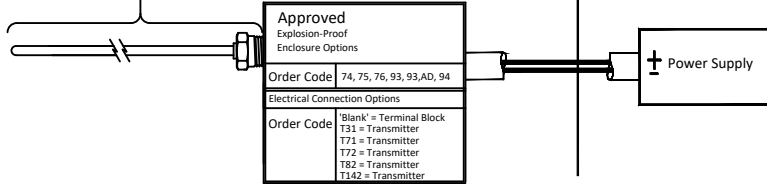


Hazardous (Classified) Location

Class I, Division 1, Group A, B, C, D; Class II, Division 1, Group E, F, G; Class III

P/N Prefix	
Code	Description
HL09	US, Canada - Divisions - XP and DIP

Sensor Assembly RTD or T/C



Nonhazardous Locations



Installation Notes for XP01, XP02, XP03, XP04, XP05, XP06, XP07
CAUTION - DO NOT OPEN WHEN EXPLOSIVE ATMOSPHERE IS PRESENT
CAUTION - SEAL ENTRIES WITHIN 18 INCHES OF ENCLOSURE
ATTENTION - NE PAS OUVRIR EN PRÉSENCE D'UNE ATMOSPHÈRE EXPLOSIVE
ATTENTION - SCELLER LES ENTRÉES À MOINS DE 18 INCHES DE L'ENCEINTE



- Approved apparatus must be installed in accordance with manufacturer instructions
- Install per: US: US National Electric Code; Canada: Canadian Electrical Code
- Keep all connections and covers tight when circuits are alive. Do not open/remove covers unless area is known to be safe. Covers must be screwed tight and secured; with safety catch (see note below), if supplied, must be fastened before putting into service.
- Unused cable entries must be sealed by Ex certified blanking elements.
- Warning: Substitution of components may impair suitability for approved classification.
- The XP joints are not field repairable, contact manufacturer if dimensional information is needed.
- All conduits must be assembled with a minimum of five full threads engagement.
- Class II use a dust tight seal.
- Enclosures must be approved for the appropriate area classification.
- Seal all conduits within 18 inches of the enclosure.
- Only certified cable and cable glands shall be used that are suitable for the application and correctly installed.
- For enclosure 93 and 93,AD Class II, III, electrostatic charging of external surfaces shall be avoided.
- No modification of the enclosure is allowed by the customer except as mentioned in the manual or installation drawing.


Conditions of Use:

- The assembly is permanently connected, Equipment Class III, Pollution Degree 2, Overvoltage Category NA
- Mode of operation: Continuous
- Environmental Conditions: Outdoor, Wet Locations, -40 TO +85°C, 5000 m max.
- Use supply wires rated $\geq 5^\circ\text{C}$ higher than the maximum ambient temperature.
- This equipment may only be powered by a power supply unit with a limited energy electric circuit: In accordance with CAN/CSA C22.2 No. 61010-1-12 and ANSI/UL 61010-1, Limited Power Source (LPS) in accordance with CSA/UL 60950-1 or Class 2 source as defined in the Canadian Electrical Code C22.1, Section 16-200 and/or National Electrical Code (NFPA 70), article 725.121.
- $T_p \leq 180^\circ\text{C}$: If the assembly is physically connected to a possible source of heating or cooling, e.g. by mounting to a process pipe or temperature sensor, the temperature at the field wiring enclosure shall be within the ambient temperature ratings as given in the certificate or instructions.
 - Heat transfer from the process must not cause the wiring enclosure to exceed any other marked T_a , T-code (gas), or surface temperature (dust) rating of the assembly. It is the User's responsibility to ensure that the ambient around the assembly enclosure do not exceed the permitted ambient. Prevention measures include installing suitable insulation or an assembly with a suitable length and thermal insulation (lagging).
 - When the process temperature exceeds the service temperature range it shall be verified by on-site temperature measurements, taking the worst-case conditions into account, that the service temperature does not exceed the temperature range of the field wiring enclosure.
- Ambient pressure: $P(\text{max}) \leq 110 \text{ kPa bar (15.95 psig)}$;
 - Ambient pressure or process pressure limit is the atmospheric ambient pressure that applies to the field wiring enclosure and internal components of the assembly, and not applicable to process pressures external to device.
 - Thermowells - material and process pressure: Ensure the thermowell material and MAWP is suitable for the intended use.
- Temperature sensor element must be protected from impact, environmental and / or physical damage by installation.
- The enclosure must be connected to a potential matching line.

