







Hubbell Harsh & Hazardous

Extreme environments demand superior performance, which is why you will find Hubbell products and systems installed in some of the most arduous and safety critical locations worldwide.

The Hubbell Harsh & Hazardous group combines dedicated, market leading brands within the Hubbell portfolio to provide a complete package for companies operating in some of the toughest environments on the planet.

We are committed to providing quality products and services that will meet and exceed your expectations. Our principal activities include the design and manufacture of rugged and hard wearing products. These include telephones and communication products, lighting, control gear and electrical connection products, all designed to operate primarily in extreme outdoor, hazardous and corrosive areas.

Our Brands

All of our brands are long established and well respected businesses within each of their industries, our primary industry sectors include:

Oil & Gas, Petrochemical, Industrial, Marine, Military, Transport and Commercial.













Corporate Information

Hubbell Incorporated HQ is based in Connecticut, U.S.A. and you can find out more information about the Hubbell Group on our corporate website at www.hubbell.com

60 Years of Excellence

For customers who demand quality, reliability and above all, safety, Hawke International is the market leading brand you can trust. For 60 years Hawke International has provided peace of mind to end users, contractors and installers. Superior products, unmatched engineering excellence and a guarantee of quality far beyond the point of supply, we partner you in your drive for operational excellence.

Smarter Products

Having gained credibility worldwide for testing under extreme conditions, safety and reliability continue to be Hawke's primary objectives. Our superior, feature rich, product designs utilise long life materials allowing ease of installation and a product that you can depend on for years to come. Our uniquely designed "Smart Products" offer important saving qualities and relevant product literature will now carry our stamp of endorsement. Look out for these great customer focused products.

Voice of the customer reflected in smart design.



- Installation Saving
- Cost Saving
- Energy Saving

Hawke developed the very first cable gland in 1957. We continue to grow and develop superior cable termination solutions including a full range of cable glands, accessories, cable connectors, junction boxes and now in 2016, our full range of Hazcon control stations.

Worldwide

Located in Manchester, UK, Hawke International has stocking operations in Houston, USA and Singapore along with direct representation in Australia, Brazil, Dubai, Canada, China, Malaysia and South Korea.

Supported worldwide by an unrivalled network of approved agents and distributors we guarantee easy access to our full product range globally.

A Quality Company

Hawke International's products are designed and manufactured under a quality system not only complying with ISO 9001 but also with the latest international standards. Rigorous and regular in-house testing ensures that every product manufactured meets the highest quality standards expected by todays markets.

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Hazcon Control Stations

Glass Reinforced Polymer (GRP) & Stainless Steel Control Stations

The Hazcon control station range is a key addition to the Hubbell Harsh and Hazardous product line. Developed to exceed customer expectations, the range further enhances our connection and control solution based product portfolio.

Applications

- For use in areas designated Zone 1/21, Zone 2/22, where explosive gases and combustible dusts are present, i.e. petrochemical facilities, power plants, chemical sites and petroleum refineries
- Fuel processing or storage plants where potential hazards exist
- Wide range of pushbuttons and 2 or 3 way selector switches, for use in actuation and indication of control systems status in remote environments and maintaining operator safety with immediate action Emergency Stop systems

Features

- Ambient temperature operational range -50°C to +60°C
- Available in 316 L or high impact resistant glass reinforced anti-static polymer (GRP)
- UL flame retardant rating of V-0 on GRP enclosure
- IP66 ingress protection
- Brass earth continuity plates available for metric size cable entries (GRP version)
- 5 enclosure sizes offering 1 6 gang operator options
- LED indicator with 5 coloured lenses (amber, red, blue, green or clear)
- Single and double pushbuttons
- Emergency stop button option pull or twist to release. Key release option also available
- Silicone gasket on operators and enclosures
- Moulded one piece silicone gasket on operators and enclosures
- High switch current contact blocks
- LED's are suitable for multifunction voltages for both AC and DC applications ranging from 12 to 254 volts
- Easy installation onto structures without removing the enclosure lid

Global Certification

One of the design criteria of the Hazcon range was to achieve a universal solution that met the testing standards of ATEX/IECEx and UL. Certified by Demko to the ATEX standards and UL to IECEx, Canadian & US standards, the product can be optionally marked cULus for use in both America and Canada. ATEX/IECEx labeled products are also marked EAC and Inmetro, making the product suitable for installation in Brazil, Russia, Belarus and Kazakhstan.



Complies with RoHS, WEEE, ATEX, EMC and Low Voltage directives.

Hazcon Certification				
	ATEX/IECEx	<u>cULus</u>		
Certificates	DEMKO 15 ATEX 1405X IECEx UL 15.0054X	UL File E53360		
Area Classification	Suitable for use in Zone 1, Zone 2, Zone 21 and Zone 22, Gas Groups IIA, IIB and IIC	Class I Div 2 Grp A,B,C,D Class II Div 1 Grp E,F,G (Canada only) Class II Div 2 Grp E,F,G Class III		
IP Rating	IP66	TYPE 3, 4, 4X,12,13		
Protection Method	 II 2 G Ex de IIC T6/T5/T4 Gb II 2 D Ex tb IIIC T85°C/T135°C Db 	Class I, Zone 1 AEx de IIC Gb T6T4 Zone 21 AEx tb IIIC Db T85 °CT135 °C IP66 (U.S.) Ex de IIC Gb T6T4 Ex tb IIIC Db T85 °CT135 °C IP66 (CAN)		
Construction/Test Standards	EN 60079-0:2012+A11:2013; EN 60079-1:2007; EN 60079-7:2007; EN 60079-31:2014 IEC 60079-0:2011; IEC 60079-1:2007-04; IEC 60079-31:2013; IEC 60079-7:2006-07	UL50, UL50E, UL508, UL/CSA60079-0, -1, -7, -31		
Material	GRP PA6 Glass Reinforced Antistatic Material. Grade 316L Stainless Steel	GRP PA6 Glass Reinforced Antistatic Material. Grade 316L Stainless Steel		
Operating Temperature	-50°C to 60°C	-50°C to 60°C		





Product Overview

Range

The Hazcon range is available in 5 enclosure sizes depending on quantity of actuators required:

1A (1 actuator) 1B (up to 2 actuators) & 1C (up to 3 actuators) 2A (up to 4 actuators) & 2C (up to 6 actuators).

Options

Designed to accept either din rail mount, or panel mount contact blocks, there is a complete range of options available including pushbuttons, selector switches and ammeters.

Contact block modules are individual and uniquely colour coded for ease of use: N/C = Grey, N/O = White.

The full range of actuators and indicators are also available for Panel Mount applications.

IP and NEMA

IP66 and NEMA 4X ratings. Operator gaskets are fixed on the internal side of the lid assemblies, ensuring an IP66 rating.

Mounting

GRP enclosures are easily mounted using just 2 fixing points. The stainless steel enclosure has 4 fixing points, 2 of which are slotted. The enclosures can all be mounted to structures without removing the enclosure lid thus eliminating unnecessary ingress of water, dust and insects.

