AWG	18	16	12	10	8	4	1/0	4/0	350 MCM
		mm ²	0.75	1.5	4	6	10	25	55	120	185	
		WIRE SIZE	AWG	18	16	12	10	8	8	4	1/0	4/0
		mm ²	0.75	1.5	4	6	10	10	25	55	120	



CONNECTIVITY
VERSAMATE® SERIES

EXCLUSIVE FEATURES & GROUNDING METHODS

- Exclusive “Breech-Lock” cap serves as either flip lid or screw cover

- Type 3R Rating: When receptacle cap is snapped shut
- Type 4X Rating: When receptacle cap is turned shut or with VersaMate® plug inserted and ring tightened

- Allen/Slot type box terminals provide secure clamping of conductors

- Special notch is designed to hold cap open for easy field service or plug insertion with **two** free hands

- Exclusive O-ring seals

- Custom pin design using slotted spring clip to provide superior contact and reliability

- Funneled wiring chamber design for fast and accurate conductor insertion to speed assembly. All wires can be inserted at **one time**

- Exclusive O-ring seals

- Allen/Slot type box terminals provide secure clamping of conductors

- Body style with octagonal shape for easy grip

- Exclusive neoprene “Onion Skin” peel-away type gasket for the ultimate in sealing a variety of cable sizes

- Smooth shoulder contour prevents snags and hang ups

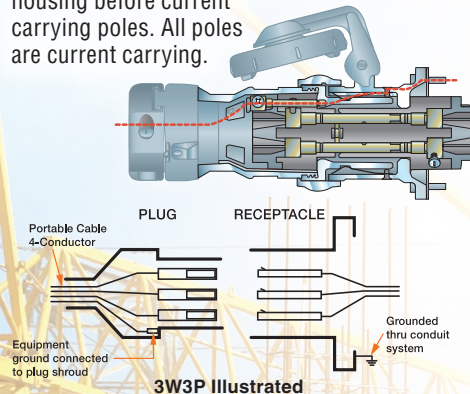
- The VersaMate® Cable clamp system captures cable with four grip points using only two tightening screws. Provides secure grip without damaging the cable insulation

Grounding:

To minimize the danger of electrical shock when utilizing portable equipment, the National Electrical Code requires exposed metal parts be grounded if operated at more than 150 volts to ground. The VersaMate® plug and receptacle system is available in two grounding styles. Please note Style I and II devices cannot be intermated.

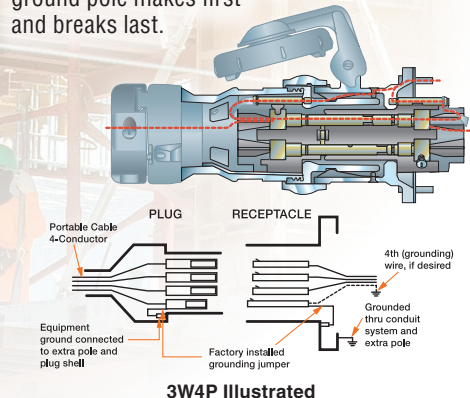
Style I

In a Style I plug, the cable’s ground conductor is bonded to the plug housing by means of solderless connector. The receptacle is grounded by being part of a grounded conduit system. Upon insertion, detent springs in the receptacle housing contact and ground the plug housing before current carrying poles. All poles are current carrying.





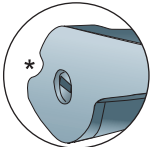
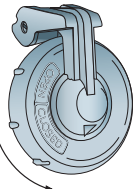
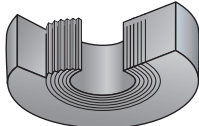





















Style II

In a Style II plug, the cable’s ground conductor is bonded to the extra grounding pole and to the plug housing via a bonding jumper. The receptacle has a matching grounding pole connected to the system ground conductor which is further tied to the grounded conduit system via a bonding jumper. Upon insertion, detent springs in the receptacle housing contact and ground the plug housing; then the extra long ground pole connects before the current carrying poles engage. The Style II ground pole makes first and breaks last.





FEATURES / COMPARISONS

KILLARK BRAND		RECEPTACLE/CONNECTOR PIN CONFIGURATION						
TERMINALS		STYLE 1		STYLE 2				
								
New Allen/slot terminal screws do not contact or machine conductor. Allows higher torque values typical in the oil industry.								
CAP								
								
"Breach-Lock" design serves as both flip lid or screw cover style. Special notch in lid arm holds cover open to ease plug insertion or maintenance. *Slip pencil or screwdriver into notch.								
GASKET								
	Exclusive "Onion Skin" style gasket assures a tight seal around cable. Skin layers are removed from a single gasket to adjust for various cable diameters.							
		AMPS	POLES AND WIRES	RECEPTACLE/CONNECTOR CONFIGURATION	AMPS	POLES AND WIRES	RECEPTACLE/CONNECTOR CONFIGURATION	
		30	2W2P		30	2W3P		
			3W3P			3W4P		
			4W4P			60	2W3P	
		60	2W2P		3W4P			
			3W3P		100		2W3P	
		100	4W4P			100	3W4P	
			2W2P		150A		3W4P	
			3W3P		200		2W3P	
		4W4P		3W4P				
		150A	4W4P					
		200	3W3P					
			4W4P					

REVERSE SERVICE: S39

Add suffix **S39** for factory Reverse Service of receptacles, plugs or connectors. Receptacles or connectors are assembled with plug interiors while plugs are assembled with receptacle interiors. For applications where the plug is energized (i.e. from a generator) to feed a non-energized receptacle. Prevents easy contact with energized exposed pins. This conversion can be performed in the field with a complementary plug and receptacle. 200A Amp devices are a factory-only option. Reverse service is not for hazardous locations.

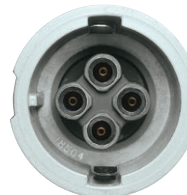


Typical Application

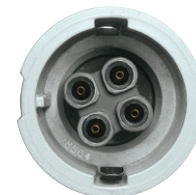
POLARIZED OPTION: S37

Add suffix **S37** for special polarity.

Can prevent connection between mismatched voltages or frequencies in areas where devices of the same amperage, poles and grounding style are used. Receptacle or connector interiors are rotated 22-1/2° to the right; plug is rotated opposite to match. This is a factory only option.



Standard



S37 Option



CONNECTIVITY VERSAMATE® SERIES

INTRODUCTION • NEMA 4X METALLIC

NEMA 4X VersaMATE®



VR/VP

Compliant to UL1686-C1
Type 3, 4, 4X

FEATURES-SPECIFICATIONS

Features

- UL 1686-C1 Intermateable with similar competitive products, including classified for use with Crouse-Hinds® Arktite® and Appleton® Powertite® devices.
- Receptacle bolt hole patterns match competitive back boxes for ease of installation.
- Octagonal body for sure grip.
- Breech-Lock cap on receptacles and in-line connectors serves as combination flip lid and screw cover.
- Back boxes available in straight and angled configurations.
- Angle Adapter (60-200A) suitable for installation on sheet metal enclosures.
- 60A Receptacles fit on 100A Angled Adapter.

Materials

- Copper-free aluminum construction with electrostatically applied epoxy/polyester finish.
- Contacts are brass with a patented beryllium copper spring tensioner.
- External screws are 316 stainless steel.

Electrical Ratings

- Amperage = 30/60/100/150/200A
- Voltage = 600VAC / 250VDC
- Frequency = 50/60/400Hz

Arktite® is a registered trademark of Crouse-Hinds®.

Powertite® is a registered trademark of Appleton Electric Company®.



30A SELECTION INFORMATION



**30 Amp 600VAC/250VDC; 50-400 Hertz
Type 3, 4, 4X**

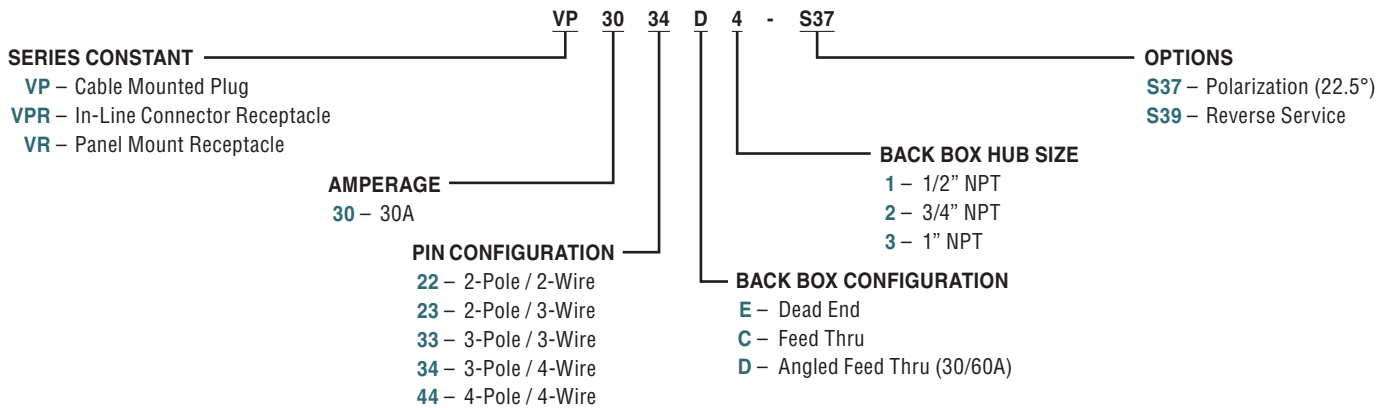
Wire Range

Regular Stranding: #10 - #6 original style or "AT" type (Includes Type P marine)
Extra flex: #10 - #8 original style or "AT" type

UL File No. E10757

CS Certified File No. 1103268 (30A)

VP/VPR/VR PLUGS



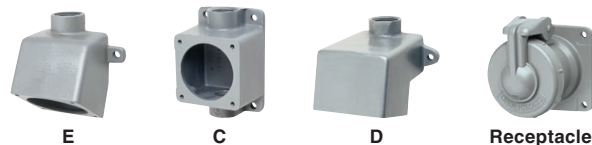
30 AMP PLUGS & CONNECTORS

GROUND STYLE	CIRCUIT	GROMMET RANGE	CATALOG NUMBER	
			PLUG	CONNECTOR
Style I	2W2P	.55 - 1.20 IN	VP3022	VPR3022
	3W3P	.55 - 1.20 IN	VP3033	VPR3033
	4W4P	.55 - 1.20 IN	VP3044	VPR3044
Style II	2W3P	.55 - 1.20 IN	VP3023	VPR3023
	3W4P	.55 - 1.20 IN	VP3034	VPR3034

30 AMP RECEPTACLES & BACK BOXES

GROUND STYLE	CIRCUIT	CATALOG NUMBER			
		E① TYPE DEAD END	C① TYPE FEED THRU	D① TYPE ANGLED FEED THRU	RECEPTACLE ONLY
Style I	2W2P	VR3022E2	VR3022C2	VR3022D2	VR3022
	3W3P	VR3033E2	VR3033C2	VR3033D2	VR3033
	4W4P	VR3044E2	VR3044C2	VR3044D2	VR3044
Style II	2W3P	VR3023E2	VR3023C2	VR3023D2	VR3023
	3W4P	VR3034E2	VR3034C2	VR3034D2	VR3034
Splice box only①		VRE23	VRC23	VRD23	-

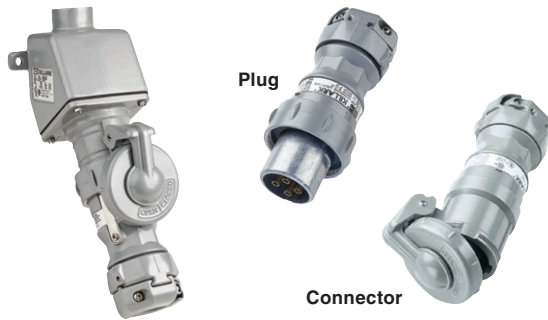
① 30 Amp Back Boxes are available in 1/2", 3/4" and 1" conduit sizes. Size listed for 3/4". For other available sizes, change the BOLD "2" in either the assembly or box only number to: **1**=1/2", **2**=3/4", **3**=1". Assembly catalog numbers are listed for ease of ordering or specification and devices are shipped as components.





CONNECTIVITY
VERSAMATE® SERIES

60A SELECTION INFORMATION



Plug

Connector

**60 Amp 600VAC/250VDC; 50-400 Hertz
Type 3, 4, 4X**

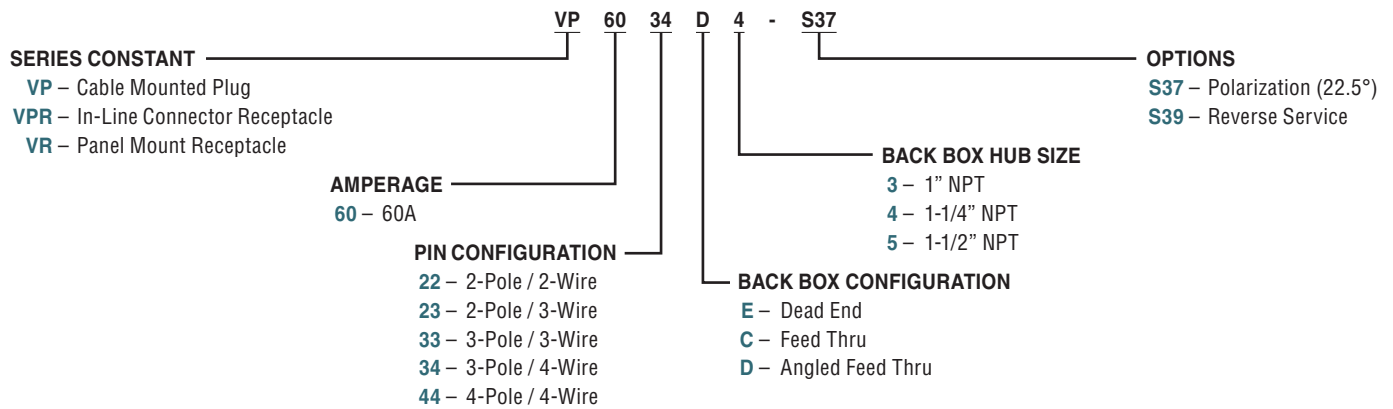
Wire Range

Regular Stranding: #6 - #2 original style or "AT" type (Includes Type P marine)
Extra flex: #6 - #4 original style or "AT" type

File No. E10757

Certified File No. 1103258 (60A)

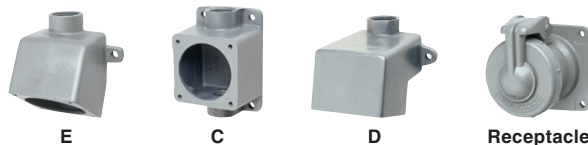
VP/VPR/VR PLUGS



60 AMP PLUGS & CONNECTORS				
GROUND STYLE	CIRCUIT	GROMMET RANGE	CATALOG NUMBER	
			PLUG	CONNECTOR
Style I	2W2P	.65 - 1.50 IN	VP6022	VPR6022
	3W3P	.65 - 1.50 IN	VP6033	VPR6033
	4W4P	.65 - 1.50 IN	VP6044	VPR6044
Style II	2W3P	.65 - 1.50 IN	VP6023	VPR6023
	3W4P	.65 - 1.50 IN	VP6034	VPR6034

60 AMP RECEPTACLES & BACK BOXES					
GROUND STYLE	CIRCUIT	CATALOG NUMBER			
		Eⓐ TYPE DEAD END	Cⓐ TYPE FEED THRU	Dⓐ TYPE ANGLED FEED THRU	RECEPTACLE ONLY
Style I	2W2P	VR6022E 4	VR6022C 4	VR6022D 4	VR6022
	3W3P	VR6033E 4	VR6033C 4	VR6033D 4	VR6033
	4W4P	VR6044E 4	VR6044C 4	VR6044D 4	VR6044
Style II	2W3P	VR6023E 4	VR6023C 4	VR6023D 4	VR6023
	3W4P	VR6034E 4	VR6034C 4	VR6034D 4	VR6034
Splice box onlyⓐ		VRE46	VRC46	VRD46	-

ⓐ 60 Amp Back Boxes are available in 1", 1-1/4" and 1-1/2" conduit sizes. Size listed above is 1-1/4". For other available sizes, change the BOLD "4" in either the assembly or box only number as follows: **3**=1", **4**=1-1/4", **5**=1-1/2". Assembly catalog numbers are listed for ease of ordering or specification and devices are shipped as components.



