



Controle em processos industriais:  
A base de um bom negócio.

**SALCAS**

PRetrans

6350A

## PROFIBUS® PA/FOUNDATION™ FIELDBUS TRANSMITTER



- 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:

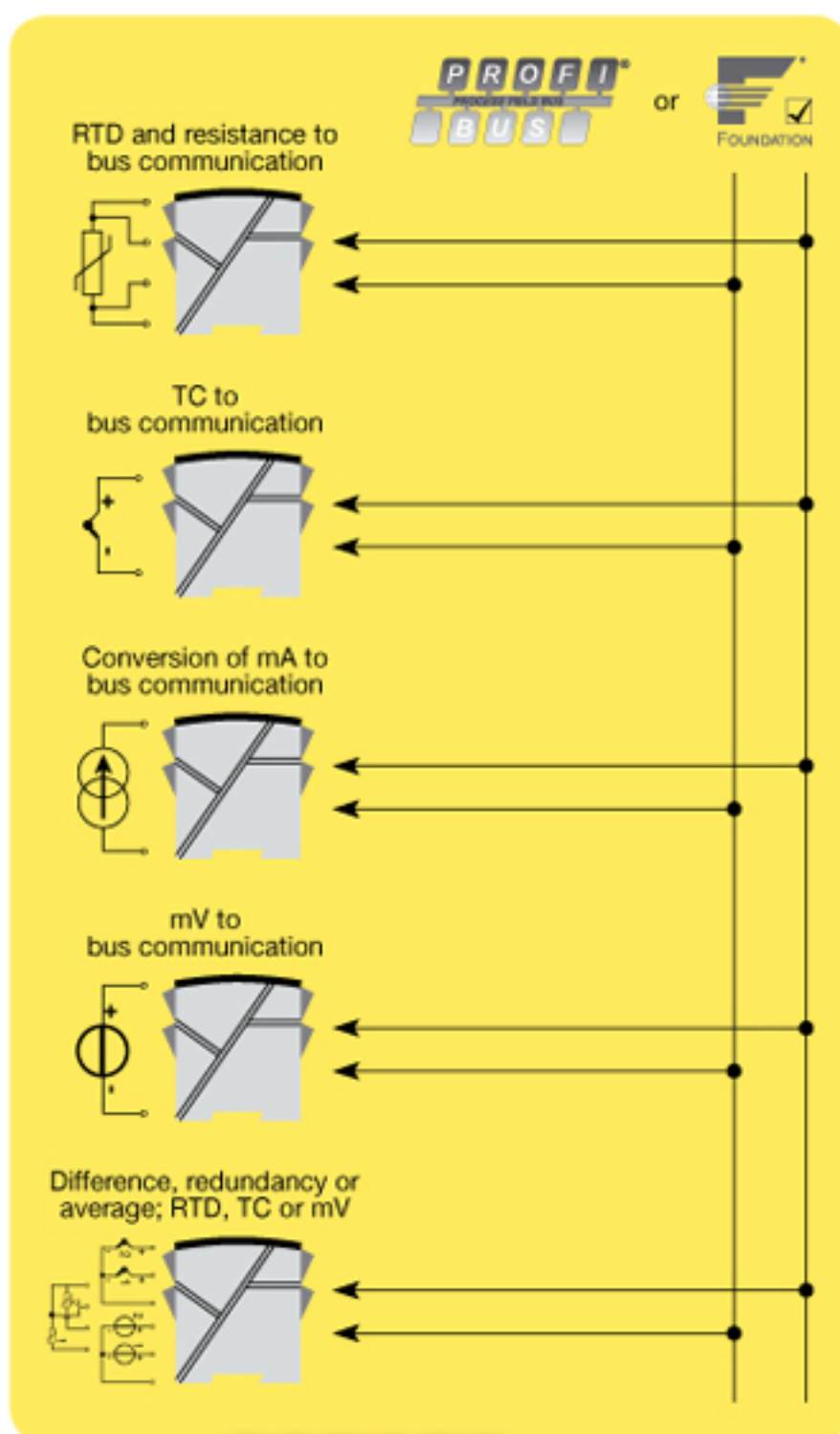
- Linearised temperature measurement with RTD or TC sensor.
- Converts analogue mA signals into digital values on the bus communication.
- Difference, average or redundancy temperature measurement with RTD or TC sensor.
- Linear resistance, potentiometer and bipolar mV measurement.

