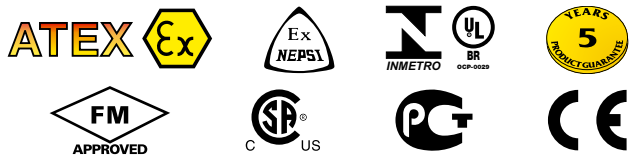


PROFIBUS® PA/FOUNDATION™ FIELDBUS TRANSMITTER



- 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:

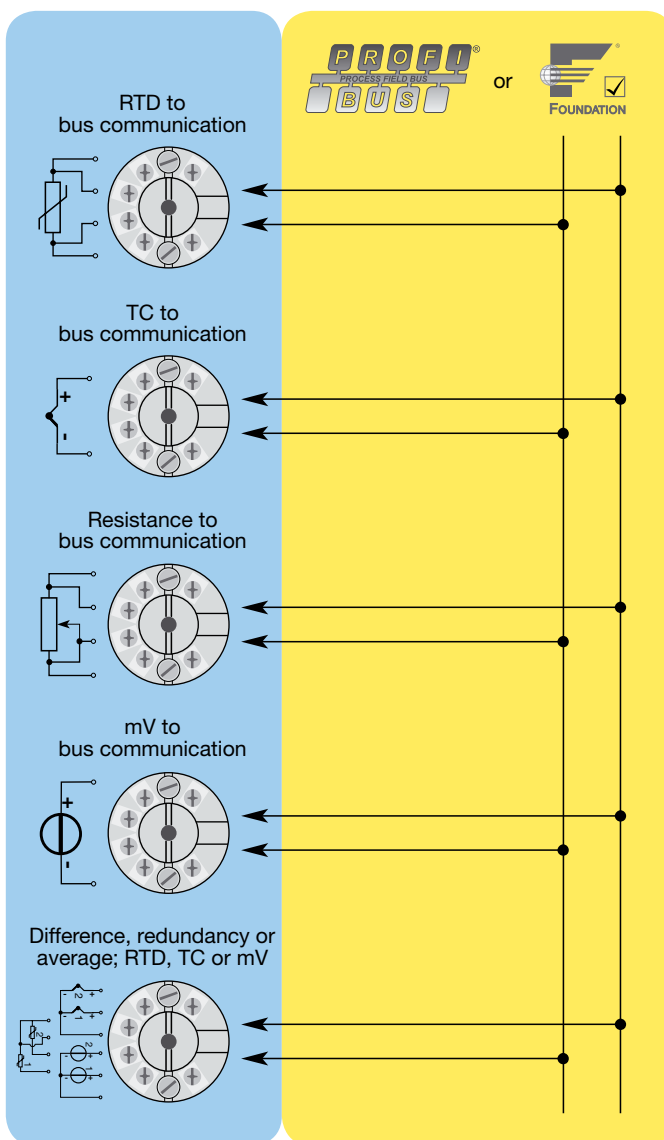
- Linearised temperature measurement with RTD or TC sensor.
- Difference, average or redundancy temperature measurement with RTD or TC sensor.
- Linear resistance, potentiometer and bipolar mV measurement.

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 analogue.
- FOUNDATION™ Fieldbus function blocks: 2 analogue and 1 PID.
- FOUNDATION™ Fieldbus capability: Basic or LAS.

Mounting / installation:

- For DIN form B sensor head mounting.



Order: 5350B

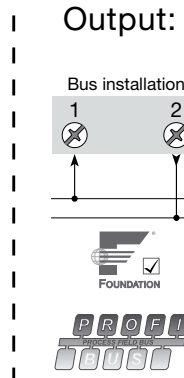
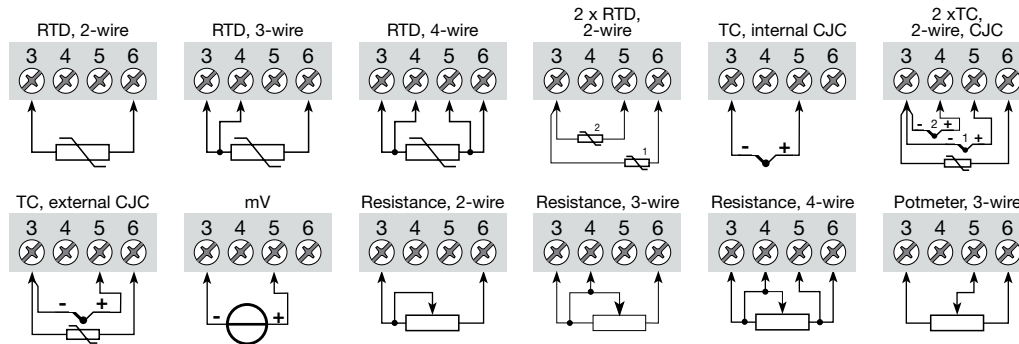
Type
5350B