E

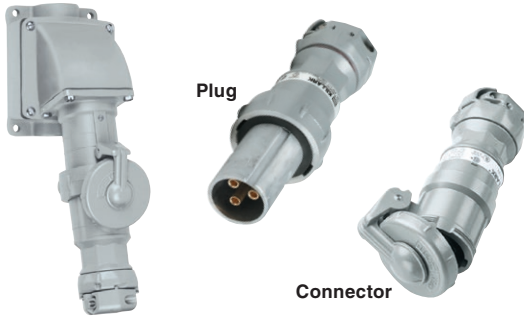
C

D

Receptacle



100A SELECTION INFORMATION



Plug

Connector

**100 Amp 600VAC/250VDC; 50-400 Hertz
Type 3, 4, 4X**

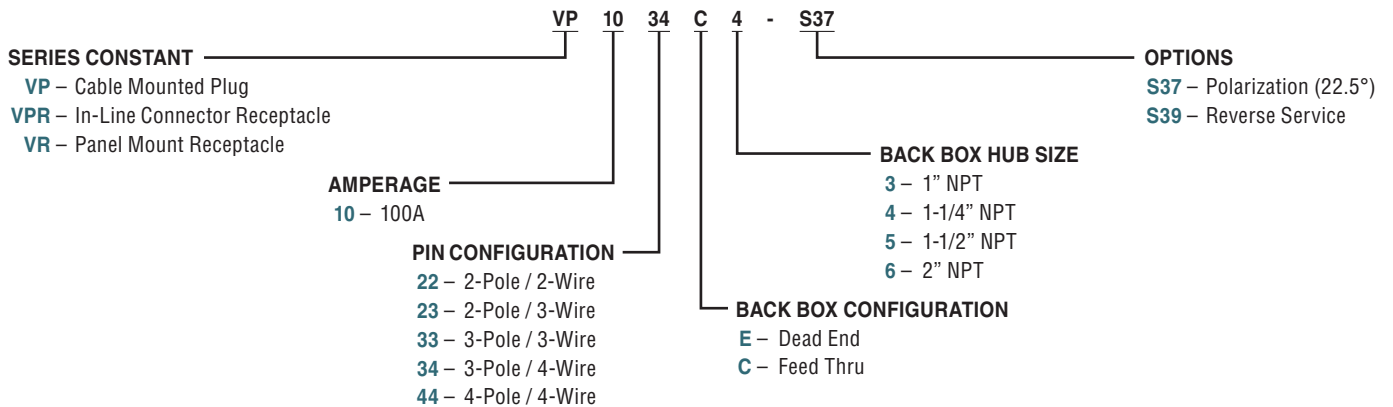
Wire Range

Regular Stranding: #4 - #2 original style or "AT" type (Includes Type P marine)
Extra flex: #4 - #2 original style or "AT" type

Ⓛ File No. E10757

Ⓢ Certified File No. 1093021 (100A)

VP/VPR/VR PLUGS



100 AMP PLUGS & CONNECTORS

GROUND STYLE	CIRCUIT	GROMMET RANGE	CATALOG NUMBER	
			PLUG	CONNECTOR
Style I	2W2P	.88 - 1.68 IN	VP1022	VPR1022
	3W3P	.88 - 1.68 IN	VP1033	VPR1033
	4W4P	.88 - 1.68 IN	VP1044	VPR1044
Style II	2W3P	.88 - 1.68 IN	VP1023	VPR1023
	3W4P	.88 - 1.68 IN	VP1034	VPR1034

100 AMP RECEPTACLES & BACK BOXES

GROUND STYLE	CIRCUIT	CATALOG NUMBER		
		E① TYPE DEAD END	C① TYPE FEED THRU	RECEPTACLE ONLY
Style I	2W2P	VR1022E5	VR1022C5	VR1022
	3W3P	VR1033E5	VR1033C5	VR1033
	4W4P	VR1044E5	VR1044C5	VR1044
Style II	2W3P	VR1023E5	VR1023C5	VR1023
	3W4P	VR1034E5	VR1034C5	VR1034
Splice box only②		VJ57	VJC57	VJA100*

* Angle adapter only

① 100 Amp Back Boxes are available in 1", 1-1/4", 1-1/2" & 2" conduit sizes. Size listed above is 1-1/2". For other available sizes, change the BOLD "5" in either the assembly or box only number as follows: **3=1"**, **4=1-1/4"**, **5=1-1/2"**, **6=2"**. Assembly catalog numbers are listed for ease of ordering or specification and devices are shipped as components.

② 100 Amp Boxes & Adapters also fit 60 Amp receptacles. Adapter only can be used to attach receptacle at an angle to a standard sheet metal box.



E

C

VJA100

Receptacle



CONNECTIVITY
VERSAMATE® SERIES

150A SELECTION INFORMATION



Plug



Connector

**150 Amp 600VAC/250VDC; 50-400 hertz
Type 3, 4, 4X**

Wire Range

Building #2-2/0
(Includes Type P marine)
Extra Flex #2-2/0

File No. E10757

VP/VPR/VR PLUGS

SERIES CONSTANT

VPA – Cable Mounted Plug
VCA – In-Line Connector Receptacle
VRA – Panel Mount Receptacle

AMPERAGE
150 – 150A

PIN CONFIGURATION
34 – 3-Pole / 4-Wire
44 – 4-Pole / 4-Wire

VPA 150 34 C 4 - S37

OPTIONS

S37 – Polarization (22.5°)
S39 – Reverse Service

BACK BOX HUB SIZE

4 – 1-1/4" NPT
5 – 1-1/2" NPT
6 – 2" NPT

BACK BOX CONFIGURATION

E – Dead End
C – Feed Thru

150 AMP PLUGS & CONNECTORS

GROUND STYLE	CIRCUIT	GROMMET RANGE	CATALOG NUMBER	
			PLUG	CONNECTOR
Style I	4W4P	.88 - 1.91 IN	VPA15044	VCA15044
Style II	3W4P	.88 - 1.91 IN	VPA15034	VCA15034

150 AMP RECEPTACLES & BACK BOXES

GROUND STYLE	CIRCUIT	CATALOG NUMBER		
		E ^① TYPE DEAD END	C ^① TYPE FEED THRU	RECEPTACLE ONLY
Style I	4W4P	VRA15044 E6	VRA15044 C6	VRA15044
Style II	3W4P	VRA15034 E6	VRA15034 C6	VRA15034
Splice box only w/ adapter ^②		VJ 67	VJ C67	VJ A100*

* Angle adapter only

① 150 Amp Back Boxes are available in 1-1/4", 1-1/2" & 2" conduit sizes. Size listed above is 2". For other available sizes, change the BOLD "6" in either the assembly or box only number as follows: **4**=1-1/4", **5**=1-1/2", **6**=2". Assembly catalog numbers are listed for ease of ordering or specification and devices are shipped as components.

② 100/150 Amp Boxes & Adapters also fit 60 Amp receptacles. Adapter-only can be used to attach receptacle at an angle to a standard sheet metal box.



E



C



Receptacle



200A SELECTION INFORMATION



Plug



Connector

**200 Amp 600VAC/250VDC; 50-400 Hertz
Type 3, 4, 4X**

Wire Range

Regular Stranding: #1 - 250
(Includes Type P marine)
Extra flex: #1 - 250 (.653 max conductor diameter)

File No. E10757

Certified File No. 1121608

VP/VPR/VR PLUGS

SERIES CONSTANT

- VP – Cable Mounted Plug
- VPR – In-Line Connector Receptacle
- VR – Panel Mount Receptacle

PIN CONFIGURATION

- | | |
|----------------------------------|----------------------------------|
| 312 – 3-Pole / 3-Wire Receptacle | 4513 – 4-Pole / 4-Wire Plug |
| 322 – 2-Pole / 3-Wire Receptacle | 4612 – 3-Pole / 4-Wire Plug |
| 422 – 3-Pole / 4-Wire Receptacle | 3212 – 2-Pole / 3-Wire Connector |
| 412 – 4-Pole / 4-Wire Receptacle | 3112 – 3-Pole / 3-Wire Connector |
| 3612 – 2-Pole / 3-Wire Plug | 4113 – 4-Pole / 4-Wire Connector |
| 3512 – 3-Pole / 3-Wire Plug | 4212 – 3-Pole / 4-Wire Connector |

VPR 20 3512 C 6 - S37

AMPERAGE
20 – 200A

OPTIONS

- S37 – Polarization (22.5°)
- S39 – Reverse Service

BACK BOX HUB SIZE

- 5 – 1-1/2" NPT
- 6 – 2" NPT
- 7 – 2-1/2" NPT

BACK BOX CONFIGURATION

- E – Dead End
- C – Feed Thru

200 AMP PLUGS & CONNECTORS

GROUND STYLE	CIRCUIT	GROMMET RANGE	CATALOG NUMBER	
			PLUG	CONNECTOR
Style I	3W3P	1.0 - 2.5 IN	VP203512	VPR203112
	4W4P	1.0 - 2.5 IN	VP204513	VPR204113
Style II	2W3P	1.0 - 2.5 IN	VP203612	VPR203212
	3W4P	1.0 - 2.5 IN	VP204612	VPR204212

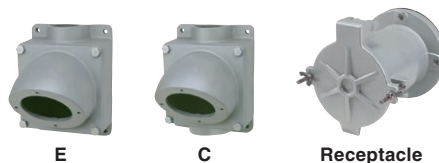
200 AMP RECEPTACLES & BACK BOXES

GROUND STYLE	CIRCUIT	CATALOG NUMBER		
		E Ⓢ TYPE DEAD END	C Ⓢ TYPE FEED THRU	RECEPTACLE ONLY
Style I	3W3P	VR20312E6	VR20312C7	VR20312
	4W4P	VR20412E6	VR20412C7	VR20412
Style II	2W3P	VR20322E6	VR20322C7	VR20322
	3W4P	VR20422E6	VR20422C7	VR20422
Splice box only w/ adapter Ⓢ		VJ78	VJC78	Angle adapter only VJA200

Ⓢ 200 Amp dead-end Back Boxes are available in sizes 1-1/2", 2" & 2-1/2" conduit sizes. Dead-end box shown is 2". For other available dead-end box sizes, change the BOLD "6" in either the dead-end assembly or box only number as follows: **5**=1-1/2", **6**=2", **7**=2-1/2". Feed through boxes are available in 2-1/2"; use "R" series adapters as required for smaller sizes (sold separately). Assembly catalog numbers are listed for ease of ordering or specification and devices are shipped as components.

Ⓢ Adapter-only can be used to attach receptacle at an angle to a standard sheet metal box.

* 200A 3W4P Reverse Service configured "W" Series and VersaMate® are not interchangeable. However, the VersaMate VR20422-S39 receptacle ships with instructions to permanently convert for use with existing PW-6402X SU39 plugs. Factory only configured plugs to fit old RW64C-SU39 receptacles may be ordered as VP-PW64026 SU39.

