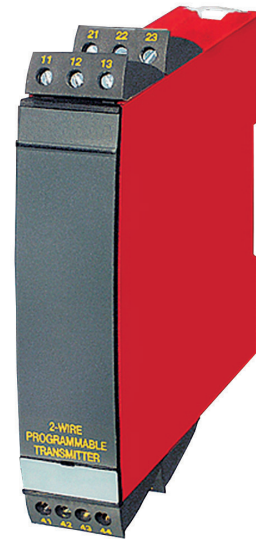


Profibus® PA/Foundation™ Fieldbus Transmitter

Model 6350A

- PROFIBUS® PA Ver. 3.0
- FOUNDATION™ Fieldbus Ver. ITK 4.6
- Automatic Switch Between Protocols
- Basic or LAS Capability with Foundation Fieldbus
- 1- or 2-Channel Version
- Complies with European ATEX and CSA/FM Requirements for Hazardous Location



Application:

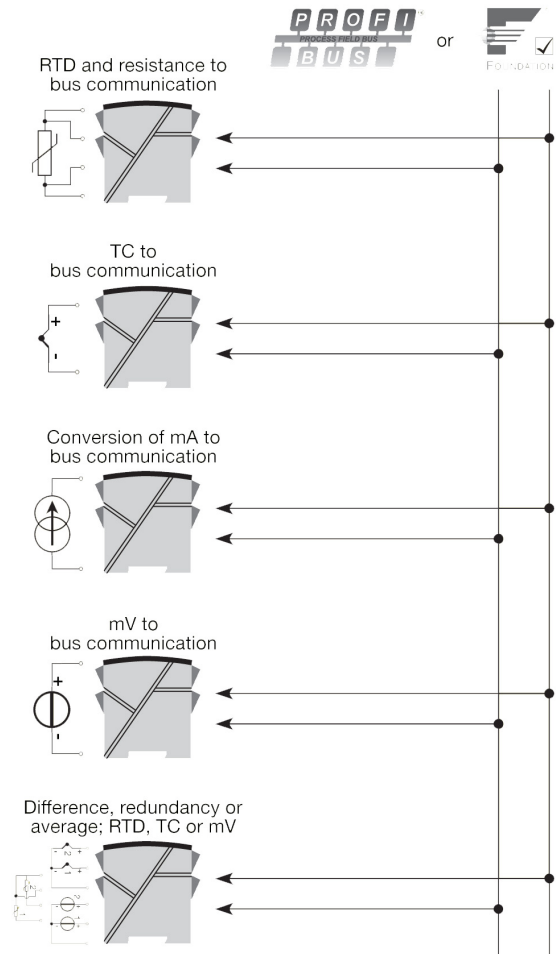
- Linearized temperature measurement with RTD or TC sensor.
- Difference, average or redundant temperature measurement with RTD or TC sensor.
- Linear resistance, potentiometer and bipolar mV measurement.

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 Mesto 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.

Mounting/Installation:

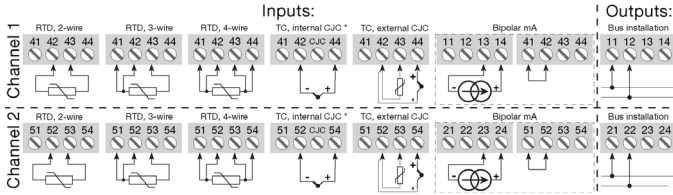
- Mounted vertically or horizontally on a DIN Rail. Using the 2-channel version up to 84 channels per meter can be mounted.



Ideas. Solutions. Success.

Specifications

**Order: 6350A2A (Single Channel)
6350A2B (Dual Channel)**



Electrical Specifications

Specifications Range:

-40°C to +60°C

Common Specifications:

Supply voltage 9...32 VDC
 Internal consumption per channel < 11 mA
 Isolation voltage, test / operation 1.5 kVAC / 50 VAC
 Signal / noise ratio Min. 60 dB
 Updating time < 400 ms
 Execution time, PID controller < 200 ms
 Execution time, analog input < 50 ms
 Signal dynamics, input 24 bit
 Calibration temperature 20...28°C
 Accuracy, the greater of general and basic values:

General Values		
Input Type	Absolute Accuracy	Temperature Coefficient
mA	≤ ±0.05% of reading	≤ ±0.003% of reading / °C
Other Types	≤ ±0.05% of reading	≤ ±0.002% of reading / °C

