

Profibus PA / Foundation Fieldbus transmitter

5350B



- PROFIBUS® PA ver. 3.0
- FOUNDATION™ Fieldbus ver. ITK 4.6
- Automatic switch between protocols
- FISCO-certified
- Basic or LAS capability with F.F.



Application

- Linearized temperature measurement with RTD or TC sensor.
- Difference, average or redundancy temperature measurement with RTD or TC sensor.
- Linear resistance, potentiometer and bipolar mV measurement.

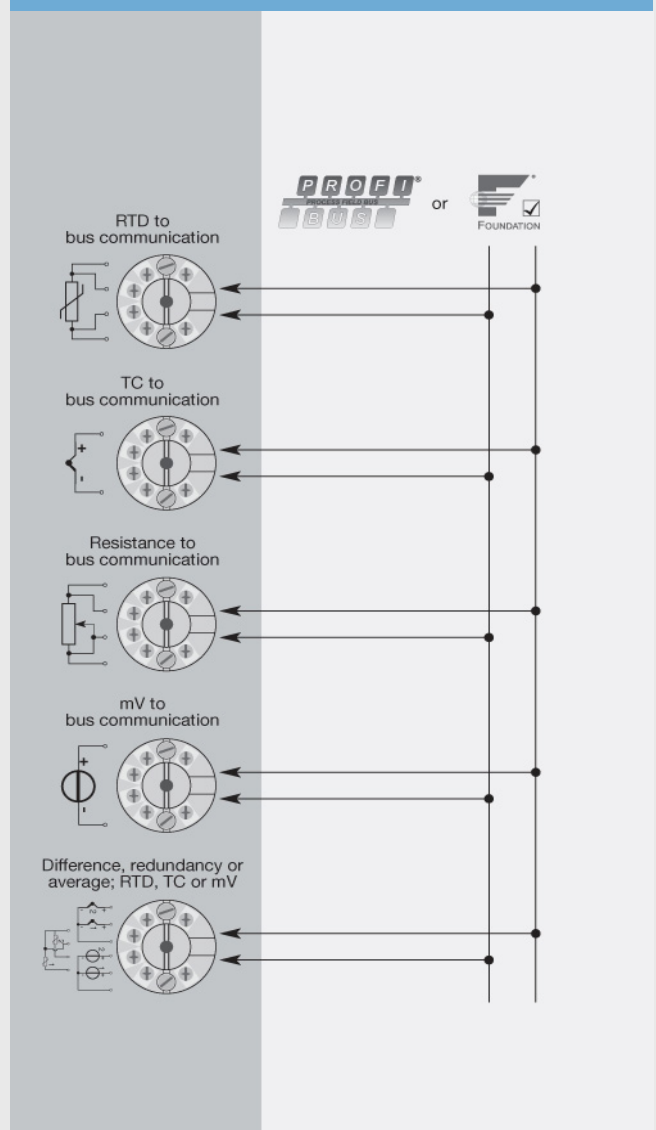
Technical characteristics

- Bus transmitter with both PROFIBUS® PA and FOUNDATION™ Fieldbus communication. A unique switch function ensures automatic shift between the two protocols.
- Set-up for PROFIBUS® PA can be done via Siemens Simatic® PDM®, ABB Melody / Harmony and Metso DNA software and for FOUNDATION™ Fieldbus via Emerson DeltaV, Yokogawa CS 1000 / CS 3000, ABB Melody / Harmony and Honeywell Experion software.
- The simulation mode function can be activated by way of a magnet.
- Polarity-independent bus connection.
- 24 bit A/D converter ensures high resolution.
- PROFIBUS® PA function blocks: 2 analog.
- FOUNDATION™ Fieldbus function blocks: 2 analog and 1 PID.
- FOUNDATION™ Fieldbus capability: Basic or LAS.

Mounting / installation

- For DIN form B sensor head mounting.

Connections



Order:

Type
5350B

Environmental Conditions

Specifications range.....	-40°C to +85°C
Calibration temperature.....	20...28°C
Relative humidity.....	< 95% RH (non-cond.)
Protection degree (encl./terminal).....	IP68 / IP00

Mechanical specifications

Dimensions.....	Ø 44 x 20.2 mm
Weight approx.....	55 g
Screw terminal torque.....	0.4 Nm
Vibration.....	DIN class B, IEC 60068-2-6 and IEC 60068-2-64
Vibration: 2...25 Hz.....	±1.6 mm
Vibration: 25...100 Hz.....	±4 g

Common specifications

Supply voltage.....	9.0...30 VDC
Supply voltage in FISCO installations.....	9.0...17.5 VDC
Internal consumption.....	< 11 mA
Max. current increase in the event of an error.....	< 7 mA
Isolation voltage, test.....	1.5 kVAC for 60 s
Isolation voltage, working.....	50 VRMS / 75 VDC
Warm-up time.....	30 s
Signal / noise ratio.....	Min. 60 dB
Response time (programmable).....	1...60 s
Updating time.....	< 400 ms
Execution time, analog input.....	< 50 ms
Accuracy.....	Better than 0.05% of selected range
Signal dynamics, input.....	24 bit
EMC immunity influence.....	< ±0.1% of reading
Extended EMC immunity: NAMUR NE 21, A criterion, burst.....	< ±1% of reading

Input specifications

RTD input.....	Pt25...1000, Ni25...1000, Cu10...1000, lin. R, potentiometer
Cable resistance per wire (max.), RTD.....	50 Ω
Sensor current, RTD.....	Nom. 0.2 mA
Effect of sensor cable resistance (3-/4-wire), RTD.....	< 0.002 Ω / Ω
Sensor error detection, RTD.....	Yes
Short circuit detection, RTD.....	< 15 Ω
TC input: Thermocouple type.....	B, E, J, K, L, N, R, S, T, U, W3, W5
Cold junction compensation (CJC).....	< ±0.5°C
Sensor error detection, TC.....	Yes
Sensor error current: When detecting / else.....	Nom. 4 µA / 0 µA
Short circuit detection, TC.....	< 3 mV
Voltage input: Measurement range.....	-800...+800 mV
Input resistance, voltage input.....	10 MΩ

Output specifications

PROFIBUS PA protocol.....	Profile A&B, ver. 3.0
PROFIBUS PA protocol standard.....	EN 50170 vol. 2
PROFIBUS PA address (at delivery).....	126
PROFIBUS PA function blocks.....	2 analog
FOUNDATION™ Fieldbus protocol.....	FF protocol
FOUNDATION™ Fieldbus protocol standard.....	FF design specifications
FOUNDATION™ Fieldbus version.....	ITK 4.6
FOUNDATION™ Fieldbus capability.....	Basic or LAS
FOUNDATION™ Fieldbus function blocks.....	2 analog and 1 PID

Approvals

EMC.....	EN 61326-1
ATEX 2004/108/EC.....	KEMA 02ATEX1318
IECEx.....	BVS 12.0035X
FM.....	3015609
CSA.....	1418937
INMETRO.....	NCC 12.1009 X
NEPSI.....	GYJ14.1101X
EAC TR-CU 020/2011.....	EN 61326-1
EAC Ex TR-CU 012/2011.....	RU C-DK.GB08.V.00410