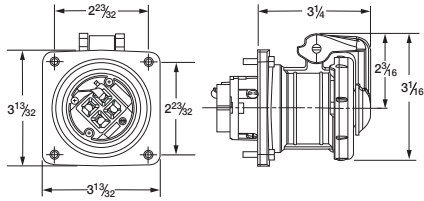




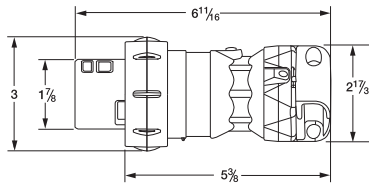
CONNECTIVITY
VERSAMATE® SERIES

DIMENSIONS

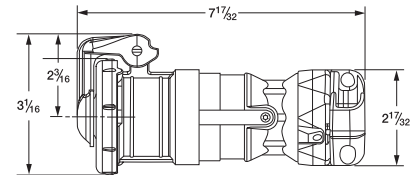
30A SELECTION INFORMATION



Receptacle

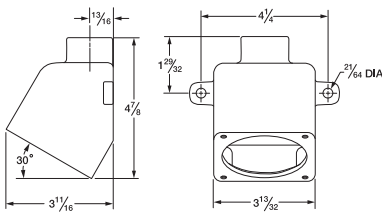


Plug

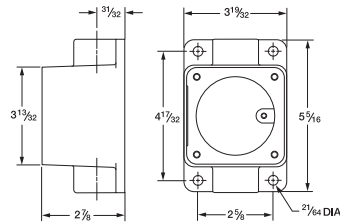


Connector

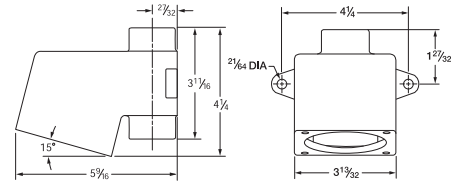
Back Box Dimensions



VRE

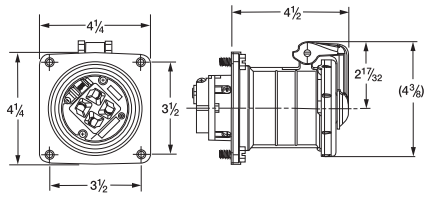


VRC

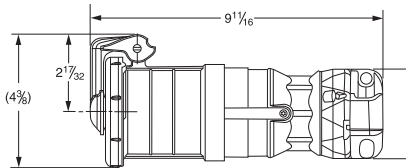


VRD

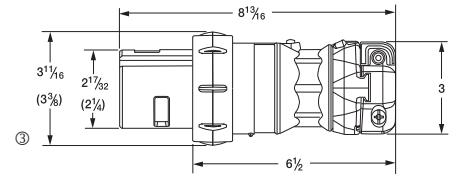
60A SELECTION INFORMATION



Receptacle

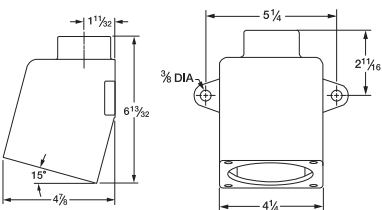


Connector

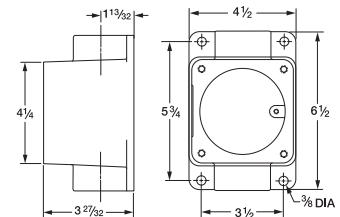


Plug

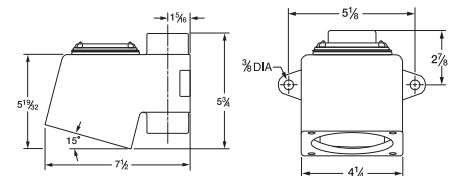
Back Box Dimensions



VRE



VRC



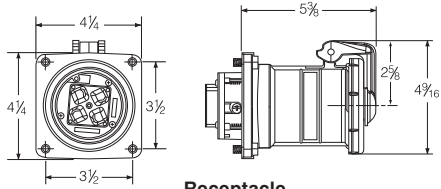
VRD

Dimensions in () are 3 pole devices; balance are 4 pole.



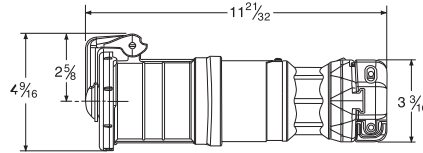
DIMENSIONS

100A SELECTION INFORMATION

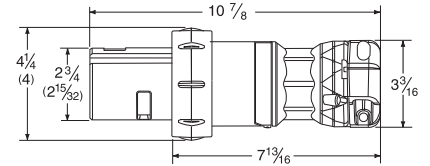


Receptacle

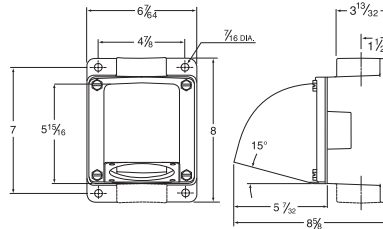
Back Box Dimensions



Connector

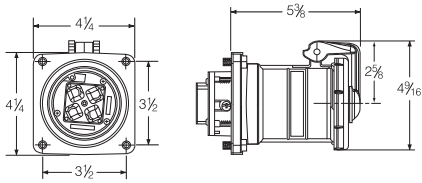


Plug



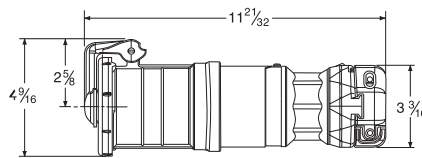
VJC
Feed through style shown

150A SELECTION INFORMATION

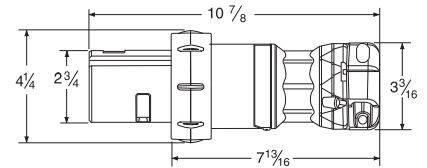


Receptacle

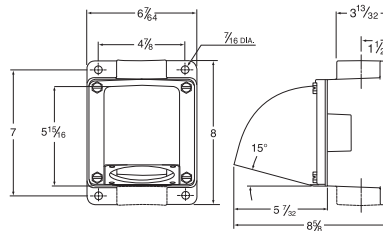
Back Box Dimensions



Connector

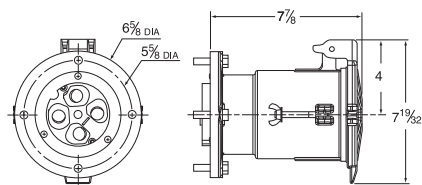


Plug



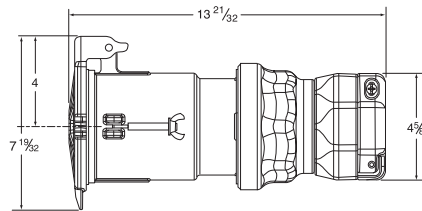
VJC
Feed through style shown

200A SELECTION INFORMATION

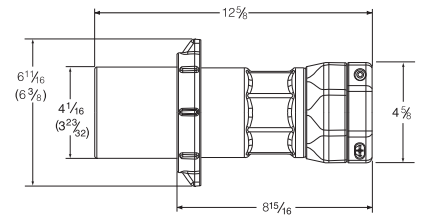


Receptacle

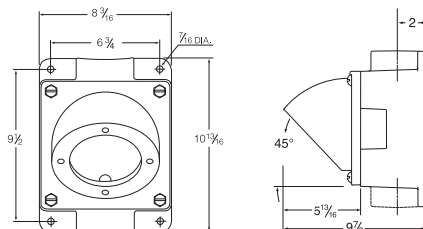
Back Box Dimensions



Connector



Plug



VJC

Dimensions in () are 3 pole devices; balance are 4 pole.



CONNECTIVITY RMPIII SERIES

RMPIII300/400



High Conductivity
Brass Contact



Non-Conductive
Locking Screw



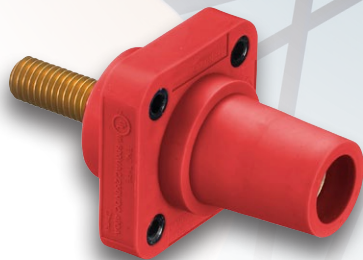
Molded-In Strip
Gauge

Locking Alignment
Indicator

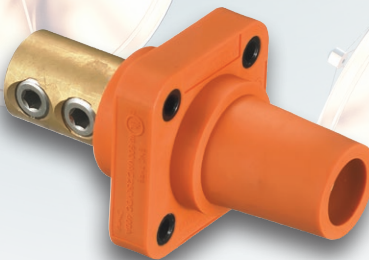
RMPIII MALE PLUG

Wide Range of
Cable Sizes, with
Cut-Off Points

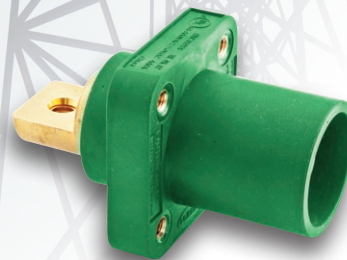
RMPIII FEMALE
PLUG



Female Receptacle, Stud Type



Female Receptacle, Double Set Screw



Male Receptacle, Bus Bar Mount



RMPIII300/400



RMPIII300/400
Plug

RMPIII300/400 Receptacle

UL1691 Standard (Single Pole
Locking Type Connectors)

 File No. E359583

FEATURES-SPECIFICATIONS

Features:

- Plug design incorporates superior grip, for safe connection.
- Accommodates wide range of cables, with easily identifiable cable cut off points.
- Extra-long insulating inner sleeve reduces force required to install contacts, including special non-conductive locking screw thread that requires fewer turns for assembly, leading to quicker installation, with no need for additional tools.
- Rounded corners, which prevent snagging on other equipment, and non-conductive retaining screw lead to a safer plug design, during and after installation.
- Strip gauge molded into every plug and receptacle.
- Locking symbol on front of device provides clear indication that devices are properly connected; devices can be rotated 180 degrees to prevent unintended disconnects.
- High conductivity brass contacts provide high contact pressure and vibration-resistant connection, reducing operating temperatures and extending product life.

Materials:

- High Quality, Corrosion-Resistant Materials
 - » Insulators = Thermoplastic Elastomer (TPE)
 - » Contacts = High Conductivity Brass

Electrical Ratings:

- Wire Type = Type SC/PPC Wire
- Voltage = 600VAC
- RMPIII300 Plug =
 - » Amperage = 300A
 - » Wire Range = #6 - 2/0 AWG
- RMPIII400 Plug =
 - » Amperage = 400A
 - » Wire Size = 2/0 - 4/0 AWG

AMPACITY RATINGS IN 40° AMBIENT

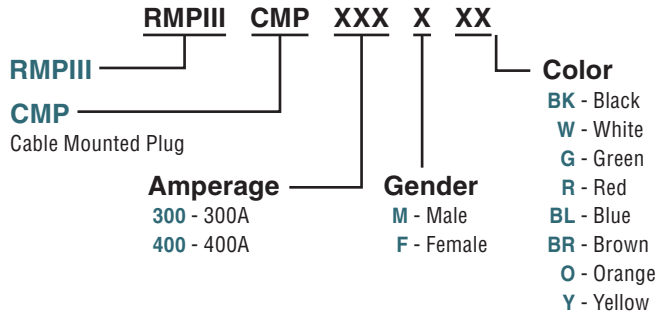
CABLE SIZE	90° C
#6 AWG	105A
#4 AWG	140A
#2 AWG	190A
#2/0 AWG	300A
#4/0 AWG	405A



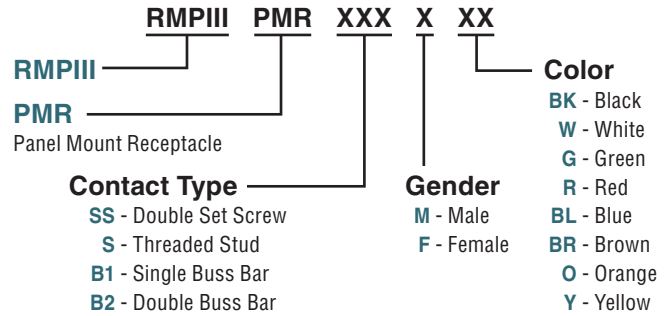
CONNECTIVITY
RMPIII SERIES

RMPIII300/400

PLUG CATALOG LOGIC



RECEPTACLE CATALOG LOGIC



RMPIII CABLE MOUNTED PLUGS				
COLOR	300A MALE	400A MALE	300A FEMALE	400A FEMALE
BLACK	RMPIII-CMP-300-M-BK	RMPIII-CMP-400-M-BK	RMPIII-CMP-300-F-BK	RMPIII-CMP-400-F-BK
WHITE	RMPIII-CMP-300-M-W	RMPIII-CMP-400-M-W	RMPIII-CMP-300-F-W	RMPIII-CMP-400-F-W
GREEN	RMPIII-CMP-300-M-G	RMPIII-CMP-400-M-G	RMPIII-CMP-300-F-G	RMPIII-CMP-400-F-G
RED	RMPIII-CMP-300-M-R	RMPIII-CMP-400-M-R	RMPIII-CMP-300-F-R	RMPIII-CMP-400-F-R
BLUE	RMPIII-CMP-300-M-BL	RMPIII-CMP-400-M-BL	RMPIII-CMP-300-F-BL	RMPIII-CMP-400-F-BL
BROWN	RMPIII-CMP-300-M-BR	RMPIII-CMP-400-M-BR	RMPIII-CMP-300-F-BR	RMPIII-CMP-400-F-BR
ORANGE	RMPIII-CMP-300-M-O	RMPIII-CMP-400-M-O	RMPIII-CMP-300-F-O	RMPIII-CMP-400-F-O
YELLOW	RMPIII-CMP-300-M-Y	RMPIII-CMP-400-M-Y	RMPIII-CMP-300-F-Y	RMPIII-CMP-400-F-Y

COMPLETE PART NUMBER CONFIGURATIONS

RMPIII PANEL MOUNT RECEPTACLES

COLOR	CONTACT TYPE							
	DOUBLE SET SCREW-MALE	DOUBLE SET SCREW-FEMALE	THREADED STUD-MALE	THREADED STUD-FEMALE	SINGLE BUSS BAR-MALE	SINGLE BUSS BAR-FEMALE	DOUBLE BUSS BAR-MALE	DOUBLE BUSS BAR-FEMALE
BLACK	RMPIII-PMR-SS-M-BK	RMPIII-PMR-SS-F-BK	RMPIII-PMR-S-M-BK	RMPIII-PMR-S-F-BK	RMPIII-PMR-B1-M-BK	RMPIII-PMR-B1-F-BK	RMPIII-PMR-B2-M-BK	RMPIII-PMR-B2-F-BK
WHITE	RMPIII-PMR-SS-M-W	RMPIII-PMR-SS-F-W	RMPIII-PMR-S-M-W	RMPIII-PMR-S-F-W	RMPIII-PMR-B1-M-W	RMPIII-PMR-B1-F-W	RMPIII-PMR-B2-M-W	RMPIII-PMR-B2-F-W
GREEN	RMPIII-PMR-SS-M-G	RMPIII-PMR-SS-F-G	RMPIII-PMR-S-M-G	RMPIII-PMR-S-F-G	RMPIII-PMR-B1-M-G	RMPIII-PMR-B1-F-G	RMPIII-PMR-B2-M-G	RMPIII-PMR-B2-F-G
RED	RMPIII-PMR-SS-M-R	RMPIII-PMR-SS-F-R	RMPIII-PMR-S-M-R	RMPIII-PMR-S-F-R	RMPIII-PMR-B1-M-R	RMPIII-PMR-B1-F-R	RMPIII-PMR-B2-M-R	RMPIII-PMR-B2-F-R
BLUE	RMPIII-PMR-SS-M-BL	RMPIII-PMR-SS-F-BL	RMPIII-PMR-S-M-BL	RMPIII-PMR-S-F-BL	RMPIII-PMR-B1-M-BL	RMPIII-PMR-B1-F-BL	RMPIII-PMR-B2-M-BL	RMPIII-PMR-B2-F-BL
BROWN	RMPIII-PMR-SS-M-BR	RMPIII-PMR-SS-F-BR	RMPIII-PMR-S-M-BR	RMPIII-PMR-S-F-BR	RMPIII-PMR-B1-M-BR	RMPIII-PMR-B1-F-BR	RMPIII-PMR-B2-M-BR	RMPIII-PMR-B2-F-BR
ORANGE	RMPIII-PMR-SS-M-O	RMPIII-PMR-SS-F-O	RMPIII-PMR-S-M-O	RMPIII-PMR-S-F-O	RMPIII-PMR-B1-M-O	RMPIII-PMR-B1-F-O	RMPIII-PMR-B2-M-O	RMPIII-PMR-B2-F-O
YELLOW	RMPIII-PMR-SS-M-Y	RMPIII-PMR-SS-F-Y	RMPIII-PMR-S-M-Y	RMPIII-PMR-S-F-Y	RMPIII-PMR-B1-M-Y	RMPIII-PMR-B1-F-Y	RMPIII-PMR-B2-M-Y	RMPIII-PMR-B2-F-Y