***NB!** Please remember to order PR sim pin type 8422 if the simulation mode function is to be used.

Connections:

All connection options are shown in the user manual.

Connections with two sensors can be configured for 2 measurements, difference, average or redundancy.



Electrical specifications:

Specifications range:
-40°C to +85°C

Common specifications:

- Supply voltage..... 9...30 VDC
- In FISCO installations..... 9...17.5 VDC
- Consumption..... < 11 mA
- Isolation voltage, test / operation..... 1.5 kVAC / 50 VAC
- Signal / noise ratio..... Min. 60 dB
- Response time (programmable)..... 1...60 s
- Updating time..... < 400 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
All	≤ ±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	≤ ±0.15°C	≤ ±0.002°C / °C
Cu10	≤ ±1.3°C	≤ ±0.02°C / °C
Lin. R	≤ ±0.05 Ω	≤ ±0.002 Ω / °C
Volt	≤ ±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

- Vibration (DIN class B)..... IEC 60068-2-6 and IEC 60068-2-64
4 g / 2...100 Hz
- Humidity < 95% RH (non-cond.)
- Dimensions..... Ø 44 x 20.2 mm
- Protection degree (encl. / terminal) ... IP68 / IP00

Electrical specifications, input:

RTD and linear resistance input:

RTD type	Min. value	Max. value	Standard
Pt25...Pt1000	-200°C	+850°C	IEC60751/JIS C 1604
Ni25...Ni1000	-60°C	+250°C	DIN 43760
Cu10...Cu1000	-50°C	+200°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

Voltage input:

- Measurement range -800...+800 mV
- Input resistance 10 MΩ

Input:

TC 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	IEC 60751

- Cold junction compensation (CJC) ... < ±0,5 °C
- Sensor error detection..... Yes
- Sensor error current:
when detecting Nom. 4 μA
else 0 μA
- Short circuit detection < 3 mV

Output:

FOUNDATION™ Fieldbus connection:

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

PROFIBUS® PA connection:

- PROFIBUS® PA protocol standard EN 50170 vol. 2
- PROFIBUS® PA function blocks 2 analogue

Ex / I.S. approval:

- KEMA 02ATEX1318 II 1 G Ex ia IIC T4...T6 or
Ex II 2 (1) G Ex ib [ia] IIC T4...T6

- Applicable in zone 0, 1, 2, 20, 21 or 22
- ATEX Installation Drawing No. 5350QE01
- FM and CSA IS, Cl. I, Div. 1, Gr. A, B, C, D
IS, Cl. I, Zone 0/1, Gr. IIC
IS, Cl. I, Div. 2, Gr. A, B, C, D
- FM/CSA Installation Drawing No. ... 5350QE01
- INMETRO 08/UL-BRCO-0019..... BR-Ex ia IIC T4, T5, T6 or
BR-Ex ib [ia] IIC T4, T5, T6
- INMETRO Installation Drawing No. 5350QE01
- NEPSI GYJ091290X
Ex ia IIC T4~T6
Ex ib [ia] IIC T4~T6
- NEPSI Installation Drawing No. 5350QE01

GOST R approval:

- VNIIM & VNIIFTRI, Cert. no. www.prelectronics.com

Observed authority requirements:

- EMC 2004/108/EC EN 61326-1
- ATEX 94/9/EC EN 60079-0, -11, -26, -27
EN 61241-0, -11
- FM 3600, 3610, 3611
- CSA, CAN / CSA C22.2 No. 142, No. 157
- CAN / CSA..... E79-0, -11
- ANSI / UL..... UL 60079-0, -11, -15
- INMETRO IEC 60079-0, IEC 60079-11
- NEPSI GB3836.1-2000,
GB3836.4-2000