Cable Entries

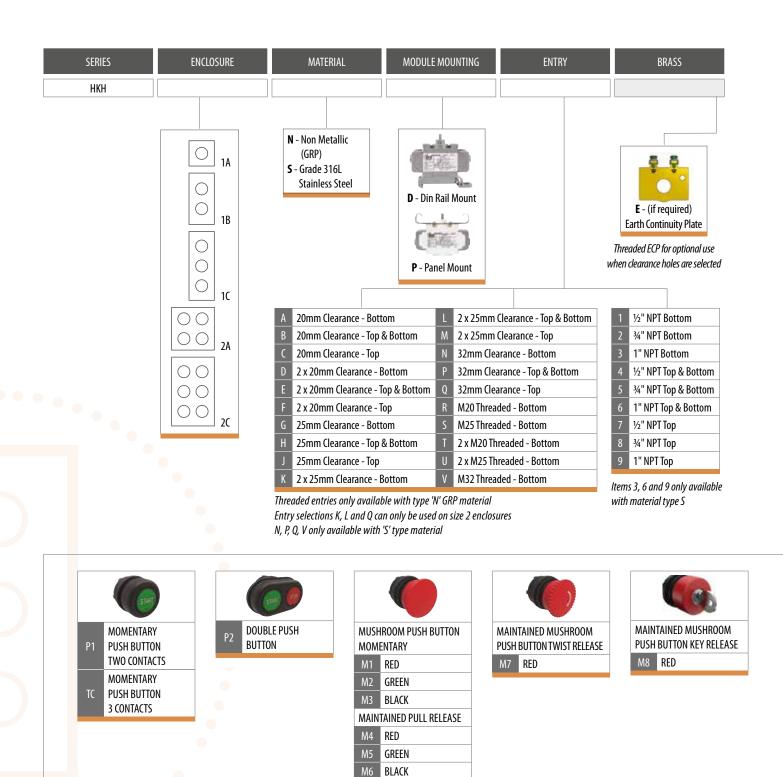
For size 1 & size 2 enclosures - 20 mm to 32 mm on Face C (bottom). For through wired requirements cable entries can be added to Face A (top) of the boxes. NPT entries are also available for use with approved adaptors.

Impact

Tested to the latest ATEX/IECEx standards, all operators and enclosures have passed high impact tests at and beyond the high and low temperature ranges stated.







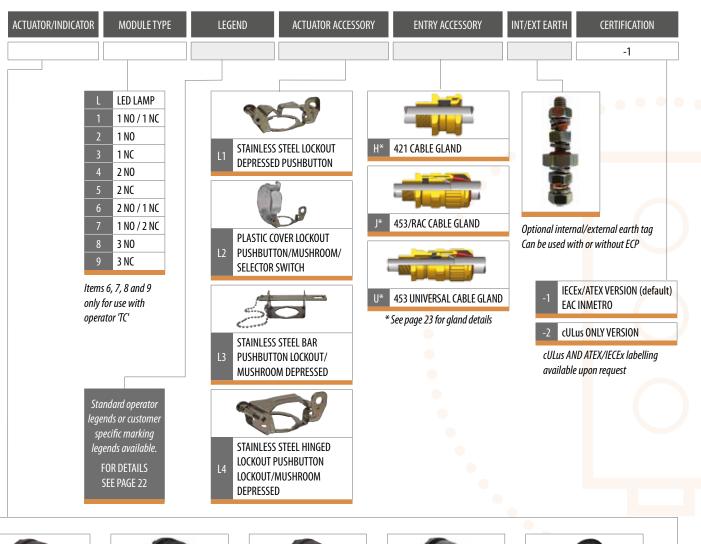
Product Drawings

Hazcon control stations are identified by unique drawing numbers.

Once ordered the catalogue string is converted to a drawing for customer confirmation. This drawing number appears on the product label i.e. HKH1ANDRM75E-1 becomes HKHMOD800005

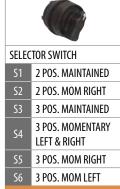














3 POS. MOM LEFT



ORDER EXAMPLE

SERIES	ENCLOSURE	MATERIAL	MODULE MOUNTING	ENTRY	ECP	ACTUATOR	MODULE TYPE	LEGEND	ACTUATOR ACCESSORY	ENTRY ACCESSORY	INT/EXT	CERTIFICATION
HKH	1A	N	D	R		M7	5	E				-1

White and orange boxes must be populated.

Repeat entries in orange boxes for multiple gang control stations. Grey boxes indicate optional entries.







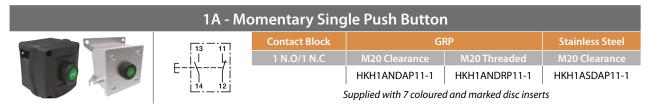




International Approvals







1A - Momentary Single Push Button - Mushroom





Contact Block	GI	Stainless steel	
1 N.O/1 N.C	M20 Clearance	M20 Threaded	M20 Clearance
RED Stop	HKH1ANDAM11B-1	HKH1ANDRM11B-1	HKH1ASDAM11B-1
GREEN Start	HKH1ANDAM21A-1	HKH1ANDRM21A-1	HKH1ASDAM21A-1
BLACK Blank	HKH1ANDAM310-1	HKH1ANDRM311-1	HKH1ASDAM310-1

1A - Maintained Single Push Pull Button - Mushroom





Contact Block	GI	Stainless Steel	
1 N.O/1 N.C	M20 Clearance	M20 Threaded	M20 Clearance
RED Stop	HKH1ANDAM41B-1	HKH1ANDRM41B-1	HKH1ASDAM41B-1
GREEN Start	HKH1ANDAM51A-1	HKH1ANDRM51A-1	HKH1ASDAM51A-1
BLACK Blank	HKH1ANDAM610-1	HKH1ANDRM611-1	HKH1ASDAM610-1

1A - Single Indicator Light





Description	GI	RP	Stainless Steel	
12V-254V AC/DC Indicator Lamp	M20 Clearance	M20 Threaded	M20 Clearance	
RED LED	HKH1ANDALRL0-1	HKH1ANDRLRL0-1	HKH1ASDALRL0-1	
GREEN LED	HKH1ANDALGL0-1	HKH1ANDRLGL0-1	HKH1ASDALGL0-1	
AMBER LED	HKH1ANDALAL0-1	HKH1ANDRLAL0-1	HKH1ASDALAL0-1	
CLEAR LED	HKH1ANDALCL0-1	HKH1ANDRLCL0-1	HKH1ASDALCL0-1	
BLUE LED	HKH1ANDALBL0-1	HKH1ANDRLBL0-1	HKH1ASDALBL0-1	

1A - Maintained Mushroom Head E-Stop





Contact Block	GI	Stainless Steel		
1 N.O/1 N.C	M20 Clearance	M20 Threaded	M20 Clearance	
RED E-STOP Pull Release	HKH1ANDAM41E-1	HKH1ANDRM41E-1	HKH1ASDAM41E-1	
RED E-STOP Twist Release	HKH1ANDAM71E-1	HKH1ANDRM71E-1	HKH1ASDAM71E-1	

1A - Rocker Switch Maintained in 2 Positions





Contact Block	G	Stainless Steel	
	M20 Clearance	M20 Threaded	M20 Clearance
2 N.O	HKH1ANDARS4-1	HKH1ANDRRS4-1	HKH1ASDARS4-1
1 N.C/1 N.O	HKH1ANDARS1-1	HKH1ANDRRS1-1	HKH1ASDARS1-1

Standard configuration control stations not supplied with ECP. Entry holes on bottom face.