RMPIII300/400

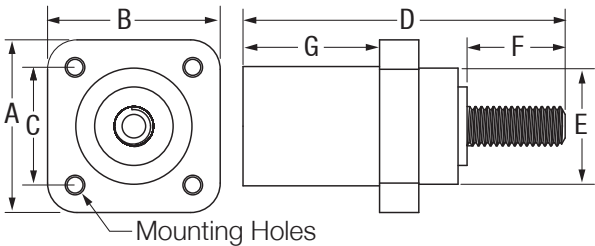
RMPIII ACCESSORIES

PROTECTIVE CAPS				WEATHER PROTECTIVE LIFT COVERS	
COLOR			 ALL ONE COLOR CAPS AND BODIES		
	FITS FEMALE DEVICES	FITS MALE DEVICES			
Black	RMPIII-FCAPBK	RMPIII-MCAPBK	Clear	RMPIII-NCC	
			Black	RMPIII-NCABK	
			White	RMPIII-NCAW	
			Green	RMPIII-NCAG	
			Red	RMPIII-NCAR	
			Blue	RMPIII-NCABL	
			Brown	RMPIII-NCABR	
			Orange	RMPIII-NCAO	
			Yellow	RMPIII-NCAY	

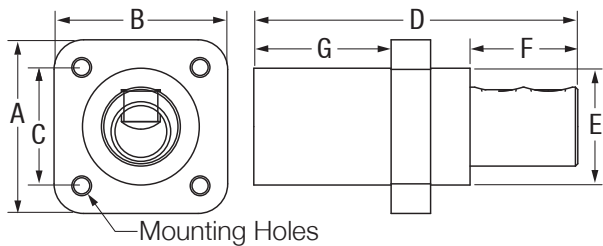
RMPIII300/400 SERIES				
	DIMENSIONS INCHES (mm)			
	A	B	C	D
IN LINE PLUGS				
Male	7.01" (178.0)	1.38" (35.1)	1.48" (37.6)	4.78" (121.4)
Female	7.10" (180.5)	1.44" (36.6)	1.06" (27.0)	4.90" (121.3)

RMPIII300/400 SERIES									
DESCRIPTION	DIMENSIONS INCHES (mm)							MOUNTING HOLE	TERMINATION
	A	B	C	D	E	F	G		
THREADED STUD									
Male & Female with through hole mounting	2.20" (55.9)	2.20" (55.9)	1.50" (38.1)	4.10" (104.3)	1.48" (47.4)	1.25" (31.7)	1.74" (44.2)	Through 4x Ø .20"	1/2-13 UNC-2A Threaded stud
DOUBLE SET SCREW									
Male & Female with through hole mounting	2.20" (55.9)	2.20" (55.9)	1.50" (38.1)	4.10" (104.3)	1.48" (47.4)	1.36" (34.5)	1.74" (44.2)	Through 4x Ø .20"	(2) 7/32 Socket Head set screws Wire Range: #4 - 4/0 AWG
BUSBAR TYPE									
Male & Female with threaded mounting holes	2.20" (55.9)	2.20" (55.9)	1.50" (38.1)	3.57" (90.7)	1.48" (37.6)	1.01" (25.7)	1.55" (39.4)	Threaded 4x #10-32	(1) 5/16-18 UNC-2B Threaded hole

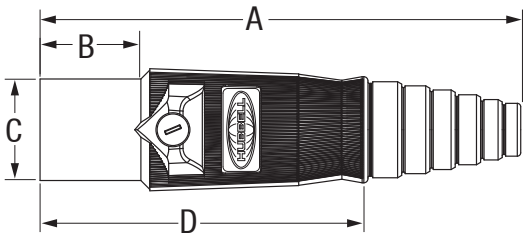
DIMENSIONS



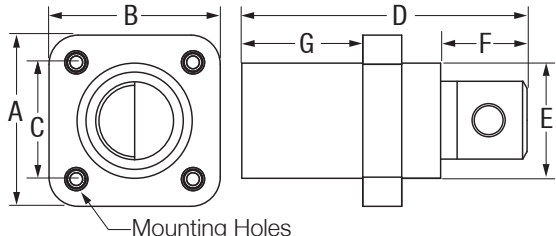
Threaded Stud (Male Shown)



Double Set Screw (Male Shown)



In Line Plug (Male Shown)



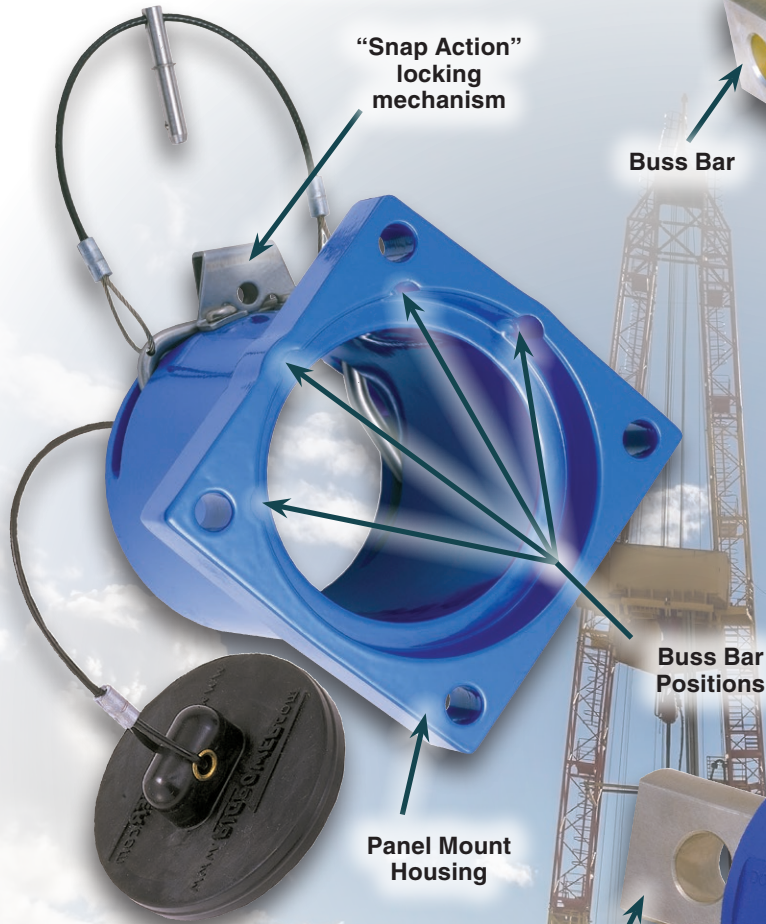
Busbar Type (Male Shown)



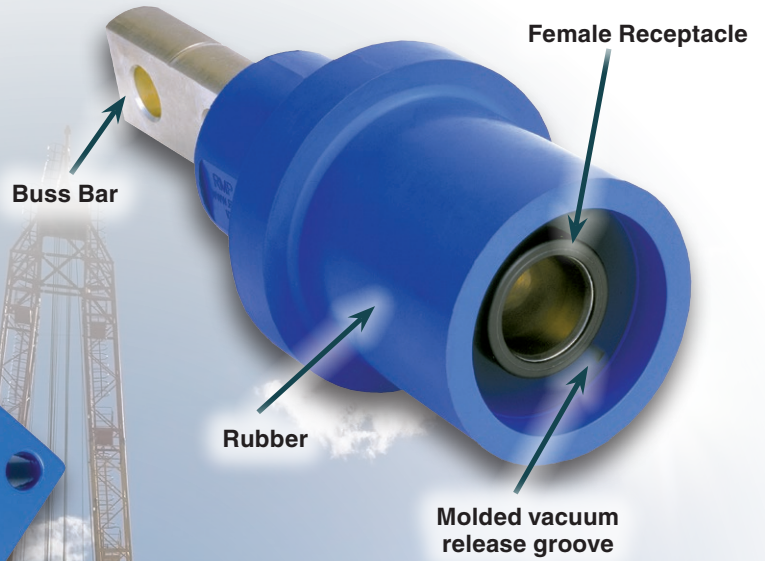
CONNECTIVITY
RMPIII SERIES

HIGHER AMPERAGE

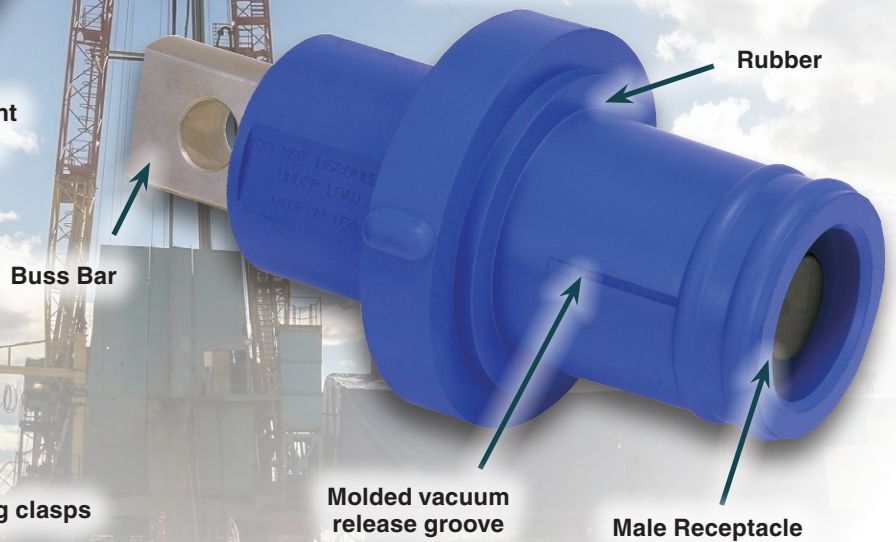
RMPIII PANEL MOUNT HOUSINGS



RMPIII FEMALE RECEPTACLES



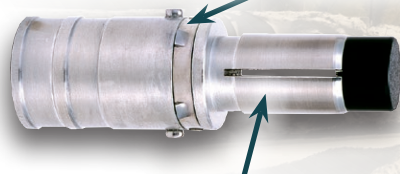
RMPIII MALE RECEPTACLES



FEMALE CONTACTS



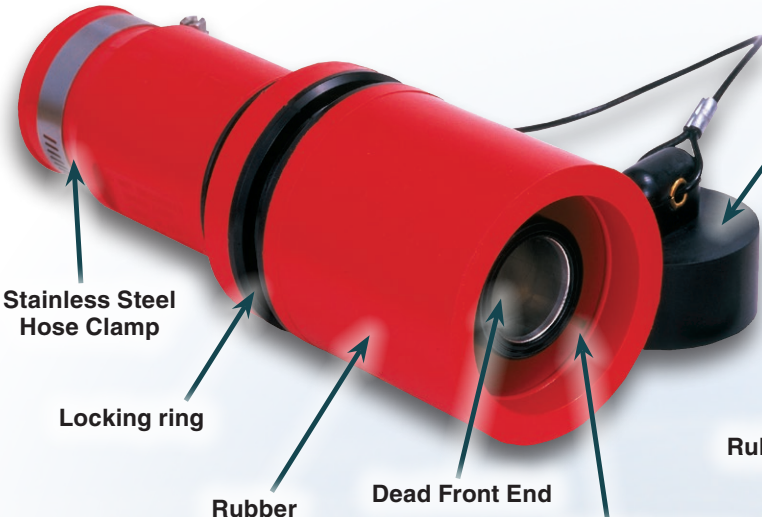
MALE CONTACTS



New contrast profile allows increased contact pressure with reduced insertion force.



HIGHER AMPERAGE
RMPIII FEMALE PLUGS



RMPIII MALE PLUGS



RMPIII IN-LINE CONNECTION





CONNECTIVITY
RMPIII SERIES

HIGHER AMPERAGE



RMP® III Series
Female Panel Mounted Receptacle



RMP® III Male Plugs

-40°C to +55°C ambient temperature
NEMA 3R
1000 Volts AC/DC
400-1135 Amps
Class I, Div. 2, Groups A, B, C, D

 File No. E361477

 File No. E489255

FEATURES-SPECIFICATIONS

Features:

- Single Pole Power Connectors
- Available in up to 10 Colors, for Phase-Specific Color Coding
- Available in Panel Mount Receptacles, Cable-Mounted Plugs, and In-Line Connectors
- Available in Male and Female Insert Configurations
- Rubber Plug/Receptacle Cap Included as Standard
- Angled Snap-Action Locking Bar on receptacles
- Plugs and Receptacles have a dead front contact tip to help protect operators from shock hazard.
- Easy, High-Strength Cable Termination, using Crimp/Die Sets

Materials:

- Busbar and Contacts = High Conductivity, Sn-Coated Copper
- Insulator Boot = Hypalon Rubber
- Dust Cap = Neoprene Rubber
- Housing = Powder Coated, Copper-Free Aluminum

Electrical Ratings:

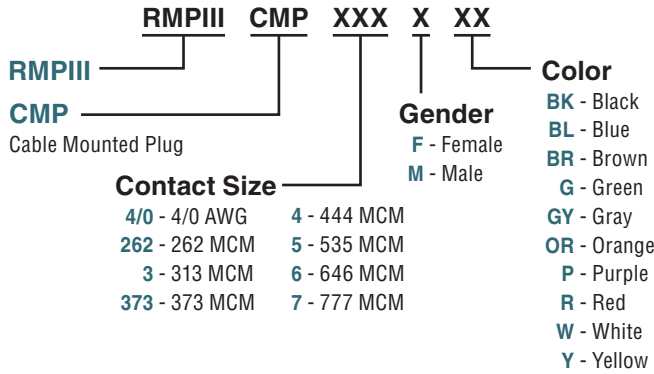
- Suitable for a Wide Range of Maximum Amperages = 400A to 1135A (Cable Size Dependent)
- Suitable for up to 1000 VAC/DC
- Suitable for Wire Ranges between 4/0 AWG through 777 MCM

