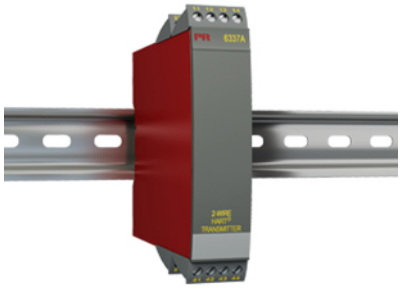
PERFORMANCE MADE SMARTER



## 2-wire HART transmitter

# 6337A

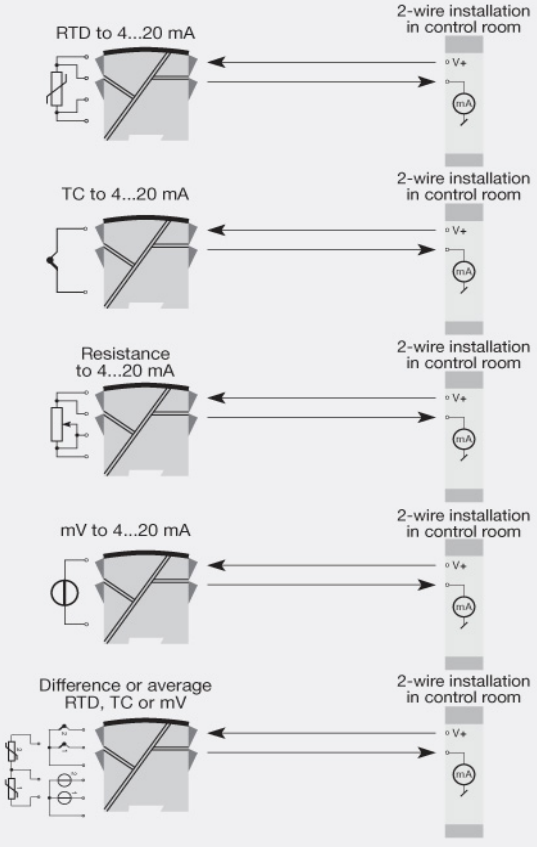
– 1- or 2-channel converter for RTD, TC, Ohm, and bipolar mV signals
– 2 analogue inputs and 5 device variables with status available
– HART protocol revision selectable from HART 5 or HART 7
– Hardware assessed for use in SIL applications
– Mounting on a DIN rail in Safe Area or Zone 2/22

**Application**
- Linearized temperature measurement with TC and RTD sensors e.g. Pt100 and Ni100.
- HART communication and 4...20 mA analog PV output for individual, difference or average temperature measurement of up to two RTD or TC input sensors.
- Conversion of linear resistance to a standard analog current signal, e.g from valves or Ohmic level sensors.
- Amplification of bipolar mV signals to standard 4...20 mA current signals.
- Up to 63 transmitters (HART 7) can be connected in a multidrop communication setup.

**Technical characteristics**
- HART protocol revision can be changed by user configuration to either HART 5 or HART 7 protocol.
- The HART 7 protocol offers:· Long Tag numbers of up to 32 characters.· Enhanced Burst Mode and Event notification with time stamping.· Device variable and status mapping to any dynamic variable PV, SV, TV or QV.· Process signal trend measurement with logs and summary data.· Automatic event notification with time stamps.· Command aggregation for higher communication efficiency.
- 6337A provides the required failure data (SFF and PFDAVG) for SIL applications as per IEC 61508 / IEC 61511.
- Continuous check of vital stored data.
- Meeting the NAMUR NE21 recommendations, the 6337A HART transmitter ensures top measurement performance in harsh EMC environments. Additionally, the 6337A meets NAMUR NE43 and NE89 recommendations.

**Mounting / installation**
- DIN rail mounting with up to 84 channels per meter.
- Configuration via standard HART communication interfaces or by PR 5909 Loop Link.
- The 6337A can be mounted in zone 2, 22 / Class I, Division 2, Groups A, B, C, D.

## Applications



## Order

| Type | Version | Galvanic isolation | Channels |
|---|---|---|---|
| 6337 | Zone 2, 22 / Div. 2 : A | 1500 VAC : 2 | Single : A<br>Double : B |

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

## Environmental Conditions

| | |
|---|---|
| Operating temperature | -40°C to +85°C |
| Storage temperature | -40°C to +85°C |
| Calibration temperature | 20...28°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) | 150 / 200 g |
| DIN rail type | DIN EN 60715/35 mm |
| Wire size | 0.13...2.08 $mm^2$ AWG 26...14 stranded wire |
| Screw terminal torque | 0.5 Nm |

## Common specifications

**Supply**

| | |
|---|---|
| Supply voltage | 8.0...35 VDC |
| Internal power dissipation, 1 / 2 ch | 19 mW...0.8 / 1.6 W |

**Isolation voltage**

| | |
|---|---|
| Isolation voltage, test / working | 1.5 kVAC / 50 VAC |

**Response time**

| | |
|---|---|
| Response time (programmable) | 1...60 s |
| Voltage drop | 8.0 VDC |
| Signal dynamics, input | 22 bit |
| Signal dynamics, output | 16 bit |
| Signal / noise ratio | > 60 dB |
| Accuracy | Better than 0.05% of selected range |
| EMC immunity influence | < ±0.1% of span |
| Extended EMC immunity: NAMUR NE21, A criterion, burst | < ±1% of span |

## Input specifications

**Common input specifications**

| | |
|---|---|
| Max. offset | 50% of selected max. value |

**RTD input**

| | |
|---|---|
| RTD type | Pt50/100/200/500/1000; Ni50/100/120/1000 |
| Cable resistance per wire | 5 Ω (up to 50 Ω per wire is possible with reduced measurement accuracy) |
| Sensor current | Nom. 0.2 mA |

**Linear resistance input**

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

**TC input**

| | |
|---|---|
| Thermocouple type | B, E, J, K, L, N, R, S, T, U, W3, W5 |
| Cold junction compensation (CJC) | Constant, internal or external via a Pt100 or Ni100 sensor |

**Voltage input**

| | |
|---|---|
| Measurement range | -800...+800 mV |
| Min. measurement range (span) | 2.5 mV |
| Input resistance | 10 MΩ |

## Output specifications

**Current output**

| | |
|---|---|
| Signal range | 4…20 mA |
| Min. signal range | 16 mA |
| Load (@ current output) | ≤ (Vsupply - 8) / 0.023 [Ω] |
| Sensor error indication | Programmable 3.5…23 mA |
| NAMUR NE43 Upscale/Downscale | 23 mA / 3.5 mA |

**Common output specifications**

| | |
|---|---|
| Updating time | 440 ms |
| HART protocol revisions | HART 7 and HART 5 |

## Observed authority requirements

| | |
|---|---|
| EMC | 2014/30/EU & UK SI 2016/1091 |
| ATEX | 2014/34/EU & UK SI 2016/1107 |
| RoHS | 2011/65/EU & UK SI 2012/3032 |
| EAC | TR-CU 020/2011 |
| EAC Ex | TR-CU 012/2011 |

## Approvals

| | |
|---|---|
| ATEX | DEKRA 20ATEX0109X |
| IECEx | DEK 20.0063X |
| CSA | 1125003 |
| INMETRO | DEKRA 23.0011X |
| EAC Ex | EAEU KZ 7500361.01.01.08756 |
| SIL | Hardware assessed for use in SIL applications |