DISC INSERTS Supplied with push button control stations











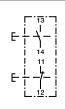






1A - Double Momentary Push Button 1 N.O. Start / 1 N.C Stop





Contact Block	GI	Stainless Steel	
1 N.O/1 N.C	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
GREEN: Start/(I)/Blank RED:Stop/(0)/Blank BLACK: Blank	HKH1ANDAP21-1	HKH1ANDRP21-1	HKH1ASDAP21-1









1A - Maintained 2-Position Selector Switch





Contact Block	GI	Stainless Steel	
1 N.O/1 N.C	M20 Clearance	M20 Threaded	M20 Clearance
OFF/ON LEGEND	HKH1ANDAS11S-1	HKH1ANDRS11S-1	HKH1ASDAS11S-1

1A - 2-Position Selector Switch Spring Return, Momentary Right, Maintained Left





Contact Block	GI	Stainless Steel	
1 N.O/1 N.C	M20 Clearance	M20 Threaded	M20 Clearance
BLANK LEGEND	HKH1ANDAS210-1	HKH1ANDRS210-1	HKH1ASDAS210-1

1A - 3 Position Selector Switch





Contact Block	GRP		Stainless Steel
2 N.O	M20 Clearance	M20 Threaded	M20 Clearance
3 Position Maintained (Hand-Off-Auto)	HKH1ANDAS349-1	HKH1ANDRS349-1	HKH1ASDAS349-1
Maintained Centre - Spring L+R (Blank)	HKH1ANDAS440-1	HKH1ANDRS440-1	HKH1ASDAS440-1
2 Position Maintained - Spring R (Blank)	HKH1ANDAS540-1	HKH1ANDRS540-1	HKH1ASDAS540-1
2 Position Maintained - Spring L (Blank)	HKH1ANDAS640-1	HKH1ANDRS640-1	HKH1ASDAS640-1

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A - Maintained 2-Position	keved Selector Switch





Contact Block	GRP		Stainless Steel
1 N.O/1 N.C	M20 Clearance M20 Threaded		M20 Clearance
OFF/ON LEGEND	HKH1ANDAK11S-1	HKH1ANDRK11S-1	HKH1ASDAK11S-1

1A - 2-Position Keyed Selector Switch Spring Return, Momentary Right, Maintained Left





Contact Block	GRP		Stainless Steel
1 N.O/1 N.C	M20 Clearance	M20 Threaded	M20 Clearance
BLANK LEGEND	HKH1ANDAK210-1	HKH1ANDRK210-1	HKH1ASDAK210-1

1A - 3 Position Keyed Selector Switch





Contact Block	GRP		Stainless Steel
2 N.O	M20 Clearance	M20 Threaded	M20 Clearance
3 Position Maintained (Hand-Off-Auto)	HKH1ANDAK349-1	HKH1ANDRK349-1	HKH1ASDAK349-1
Maintained Centre - Spring L+R (Blank)	HKH1ANDAK440-1	HKH1ANDRK440-1	HKH1ASDAK440-1
2 Position Maintained - Spring R (Blank)	HKH1ANDAK540-1	HKH1ANDRK540-1	HKH1ASDAK540-1
2 Position Maintained - Spring L (Blank)	HKH1ANDAK640-1	HKH1ANDRK640-1	HKH1ASDAK640-1















1B - Momentary Single Push Button					
3 11	Contact Block	GF	RP	Stainless Steel	
ı Li	1 N.O/1 N.C	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE	
<u>{</u>	BLANK LEGEND	HKH1BNDAP11-1	HKH1BNDRP11-1	HKH1BSDAP11-1	

Supplied with 7 coloured and marked disc inserts

1B - Momentary Single Push Button - Mushroom

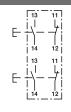




Contact Block	tact Block GRP		Stainless Steel
1 N.O/1 N.C	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
RED Stop	HKH1BNDAM11B-1	HKH1BNDRM11B-1	HKH1BSDAM11B-1
GREEN Start	HKH1BNDAM21A-1	HKH1BNDRM21A-1	HKH1BSDAM21A-1
BLACK Blank	HKH1BNDAM310-1	HKH1BNDRM311-1	HKH1BSDAM310-1

1B - Two Momentary Push Button 1 N.O. Start / 1 N.C Stop





Contact Block	GI	RP	Stainless Steel
1 N.O/1 N.C	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
GREEN: Start/(I)/Blank RED:Stop/(0)/Blank	HKH1BNDAP11AP11-1	HKH1BNDRP11AP11-1	HKH1BSDAP11AP11-1

1B - Single Indicator Light





Description	GI	RP	Stainless Steel
12V-254V AC/DC Indicator Lamp	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
RED LED	HKH1BNDALRL0-1	HKH1BNDRLRL0-1	HKH1BSDALRL0-1
GREEN LED	HKH1BNDALGL0-1	HKH1BNDRLGL0-1	HKH1BSDALGL0-1
AMBER LED	HKH1BNDALAL0-1	HKH1BNDRLAL0-1	HKH1BSDALAL0-1
CLEAR LED	HKH1BNDALCL0-1	HKH1BNDRLCL0-1	HKH1BSDALCL0-1
BLUE LED	HKH1BNDALBL0-1	HKH1BNDRLBL0-1	HKH1BSDALBL0-1

1B - Maintained Mushroom Head E-Stop





Contact Block	GRP		Stainless Steel
1 N.O/1 N.C	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
RED E-Stop - Pull Release	HKH1BNDAM41E-1	HKH1BNDRM41E-1	HKH1BSDAM41E-1
RED E-Stop - Twist Release	HKH1BNDAM71E-1	HKH1BNDRM71E-1	HKH1BSDAM71E-1

1B - Maintained Single Push Pull Button - Mushroom





Contact Block	GRP		Stainless Steel
1 N.O/1 N.C	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
RED Stop	HKH1BNDAM41B-1	HKH1BNDRM41B-1	HKH1BSDAM41B-1
GREEN Start	HKH1BNDAM51A-1	HKH1BNDRM51A-1	HKH1BSDAM51A-1
BLACK Blank	HKH1BNDAM610-1	HKH1BNDRM611-1	HKH1BSDAM610-1

1B - Double Indicator Light





Description	GRP		Stainless Steel
12V-254V AC/DC Indicator Lamps	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
RED/GREEN	HKH1BNDALRL0LGL0-1	HKH1BNDRLRL0LGL0-1	HKH1BSDALRL0LGL0-1
RED/RED	HKH1BNDALRL0LRL0-1	HKH1BNDRLRL0LRL0-1	HKH1BSDALRL0LRL0-1
GREEN/GREEN	HKH1BNDALGL0LGL0-1	HKH1BNDRLGL0LGL0-1	HKH1BSDALGL0LGL0-1