AMPACITY RATINGS IN 40° AMBIENT		
CABLE SIZE	90°C CABLE	125°C CABLE
4/0 MCM	364 AMPS	451 AMPS
262 MCM	428 AMPS	566 AMPS
313 MCM	513 AMPS	636 AMPS
373 MCM	548 AMPS	669 AMPS
444 MCM	642 AMPS	796 AMPS
535 MCM	724 AMPS	898 AMPS
646 MCM	814 AMPS	1009 AMPS
777 MCM	916 AMPS	1135 AMPS

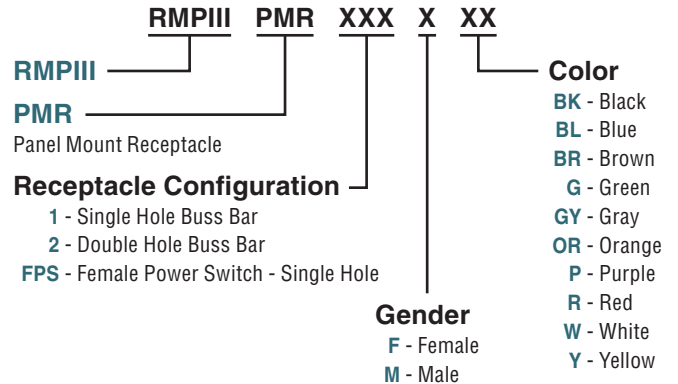


HIGHER AMPERAGE

PLUG CATALOG LOGIC



RECEPTACLE CATALOG LOGIC



RMPIII CABLE MOUNTED PLUGS - MALE

COLOR	4/0 CONTACT	262 CONTACT	313 CONTACT	373 CONTACT	444 CONTACT	535 CONTACT	646 CONTACT	777 CONTACT
Black	RMPIII-CMP-4/0M-BK	RMPIII-CMP-262M-BK	RMPIII-CMP-3M-BK	RMPIII-CMP-373M-BK	RMPIII-CMP-4M-BK	RMPIII-CMP-5M-BK	RMPIII-CMP-6M-BK	RMPIII-CMP-7M-BK
Blue	RMPIII-CMP-4/0M-BL	RMPIII-CMP-262M-BL	RMPIII-CMP-3M-BL	RMPIII-CMP-373M-BL	RMPIII-CMP-4M-BL	RMPIII-CMP-5M-BL	RMPIII-CMP-6M-BL	RMPIII-CMP-7M-BL
Brown	RMPIII-CMP-4/0M-BR	RMPIII-CMP-262M-BR	RMPIII-CMP-3M-BR	RMPIII-CMP-373M-BR	RMPIII-CMP-4M-BR	RMPIII-CMP-5M-BR	RMPIII-CMP-6M-BR	RMPIII-CMP-7M-BR
Green	RMPIII-CMP-4/0M-G	RMPIII-CMP-262M-G	RMPIII-CMP-3M-G	RMPIII-CMP-373M-G	RMPIII-CMP-4M-G	RMPIII-CMP-5M-G	RMPIII-CMP-6M-G	RMPIII-CMP-7M-G
Gray	RMPIII-CMP-4/0M-GY	RMPIII-CMP-262M-GY	RMPIII-CMP-3M-GY	RMPIII-CMP-373M-GY	RMPIII-CMP-4M-GY	RMPIII-CMP-5M-GY	RMPIII-CMP-6M-GY	RMPIII-CMP-7M-GY
Orange	RMPIII-CMP-4/0M-OR	RMPIII-CMP-262M-OR	RMPIII-CMP-3M-OR	RMPIII-CMP-373M-OR	RMPIII-CMP-4M-OR	RMPIII-CMP-5M-OR	RMPIII-CMP-6M-OR	RMPIII-CMP-7M-OR
Purple	RMPIII-CMP-4/0M-P	RMPIII-CMP-262M-P	RMPIII-CMP-3M-P	RMPIII-CMP-373M-P	RMPIII-CMP-4M-P	RMPIII-CMP-5M-P	RMPIII-CMP-6M-P	RMPIII-CMP-7M-P
Red	RMPIII-CMP-4/0M-R	RMPIII-CMP-262M-R	RMPIII-CMP-3M-R	RMPIII-CMP-373M-R	RMPIII-CMP-4M-R	RMPIII-CMP-5M-R	RMPIII-CMP-6M-R	RMPIII-CMP-7M-R
White	RMPIII-CMP-4/0M-W	RMPIII-CMP-262M-W	RMPIII-CMP-3M-W	RMPIII-CMP-373M-W	RMPIII-CMP-4M-W	RMPIII-CMP-5M-W	RMPIII-CMP-6M-W	RMPIII-CMP-7M-W
Yellow	RMPIII-CMP-4/0M-Y	RMPIII-CMP-262M-Y	RMPIII-CMP-3M-Y	RMPIII-CMP-373M-Y	RMPIII-CMP-4M-Y	RMPIII-CMP-5M-Y	RMPIII-CMP-6M-Y	RMPIII-CMP-7M-Y

RMPIII CABLE MOUNTED PLUGS - FEMALE

Black	RMPIII-CMP-4/0F-BK	RMPIII-CMP-262F-BK	RMPIII-CMP-3F-BK	RMPIII-CMP-373F-BK	RMPIII-CMP-4F-BK	RMPIII-CMP-5F-BK	RMPIII-CMP-6F-BK	RMPIII-CMP-7F-BK
Blue	RMPIII-CMP-4/0F-BL	RMPIII-CMP-262F-BL	RMPIII-CMP-3F-BL	RMPIII-CMP-373F-BL	RMPIII-CMP-4F-BL	RMPIII-CMP-5F-BL	RMPIII-CMP-6F-BL	RMPIII-CMP-7F-BL
Brown	RMPIII-CMP-4/0F-BR	RMPIII-CMP-262F-BR	RMPIII-CMP-3F-BR	RMPIII-CMP-373F-BR	RMPIII-CMP-4F-BR	RMPIII-CMP-5F-BR	RMPIII-CMP-6F-BR	RMPIII-CMP-7F-BR
Green	RMPIII-CMP-4/0F-G	RMPIII-CMP-262F-G	RMPIII-CMP-3F-G	RMPIII-CMP-373F-G	RMPIII-CMP-4F-G	RMPIII-CMP-5F-G	RMPIII-CMP-6F-G	RMPIII-CMP-7F-G
Gray	RMPIII-CMP-4/0F-GY	RMPIII-CMP-262F-GY	RMPIII-CMP-3F-GY	RMPIII-CMP-373F-GY	RMPIII-CMP-4F-GY	RMPIII-CMP-5F-GY	RMPIII-CMP-6F-GY	RMPIII-CMP-7F-GY
Orange	RMPIII-CMP-4/0F-OR	RMPIII-CMP-262F-OR	RMPIII-CMP-3F-OR	RMPIII-CMP-373F-OR	RMPIII-CMP-4F-OR	RMPIII-CMP-5F-OR	RMPIII-CMP-6F-OR	RMPIII-CMP-7F-OR
Purple	RMPIII-CMP-4/0F-P	RMPIII-CMP-262F-P	RMPIII-CMP-3F-P	RMPIII-CMP-373F-P	RMPIII-CMP-4F-P	RMPIII-CMP-5F-P	RMPIII-CMP-6F-P	RMPIII-CMP-7F-P
Red	RMPIII-CMP-4/0F-R	RMPIII-CMP-262F-R	RMPIII-CMP-3F-R	RMPIII-CMP-373F-R	RMPIII-CMP-4F-R	RMPIII-CMP-5F-R	RMPIII-CMP-6F-R	RMPIII-CMP-7F-R
White	RMPIII-CMP-4/0F-W	RMPIII-CMP-262F-W	RMPIII-CMP-3F-W	RMPIII-CMP-373F-W	RMPIII-CMP-4F-W	RMPIII-CMP-5F-W	RMPIII-CMP-6F-W	RMPIII-CMP-7F-W
Yellow	RMPIII-CMP-4/0F-Y	RMPIII-CMP-262F-Y	RMPIII-CMP-3F-Y	RMPIII-CMP-373F-Y	RMPIII-CMP-4F-Y	RMPIII-CMP-5F-Y	RMPIII-CMP-6F-Y	RMPIII-CMP-7F-Y

RMPIII PANEL MOUNT RECEPTACLES

COLOR	SINGLE HOLE MALE	DOUBLE HOLE MALE	SINGLE HOLE FEMALE	DOUBLE HOLE FEMALE	POWER SWITCH RECEPTACLE FEMALE
Black	RMPIII-PMR-1M-BK	RMPIII-PMR-2M-BK	RMPIII-PMR-1F-BK	RMPIII-PMR-2F-BK	RMPIII-PMR-FPS-BK
Blue	RMPIII-PMR-1M-BL	RMPIII-PMR-2M-BL	RMPIII-PMR-1F-BL	RMPIII-PMR-2F-BL	RMPIII-PMR-FPS-BL
Brown	RMPIII-PMR-1M-BR	RMPIII-PMR-2M-BR	RMPIII-PMR-1F-BR	RMPIII-PMR-2F-BR	RMPIII-PMR-FPS-BR
Green	RMPIII-PMR-1M-G	RMPIII-PMR-2M-G	RMPIII-PMR-1F-G	RMPIII-PMR-2F-G	RMPIII-PMR-FPS-G
Gray	RMPIII-PMR-1M-GY	RMPIII-PMR-2M-GY	RMPIII-PMR-1F-GY	RMPIII-PMR-2F-GY	RMPIII-PMR-FPS-GY
Orange	RMPIII-PMR-1M-OR	RMPIII-PMR-2M-OR	RMPIII-PMR-1F-OR	RMPIII-PMR-2F-OR	RMPIII-PMR-FPS-OR
Purple	RMPIII-PMR-1M-P	RMPIII-PMR-2M-P	RMPIII-PMR-1F-P	RMPIII-PMR-2F-P	RMPIII-PMR-FPS-P
Red	RMPIII-PMR-1M-R	RMPIII-PMR-2M-R	RMPIII-PMR-1F-R	RMPIII-PMR-2F-R	RMPIII-PMR-FPS-R
White	RMPIII-PMR-1M-W	RMPIII-PMR-2M-W	RMPIII-PMR-1F-W	RMPIII-PMR-2F-W	RMPIII-PMR-FPS-W
Yellow	RMPIII-PMR-1M-Y	RMPIII-PMR-2M-Y	RMPIII-PMR-1F-Y	RMPIII-PMR-2F-Y	RMPIII-PMR-FPS-Y





CONNECTIVITY RMPIII SERIES

RMPIII ACCESSORIES AND REPLACEMENT PARTS

RMPIII COUPLERS	
COLOR	CATALOG NUMBER
Black	RMP-CMR-BK
Blue	RMP-CMR-BL
Brown	RMP-CMR-BR
Green	RMP-CMR-G
Gray	RMP-CMR-GY
Orange	RMP-CMR-OR
Purple	RMP-CMR-P
Red	RMP-CMR-R
White	RMP-CMR-W
Yellow	RMP-CMR-Y
Bare Aluminum	RMP-CMR-AL

BULKHEAD MOUNTED COUPLER	
COLOR	CATALOG NUMBER
Black	RMP-BMC-BK
Blue	RMP-BMC-BL
Brown	RMP-BMC-BR
Green	RMP-BMC-G
Gray	RMP-BMC-GY
Orange	RMP-BMC-OR
Purple	RMP-BMC-P
Red	RMP-BMC-R
White	RMP-BMC-W
Yellow	RMP-BMC-Y



RMPIII CONTACTS			PART DESCRIPTION
	CATALOG NUMBER		
	MALE CONTACTS	FEMALE CONTACTS	
—	RMP-C-4/ØM	RMP-C-4/ØF	Cable Size 4/0 MCM Through 777 MCM
—	RMP-C-262M	RMP-C-262F	
—	RMP-C-3M	RMP-C-3F	
—	RMP-C-373M	RMP-C-373F	
—	RMP-C-4M	RMP-C-4F	
—	RMP-C-5M	RMP-C-5F	
—	RMP-C-6M	RMP-C-6F	
—	RMP-C-7M	RMP-C-7F	

GROUNDING RECEPTACLES AND PLUGS	
CATALOG NUMBER	PART DESCRIPTION
RMP-FGP-4	Female Flange Mounted Grounding Plug
RMP-MGR	Male Flange Mounted Grounding Receptacle
RMP-FGR	Female Grounding Receptacle for 5/8 Stud
RMP-MGP-4	Male Grounding Pin for 5/8 Stud

HOUSINGS	
COLOR	CATALOG NUMBER
Black	RMP-PMR-BK
Blue	RMP-PMR-BL
Brown	RMP-PMR-BR
Green	RMP-PMR-G
Gray	RMP-PMR-GY
Orange	RMP-PMR-OR
Purple	RMP-PMR-P
Red	RMP-PMR-R
White	RMP-PMR-W
Yellow	RMP-PMR-Y

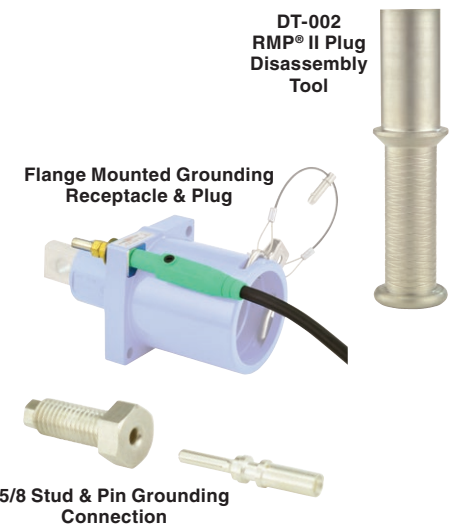
RMPIII INSULATORS			PART DESCRIPTION
COLOR	CATALOG NUMBER		
	MALE INSULATORS	FEMALE INSULATORS	
Black	RMPIII-CMP-M-BK	RMPIII-CMP-F-BK	—
Blue	RMPIII-CMP-M-BL	RMPIII-CMP-F-BL	—
Brown	RMPIII-CMP-M-BR	RMPIII-CMP-F-BR	—
Green	RMPIII-CMP-M-G	RMPIII-CMP-F-G	—
Gray	RMPIII-CMP-M-GY	RMPIII-CMP-F-GY	—
Orange	RMPIII-CMP-M-OR	RMPIII-CMP-F-OR	—
Purple	RMPIII-CMP-M-P	RMPIII-CMP-F-P	—
Red	RMPIII-CMP-M-R	RMPIII-CMP-F-R	—
White	RMPIII-CMP-M-W	RMPIII-CMP-F-W	—
Yellow	RMPIII-CMP-M-Y	RMPIII-CMP-F-Y	—