Basic Values		
Input Type	Basic Accuracy	Temperature Coefficient
Pt100, Pt1000	≤ ±0.1°C	≤ ±0.002°C/°C
Ni 100...Ni 1000	≤ ±0.15°C	≤ ±0.002°C/°C
Cu 10	≤ ±1.3°C	≤ ±0.02°C/°C
Lin. R	≤ ±0.05 Ω	≤ ±0.002 Ω/°C
mA	≤ ±1 μA	≤ ±0.06 μA/°C
mV	≤ ±10 μV	≤ ±0.2 μV/°C
TC type: E, J, K, L, N, T, U	≤ ±0.5°C	≤ ±0.010°C/°C
TC type: B, R, S, W3, W5	≤ ±1°C	≤ ±0.025°C/°C

EMC immunity influence < ±0.1% of reading
 Extended EMC immunity:
 NAMUR NE 21, A criterion, burst < ±1% of reading

Max wire size 1 x 1.5 mm² (16 AWG) stranded wire
 Humidity < 95% RH (non-cond.)
 Dimensions (H x B x D) 109 x 23.5 x 104 mm
 Protection degree (encl. / terminal) IP50 / IP20
 Weight (1 / 2 channels) 145 / 185 g

Electrical Specifications, Input: RTD and Linear Resistance Input:

RTD Type	Min. Value	Max. Value	Standard
Pt25...Pt1000	-200°C	+850°C	IEC 60751 / JIS C 1604
Ni25...Ni1000	-60°C	+250°C	DIN 43760
Cu10...Cu1000	-200°C	+260°C	α = 0.00427
Lin. Resistance	0 Ω	10 kΩ	-----
Potentiometer	0 Ω	100 kΩ	-----

Cable resistance per wire 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

Bipolar Current Input:

Measurement range -100...+100 mA
 Input resistance 10 Ω + PTC < 20 Ω
 Cable breakage detection (4...20 mA) < 0.3 mA
 Short circuit detection < 15 Ω

TC / mV Input:

Type	Min. Temperature	Max. Temperature	Standard
B	+400°C	+1820°C	IEC 60584 - 1
E	-100°C	+1000°C	IEC 60584 - 1
J	-100°C	+1200°C	IEC 60584 - 1
K	-180°C	+1372°C	IEC 60584 - 1
L	-200°C	+900°C	DIN 43710
N	-180°C	+1300°C	IEC 60584 - 1
R	-50°C	+1760°C	IEC 60584 - 1
S	-50°C	+1760°C	IEC 60584 - 1
T	-200°C	+400°C	IEC 60584 - 1
U	-200°C	+600°C	DIN 43710
W3	0°C	+2300°C	ASTM E988-90
W5	0°C	+2300°C	ASTM E988-90
Ext. CJC	-40°C	+135°C	IEC 60751
mV	-800	+800	-----

Cold junction compensation (CSC) < ±0.5°C
 Sensor error detection Yes
 Sensor error current:
 when detecting Nom. 2 μA
 else 0 μA
 Short circuit detection < 3 mV

Output:

PROFIBUS® PA Connection:

Protocol standard EN 50170 vol. 2
 Address (at delivery) 126
 Function blocks 2 analog

FOUNDATION™ Fieldbus Connection:

Version ITK 4.6
 Capability Basic or LAS
 Function blocks 2 analog and 1 PID

Ex Approval*:

KEMA 03ATEX1013 X II 3 G
 EEx nA [L] II C T4...T6
 Max. amb. temperature for T1..T4 85°C
 Max. amb. temperature for T5 75°C
 Max. amb. temperature for T6 60°C
 ATEX, applicable in zone 2
 FM and CSA applicable in* IS, CI, I, Div. 2, Gr. A, B, C, D
 IS, CI, I, Zone 2, Gr. IIC

Observed Authority Requirements: Standard:

EMC 2004/108/EC
 Emission and immunity EN 61326
 ATEX 94/9/EC EN 50014, EN 50021
 FM 3600, 3611
 CSA, CAN / CSA C22.2 No. 142, No. 213
 CAN / CSA E60079-0, E79-15

Of Span = Of the presently selected range

IS = Intrinsically Safe

*The transmitter is manufactured by PR electronics. All approvals listed are recognized under the PR name.

2300 Walden Avenue, Buffalo, New York 14225

+1 800 223 2389 (P) | +1 716 684 7433 (F)

conax@conaxtechnologies.com

Bulletin 6094, Rev B' ©2020 Conax Technologies 11/20