1B - Double Momentary Push Button 1 N.O. Start / 1 N.C Stop & Indicator Light





Contact Block	GRP		Stainless Steel
1 N.O./1 N.C. 12V-254V AC/DC Red Indicator Lamp	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
GREEN: Start/(I)/Blank RED:Stop/(0)/Blank Red Indicator Lamp	HKH1BNDALRL0P21-1	HKH1BNDRLRL0P21-1	HKH1BSDALRL0P21-1















Contact Block	GRP		Stainless Steel
1 N.O/1 N.C	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
OFF/ON LEGEND	HKH1BNDAS11S-1	HKH1BNDRS11S-1	HKH1BSDAS11S-1

1B - 2-Position Selector Switch Spring Return, Momentary Right, Maintained Left





	Description	GI	Stainless Steel	
ı	1 N.O/1 N.C	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
	BLANK LEGEND	HKH1BNDAS210-1	HKH1BNDRS210-1	HKH1BSDAS210-1

1B - 3 Position Selector Switch





Contact Block	Contact Block GRP		Stainless Steel	
2 N.O	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE	
3 Position Maintained (Hand-Off-Auto)	HKH1BNDAS349-1	HKH1BNDRS349-1	HKH1BSDAS349-1	
Maintained Centre - Spring L+R (Blank)	HKH1BNDAS440-1	HKH1BNDRS440-1	HKH1BSDAS440-1	
2 Position Maintained - Spring R (Blank)	HKH1BNDAS540-1	HKH1BNDRS540-1	HKH1BSDAS540-1	
2 Position Maintained - Spring L (Blank)	HKH1BNDAS640-1	HKH1BNDRS640-1	HKH1BSDAS640-1	

Contact Block	GI	Stainless Steel	
2 N.O	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE
3 Position Maintained (Hand-Off-Auto)	HKH1BNDAS349-1	HKH1BNDRS349-1	HKH1BSDAS349-1
Maintained Centre - Spring L+R (Blank)	HKH1BNDAS440-1	HKH1BNDRS440-1	HKH1BSDAS440-1
2 Position Maintained - Spring R (Blank)	HKH1BNDAS540-1	HKH1BNDRS540-1	HKH1BSDAS540-1
2 Position Maintained - Spring L (Blank)	HKH1BNDAS640-1	HKH1BNDRS640-1	HKH1BSDAS640-1

1B - Maintained 2-Position Keyed Selector Switch
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Contact Block	GI	RP	Stainless Steel	
1 N.O/1 N.C	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE	
OFF/ON LEGEND	HKH1BNDAK11S-1	HKH1BNDRK11S-1	HKH1BSDAK11S-1	

1B - 2-Position Keyed Selector Switch Spring Return, Momentary Right, Maintained Left





Contact Block	Gl	Stainless Steel		
1 N.O/1 N.C	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE	
BLANK LEGEND	HKH1BNDAK210-1	HKH1BNDRK210-1	HKH1BSDAK210-1	

1B - 3 Position Keyed Selector Switch





Contact Block	Non GRP		Stainless Steel	
2 N.O	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE	
3 Position Maintained (Hand-Off-Auto)	HKH1BNDAK349-1	HKH1BNDRK349-1	HKH1BSDAK349-1	
Maintained Centre - Spring L+R (Blank)	HKH1BNDAK440-1	HKH1BNDRK440-1	HKH1BSDAK440-1	
2 Position Maintained - Spring R (Blank)	HKH1BNDAK540-1	HKH1BNDRK540-1	HKH1BSDAK540-1	
2 Position Maintained - Spring L (Blank)	HKH1BNDAK640-1	HKH1BNDRK640-1	HKH1BSDAK640-1	









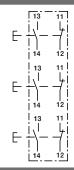






1C - Three Momentary Push Button 1 N.O. Start / 1 N.C Stop

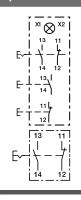




Contact Block	GF	Stainless Steel		
1 N.O/1 N.C x 3	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE	
GREEN: Start/(I)/Blank RED: Stop/(0)/Blank BLACK: Blank	HKHMOD8000016	ТВА	HKHMOD8000021	

1C - Red Indicator Light, Maintained Mushroom Push Button, Double Momentary Push Button





M				,		
	Contact Block	GF	Stainless Steel			
	1 N.O/1 N.C x 2 12V-254V AC/DC Red Indicator Lamp	M20 CLEARANCE	M20 THREADED	M20 CLEARANCE		
	RED E-Stop - Pull Release	HKHMOD8000017	ТВА	HKHMOD8000022		
	RED E-Stop - Twist Release	HKHMOD8000018	ТВА	HKHMOD8000023		

Ammeters 1A, 5A, 72mm						
Measuring Type	Measuring Range					
		0-1/2A				
DIDECT		0-4/8A				
DIRECT MEASURING	2	0-5/10A				
MEASONING		0-10/20A				
		0-15/30A				
FOR CURRENT	5	0-1/5A				
TRANSFORMER	5	0-2.5/12.5A				
THO WASH OR WILLY		0-5/25A				
		0-15/75A				
		0-25/125A				
		0-40/200A				
		0-50/250A				
		0-60/300A				
		0-75/375A				
	1	0-100/500A				
111111		0-150/750A				
		0-200/1000A				
	0-250/1250A					
	0-300/1500A					
1	~ x	0-400/2000A				
		0-500/2500A				
		0-600/3000A				

Ammeters / Voltmeters

A full range of Direct Measuring or Current Transformer Ammeters and Voltmeters are available.

Hawke Ammeters/Voltmeters will be offered in stainless steel or GRP, in enclosure sizes 1B or 1C. Voltmeter measuring range options will cover from 25Vac to 500Vac.

Direct Measuring Ammeters will be offered with five scale cards from 1 to 15 amps (2 times overload scale) and the Current Transformer option ranges from 1 to 600 amps (five times overload scale).

Ammeter/Voltmeter cases are 72mm wide and all come with a red line indicator to provide a clear current set point.

Contact Hawke sales office for more details.

