



# Certificate of Compliance

**Certificate:** 2633583

**Master Contract:** 178267

**Project:** 80149406

**Date Issued:** 2022-11-24

**Issued To:** Hawke International A Division of Hubbell Limited  
Oxford St W  
Ashton-Under-Lyne, Manchester, OL7 0NA  
United Kingdom

**Attention:** Sim Mashanga

*The products listed below are eligible to bear the CSA Mark shown*

**Issued by:** *Joe DaSilva*  
Joe DaSilva



## **PRODUCTS**

CLASS - C623801 - RECEPTACLES Attachment Plug Type and Plugs - For Hazardous Locations

CLASS - C623881 - RECEPTACLES-Attachment Plug Type and Plugs For Hazardous Locations-Certified to U.S. Standards

**Ex de IIC T6 Gb, Ex tb IIIC T80°C Db; IP66 and IP67**

**Class I, Zone 1, AExde IIC T6 Gb, Zone 21 AExtb IIIC T80°C Db; IP66 and IP67**

**Class III, Division 1; Class II, Division 1, Groups E, F, and G.**

**Instrumex Series multi-pin, live disconnect and connect connector system;** maximum of 4 to 8 or 9 conductors are rated up to 250 Vac. 10 A or 60 Vdc. 2.5A and 1.5 - 2.5 mm<sup>2</sup> (14 - 16 AWG) cable; maximum of 9 conductors are rated up to 250 Vac. 1A or 60 Vdc .0.25A and 0.39 mm<sup>2</sup> (22 AWG) cable; Ta -40C to 60C



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**Material Code**

<b>A</b>	Aluminum
<b>B</b>	Brass
<b>N</b>	Nickel Plated Brass
<b>Y</b>	Bronze
<b>S</b>	Stainless steel
<b>I</b>	Steel

**Connector Style**

<b>CP</b>	Connector Plug
<b>FP</b>	Flanged Connector Plug
<b>CR</b>	Connector Receptacle
<b>FR</b>	Flanged Connector Receptacle
<b>BR1</b>	Bulkhead Receptacle (Fixed Pos 1 Std)
<b>BR2</b>	Bulkhead Receptacle (Fixed Pos 2)
<b>BR3</b>	Bulkhead Receptacle (Fixed Pos 3)
<b>BR4</b>	Bulkhead Receptacle (Fixed Pos 4)
<b>BR5 M</b>	Bulkhead Receptacle (Fixed Pos 5) Metric M20 (standard)

**Entry Thread**

<b>M</b>	4/8 way M20 (Metric standard), 9 way M32 (Metric standard)
<b>N</b>	4/8 way NPT 1/2" (NPT Standard), 9 way NPT 3/4" (NPT Standard),
<b>R</b>	4/8 way NPT 3/4" (NPT Alternative), 9 way NPT 1" (NPT Alternative)
<b>A</b>	Earth Adaptor 9 way M25
<b>X</b>	N/A (for CP or CR) <u>Conductor terminations</u>

**Conductor terminations**

<b>A</b>	4 x 0.5 – 1 mm <sup>2</sup> (20 AWG) *
<b>B</b>	4 x 1.5 - 2.5 mm <sup>2</sup> (14 AWG) *
<b>C</b>	8 x 0.14 - 0.37 mm <sup>2</sup> (22 AWG)
<b>D</b>	9 x 0.5 – 1 mm <sup>2</sup> (20 AWG) *
<b>E</b>	9 x 1.5 - 2.5 mm <sup>2</sup> (14 AWG) *

*\*Note: 4 or 9 conductor Bulkhead Receptacles are supplied with 1.5mm<sup>2</sup> conductor terminations only*

**Insert Type**

<b>P</b>	Pin Insert **
<b>S</b>	Socket Insert **

*\*\* Note: In all installations the "live" side of the connector must always contain the socket insert.*

**Outer Sheath Diameter**

<b>S</b>	Cable Seal (2 Seals) 5.5 - 16mm
<b>A</b>	Cable Seal (1 Seal) 12.5 – 20.5mm
<b>B</b>	Cable Seal (1 Seal) 16.9 - 26mm
<b>X</b>	N/A (Bulkhead Receptacle)



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**Bulkhead Receptacle Cable Length**

<b>0</b>	0.5m (standard)
<b>1</b>	1m
<b>2</b>	2m
<b>C</b>	Customer Specified
<b>X</b>	N/A (for Connector Plug and Receptacle)

