

APPROVAL			
CODE DESCRIPTION			
HL06	ATEX / IECEx - Ex db, Ex tb		

RTD ELEMENT OPTIONS

1st and 2nd characters	3rd character
R1 (Grade B)	T (thin film)
R3 (Class AA)	F (wire wound)
R5 (1/5 IEC Class B)	
RA (Class A)	4th character
IA (Class A)	1 (single element)
RB (Class B)	2 (dual element)
RC (Class C)	•
RD (Class D)	

5th and 6th	7th digit character		
character			(metallic sheath
10 (10 Ω Cu)	w/ refractory powder) H (mineral insulated sheath)		
12 (120 Ω Ni)			
25 (200 Ω Pt)			
55 (500 Ω Pt)	Element Connection		
85 (100 Ω Pt)		Code	Description
92 (100 Ω Pt)		2	2 Wires
95 (1000 Ω Pt)		3	3 Wires
		4	4 Wires

Sheath Diameter and material (first digits are diameter, ending digits are material) 1/4" Sheath Diameter - Mineral

sulated Sheath. Material: 8 = stainless steel, (see list of other material codes) 3/8" Sheath Diameter – Mineral Insulated Sheath, Material 8 = stainless steel, (see list of other material codes) Other Material Code Options: 3 = Alloy 600, 4 = 310 SS, 5 = 446 SS, 8 = 316 SS, 32 = 316L SS, 29 = Alloy C-276, 41= HR160

Above with "Z" at end – does not affect Safety or Certification (suffix at end of p/n: is Z + 3 or 4

Z521 = Shin-Etsu sensor potting Z371 = 20 Gauge sensor lead-wire

E, EE, EEE	Single (E), Double (EE), Triple (EEE) Thermocouple
1, 11, 111	Single (J), Double (JJ), Triple (JJJ) Thermocouple
K, KK, KKK	Single (K), Double (KK), Triple (KKK) Thermocouple
т, тт, ттт	Single (T), Double (TT), Triple (TTT) Thermocouple
N, NN, NNN	Single (N), Double (NN), Triple (NNN) Thermocouple

Thermocouple Type

Sheath Diameter and material (first digits are diameter, ending
digits are material)

		1/4" Sheath Diameter – Mineral Insulated Sheath, Materia 8 = stainless steel, (see list of other material codes)
	P4 8	1/4" Sheath Diameter – Metallic Sheath w/Refractory Powder, Material 8 = stainless steel (see list of other material codes)
		3/8" Sheath Diameter - Mineral Insulated Sheath, Materia

8 = stainless steel. (see list of other material codes) 3/8" Sheath Diameter – Metallic Sheath w/Refractory owder, Material 8 = stainless steel, (see list of other material codes)

Other Material Code Options: 3 = Alloy 600, 4 = 310 SS, 5 = 446 SS, 8 = 316 SS, 32 = 316L SS, 29 = Alloy C-276, 41= HR160

Above with "Z" at end - does not affect Safety or Certification (suffix at end of p/n: is Z + 3 or 4 digits)

Z521 = Shin-Etsu sensor potting Z187 = flat tip Z371 = 20 Gauge sensor lead-wire

Ungrounded Ungrounded, Special MII Limits Thermocounle

ath Length XX Hot leg (in), xxvv YY Cold leg (in)

Enclosure Termination				
	75T142E-T	(4 to 20) mA HART Field transmitter with aluminum housing, without display - see Note		
	75T142E-D	(4 to 20) mA HART Field transmitter with aluminum housing, with display - see Note		
	76T71-D10 76T71C-D10	(4 to 20) mA isolated Programmable transmitter with display and aluminum housing - See Note		
	76T72-D10 76T72C-D10	(4 to 20) mA isolated Programmable HART transmitter with display and aluminum housing - See Note		
	76T82-D10	(4 to 20) mA dual input HART transmitter with display and aluminum housing - See Note		
	93	Aluminum field wiring enclosure		
	93,AD	Anodized aluminum field wiring enclosure		
	94	316L Stainless Steel field wiring enclosure		
	Note: Transmitter option followed by additional characters that represent calibration, does not affect safety, consult factory for details			

Termination Options (one or more, separated by comma or dash)			
SB	½" NPT conduit reducer bushing		
I	Stainless Steel tag		
M2	M20x1.5 conduit reducer bushing, Nickel plated Brass		
M5	M25x1.5 conduit reducer bushing, Nickel plated Brass		
{blank}	Terminal Block - provided when there is no transmitter		
T71-00 T71C-00	(4 to 20) mA isolated head-mounted transmitter - see Note		
T72-00 T72C-00	(4 to 20) mA HART isolated head-mounted transmitter - see Not		
T82-00	(4 to 20) mA dual input, isolated HART head-mounted transmitter - see Note		
z	Does not affect safety or this Certification. Specific customer requirements not impacting this certification (i.e. special testing), ma be followed by additional text or descriptive information.		