RMPIII ACCESSORIES	
CATALOG NUMBER	PART DESCRIPTION
DT-002	Insulator Disassemble Tool

DOUBLE HOLE LUGS	
CATALOG NUMBER	PART DESCRIPTION
QS-535-L	535 MCM Double Hole Lug
QS-646-L	646 MCM Double Hole Lug
QS-777-L	777 MCM Double Hole Lug

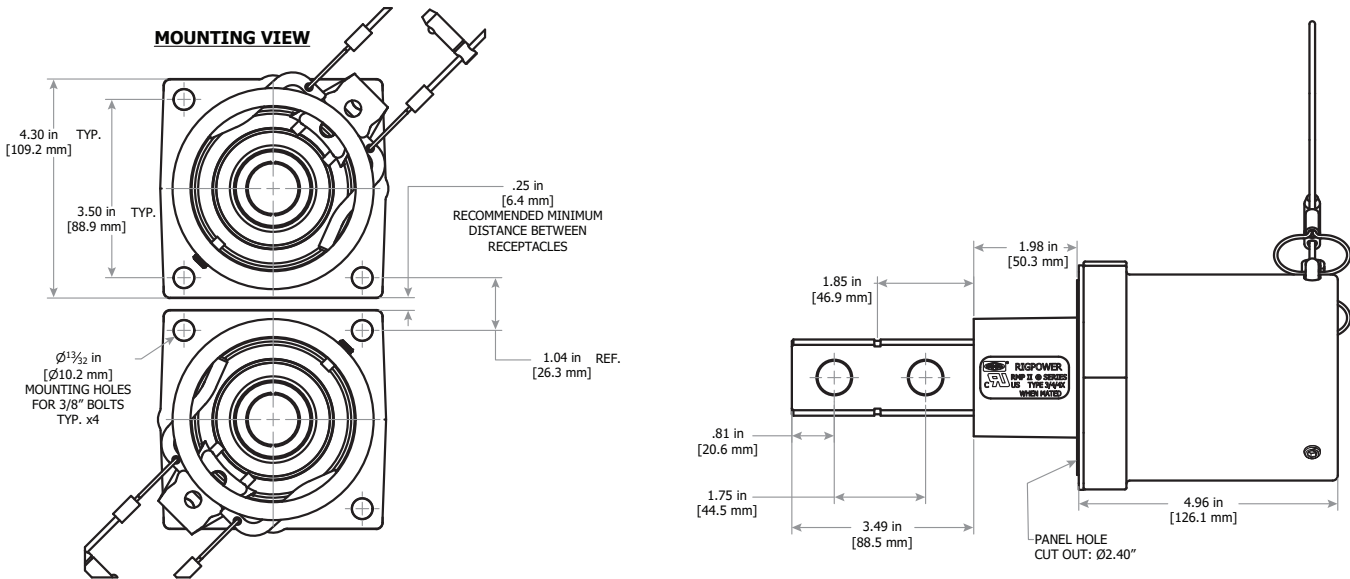
RMPIII ACCESSORIES		
COLOR	CATALOG NUMBER	PART DESCRIPTION
Yellow Only	RMP-LOC-Y	Lockout/Tagout Plug Cap
X = Color	RMP-LOS-X	Single Pad Lock

30°-45° REVERSIBLE LOCKING BUSS BAR LUGS	
CATALOG NUMBER	PART DESCRIPTION
SL-535-AL	535 MCM 30°/45° Reversible Locking Buss Bar Lug
SL-646-AL	646 MCM 30°/45° Reversible Locking Buss Bar Lug
SL-777-AL	777 MCM 30°/45° Reversible Locking Buss Bar Lug

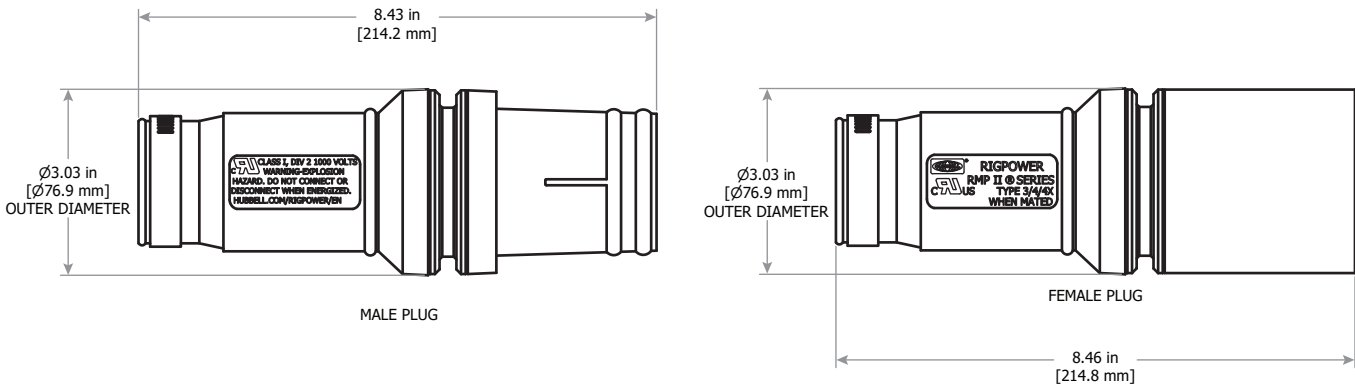




PANEL MOUNTED RECEPTACLE (PMR) MOUNTING DIMENSIONS



CABLE MOUNTED PLUG (CMP) DIMENSIONS

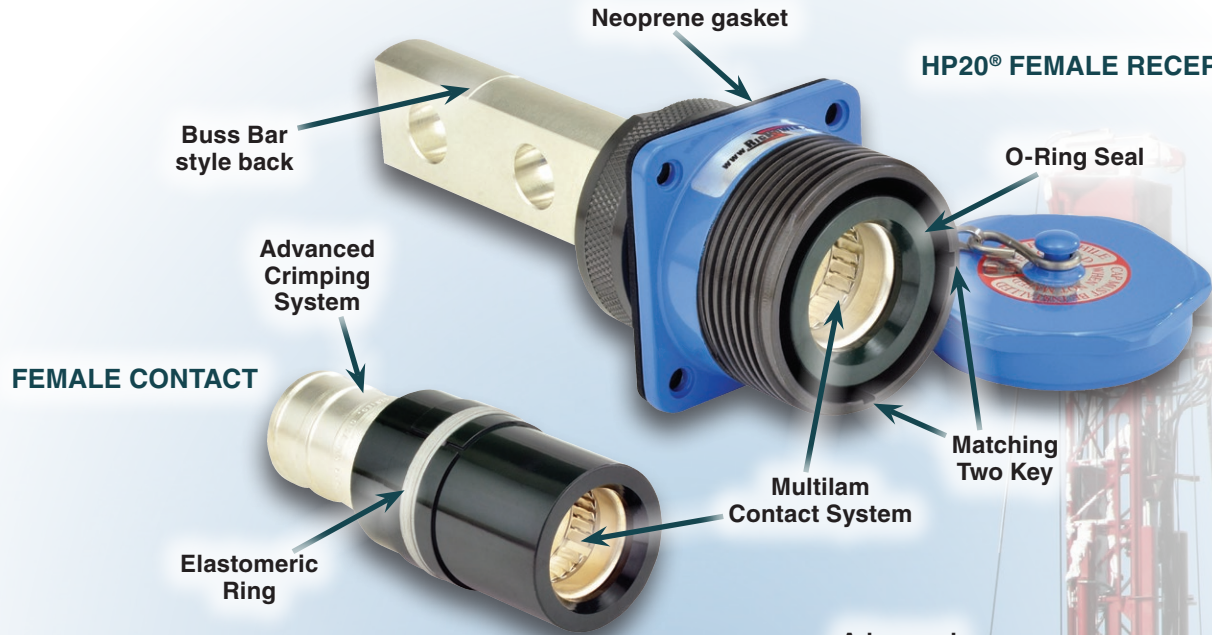




CONNECTIVITY HP20® SERIES

HP20® SERIES RECEPTACLES

HP20® FEMALE RECEPTACLE



HP20® MALE RECEPTACLE



HP20® CABLE ADAPTOR WITH INTERNAL INSULATING SLEEVE

HP20® INTERNAL MYLAR INSULATING SLEEVE





HP20® SERIES RECEPTACLES



HP20® Series
 Male Panel Mounted Receptacle

1000 Volts AC/DC
 400-1135 Amps
 Class I, Div. 2, Groups A, B, C, D



UL File No. E489255

HP20® Series
 Female Panel Mounted Receptacle

FEATURES-SPECIFICATIONS

Features

- Single Pole Power Connectors
- Available in up to 10 Colors, for Phase-Specific Color Coding
- Available in Panel Mount Receptacles, Cable-Mounted Plugs, Cable Mounted Receptacles, and In-Line Fixed Receptacles
- Available in Male and Female Insert Configurations
- Easy, High-Strength Cable Termination, using Crimp/Die Sets
- Double-lead ACME Threads for rapid and secure connections.
- Multilam Contact System permits ease of insertion and withdrawal, made via a large number of current carrying contact points.
- Male Plugs and Receptacles have a dead front contact tip to help protect operators from shock hazard.
- Elastomeric Ring sealing ring allows for smaller shell/connector size, while allowing for the same high amperage/voltage ratings and up to 777 MCM cable size used by similar connectors.

Materials:

- Buss Bar and Contacts = High Conductivity, Sn-coated Copper
- Gasket = Neoprene
- Receptacle Body = Anodized Aluminum
- Receptacle Cap = Powder Coated Aluminum
- Receptacle Cap Chain = Stainless Steel
- O-Ring Seals = Nitrile Rubber

Electrical Ratings:

- Amperage = Up to 1100 Amps
- Voltage = Up to 1000 VAC/VDC

HP20® PANEL MOUNT RECEPTACLES – Ordering Format: HP20-(1)-(2)				
(1) RECEPTACLE GENDER			(2) COLOR	
CATALOG NUMBER	DESCRIPTION		CATALOG NUMBER	DESCRIPTION
MBR	Male Double Hole Buss Bar Panel Mount Receptacle	+	BK	Black
FBR	Female Double Hole Buss Bar Panel Mount Receptacle		BL	Blue
			BR	Brown
			G	Green
			GY	Gray
			OR	Orange
			P	Purple
			R	Red
			W	White
			Y	Yellow



CONNECTIVITY
HP20® SERIES

HP20® SERIES PLUGS



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HP20® SERIES PLUGS



HP20® Male Plug

HP20® Female Plug

1000 Volts AC/DC
 400-1135 Amps
 Class 1 Div.2 (Canada Only)



FEATURES-SPECIFICATIONS

Features:

- Single Pole Power Connectors
- Available in up to 10 Colors, for Phase-Specific Color Coding
- Available in Panel Mount Receptacles, Cable-Mounted Plugs, Cable Mounted Receptacles, and In-Line Fixed Receptacles
- Available in Male and Female Insert Configurations
- Easy, High-Strength Cable Termination, using Crimp/Die Sets
- Double-lead ACME Threads for rapid and secure connections.
- Multilam Contact System permits ease of insertion and withdrawal, made via a large number of current carrying contact points.
- Male Plugs and Receptacles have a dead front contact tip to help protect operators from shock hazard.
- Elastomeric Ring sealing ring allows for smaller shell/connector size, while allowing for the same high amperage/voltage ratings and up to 777 MCM cable size used by similar connectors.

Materials:

- Buss Bar and Contacts = High Conductivity, Sn-coated Copper
- Gasket = Neoprene
- Plug Body = Anodized Aluminum
- Plug Cap = Powder Coated Aluminum
- Plug Cap Chain = Stainless Steel
- O-Ring Seals = Nitrile Rubber

Electrical Ratings:

- Amperage = Up to 1100 Amps
- Voltage = Up to 1000 VAC/VDC

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HP20® PLUGS, IN-LINE RECEPTACLES & FIXED CABLE RECEPTACLES – Ordering Format: HP20-(1)-(2)-(3)-(4)-(5)				
(1) MALE & FEMALE CONTACT SIZE	(2) STYLE OF PLUG CASING	(3) GROMMET	(4) MECHANICAL CLAMP	(5) COLOR
Male	P = Plug OR	16 = 0.870 - 1.000	M = Mechanical Clamp OR	BK = Black
4/0M = 4/0 Male Contact		18 = 1.000 - 1.125		K16 = #16 (0.875 - 1.000)
3M = 313 Male Contact	IR = In-Line Receptacle OR	20 = 1.125 - 1.250	K18 = #18 (1.000 - 1.125)	BR = Brown
4M = 444 Male Contact		22 = 1.250 - 1.375		K20 = #20 (1.125 - 1.250)
5M = 535 Male Contact	FCR = Fixed Cable Receptacle	24 = 1.375 - 1.500	K22 = #22 (1.250 - 1.375)	GY = Gray
6M = 646 Male Contact		K24 = #24 (1.375 - 1.500)		OR = Orange
7M = 777 Male Contact				P = Purple
Female				R = Red
4/0F = 4/0 Female Contact				W = White
3F = 313 Female Contact				Y = Yellow
4F = 444 Female Contact				
5F = 535 Female Contact				
6F = 646 Female Contact				
7F = 777 Female Contact				



