

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.

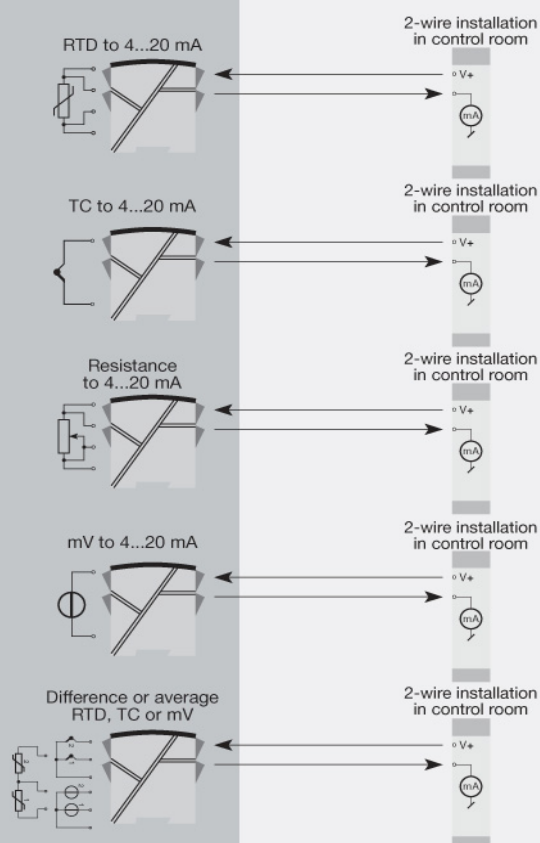
Technical characteristics

- 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 is designed according to strict safety requirements and is therefore suitable for applications in SIL installations.
- 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



Order

Type	Version	Galvanic isolation	Channels
6337	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : D	1 500 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.....	Loop Link & HART
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.....	Pt100/100/200/500/1000; 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 20ATEX0108X
IECEx.....	DEK 20.0063X
CSA.....	1125003
FM.....	FM17US0013X
EAC Ex.....	RU C-DK.HA65.B.00355/19
SIL.....	Hardware assessed for use in SIL applications