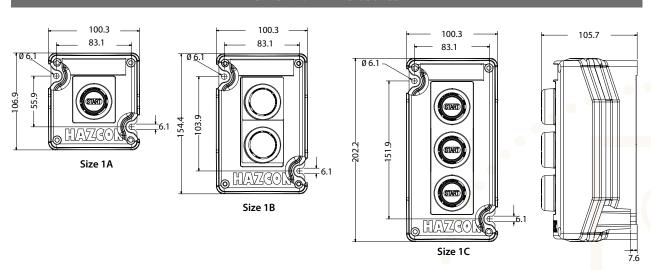




Voltmeters 72mm
Range (AC)
0-25V
0-40V
0-150V
0-250V
0-500V



Size 1 GRP Enclosures

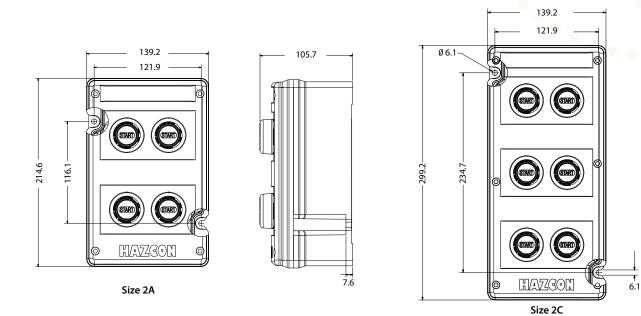


 ${\it Note:-Mounting\ hole\ dimensions\ moulded\ into\ enclosure\ base.}$

Maximum Quantity of Entries for Size 1A, 1B and 1C									
Entry Size	M20	M25	M32	20 mm	25 mm	32 mm	1/2" NPT	3/4" NPT	1" NPT
Face A (Top)	-	-	-	2	1	-	1	1	1
Face C (Base)	2	1	-	2	1	-	1	1	1

'M' before number denotes threaded entry. 'mm' after number denotes gland hole (unthreaded) - ECP optional

Size 2 GRP Enclosures

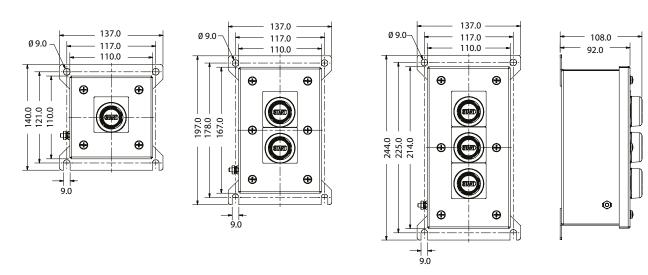


Maximum Quantity of Entries for Size 2A and 2C												
Entry Size M20 M25 M32 20 mm 25 mm 32 mm 1/2" NPT 3/4" NPT 1" NPT												
Face A (Top)	1	-	-	2	2	-	1	1	1			
Face C (Base)	` 1'											

 $'M'\ before\ number\ denotes\ threaded\ entry.\ 'mm'\ after\ number\ denotes\ gland\ hole\ (unthreaded)\ -\ ECP\ optional$

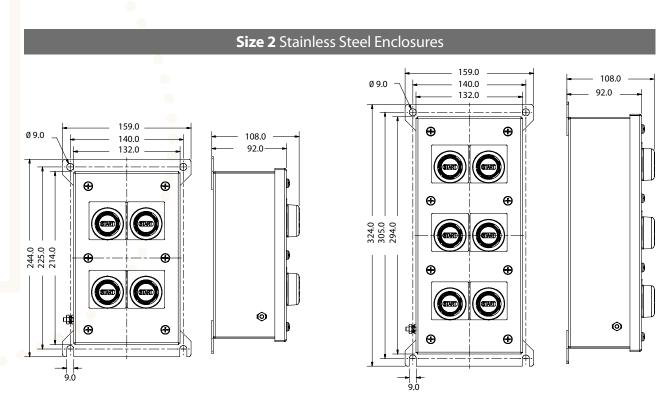


Size 1 Stainless Steel Enclosures



Maximum Quantity of Entries for Size 1 Stainless Steel Enclosures													
Entry Size M20 M25 M32 20 mm 25 mm 32 mm 1/2" NPT 3/4" NPT 1" NPT													
Face A (Top)	-	-	-	2	1	1	1	1	1				
Face C (Base)													

 $'M'\ before\ number\ denotes\ threaded\ entry.\ 'mm'\ after\ number\ denotes\ gland\ hole\ (unthreaded)\ -\ ECP\ optional$



Maximum Quantity of Entries for Size 2 Stainless Steel Enclosures												
Entry Size M20 M25 M32 20 mm 25 mm 32 mm 1/2" NPT 3/4" NPT 1" NPT												
Face A (Top) 2 2 1 1 1												
Face C (Base)												

 $'M'\ before\ number\ denotes\ threaded\ entry.\ 'mm'\ after\ number\ denotes\ gland\ hole\ (unthreaded)\ -\ ECP\ optional$



Modular Accessories

Applications

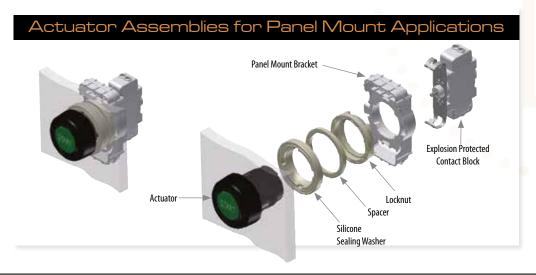
Wide range of polymeric pushbuttons, pilot lights and 2 or 3 way selector switches, for use in actuation and indication of control systems status in remote environments and maintaining operator safety with immediate action Emergency Stop systems. Modular accessories are certified components for use on control panels - (U certificate – see table below).

Features

- Ambient temperature operational range -50°C to +60°C
- LED indicator with 5 coloured lenses (amber, red, blue, green or clear)
- Single and double pushbuttons
- Emergency stop button option pull or twist to release. Key release option also available.
- Moulded one piece silicone gasket on operators
- High switch current contact blocks
- LED's are suitable for multifunction voltages for both AC and DC applications ranging from 12 to 254 volts
- Contact Modules can be supplied with panel mount brackets for lid mounting
- Operators are supplied complete with IP seals and locknuts
- Modular accessories are certified components for use on control panels (U certificate see table below)

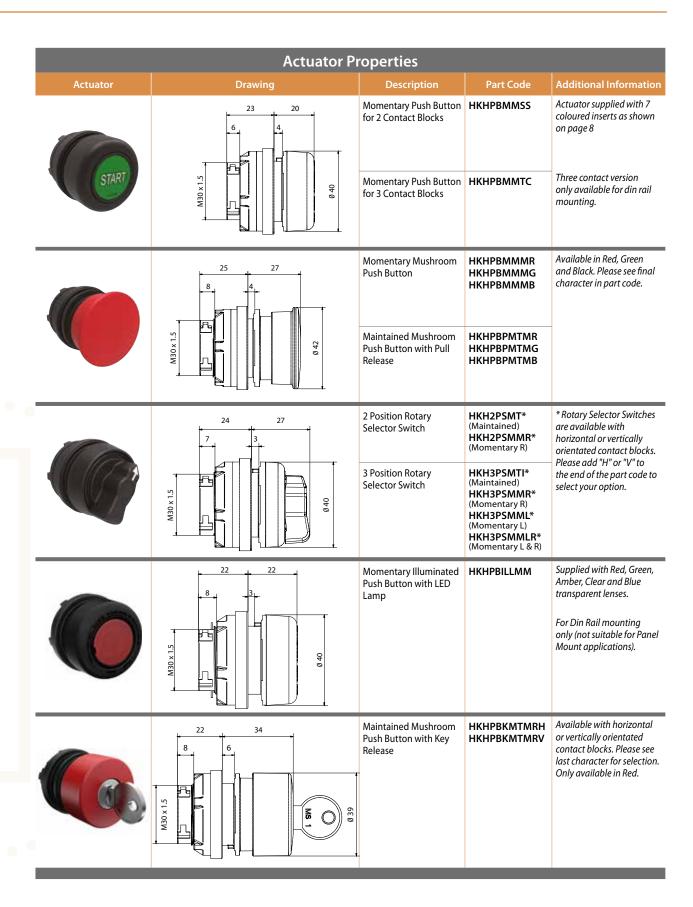
Global Certification

The modular accessories hold ATEX/IECEx/cULus component certification which will assist the end user in gaining third party certification from an approved body for his own assembled piece of equipment.