### Technical characteristics:

- Bus transmitter with both PROFIBUS® PA and FOUNDATION™ Fieldbus communication. A unique switch function ensures automatic shift between the two communication 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 analogue.
- FOUNDATION™ Fieldbus function blocks:
  - 2 analogue 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 metre can be mounted.





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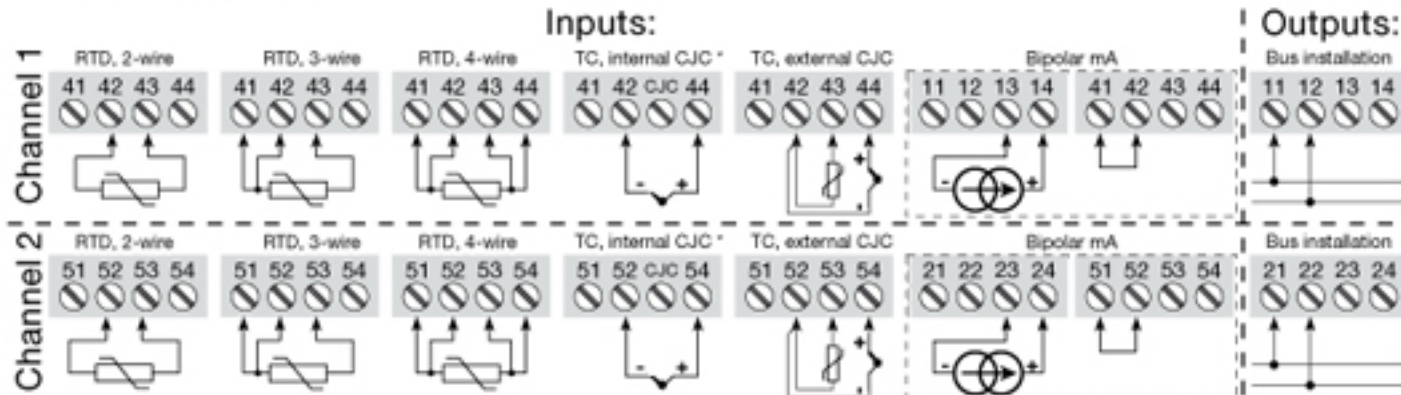
Order: 6350A

### Connections:

All connection options are shown in the user manual.

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

\*NB! Please remember to order CJC connectors type 5910 (channel 1) and 5913 (channel 2) for TC inputs with an internal CJC.



### Electrical specifications:

#### Specifications range:

-40°C to +60°C

#### Common specifications:

Supply voltage..... 9.0...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, analogue 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 and Pt1000	≤ ±0.1°C	≤ ±0.002°C / °C
Ni100...Ni1000	≤ ±0.15°C	≤ ±0.002°C / °C
Cu10	≤ ±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

Humidity..... < 95% RH (non cond.)  
Dimensions (H x W x D)..... 109 x 23.5 x 104 mm  
Protection degree..... 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

### TC / mV input:

Type	Min. value	Max. value	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	IEC60751
mV	-800	+800	-

Cold junction compensation (CJC) ... < ±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:

PROFIBUS® PA protocol standard .... EN 50170 vol. 2  
PROFIBUS® PA address (at delivery). 126  
PROFIBUS® PA function blocks ..... 2 analogue

#### FOUNDATION™ Fieldbus connection:

FOUNDATION™ Fieldbus version..... ITK 4.6  
FOUNDATION™ Fieldbus capability ..... Basic or LAS  
FOUNDATION™ F. function blocks ..... 2 analogue and 1 PID

#### Ex approval:

KEMA 03ATEX1013 X..... II 3 G Ex nA [nL] IIC  
T4...T6 or  
II 3 G Ex nL IIC  
T4...T6 or  
II 3 G Ex nA [ic] IIC  
T4...T6 or  
II 3 G Ex ic IIC  
T4...T6  
ATEX Installation Drawing No..... 6350QA02

FM and CSA..... IS, Cl. I, Div. 2,  
Gr. A, B, C, D  
IS, Cl. I, Zone 2, Gr. IIC

#### GOST R approval:

VNIIM, Cert. no..... www.prelectronics.com

#### Observed authority requirements: Standard:

EMC 2004/108/CE..... EN 61326-1  
ATEX 94/9/CE..... EN 60079-0, -11, -15, -27  
FM..... 3600, 3611  
CSA, CAN / CSA..... C22.2 No. 142, No. 213  
CAN / CSA..... E79-0, -11, -15  
ANSI / UL..... UL 60079-0, -11, -15

6350AY103-UK (1005)