


'HIH' Range of Flameproof Instrument Transmitter Enclosures

The HIH range of instrument enclosures are designed to accommodate most makes of head mounted process transmitter or termination block. EXHEAT® promotes the use of its preferred range of WIKA® temperature transmitters, however empty enclosures can be supplied or, on special request, other makes of transmitter such as Siemens®, Rosemount® or Yokogawa® can be installed.



FEATURES

- Stainless Steel enclosure
- Optional viewing window for transmitter displays
- Ingress Protection IP66
- ATEX Certified  II 2 G D
- ATEX & IECEx Certified Exd IIC T6 / Ex tD A21 IP66 T85°C
- Compliant with EN/IEC 60079-0, EN/IEC 60079-1, EN/IEC 61241-0 & EN/IEC 61241-1
- M20 cable entries (2 Standard, 4 Maximum)

APPLICATIONS

- Temperature measurement and display for all applications
- Accommodates all major brands of head mounted process transmitter
- Hazardous area process temperature measurement
- Thermowell assemblies available
- Machinery and plant construction, power engineering, heating, ventilation, and refrigeration

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MODELS

- **HIH-SPD140 Instrument Housing**
- **HIH-SPD141 Instrument Housing with Viewing Window**
- **HIH-SPD142 Temperature Transmitter Assembly with analogue temperature transmitter**
- **HIH-SPD143 Temperature Transmitter Assembly with Digital Ex ia temperature transmitter**
- **HIH-SPD144 Temperature Transmitter Assembly with Digital Ex ia temperature transmitter/LCD**
- **HIH-SPD145 Temperature Transmitter Smart/Hart protocol Ex ia**
- **HIH-SPD146 Temperature Transmitter Smart/Hart with LCD Ex ia**
- **HIH-SPD147 Temperature Transmitter Foundation Fieldbus/Profibus Ex ia**

ANALOGUE TRANSMITTER – SPD142

This cost effective analogue temperature transmitter is geared towards the requirements of industrial applications. Depending on their output signal they are ideally suited for direct connection to processors such as PLC's or PC-A/D convertors with voltage or current inputs. The transmitters convert the temperature dependant change in resistance or voltage into a 0-10V or 4-20mA output signal. These standard signals allow an easy and reliable transmission of temperature measurement values.

These temperature transmitters are characterised by fixed measuring ranges configured according to customer specifications, combined with zero and span potentiometers, which enable the fine adjustment of small corrections on site. Industry compliant accuracy, interference resistance and sensor mounting are further features of these compact signal converters.

FEATURES

- **Designs for Pt100/Pt1000 or thermocouples**
- **Output 0-10V, 3 wire design or 4-20mA, 2 wire design**
- **Fault signal for sensor burnout**
- **High accuracy**
- **Compact and cost effective**

DIGITAL TRANSMITTER – HIH-SPD143 / HIH-SPD144

The digital temperature transmitter T12 range is designed for universal industrial use. Comprehensive configuration possibilities, for example type of sensor, measuring range and error signalling, reliable accuracy, galvanic isolation and EMI protection, characterise these transmitters. The compact head mounting case fits in almost any DIN connecting head with form B.

During configuration any one of 17 types of sensors can be selected. Measured temperatures are from -200°C up to +2300°C.

The following sensors can be connected:

- RTDs per DIN IEC 751, JIS C 1606, DIN 43 760 in 2-, 3- and 4-lead connection, the connection system used is configurable and ensures an optimal lead wire compensation
- Thermocouples per DIN IEC 584, DIN 43 710 and ASTM E988 Cold Junction Compensation (CJC) is built-in, the use of an external CJC is selectable via configuration
- Resistance sensors up to 5000 Ω in 2-, 3- and 4-lead connection, configurable compensation of the connection cable of mV-sensors up to 800mV

FEATURES

- Universal configuration via Windows® PC, simulation of the sensor not necessary
- Signal configurable for sensor burnout and sensor short circuiting
- Isolation voltage 1500 VAC between sensor and current loop
- 100% Rh protection, moisture condensation permissible

DIGITAL TRANSMITTER SMART/HART® – HIH-SPD145 / HIH-SPD146

This high specification universal transmitter is designed for use in the process industry. Comprehensive configuration possibilities such as type of sensor, measuring range and error signalling, high accuracy, galvanic isolation, and excellent EMI protection.