- Safety Catch Instructions - Enclosure: Location: Tool
 93, 93,AD, 94: Enclosure body / cover joint: $\frac{1}{8}$ " hex wrench
 74: Enclosure body / cover joint - in between conduit entrance threads: 3mm hex wrench
 75: Enclosure body / cover joint: 3mm hex wrench
 76: Enclosure body / cover joint - on top of conduit thread entry: 3mm hex wrench

Enclosure	Electrical Rating	Hazardous Location; T_a ; T-code	
		Configuration Codes XP01, XP02, XP03, XP04, XP07	Configuration Code XP05 or XP06
74 with T71, T72 or T82	T71 / T72 36 Vdc max., 23 mA T82 42 Vdc max., 23 mA	CL I, DIV 1, GP A,B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +70/+80/+85°C T6/T5/T4	CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +70/+80/+85°C T6/T5/T4
74 with Terminal Block	n/a	CL I, DIV 1, GP A,B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +75/+90/+100°C T6/T5/T4	CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +75/+90/+100°C T6/T5/T4
75 with T142	36 Vdc max., 3 W	CL I, DIV 1, GP A,B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +55/+70/+85°C T6/T5/T4 w/o Display T_a : -40°C To +55/+70/+70°C T6/T5/T4 with Display	CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +55/+70/+85°C T6/T5/T4 w/o Display T_a : -40°C To +55/+70/+70°C T6/T5/T4 with Display
76 with T71, T72 or T82	T71 / T72 36 Vdc max., 23 mA T82 42 Vdc max., 23 mA	CL I, DIV 1, GP A,B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +70/+80/+85°C T6/ T5/ T4	CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +70/+80/+85°C T6/ T5/ T4
93 or 93,AD with T31	T31 36 Vdc max., 23 mA	CL I, DIV 1, GP A,B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -20°C To +35/+50/+85°C T6/T5/T4 CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +35/+50/+85°C T6/T5/T4	CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +35/+50/+85°C T6/T5/T4
93 or 93,AD with T71, T72 or T82	T71 / T72 36 Vdc max., 23 mA T82 42 Vdc max., 23 mA	CL I, DIV 1, GP A,B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -20°C To +70/+80/+85°C T6/T5/T4 CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +70/+80/+85°C T6/T5/T4	CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +70/+80/+85°C T6/T5/T4
93 or 93,AD with Terminal Block	n/a	CL I, DIV 1, GP A,B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -20°C To +75/+90/+100°C T6/T5/T4 CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +75/+90/+100°C T6/T5/T4	CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +75/+90/+100°C T6/T5/T4
94, 74 with T31	T31 36 Vdc max., 23 mA	CL I, DIV 1, GP A,B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +35/+50/+85°C T6/T5/T4	CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +35/+50/+85°C T6/T5/T4
94 with T71, T72 or T82	T71 / T72 36 Vdc max., 23 mA T82 42 Vdc max., 23 mA	CL I, DIV 1, GP A,B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +70/+80/+85°C T6/T5/T4	CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +70/+80/+85°C T6/T5/T4
94 with Terminal Block	n/a	CL I, DIV 1, GP A,B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +75/+90/+100°C T6/T5/T4	CL I, DIV 1, GP B,C,D CL II, DIV 1, GP E,F,G; CL III T_a : -40°C To +75/+90/+100°C T6/T5/T4

ENCLOSURE	# CONDUIT ENTRIES	THREAD SIZE
76, 93, 93AD, 94	1	3/4" - 14 NPT
74	2	3/4" - 14 NPT
75	2	1/2" - 14 NPT

TITLE: Pyromation Installation Drawing CSA c/us XP, DIP Assembly: HL09		PART NUMBER:		REVISION DATE: 08/10/2023		 FORT WAYNE, INDIANA 260-484-2580
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