**Bulkhead Receptacle Pin Quantities** ①

<b>2</b>	2 (pins 1 and 3 terminated) 4 way①
<b>3</b>	3 (pins 1,2 and 3 terminated) 4 way①
<b>4</b>	4 (pins 1-4 terminated) Std. 4 way①
<b>8</b>	8 (pins 1-8 terminated) Std. 8 way①
<b>9</b>	9 (pins 1-9 terminated) Std. 9 way①
<b>C</b>	Customer Specified
<b>X</b>	N/A (for Connector Plug and Receptacle)

① *Note: Bulkheads include an additional ground/earth lead*

**NOTE:**

1. Following disconnection, the energized power supply must only be connected to the connector part incorporating the socket connections.
2. The connector part containing the pin connections must not be connected to equipment containing a power supply or energy storage devices likely to cause the plug to remain energized after disconnection.
3. The protective caps are to be fitted immediately following separation.
4. The bulkhead connector is not to be fitted to enclosures/bulkheads where the interface temperature may exceed 80°C. In addition, the integral cables shall be mechanically protected.
5. The bulkhead mounting, shall be sealed in accordance with the installation code of practice to ensure that a minimum ingress protection level of IP66 is maintained.

**Ex d IIC T5 or T6 Gb, Ex tb IIIC T95 or T80°C Db; IP66 and 67**

**Class I, Zone 1, AEx d IIC, T5 or T6 Gb, Zone 21 AEx tb IIIC T95 or T80 C Db, IP66 and 67**

**Class III, Division 1; Class II, Division 1, Groups E, F, and G.**

**Controlex Series multi-pin connector system:** maximum of 60 conductors and ground are rated up to 600Va.c. or DC; maximum current rating of 125 Amps (with 35 sq mm – 1AWG contacts and ground); Ta -40C to +60°C

**Catalogue Logic**

**Method of PROTECTION**

Exd Flameproof



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**Shell Size**

16	16
25	25
32	32
40	40
50	50
63	63

**Material Code**

<b>A</b>	Aluminum
<b>B</b>	Brass
<b>N</b>	Nickel Plated Brass
<b>Y</b>	Bronze
<b>S</b>	Stainless steel
<b>I</b>	Steel

**Connector Style**

<b>CP</b>	Connector Plug
<b>CR</b>	Connector Receptacle
<b>BR</b>	Bulkhead Receptacle

**Keying System**

<b>F</b>	Fixed Keying
<b>V</b>	Variable Keying

**Number of Contacts**

See Insert Selection Chart	
<b>X</b>	No Insert

**Contact Type**

<b>1.5</b>	1.5 mm <sup>2</sup>
<b>2.5</b>	2.5 mm <sup>2</sup>
<b>4</b>	4 mm <sup>2</sup>
<b>6</b>	6 mm <sup>2</sup>
<b>10</b>	10 mm <sup>2</sup>
<b>16</b>	16 mm <sup>2</sup>
<b>25</b>	25 mm <sup>2</sup>
<b>35</b>	35 mm <sup>2</sup>

<b>X P</b>	No Insert Pin
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**Insert Type**

**S** Socket  
**X** No Insert  
**S** Solder\*

**Termination Style**

**C** Crimp\*  
**X** No Insert  
**FL** Mounting Flange

\* Note: Inserts for use in Bulkhead receptacles are solder termination only for contact sizes of 6mm<sup>2</sup> and above.

**Accessories**

**FPC** Flameproof Plug Cap  
**FRC** Flameproof Receptacle Cap  
**PPC** Environmental Plug Cap  
**PRC** Environmental Receptacle Cap

**NOTE:**

1. These connectors must be electrically isolated before any attempt is made to remove the covers or join or separate the two halves
2. When separated the metal flameproof caps (not the acetal environmental caps) shall be fitted and locked before any associated supply cables are re-energised.
3. The cable entry devices selected for use with the in-line connectors shall provide a mechanical cable retention facility appropriate to the cable type and conditions of service.
4. The cables terminated within the bulkhead connectors shall be mechanically protected from pulling and twisting, and the potted ferrule shall not be subjected to temperatures exceeding 100 °C.
5. The cable entry threads, or bulkhead mounting, shall be sealed in accordance with the installation code of practice to ensure that a minimum ingress protection level of IP66 is maintained.