The transmitter can be configured for any one of 15 types of sensors and can accommodate temperatures from -270°C to 1820°C. Configuration is achieved using HART® communicator or with the HART® functionality of a DCS system. These transmitters are delivered with basic configuration. Alternatively can be delivered with a customised configuration within given limits on request.

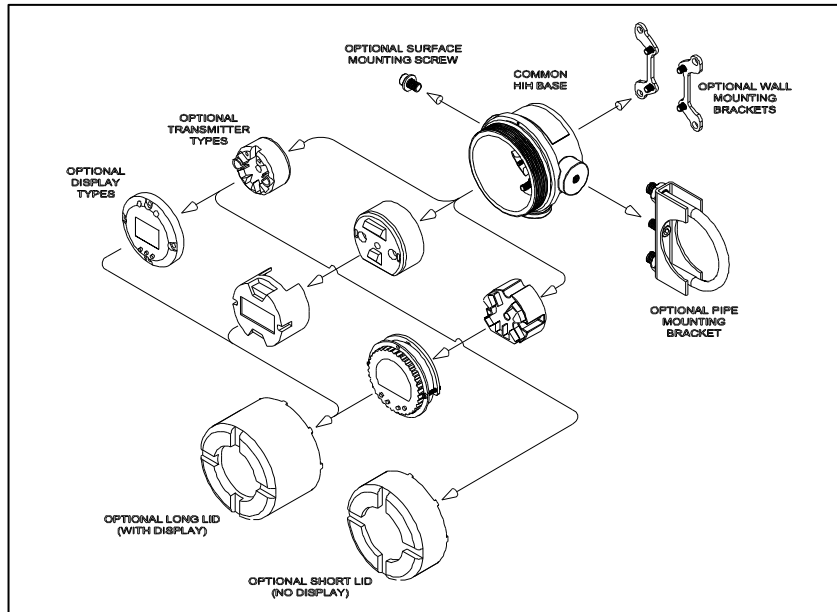
FEATURES

- Functional safety (SIL 2)
- Configuration & write protection via password
- HART® Protocol
- High accuracy
- Monitoring of Sensor lead integrity
- User friendly configuration software
- Configurable signalling for error messages

Windows is a registered trademark of Microsoft Corporation in the United States and other countries / HART is a registered trade mark of the HART Communication Foundation

MOUNTING OPTIONS

The enclosure is supplied with a single fixing bolt for universal mounting. Wall mounting brackets or pipe mounting clips are available upon request.



ORDERING DETAILS

DEVICE TYPE	CODE	DISPLAY OPTION	PRODUCT CERTIFICATION				T/C	SENSOR				RANGE °C	
			ATEX	IECEX	SAFE AREA	RTD			SIMPLEX	DUPLEX	LOWER	UPPER	
						2 WIRE		3 WIRE					4 WIRE
HIH – Instrument Housing	HIH-SPD140	-	B	C	D	-	-	-	-	-	-	-	-
HIH – Instrument Housing with Viewing Window	HIH-SPD141	A	B	C	D	-	-	-	-	-	-	-	-
HIH – Temperature Transmitter Assembly with Analogue Ex ia Temperature Transmitter	HIH-SPD142	-	B	C	D	1	2	3	4	5	6	*	*
HIH – Temperature Transmitter Assembly with Digital Ex ia Temperature	HIH-SPD143	-	B	C	D	1	2	3	4	5	6	*	*
HIH – Temperature Transmitter Assembly with Digital Ex ia Temperature Transmitter / LCD	HIH-SPD144	A	B	C	D	1	2	3	4	5	6	*	*
HIH – Temperature Transmitter Smart/Hart protocol Ex ia	HIH-SPD145	-	B	C	D	1	2	3	4	5	6	*	*
HIH – Temperature Transmitter Smart/Hart protocol with Ex ia Temperature Transmitter / LCD	HIH-SPD146	A	B	C	D	1	2	3	4	5	6	*	*

EXAMPLE

HIH-SPD146-A-C-3-5-0-400	HIH-SPD146	HIH - Temperature Transmitter Smart/Hart protocol with Ex ia Temperature Transmitter / LCD
	A	Display Option Included
	C	IECEX certification
	3	3 Wire RTD input
	5	Simplex Sensor Device
	0	Lower Temperature Range
	400	Upper Temperature Range