

2-wire HART transmitter

6335D

- RTD, TC, Ohm, or mV input
- Extremely high measurement accuracy
- HART 5 protocol
- Can be installed in Ex zone 0
- 1- or 2-channel version























Application

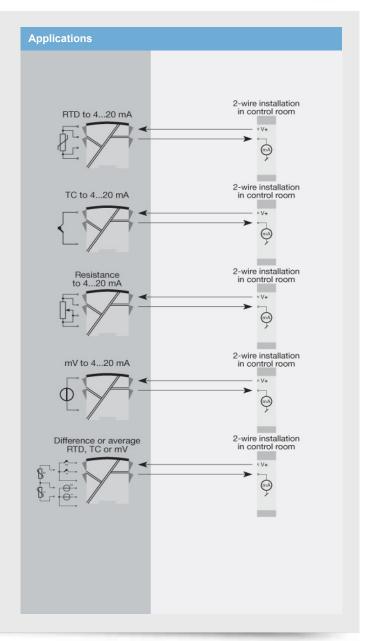
- · Linearized temperature measurement with Pt100...Pt1000, Ni100...Ni1000, or TC sensor.
- · Difference or average temperature measurement of 2 resistance or TC sensors.
- · Conversion of linear resistance variation to a standard analog current signal, for instance from valves or Ohmic level
- · Amplification of a bipolar mV signal to a standard 4...20 mA
- Connection of up to 15 channels to a digital 2-wire signal with HART communication.

Technical characteristics

- · Within a few seconds the user can program PR6335D to measure temperatures within all ranges defined by the norms.
- · The RTD and resistance inputs have cable compensation for 2-, 3- and 4-wire connection.
- · The 6335D has been designed according to strict safety requirements and is therefore suitable for application in SIL
- · A limit can be programmed on the output signal.
- · Continuous check of vital stored data for safety reasons.
- · Sensor error detection according to the guidelines in NAMUR NE89.

Mounting / installation

- · Mounted vertically or horizontally on a DIN rail. Using the 2channel version up to 84 channels per metre can be mounted.
- · Configuration via standard HART communication interfaces or by PR 5909 Loop Link.
- The 6335D can be mounted in zone 0, 1, 2 and zone 20, 21, 22 including M1 / Class I/II/ III, Division 1, Groups A, B, C, D.



Order

| Туре | Version | | Galvanic isolation | Channels | |
|------|---|-----|-----------------------|------------------|------------|
| 6335 | Zone 0, 1, 2, 20, 21, 22, M1 / DIV. 1, DIV. 2 | : D | 1500 VAC | Single Double | : A : B |

NBI Please remember to order CJC connectors type 5910Ex (channel 1) and 5913Ex (channel 2) for TC inputs with an internal CJC.

| Fnvir | onmer | ital C | ondi | itions |
|--------------|-------|--------|-------|--------|
| | | itui 🗸 | OII G | |

| Operating temperature | -40°C to +85°C |
|-------------------------|----------------------|
| Storage temperature | -40°C to +85°C |
| Calibration temperature | 2028°C |
| Relative humidity | < 95% RH (non-cond.) |
| Protection degree | IP20 |

Mechanical specifications

| Dimensions (HxWxD) | 109 x 23.5 x 104 mm |
|-------------------------|-----------------------------------|
| Weight (1 / 2 channels) | 145 / 185 g |
| DIN rail type | |
| Wire size | 0.132.08 mm ² AWG 2614 |
| | stranded wire |
| Screw terminal torque | 0.5 Nm |

Common specifications

| Supply voltage | 8.030 VDC | | |
|---|-------------------------------|--|--|
| Internal power dissipation, 1 / 2 ch | 19 mW0.7 / 1.4 W | | |
| Isolation voltage Isolation voltage, test / working | 1.5 kVAC / 50 VAC | | |
| Response time (programmable) | 160 s | | |
| Voltage drop | 8.0 VDC | | |
| Warm-up time | | | |
| Programming | Loop Link & HART | | |
| Signal / noise ratio | Min. 60 dB | | |
| Accuracy | Better than 0.05% of selected | | |
| | range | | |
| Signal dynamics, input | 22 bit | | |
| Signal dynamics, output | | | |
| | | | |

Input specifications Common input specifications

| 50% of selected max. value |
|---|
| |
| Pt100, Ni100, lin. R |
| $5~\Omega$ (up to $50~\Omega$ per wire is possible with reduced measurement accuracy) |
| Nom. 0.2 mA |
| < 0.002 Ω / Ω |
| |

Effect of supply voltage change..... < 0.005% of span / VDC

Linear resistance input

Linear resistance min...max...... 0 Ω ...7000 Ω

TC input

| i nermocoupie type | B, E, J, K, L, N, R, S, T, U, W3, W5 |
|----------------------------|--------------------------------------|
| Cold junction compensation | |
| (CJC) | < ±1.0°C |

Sensor error current: When detecting / else...... Nom. 33 µA / 0 µA

Voltage input

Measurement range -800 ...+800 mV Min. measurement range (span) 2.5 mV

Output specifications

Current output

| Signal range | 420 mA |
|------------------------------|-----------------------|
| Min. signal range | |
| Load (@ current output) | |
| Load stability | |
| Sensor error indication | Programmable 3.523 mA |
| NAMUR NE43 Unscale/Downscale | 23 mA / 3.5 mA |

| Common output specifications | |
|------------------------------|-----------------------------|
| Updating time | 440 ms |
| | |
| of span | = of the presently selected |
| | range |

Observed authority requirements

| EMC | 2014/30/EU |
|------|----------------|
| ATEX | 2014/34/EU |
| RoHS | |
| EAC | |
| | TR-CH 012/2011 |

Approvals

| ATEX | KEMA 09ATEX0148 X |
|---------|------------------------------|
| IECEx | KEM 10.0084X |
| CSA | 1125003 |
| c FM us | FM17US0013X |
| EAC Ex | RU C-DK.HA65.B.00355/19 |
| SIL | Hardware assessed for use in |
| | SIL applications |