CONNECTIVITY
HP20® SERIES

HP20® SERIES FIXED CABLE AND IN-LINE RECEPTACLE CONNECTIONS

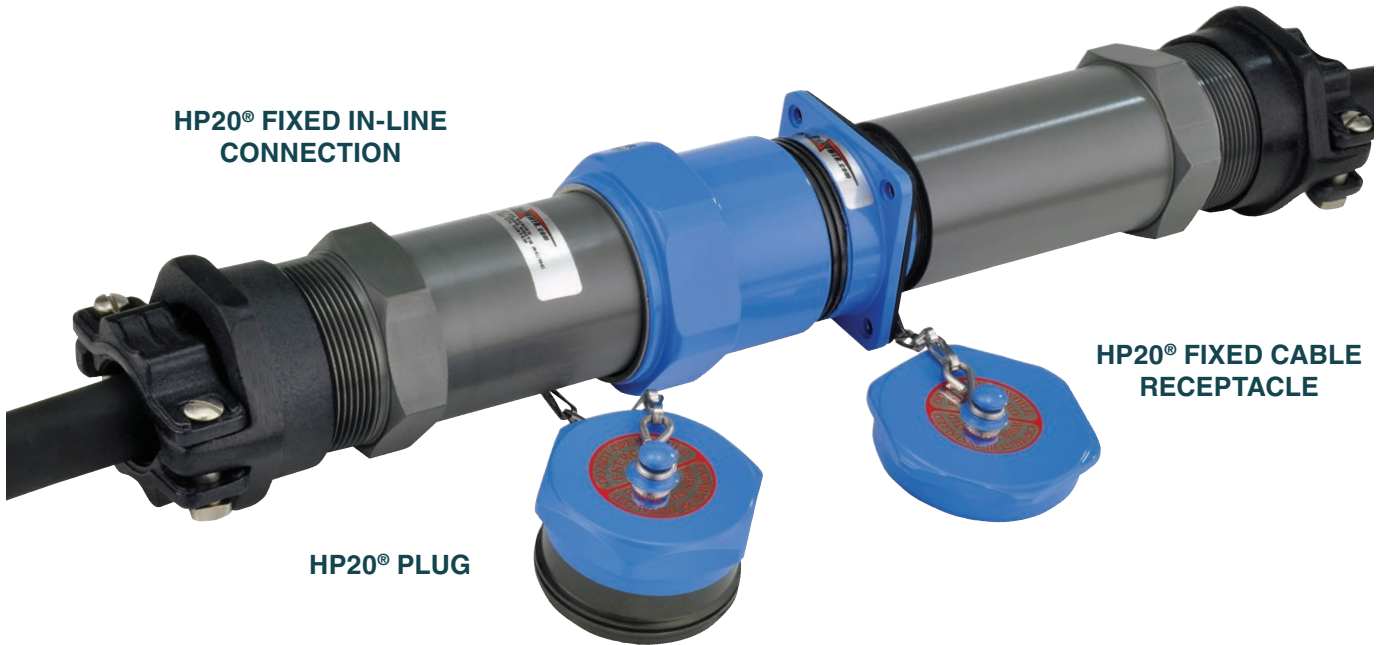
HP20® MALE FIXED CABLE RECEPTACLE



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IN-LINE RECEPTACLE CONNECTIONS



HP20® FIXED IN-LINE CONNECTION

HP20® FIXED CABLE RECEPTACLE

HP20® PLUG



HP20® IN-LINE CONNECTION

HP20® IN-LINE RECEPTACLE

HP20® PLUG



CONNECTIVITY HP20® SERIES

ACCESSORIES



Mechanical Clamp

Has a dual holding pattern. One size for larger cables, reverse it and it accommodates smaller cables more effectively.

Kellems® Grip

Also available for extra protection from high tensile loads on cables.

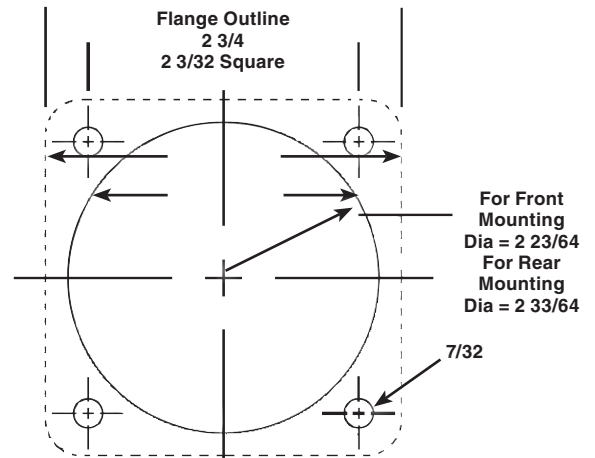


30° – 45° Reversible Locking Buss Bar Lug

The small footprint of the HP20® panel mounted receptacles, combined with the RigPower exclusive locking lug allows the designed to combine a small footprint on the panel with short radius cable bends behind the panel while ensuring that shock or vibration loads will not loosen the plug to buss bar connection



CABLE AMPACITY RATINGS IN 40° AMBIENT		
CABLE SIZE	90°C CABLE	125°C CABLE
4/0 MCM	364 AMPS	451 AMPS
313 MCM	513 AMPS	636 AMPS
373 MCM	548 AMPS	669 AMPS
444 MCM	642 AMPS	796 AMPS
535 MCM	724 AMPS	898 AMPS
646 MCM	814 AMPS	1009 AMPS
777 MCM	916 AMPS	1135 AMPS



ORDERING TABLE FOR HP20® SINGLE POLE POWER CONNECTORS – (Rated for 1000 Volts / 1135 Amps)

RIGPOWER HP20® SERIES SINGLE POLE – SPARE PARTS			
PART NUMBER	PART DESCRIPTION	PART NUMBER	MALE PART DESCRIPTION
G16-20	Grommet #16 (0.875 - 1.000)	HP20-4/0M	HP20 - 4/0 Male Contact w/Insulator
G18-20	Grommet #18 (1.000 - 1.125)	HP20-2M	HP20 - 373 Male Contact w/Insulator
G20-20	Grommet #20 (1.125 - 1.250)	HP20-3M	HP20 - 313 Male Contact w/Insulator
G22-20	Grommet #22 (1.250 - 1.375)	HP20-4M	HP20 - 444 Male Contact w/Insulator
G24-20	Grommet #24 (1.375 - 1.500)	HP20-5M	HP20 - 535 Male Contact w/Insulator
GW24-20	Grommet Washer #24 (for #20 Shell)	HP20-6M	HP20 - 646 Male Contact w/Insulator
K16-20	Kellems Grip #16 (0.875 - 1.000)	HP20-7M	HP20 - 777 Male Contact w/Insulator
K18-20	Kellems Grip #18 (1.000 - 1.125)	HP20-MBB	HP20 - Male Buss Bar w/Insulator
K20-20	Kellems Grip #20 (1.125 - 1.250)	PART NUMBER	FEMALE PART DESCRIPTION
K22-20	Kellems Grip #22 (1.250 - 1.375)	HP20-4/0F	HP20 - 4/0 Female Contact w/Insulator
K24-20	Kellems Grip #24 (1.375 - 1.500)	HP20-2F	HP20 - 373 Female Contact w/Insulator
MC24-20	Mechanical Clamp #24 (for #20 Shell)	HP20-3F	HP20 - 313 Female Contact w/Insulator
		HP20-4F	HP20 - 444 Female Contact w/Insulator
		HP20-5F	HP20 - 535 Female Contact w/Insulator
		HP20-6F	HP20 - 646 Female Contact w/Insulator
		HP20-7F	HP20 - 777 Female Contact w/Insulator
		HP20-FBB	HP20 - Female Buss Bar w/Insulator
PART NUMBER	THE 30°/45° REVERSIBLE LOCKING BUSS BAR LUG	PART NUMBER	DOUBLE HOLE LUGS
SL-535-AL	535 MCM 30°/45° Reversible Locking Buss Bar Lug	QS-535-L	Quick/Quad Stab Double Hole 535 Lug
SL-646-AL	646 MCM 30°/45° Reversible Locking Buss Bar Lug	QS-646-L	Quick/Quad Stab Double Hole 646 Lug
SL-777-AL	777 MCM 30°/45° Reversible Locking Buss Bar Lug	QS-777-L	Quick/Quad Stab Double Hole 777 Lug



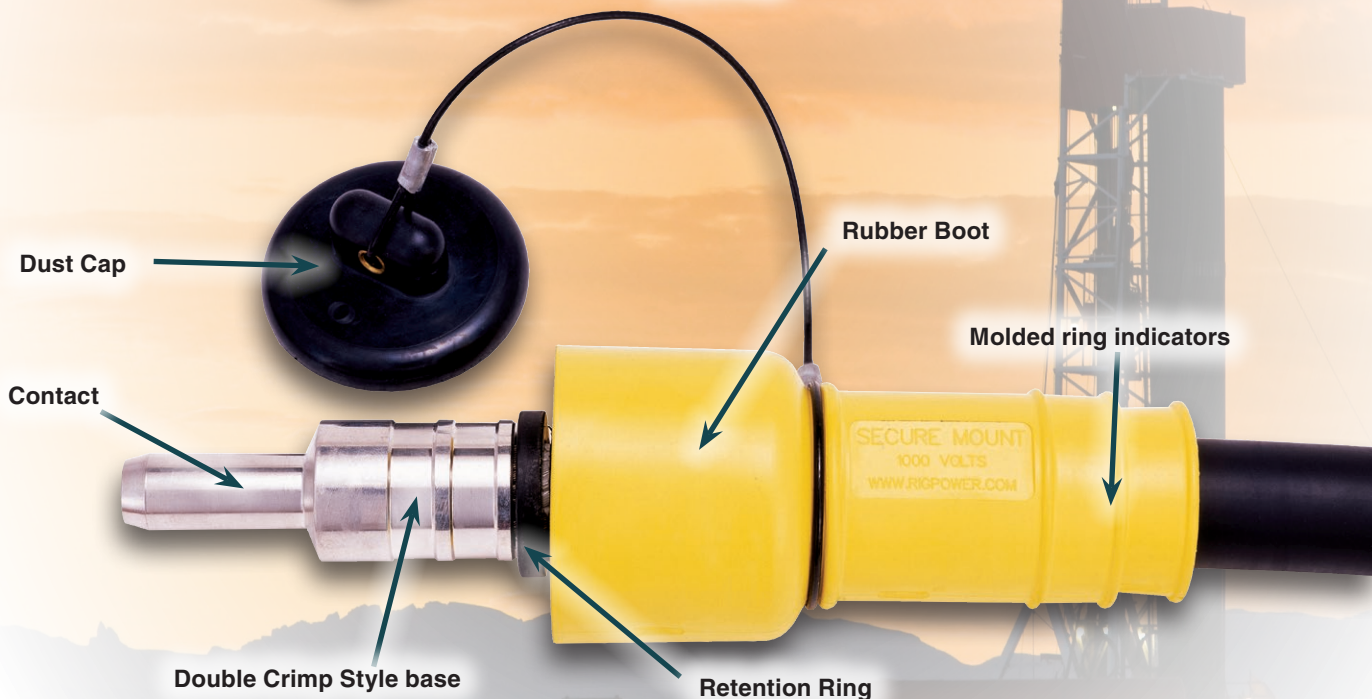
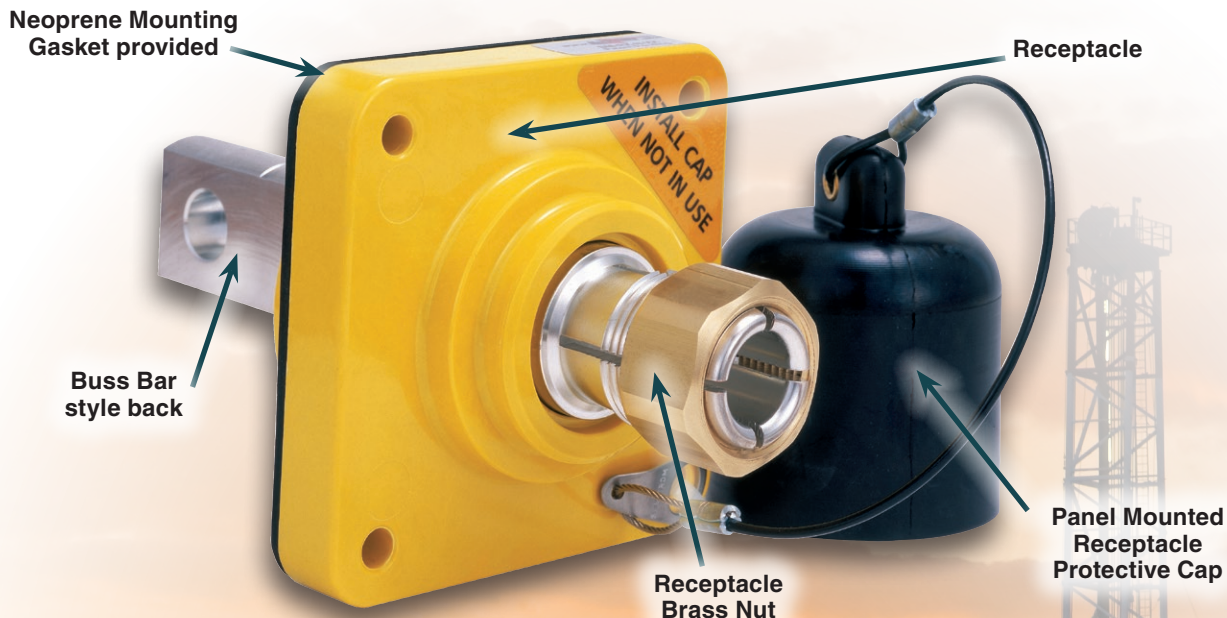
CABLE GROMMET

Has a tapered fit to the cable adapter and is available in fourteen sizes to ensure a proper water tight seal to the cable.

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INDUSTRY FEATURES AND BENEFITS



Available Colors

Delrin® is a registered trademark of DuPont.

WARNING: The RigPower Secure Mount® series 646 and 777 contacts are designed for higher amperage loads than other panel board sockets can handle. Use these two contact sizes only with Secure Mount® Receptacles (only in red).



CONNECTIVITY

SECURE MOUNT® SERIES

INDUSTRY FEATURES AND BENEFITS



FEATURES-SPECIFICATIONS

Features

- Single Pole Power Connectors
- Available in up to 10 Colors, for Phase-Specific Color Coding
- Available in Panel Mount Receptacles and Cable-Mounted Plugs.
- Easy, High-Strength Cable Termination, using Crimp/Die Sets
- Items suitable for installation directly to stainless or aluminum panel without requirement for additional insulating material.
- Comes standard with Insulating Boot and Dust Cap.
- Molded Ring Indicators on plug are designed to be cut to accommodate cable sizes from 313 MCM to 777 MCM.