Installation Notes for configuration codes XP07

WARNING - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR APPROVED CLASSIFICATION WARNING - DO NOT OPEN WHEN ENERGIZED

WARNING - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT

Approved Apparatus must be installed in accordance with these manufacturer instructions and per relevant codes, standards and regulations (i.e. JEC 60079-0, JEC 60079-1, JEC 60079-14, JEC 60079-31)

- Keep enclosure cover closed tightly and safety lock engaged when circuits are powered and an explosive atmosphere is present. Enclosures 93, 93,AD & 94 require 1/16" hexagonal wrench, enclosures 75 and 76 require a 3mm hexagonal wrench.
- T-Code is determined by maximum measured process temperature T_process.
- Seal all unused entries with appropriate blanking element approved for area and protection type. Sensor assemblies are supplied without blanking elements, conduit seals, or cable glands. Installer should select appropriate blanking elements, conduit seals or cable glands that are suitable for the area protection type. Follow relevant codes, standards and regulations (i.e IEC 60079-0, IEC 60079-1, IEC 60079-14, IEC 60079-31).
- Cable glands and wiring must be rated 5°C higher than Ta:
- Enclosure must be attached to potential matching line.
- 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; safety catch must be fastened before putting into service.
- All sensor pipe and conduit threaded connections to be made wrench tight.
- Hazardous (Classified) Locations:



C€ 2813 **(EX)** II 2 GD Sira 18ATEX 1250X

Ex db IIC T6...T4 Gb Tamb=(See Table) Ex tb IIIC T60°C...T110°C Db Tamb=(See Table) IP66

IECEx SIR 18.0065X Ex db IIC T6...T4 Gb Tamb=(See Table) Ex tb IIIC T60°C...T110°C Db Tamb=(See Table) IP66

Specific Conditions of Use:

- The XP joints are not field repairable, contact manufacturer if dimensional information is needed.
- Field connections to XP sensors shall be appropriately certified for the location and installed in accordance with wiring method requirements of the local electrical code as applicable.
- Heat transfer from the process must not cause the XP sensor enclosure to exceed T-code (gas) or Surface Temperature (dust) rating of the sensor assembly. Therefore, it is the end-user's responsibility to ensure that the ambient temperature around the XP sensor enclosure does not exceed the permitted ambient. Prevention measures include installing suitable insulation or an assembly with suitable length sheath or lagging.
- When the process temperature range 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 assembly enclosure.
- The ranges of stopping plugs shall not be used in conjunction with any other cable entry device.
- Reducers shall not be used for the direct inter-connection of enclosures.
- Any un-used enclosure entry must be filled with a properly certified Ex db, tb, IP66 stopping plug/blanking element.
- For Class III (dust), enclosures 93 w/ option AD, electrostatic charging of external surfaces shall be avoided.

Enclosure	*Device	Electric Rating	Ambient Temp Range (Ta)
93 and 93,AD	T71-00, T71C-00, T72-00, T72C-00, T82-00 w/o display	11-30 Vdc, 25 mA	Ta: -20 TO +55/70/85°C T6/T5/T4 Gb, T65/T80/T95°C Db
	Terminal Block	N/A	Ta: -20 TO +80/95°C T6/T5 Gb, T80/T95°C Db
17: 17: 17: 17: 18:	T71-00, T71C-00, T72-00, T72C-00, T82-00 w/o display	11-30 Vdc, 25 mA	Ta: -40 TO +55/70/85°C T6/T5/T4 Gb, T65/T80/T95°C Db
	Terminal Block	N/A	Ta: -40 TO +80/95°C T6/T5 Gb, T80/T95°C Db
76	T71-D10, T71C-D10, T72-D10 T72C-D10 w/ display	11-36 Vdc, 23 mA	Ta: -40 TO +65/80/85°C T6/T5/T4 Gb, T85/T100/T105°C Db
	T82-D10 w/ display	11-42 Vdc, 23 mA	Ta: -40 TO +65/80/85°C T6/T5/T4 Gb, T85/T100/T105°C Db
75	T142-T w/o display T142-D w/display	11-36 Vdc, 23 mA	Ta: -40 TO +55/70/80°C T6/T5/T4 Gb, T110°C Db

Enclosure	Conduit Entries	Thread Size	
93, 93,AD	1	3/4"-14 NPT	
94	1	3/4"-14 NPT	
76	1	3/4"-14 NPT	
75	2	1/2"-14 NPT	

*For assemblies with transmitter terminations refer to the appropriate transmitter instruction manual for additional instructions

EXAMPLE RTD PART NUMBER:

HL06-RBF185L482-HT-0306-18RD-93-I,M2

TRANSMITTER CALIBRATION CUSTOMER / ORDER SPECIFIC EXAMPLE TC PART NUMBER:

HL06-JP68U-HT-0308-18RD-94,M2,T82-00-TI-J-00-A-U-S(0-100)C

Installation Instruction ATEX / IECEx db, tb HL06, XP07 Assembly, T71, T72, T82, T142

> This document is PROPRIETARY to Pyromation

DRAWING NO:

PART NUMBER:

REVISION DATE:

04/26/2023

SCALE:

N/A

pyromalior

FORT WAYNE, INDIANA

260-484-2580