**Exd IIC T5 Gb, Extb IIIC T95°C Db; IP66 and 67**

**Class I, Zone 1, AExd IIC T5Gb, Zone 21 AExtb IIIC T95°C Db; IP66 and 67**

**Class III, Division 1; Class II, Division 1, Groups E, F, and G.**

**Powerex Series multi-pin connector system:** maximum of 4 conductors and ground are rated up to 600V ac or dc.; Maximum current 780 Amps (with 630sqmm – 1000MCM and ground); Ta -40C to 60°C

**Catalogue Logic**

**Method of PROTECTION**

**Exd** Flameproof



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**Shell Size**

32  
40  
50  
63  
75

**Material Code**

A Aluminum  
B Brass  
N Nickel Plated Brass  
Y Bronze  
S Stainless steel  
I Steel

**Connector Style**

CP Connector Plug  
CR Connector Receptacle

**Internal Ground Size**

A 50 mm<sup>2</sup> (1/0 AWG)  
B 70 mm<sup>2</sup> (2/0 AWG)  
C 95 mm<sup>2</sup> (4/0 AWG)  
D 120 mm<sup>2</sup> (250 MCM)  
E 150 mm<sup>2</sup> (300 MCM)  
F 185 mm<sup>2</sup> (400 MCM)  
G 240 mm<sup>2</sup> (500 MCM)

**Number of Contacts**

See Insert Selection Chart

X No Insert

**Contact Type**

<b><u>Size</u></b>	<b><u>Contact Type</u></b>	<b><u>Maximum Conductor Acceptance Diameter (mm)</u></b>
50	50 mm <sup>2</sup>	9.5
70	70 mm <sup>2</sup>	11.5
95	95 mm <sup>2</sup>	13
120	120 mm <sup>2</sup>	14.5
150	150 mm <sup>2</sup>	16.5
185	185 mm <sup>2</sup>	18.5
240	240 mm <sup>2</sup>	20.5
300	300 mm <sup>2</sup>	25
400	400 mm <sup>2</sup>	29
500	500 mm <sup>2</sup>	32



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**630**                      630 mm<sup>2</sup>                                      38

**Insert Type**

**P**                      Pin  
**S**                      Socket

**Accessories**

**FL**                      Mounting Flange\*  
**FPC**                      Flameproof Plug Cap  
**FRC**                      Flameproof Receptacle Cap  
**PPC**                      Environmental Plug Cap  
**PRC**                      Environmental Receptacle Cap

**NOTE:**

- 1) The Powerex Series plugs and connectors may be supplied with factory installed cable at a length specified by the customer. The cable will be certified in accordance with the CEC or NEC rules as applicable
- 2) These connectors must be electrically isolated before any attempt is made to remove the covers or join or separate the two halves
- 3) When separated the metal flameproof caps (not the acetal environmental caps) shall be fitted and locked before any associated supply cables are re-energised.
- 4) The cable entry devices selected for use with the in-line connectors shall provide a mechanical cable retention facility appropriate to the cable type and conditions of service.
- 5) The cable entry threads shall be sealed in accordance with the installation code of practice to ensure that a minimum ingress protection level of IP66 is maintained.

**APPLICABLE REQUIREMENTS**

CAN/CSA-C22.2 No. 0-10	General Requirements - Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 0.4-04	Bonding of Electrical Equipment
C22.2 No. 182.1-13	Plugs, receptacles, and cable connectors of the pin and sleeve type
C22.2 No. 182.3-M1987	Special use Attachment Plugs, Receptacles, and Connectors
CAN/CSA-C22.2 60079-0:11	Explosive atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 60079-1:11	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
CAN/CSA-C22.2 60079-7:12	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
CAN/CSA-C22.2 60079-31:12	Explosive atmospheres – Part 31: Equipment Dust Ignition Protection by Enclosure “t”
UL 1977, Second Edition	Component Connectors for Use in Data, Signal, and Power Applications Control
UL 60079-0, Sixth Edition	Explosive atmospheres - Part 0: Equipment - General requirements
UL 60079-1, Sixth Edition	Explosive Atmospheres - Part 1: Equipment Protection by Flameproof Enclosures “d”

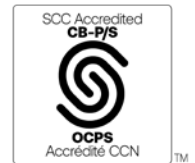


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UL 60079-7, 4th Ed.	Explosive Atmospheres – Part 7: Equipment protection by increased safety “e”
ANSI/ISA – 60079-31 (12.10.03) - 2009	Explosive atmospheres – Part 31: Equipment Dust Ignition Protection by Enclosure :t”

Products certified under Class C623801, C623881 have been certified under CSA’s ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://www.scc.ca)







## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
80149406	2022-11-24	Update cCSAus report 2633583 for multi-pin connector systems to add nickel plated brass options to InstrumEx and ControlEx Series and for removal of IEC standards from “Applicable Standards.”
70021433	2015-04-09	Evaluate and expand Instrumex Series connector system product range to include 9 pin configurations
2706356	2014-03-27	Update to Report 2633583 to include alternate plastic materials, ratings update and new model
2633583	2013-07-26	Initial Hazardous Locations Certification of Instrumex and Controlex connector series