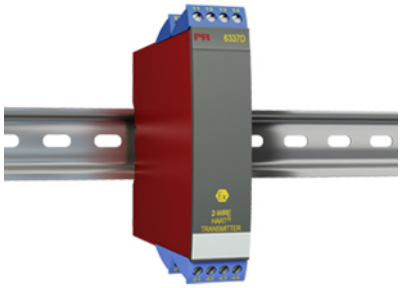
PERFORMANCE MADE SMARTER



2-wire HART transmitter

6337D

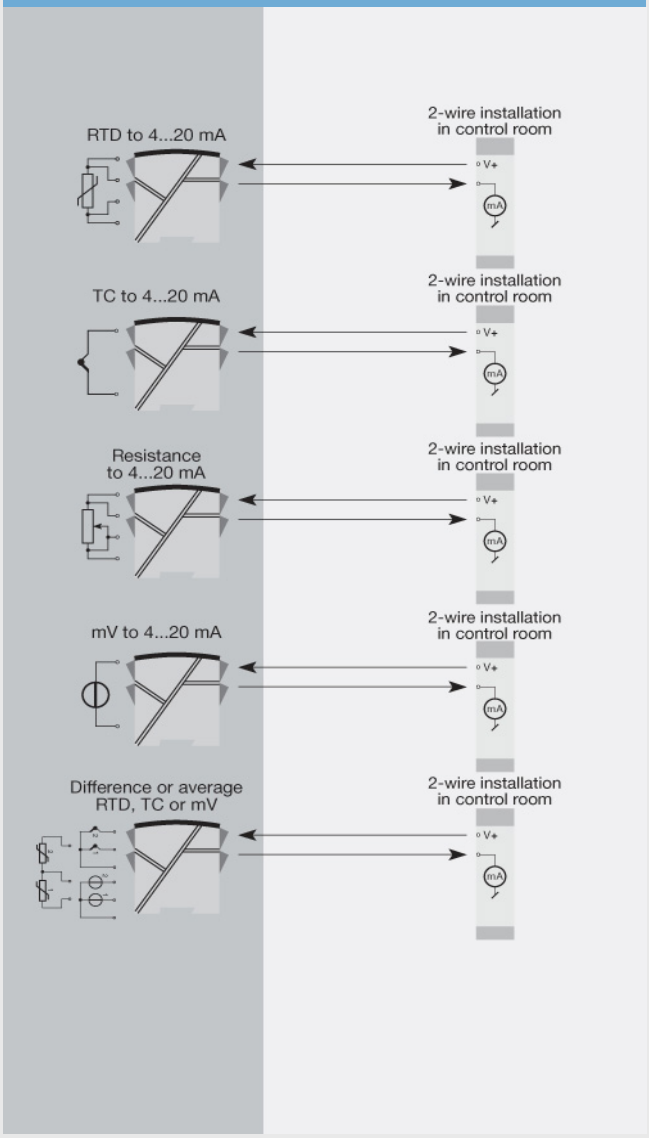
– 1- or 2-channel converter for RTD, TC, Ohm, and bipolar mV signals
– 2 analog inputs and 5 device variables with status available
– HART protocol revision selectable from HART 5 or HART 7
– Hardware assessed for use in SIL applications
– Mounting on a DIN rail in hazardous gas and dust area

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.
- 6337D 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 NE 21 recommendations, the 6337D HART transmitter ensures top measurement performance in harsh EMC environments. Additionally, the 6337D 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 6337D can be mounted in zone 0, 1, 2 and zone 21, 22 including M1 / Class I/II/ III, Division 1, Groups A, B, C, D.

Applications



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Order

Type	Version	Galvanic isolation	Channels
6337	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : D	1500 VAC : 2	Single : A Double : B

NB! Please remember to order CJC connectors type 5910Ex (channel 1) and 5913Ex (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...30 VDC
Internal power dissipation, 1 / 2 ch	19 mW...0.7 / 1.4 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
Programming	HART & PR 5909 Loop Link communications interface
Accuracy	Better than 0.05% of selected range
Signal dynamics, input	22 bit
Signal dynamics, output	16 bit
Signal / noise ratio	> 60 dB
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
Effect of sensor cable resistance (3-/4-wire)	< 0.002 Ω / Ω

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 20ATEX0108X
IECEx	DEK 20.0063X
CSA	1125003
FM	FM17US0013X
INMETRO	DEKRA 23.0011X
EAC Ex	EAEU KZ 7500361.01.01.08756
SIL	Hardware assessed for use in SIL applications