Materials

- Busbar and Contacts = High Conductivity, Sn-Coated Copper
- Boot = Thermoset Rubber
- Dust Cap = Black Neoprene

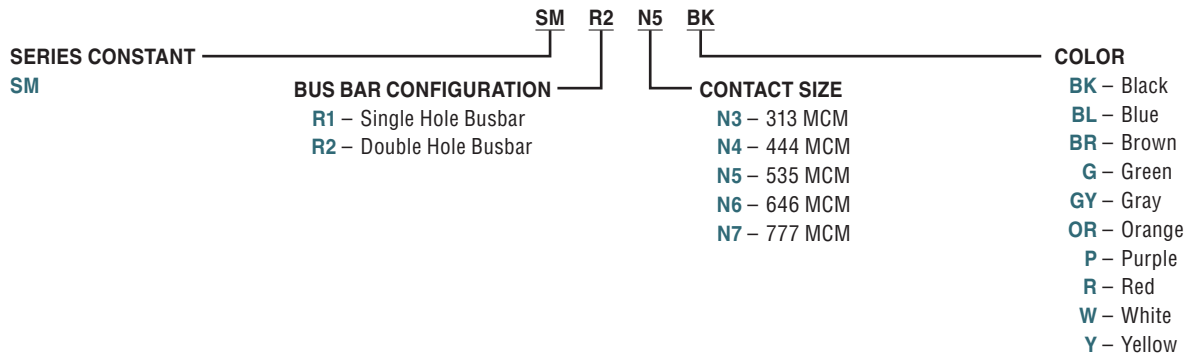
Electrical Ratings

- Amperage = Up to 1100 Amps
- Voltage = Up to 1000 VAC/VDC

AMPACITY RATINGS IN 40° AMBIENT		
CABLE SIZE	90°	125°
313 MCM	513 AMPS	636 AMPS
444 MCM	642 AMPS	796 AMPS
535 MCM	724 AMPS	898 AMPS
646 MCM	814 AMPS	1009 AMPS
777 MCM	916 AMPS	1135 AMPS



CATALOG LOGIC / PARTS LIST



SECURE MOUNT® COMPLETE SET – SINGLE HOLE RECEPTACLE & CABLE END ASSEMBLIES

A complete set includes: (1) Single Hole Receptacle w/Gasket, Protective Cap and Brass Nut, (1) Contact - size of your choice, (1) Insulating Boot w/Cap and Boot Retention Ring

COLOR	313 CONTACT	444 CONTACT	535 CONTACT	646 CONTACT	777 CONTACT
Black	SM-R1-N3-BK	SM-R1-N4-BK	SM-R1-N5-BK	SM-R1-N6-BK	SM-R1-N7-BK
Blue	SM-R1-N3-BL	SM-R1-N4-BL	SM-R1-N5-BL	SM-R1-N6-BL	SM-R1-N7-BL
Brown	SM-R1-N3-BR	SM-R1-N4-BR	SM-R1-N5-BR	SM-R1-N6-BR	SM-R1-N7-BR
Green	SM-R1-N3-G	SM-R1-N4-G	SM-R1-N5-G	SM-R1-N6-G	SM-R1-N7-G
Gray	SM-R1-N3-GY	SM-R1-N4-GY	SM-R1-N5-GY	SM-R1-N6-GY	SM-R1-N7-GY
Orange	SM-R1-N3-OR	SM-R1-N4-OR	SM-R1-N5-OR	SM-R1-N6-OR	SM-R1-N7-OR
Purple	SM-R1-N3-P	SM-R1-N4-P	SM-R1-N5-P	SM-R1-N6-P	SM-R1-N7-P
Red	SM-R1-N3-R	SM-R1-N4-R	SM-R1-N5-R	SM-R1-N6-R	SM-R1-N7-R
White	SM-R1-N3-W	SM-R1-N4-W	SM-R1-N5-W	SM-R1-N6-W	SM-R1-N7-W
Yellow	SM-R1-N3-Y	SM-R1-N4-Y	SM-R1-N5-Y	SM-R1-N6-Y	SM-R1-N7-Y

SECURE MOUNT® COMPLETE SET – DOUBLE HOLE RECEPTACLE & CABLE END ASSEMBLIES

A Complete Set includes: (1) Double Hole Receptacle w/Gasket, Protective Cap, and Brass Nut, (1) Contact - Size of your choice, (1) Insulating Boot w/Cap and Boot Retention Ring

COLOR	313 CONTACT	444 CONTACT	535 CONTACT	646 CONTACT	777 CONTACT
Black	SM-R2-N3-BK	SM-R2-N4-BK	SM-R2-N5-BK	SM-R2-N6-BK	SM-R2-N7-BK
Blue	SM-R2-N3-BL	SM-R2-N4-BL	SM-R2-N5-BL	SM-R2-N6-BL	SM-R2-N7-BL
Brown	SM-R2-N3-BR	SM-R2-N4-BR	SM-R2-N5-BR	SM-R2-N6-BR	SM-R2-N7-BR
Green	SM-R2-N3-G	SM-R2-N4-G	SM-R2-N5-G	SM-R2-N6-G	SM-R2-N7-G
Gray	SM-R2-N3-GY	SM-R2-N4-GY	SM-R2-N5-GY	SM-R2-N6-GY	SM-R2-N7-GY
Orange	SM-R2-N3-OR	SM-R2-N4-OR	SM-R2-N5-OR	SM-R2-N6-OR	SM-R2-N7-OR
Purple	SM-R2-N3-P	SM-R2-N4-P	SM-R2-N5-P	SM-R2-N6-P	SM-R2-N7-P
Red	SM-R2-N3-R	SM-R2-N4-R	SM-R2-N5-R	SM-R2-N6-R	SM-R2-N7-R
White	SM-R2-N3-W	SM-R2-N4-W	SM-R2-N5-W	SM-R2-N6-W	SM-R2-N7-W
Yellow	SM-R2-N3-Y	SM-R2-N4-Y	SM-R2-N5-Y	SM-R2-N6-Y	SM-R2-N7-Y



CONNECTIVITY

SECURE MOUNT® SERIES

PARTS LIST

SECURE MOUNT® RECEPTACLE		
Each Single and Double Hole Receptacle includes: (1) Receptacle w/Protective Cap, (1) Gasket, (1) Brass Nut		
SINGLE HOLE	COLOR	DOUBLE HOLE
SM-R1-N-BK	Black	SM-R2-N-BK
SM-R1-N-BL	Blue	SM-R2-N-BL
SM-R1-N-BR	Brown	SM-R2-N-BR
SM-R1-N-G	Green	SM-R2-N-G
SM-R1-N-GY	Gray	SM-R2-N-GY
SM-R1-N-OR	Orange	SM-R2-N-OR
SM-R1-N-P	Purple	SM-R2-N-P
SM-R1-N-R	Red	SM-R2-N-R
SM-R1-N-W	White	SM-R2-N-W
SM-R1-N-Y	Yellow	SM-R2-N-Y

SECURE MOUNT® INSULATING BOOTS		
COLOR	INSULATING BOOT WITH BOOT CAP	INSULATING BOOT WITHOUT BOOT CAP
Black	SM-B-BK	SM-BNC-BK
Blue	SM-B-BL	SM-BNC-BL
Brown	SM-B-BR	SM-BNC-BR
Green	SM-B-G	SM-BNC-G
Gray	SM-B-GY	SM-BNC-GY
Orange	SM-B-OR	SM-BNC-OR
Purple	SM-B-P	SM-BNC-P
Red	SM-B-R	SM-BNC-R
White	SM-B-W	SM-BNC-W
Yellow	SM-B-Y	SM-BNC-Y

SECURE MOUNT® CABLE END PLUG ASSEMBLIES					
A Cable End Assembly includes: (1) Contact – Size of Your Choice, (1) Insulating Boot, (1) Boot Cap and (1) Boot Retention Ring					
COLOR	313 CONTACT	444 CONTACT	535 CONTACT	646 CONTACT	777 CONTACT
Black	SM-SBA-3-BK	SM-SBA-4-BK	SM-SBA-5-BK	SM-SBA-6-BK	SM-SBA-7-BK
Blue	SM-SBA-3-BL	SM-SBA-4-BL	SM-SBA-5-BL	SM-SBA-6-BL	SM-SBA-7-BL
Brown	SM-SBA-3-BR	SM-SBA-4-BR	SM-SBA-5-BR	SM-SBA-6-BR	SM-SBA-7-BR
Green	SM-SBA-3-G	SM-SBA-4-G	SM-SBA-5-G	SM-SBA-6-G	SM-SBA-7-G
Gray	SM-SBA-3-GY	SM-SBA-4-GY	SM-SBA-5-GY	SM-SBA-6-GY	SM-SBA-7-GY
Orange	SM-SBA-3-OR	SM-SBA-4-OR	SM-SBA-5-OR	SM-SBA-6-OR	SM-SBA-7-OR
Purple	SM-SBA-3-P	SM-SBA-4-P	SM-SBA-5-P	SM-SBA-6-P	SM-SBA-7-P
Red	SM-SBA-3-R	SM-SBA-4-R	SM-SBA-5-R	SM-SBA-6-R	SM-SBA-7-R
White	SM-SBA-3-W	SM-SBA-4-W	SM-SBA-5-W	SM-SBA-6-W	SM-SBA-7-W
Yellow	SM-SBA-3-Y	SM-SBA-4-Y	SM-SBA-5-Y	SM-SBA-6-Y	SM-SBA-7-Y

SECURE MOUNT® CONTACTS		
CABLE SIZE	Contacts without Boot Retention Ring	Contact with Boot Retention Ring
	PART #	PART #
313 MCM Through 777 MCM	SM-SC-313	SM-SC-313-R
	SM-SC-444	SM-SC-444-R
	SM-SC-535	SM-SC-535-R
	SM-SC-646	SM-SC-646-R
	SM-SC-777	SM-SC-777-R

Secure Mount® Field Installation/Repair Kit

Applications

This kit is designed to allow quick and easy field replacement of a PD-501 style connector with a Secure Mount® connector. The Kit contains enough supplies to field mount five Secure Mounts® in an existing panel.

Features

- No replacement of insulating board is required, even damaged boards can be saved
- No need to remove adjacent undamaged connectors from insulation board
- Save cost, labor and downtime when field repairs are necessary

KIT CONTENTS

Kit contains parts to field mount five Secure Mount® Receptacles.

1. Five Tapered wooden plugs
2. One 3 and 3/4 inch diameter carbide tipped hole saw
3. Twenty sets of mounting bolts
4. Five adhesive drilling templates
5. Complete instructions



PART #	PART DESCRIPTION	PACK SIZE
SM-FRK	Secure Mount® Field Installation/Repair Kit	1





CABLE REPAIR SPLICE KITS



CS Double Lap Style Splice Kit



DS-350 Double Set Screw Splice Kit

FEATURES-SPECIFICATIONS

CS Double Lap Style Splice Kit

The CS Double Lap Style splice kits are designed for repair of a damaged or cut cable or for extending the length of a cable in the field. They are available for 535, 646 and 777 MCM wire. These splice connectors have been designed to operate safely at 1,000 volts AC or DC. The resulting splice will be no larger in diameter than a 777 cable.

Different size cables may be joined by using mismatched splice kit ends. This feature is useful where existing cable must be extended or long section needs to be replaced. A section of larger cable can be added to provide adequate protection from voltage drop or used to reduce the cable inventory carried for repairs. Note that the current rating will be controlled by the smaller cable size.

The individual splice halves may be crimped on to the cable at ground level then assembled high in a cable tray or passed through a cable gland and assembled inside a junction box.

DS-350 Double Set Screw Splice Kit

The DS-350 Double Set Screw splice kits are designed for repair of a damaged or cut cable or for extending the length of a cable in the field. They fit 350 to 500 MCM wire. These splice connectors have been designed to operate safely at 1,000 volts AC or DC.

Different size cables may be joined by using the DS-350 splice kit. This feature is useful where existing cable must be extended or long sections need to be replaced. A section of larger cable can be added to provide adequate protection from voltage drop or used to reduce the cable inventory carried for repairs. The current rating will be controlled by the smaller cable size.

The splices can be assembled with simple hand tools and hydraulic crimping equipment is not needed. Insulation retention feature prevents the insulation from slipping down

the conductor when under strain and the pull-out strength exceeds the breaking strength of the cable.

Features

- For making permanent or semi-permanent field connections of cable ends
- Safe for direct burial applications
- Can be used to join different sizes of cable for emergency field repairs

CS Double Lap Style Splice Kit

- Small enough to pass through cable glands
- Excellent for making secure connections inside explosion proof junction boxes
- Allows easy access to cable ends for secure crimp connections
- Safe and quick joining of splice ends in restricted spaces

DS-350 Double Set Screw Splice Kit

- The DS-350 allows easy, yet secure, connection of cable ends with only hand tools.
- Excellent when crimping tools are not available.
- Insulation retention ties prevent slippage of insulation on cable.

Materials

- Splice Bodies
- Removable Boot insulator is held in place by two stainless hose clamps which provides moisture resistance protection

CS Double Lap Style Splice Kit

- Sn Plated Copper with Stainless Steel Helicoil Threaded Inserts

DS-350 Double Set Screw Splice Kit

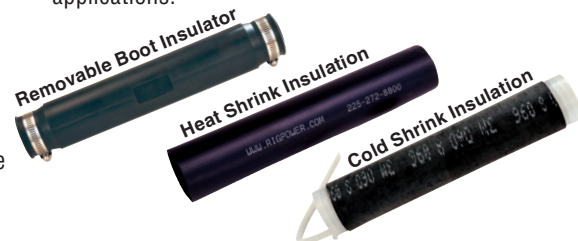
- Sn Plated Brass with Stainless Steel Locking Screws
- 545 amps maximum continuous 1,000 volts AC or DC (as limited by cable)

Insulator Options

The insulation is available in three styles: Heat Shrink, Cold Shrink, or a Removable Boot. The heat shrink provides the best sealing and allows direct underground burial. The cold shrink and removable boot provide NEMA 3 sealing.

3M™ Cold Shrink Connector Insulation is an open-ended, tubular, rubber sleeve which is factory expanded and assembled onto a removable core. The core is removed after the tube has been positioned for installation over an In-line connection, terminal lugs, etc., allowing the tube to shrink and form a water-resistant seal. The insulation tube is made of EPDM rubber which contains no chlorides or sulfur.

Flame retardant heavy wall tubing meets MIL Spec 23053/15 Class I requirements for flame retardancy. UL listed 486 D Standard and CSA certified for direct burial applications.



CS DOUBLE LAP STYLE SPLICE KIT			
CONTACT SIZE	REMOVABLE BOOT	HEAT SHRINK	COLD SHRINK
444	CS-444-B	CS-444-H	CS-444-C
535	CS-535-B	CS-535-H	CS-535-C
646	CS-646-B	CS-646-H	CS-646-C
777	CS-777-B	CS-777-H	CS-777-C

NOTE: Different size cables may be joined by using mismatched splice kit ends; however the current rating will be controlled by the smaller cable size.

DS-350 DOUBLE SET SCREW SPLICE KIT			
CABLE SIZE	REMOVABLE BOOT	HEAT SHRINK	COLD SHRINK
313 - 500	DS-350-B	DS-350-H	DS-350-C

