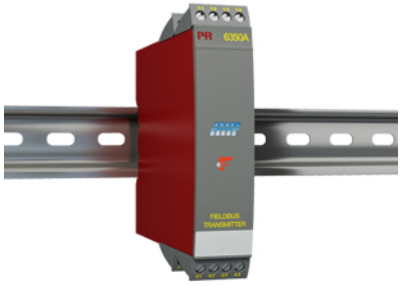
PERFORMANCE MADE SMARTER



Profibus PA / Foundation Fieldbus transmitter

6350A

– PROFIBUS PA ver. 3.0
– FOUNDATION Fieldbus ver. ITK 4.6
– Automatic switch between protocols
– Basic or LAS capability with F.F.
– 1- or 2-channel version

Application

- Linearized temperature measurement with RTD or TC sensor.
- Difference, average or redundancy temperature measurement with RTD or TC sensor.
- Converts analog mA signals into digital values on the bus communication.
- Linear resistance, potentiometer and bipolar mV measurement.

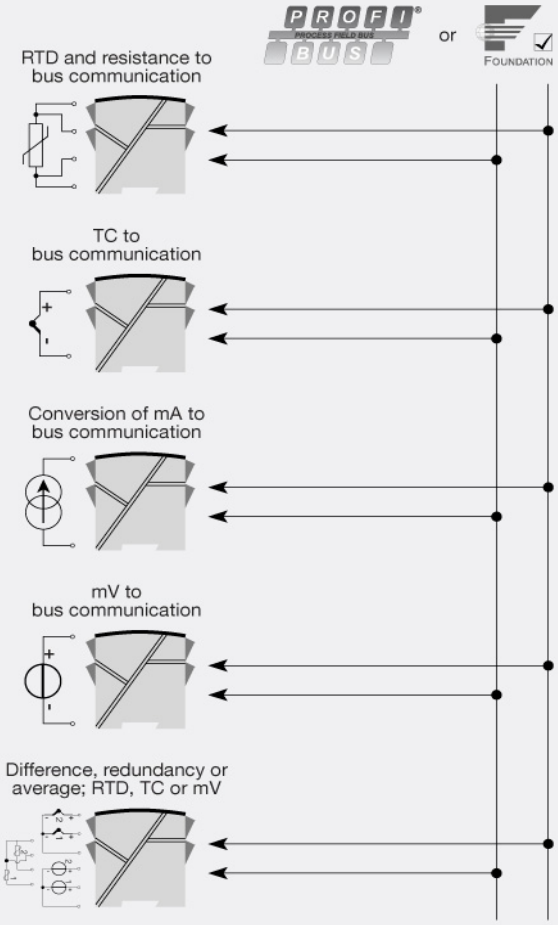
Technical characteristics

- 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.
- Built-in simulation mode function.
- 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

- Mounted vertically or horizontally on a DIN rail. Using the 2-channel version up to 84 channels per meter can be mounted.

Connections



Order:

Type	Galvanic isolation	Channels
6350A	1500 VAC : 2	Single : A Double : B

Environmental Conditions

Specifications range..... -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)..... 145 / 185 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..... 9.0...32 VDC

Isolation voltage
Test voltage..... 1.5 kVAC for 60 s
Working voltage..... 50 VRMS / 75 VDC

Response time
Response time (programmable)..... 1...60 s

Internal consumption, per channel..... < 11 mA
Warm-up time..... 30 s
Signal / noise ratio..... Min. 60 dB
Accuracy..... Better than 0.05% of selected range
Updating time..... < 400 ms
Execution time, PID controller..... < 200 ms
Execution time, analog input..... < 50 ms
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
RTD type..... Pt25…1000, Ni25…1000, Cu10…1000, lin. R, potentiometer
Cable resistance per wire (max.)..... 50 Ω
Sensor current..... Nom. 0.2 mA
Effect of sensor cable resistance (3-/4-wire)..... < 0.002 Ω / Ω
Sensor error detection..... Yes
Short circuit detection..... < 15 Ω

Linear resistance input
Linear resistance min....max..... 0 Ω...10000 Ω

Potentiometer input
Potentiometer min....max..... 10 Ω...100 kΩ

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..... Yes
Sensor error current: When detecting / else..... Nom. 2 µA / 0 µA
Short circuit detection..... < 3 mV

Bipolar current input
Measurement range..... -100…+100 mA
Input resistance..... 10 Ω + PTC < 20 Ω
Cable breakage detection (4...20 mA)..... < 0.3 mA

Bipolar mV input
Measurement range..... -800…+800 mV
Min. measurement range (span)..... 2.5 mV
Input resistance..... 10 MΩ
Short circuit detection..... < 3 mV

Output specifications

PROFIBUS PA connection
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 connection
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

Observed authority requirements

EMC..... 2014/30/EU

Approvals

ATEX 2014/34/EU..... KEMA 03ATEX1013 X
IECEx..... DEK 14.0071X
FM..... 3015609
CSA..... 1418937
EAC..... TR-CU 020/2011