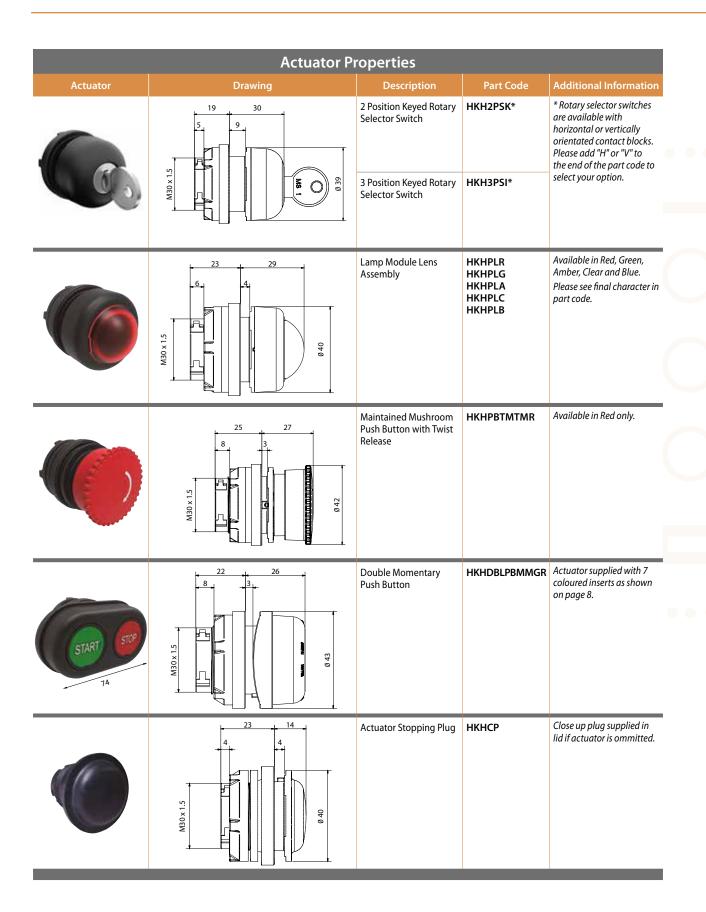


	Actuator Certification	
<u>Hazcon</u>	ATEX/IECEx	<u>cULus</u>
Certificates	DEMKO 14 ATEX 1400U UL 14.0104U	E12379, Vol. 1, Sec. 3
Area Classification	Suitable for use in Zone 1 and Zone 2, Gas Groups IIA, IIB and IIC	Class I, Zone 1 AEx e IIC Gb; Zone 21 Aex tb IIIC Db (US) Class I, Division 2, Groups A, B, C, D Class II, Zone 21 & 22 Class II, Division 1 Groups E, F, G (Canada only) Class II, Division 2 Groups E,F,G Class III
IP Rating	IP66	TYPE 3, 4, 4X,12,13
Protection Method	(Ex) II 2 G Ex e IIC Gb (Ex) II 2 G Ex tb IIIC Db	AEx e IIC Gb AEx tb IIIC Db (US) Ex e IIC Gb Ex tb IIIC Db (CAN)
Construction/Test Standards	IEC 60079-0:2011; IEC 60079-31:2013; IEC 60079-7:2006-07 EN 60079-0:2012 + A11:2013 EN 60079-7:2007; EN60079-31:2014	UL 60079-0 and CAN/CSA-C22.2 No. 60079-0 UL 60079-7 and CAN/CSA-C22.2 No. 60079-7 UL 60079-31 and CAN/CSA-C22.2 No 60079-31 UL508, UL50, UL50E and CSA C22.2 No. 94.2
Material	Polymeric bodies/lenses	Polymeric bodies/lenses
Operating Temperature	-50°C to 60°C	-50°C to 60°C











Panel Mount Actuators

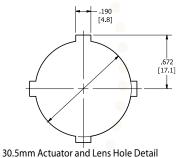
Hazcon actuators are available for installation into end user assemblies with either the Hazcon din rail assembly or the Hazcon panel mount bracket.

The Hazcon panel mount bracket has been designed to enable users to install contact modules in a vertical orientation, or a horizontal one, dependent upon the space available in the enclosure. Actuator part codes ending in 'H' or 'V' enable the user to correctly select the required actuator. The contact module(s) will either lie horizontally or vertically.

A keyway on the actuator ensures it will only fit the bracket in the correct orientation.

When installing other actuators such as push buttons & pilot lights the keyway must also be positioned in the same location as the rotary actuators. See Fig. 1 and Fig. 2

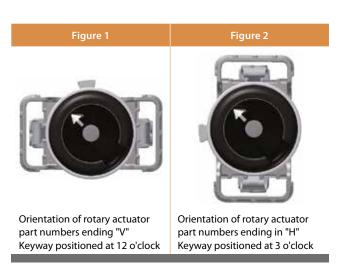
Actuators are intended for mounting into 30.5mm device openings in enclosure covers which have a thickness ranging between 1.02mm and 6.35mm. Intended for use with Hazcon contact modules.



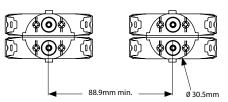
For ATEX / IECEx Applications:

Actuators and lens covers may be installed in a Group I and/or Group II, 'Ex e' increased safety enclosure with a minimum IP54 rating or an 'Ex d/tb' flameproof/dust ignition proof enclosure with a minimum IP64 rating. The final assembly should be submitted for full equipment approval to a third party certification body.

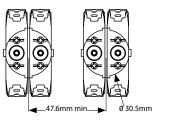




Minimum spacing is required for both horizontal and vertical mounting contact modules:



Minimum spacing for rotary actuator part numbers ending in "V"



 ${\it Minimum spacing for rotary actuator part numbers ending in "H"}$



	Lockout Options	
Product	Part Code	Description
159	НКНРВММДНІО	Hinged stainless steel lockout device for standard momentary pushbutton actuators in depressed position. Lockout hole size 6.60mm
	HKHPBSSMFCLO	Plastic flip cover lockout used for momentary push button actuators, selector switches and mushroom push button actuators. Lockout hole size 6.60mm
	НКНРВМВLО	Bar on chain, stainless steel lockout, used for mushroom head push button actuators, in depressed position. Can also be used to provide a shroud for emergency stop buttons to prevent accidental operation. Lockout hole size 8.80mm
	НКНРВМНLО	Hinged stainless steel lockout for mushroom push button actuators in depressed position. Lockout hole size 6.60mm

 $Lockout\,devices\,can\,be\,selected\,for\,installation\,into\,factory\,built\,control\,station.\,See\,page\,7.$

Brass Earth Continuity Plates									
Product Entry Size/Qty Part Code									
5 5	1 X M20	HKHGP11M20							
***	2 X M20	HKHGP12M20							
	1 X M25	HKHGP11M25							
	1 X M32	HKHGP11M32							
8 8	2 X M20	HKHGP22M20							
* • *	2 X M25	HKHGP22M25							
	1 X M32	HKHGP21M32							

Brass ECP can be selected for installation into factory built control station. See page 6.

	Accessories									
Product	Entry Size/Qty	Part Code								
	HKHANTOOL	Use to install actuators and lamp lenses correctly								
	НКНРМВПКТ	To install contact blocks into panel mount applications*								
	НКНСР	Cover plug								

 $[*] A lways \, select \, panel \, mount \, contact \, block/indicator \, (end \, in \, P)$



Factory Sealed Contact Block Modules

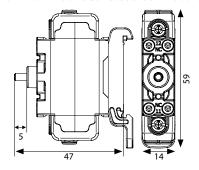


N/C-Normally Closed-Contact block is supplied in CLOSED position

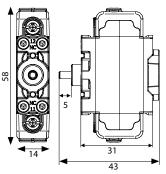
HKH1NO20P

 ${\it N/O-Normally\,Open-Contact\,block\,is\,supplied\,in\,OPEN\,position}$

DIN Rail Mount Contact Block Module



Panel Mount Contact Block Module



Features Specifications

- · Hawke Hazcon contact block modules have a switching capacity of 16 Amps
- Offered as individual components, customers can choose between panel mount or din rail* mount fixing style to manufacture self build control panels
- Silver alloy contacts with gold flashing
- Contact blocks are coloured white (N/O) or grey (N/C) for ease of identification



Stainless steel terminal screw head for use with the following screwdriver types:

- Slotted
- Phillips



Wire Range for 1 or 2 conductors as listed:

- 0.5 to 2.5mm² (Solid & Stranded)
- 4.0mm² (Stranded)
- Wire Strip 10mm
- **Terminal Torque 1.7 Nm**

AC230V 16A AC-15, 50-60Hz DC60V 5A DC-12

DC125V 1A DC-12

IEC Electrical Ratings

AC690V 16A AC-12, 50-60Hz

* Din rail mount contact block modules must be mounted on Hazcon din rail

When terminal covers are installed there are no accessible live parts, so contact blocks and pilot lights are IP20 touch safe.

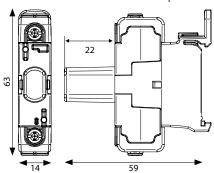
Contact Block Certification

<u>Hazcon</u>	ATEX/IECEx	<u>cULus</u>
Certificates	DEMKO 12 ATEX 1202251U IECEx UL 12.0033U	UL File E12379, Volume 3, Section 1
Area Classification	Suitable for use in Zone 1 and Zone 2, Gas Groups IIA, IIB and IIC	Suitable for use in Zone 1 and Zone 2, Gas Groups IIA, IIB and IIC; Class I, Division 2, Groups A, B, C, D
Protection Method	(a) I M 2 Ex de I Mb (b) II 2 G Ex de IIC Gb	AEx de IICT4 (US) Ex de IICT4 X (CAN)
Construction/Test Standards	IEC 60079-0:2011; IEC 60079-1:2007-04; IEC 60079-7:2006-07 EN 60079-0:2012 + A11;2013 EN 60079-1:2007; EN 60079-7:2007	UL 60079-0 and CAN/CSA-C22.2 No. 60079-0:11 UL 60079-1 and CAN/CSA-C22.2 No. 60079-1:11 UL 60079-7 and CAN/CSA C22.2 No. 60079-7:12 UL 508 and CSA C22.2 No. 14-10
Material	Polymeric housing Brass alloy terminals Stainless Steel plunger and bushings	Polymeric housing Brass alloy terminals Stainless Steel plunger and bushings
Operating Temperature	-50°C to 60°C	-50°C to 60°C



Factory Sealed Indicator Lamp Modules HKHPLD HKHPLP





Features Specifications

Hazcon Indicator Lamp modules are available for illuminated indication. High ambient temperature range make the module ideally suited for use in harsh or hazardous areas. Available as din rail or panel mount*.

Wire Range for 1 or 2 conductors as listed:

- 0.5 to 2.5mm² (Solid & Stranded)
- 4.0mm² (Stranded)
- Wire Strip 10mm
- Terminal Torque 1.7 Nm
- IEC Electrical Ratings 0.6 Watts 12-254 Vac/Vdc 50-60Hz Approx LED life 50,000 hours



Coupling Indicator Lamp modules with Contact Blocks allows for the use of an illuminated momentary push button, allowing both device operation and status indication.

Push buttons are available in a choice of colours. (red, blue, amber, green and clear)

Pilot Light Certification

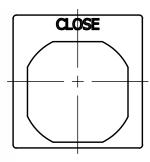
<u>Hazcon</u>	ATEX/IECEx	<u>cULus</u>
Certificates	DEMKO 14 ATEX 1337U UL 14.0047U	E12379, Volume 1, Section 2
Area Classification	Suitable for use in Zone 1 and Zone 2, Gas Groups IIA, IIB and IIC	Class I, Zone 1 and 2 Class I, Division 2, Groups A, B, C, D
Protection Method	(Ex) I M 2 Ex de I Mb (Ex) II 2 G Ex de IIC Gb	AEx de IICT4 (US) Ex de IICT5 X (CAN)
Construction/Test Standards	IEC 60079-0:2011; IEC 60079-1:2007-04; IEC 60079-7:2006-07 EN 60079-0:2012 + A11;2013 EN 60079-1:2007; EN 60079-7:2007	UL 60079-0 and CAN/CSA-C22.2 No. 60079-0:11 UL 60079-1 and CAN/CSA-C22.2 No. 60079-1:11 UL 60079-7 and CAN/CSA C22.2 No. 60079-7:12 UL 508 and CSA C22.2 No. 14-10
Material	Polymeric flameproof housing; metallic terminals	Polymeric flameproof housing; metallic terminals
Operating Temperature	-50°C to 60°C	-50°C to 60°C

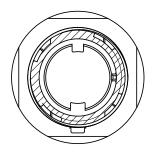


^{*} Din rail mount lamp modules must be mounted on Hazcon din rail

Custom made labels or tag numbers can be affixed to the indented part of the Hazcon lid. Label size 16mm by 68.6mm







Actuator Legend Plates

Hawke Hazcon actuators can be fitted with additional legend plates to indicate the actuator's operating function. The Hazcon legend plate is designed to fit in-between the actuator and the enclosure lid.

Please Note: When legend plates are installed on Hazcon GRP enclosures, the legend must be installed so that the four flat sides align with the four flat areas of the lid recess. Failure to do so may impair the controls stations ingress protection and switching operation. Only Hawke Hazcon legend plates are permitted for use.

Legend Plate Ordering

Standard Legends

Legend plates are available with several standard options.

To order a standard legend insert the number/character into the highlighted section of the part code.

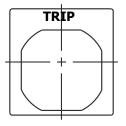
Example: HKH1ANDRP15A-1

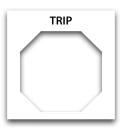
A denotes selection of legend.

A - START

Custom Legend

Custom Legends of up to 18 characters can also be supplied, by inserting '1' in the part code and providing a text description of your required legend.





	Title Codes for Ordering									
Code	Legend	Legend	Code	Legend						
Α	START	J	OPEN	S	OFF-ON	0	BLANK			
В	STOP	K	CLOSE	Т	UP-DOWN	1	SPECIFY CUSTOM MARKING			
c	POWER ON	L	FORWARD	U	RAISE-LOWER	2	RAISE-OFF-LOWER			
D	POWER OFF	М	REVERSE	V	SLOW-FAST	3	JOG-OFF-RUN			
E	EMERGENCY STOP	N	RESET	w	FWD-REV	4	RUN-OFF-JOG			
F	PUSH TO TEST	P	UP	Х	HAND-AUTO	5	FWD-OFF-REV			
G	G RAISE Q DOWN			Υ	OPEN-CLOSE	9	HAND-OFF-AUTO			
Н	LOWER	R	ON-OFF	z	OFF-REMOTE					



Singl	e/Double Compr	ession	Cable G	ilands	- ATEX/I	ECEx		
Gland	Part Number	Suffix for Material	Part Code Selector	Cable Type	Outer Min (mm)	Sheath Max (mm)		Sheath Max (mm)
	501/421/Os/M20	/B	H1		3.2	8	, IVIIII (IIIII)	Max (IIIII)
	501/421/O/M20	/B	H2	abl	6.5	11.9		
	501/421/A/M20	/B	H3	ed c	10.0	14.3		
501/421 Single Compression	501/421/B/M25	/B	H4	ulat	13.0	20.2	-	
Single Compression	501/421/C/M32	/B	H9	insı	19.5	26.5		
	501/421/Os/M20	/NP	H5	stic	3.2	8.0	<u>e</u>	a
	501/421/O/M20	/NP	H6	bld .	6.5	11.9	cabl	Not Applicable
V	501/421/A/M20	/NP	H7	5	10.0	14.3	ildo	ildo
	501/421/B/M25	/NP	H8	эшс	13.0	20.2	Not Applicable	t Ap
	501/421/C/M32	/NP	HE	lasto	19.5	26.5	Š	Š
	501/421/Os/M20	/S	НА	e el	3.2	8.0		
	501/421/O/M20	/S	НВ	Non-armoured elastomer or plastic insulated cable	6.5	11.9		
	501/421/A/M20	/S	НС		10.0	14.3	-	
	501/421/B/M25	/S	HD	n-a	13.0	20.2		
	501/421/C/M32	/S	HF	ž	19.5	26.5		
	501/453/RAC/Os/M20	/B	J1		5.5	12.0	3.2	8.0
	501/453/RAC/O/M20	/B	J2	our	9.5	16.0	6.5	11.9
	501/453/RAC/A/M20	/B	J3	le Ju	12.5	20.5	10.0	14.3
501/453/RAC	501/453/RAC/B/M25	/B	J4	cab	16.9	26.0	13.0	20.2
Double Compression	501/453/RAC/C/M32	/B	J9	el ta ted	22.0	33.0	19.5	26.5
	501/453/RAC/Os/M20	/NP	J5	ste sula	5.5	12.0	3.2	8.0
	501/453/RAC/O/M20	/NP	J6	Single wire armour/wire braid/steel tape armour/ elastomer and plastic insulated cable	9.5	16.0	6.5	11.9
HUMBEL .	501/453/RAC/A/M20	/NP	J7		12.5	20.5	10.0	14.3
	501/453/RAC/B/M25	/NP	J8		16.9	26.0	13.0	20.2
	501/453/RAC/C/M32	/NP	JE	our,	22.0	33.0	19.5	26.5
	501/453/RAC/Os/M20	/S	JA	mer mer	5.5	12.0	3.2	8.0
	501/453/RAC/O/M20	/S	JB	ire a	9.5	16.0	6.5	11.9
	501/453/RAC/A/M20	/S	JC	e w	12.5	20.5	10.0	14.3
	501/453/RAC/B/M25	/S	JD	ingl	16.9	26.0	13.0	20.2
	501/453/RAC/C/M32	/S	JF	Ŋ	22.0	33.0	19.5	26.5
	501/453/UNIV/Os/M20	/B	U1	r S.	5.5	12.0	3.5	8.1
	501/453/UNIV/O/M20	/B	U2	nour/ articular cteristics.	9.5	16.0	6.5	11.4
	501/453/UNIV/A/M20	/B	U3	nou artic	12.5	20.5	8.4	14.3
501/453/UNIV Double Compression	501/453/UNIV/B/M25	/B	U4	e arr or p	16.9	26.0	11.1	19.7
for soft bedded cables	501/453/UNIV/C/M32	/B	U9	tape e. Fe v′cł	22.0	33.0	17.6	26.5
	501/453/UNIV/Os/M20	/NP	U5	abl flov	5.5	12.0	3.5	8.1
	501/453/UNIV/O/M20	/NP	U6	d/st ed c	9.5	16.0	6.5	11.4
	501/453/UNIV/A/M20	/NP	U7	brai ulat bit 'c	12.5	20.5	8.4	14.3
	501/453/UNIV/B/M25	/NP	U8	ins ins	16.9	26.0	11.1	19.7
	501/453/UNIV/C/M32	/NP	UE	ur/w istic iat e	22.0	33.0	17.6	26.5
	501/453/UNIV/Os/M20	/S	UA	not I pla	5.5	12.0	3.5	8.1
	501/453/UNIV/O/M20	/S	UB	and and	9.5	16.0	6.5	11.4
	501/453/UNIV/A/M20	/S	UC	wire ner :h c	12.5	20.5	8.4	14.3
	501/453/UNIV/B/M25	/S	UD	Single wire armour/wire braid/steel tape armour/ elastomer and plastic insulated cable. For particular use with cables that exhibit cold flow' characteristic.	16.9	26.0	11.1	19.7
	501/453/UNIV/C/M32	/S	UF	Sin ela: use	22.0	33.0	17.6	26.5

Cable Gland Material Codes: **B** Brass **NP** Nickel Plated Brass **S** Stainless Steel

For further cable gland information go to www.ehawke.com

ORDER EXAMPLE

SERIES	ENCLOSURE MATERI	AL MODULE MOUNTING	ENTRY	ЕСР	ACTUATOR	MODULE TYPE	LEGEND	ACTUATOR ACCESSORY	ENTRY ACCESSORY	INT/EXT	CERTIFICATION
НКН	1A N	D	Α	E	M7	5	E		J2		-1

 $White \ box\ must\ be\ populated.\ Grey\ indicates\ optional.$





