ANALOGUE SIGNALS PROCESSORS

FLEXTOP 2201 - Pt100 / 4-20 mA CONVERTER

The FlexTop 2201 is a microprocessor transmitter for thermo-resistances Pt100 of 2, 3 or 4 wires which is powered by the output loop. Its digital nature avoids classic thermal branching which are typical of analogue converters in that setting is memorised in EEPROM by means of the appropriate FLEXPROGRAMMER software.

The mechanical characteristics allows its installation within the head with "DIN B" format of the sensors by means of 2 screws with support spring (spring loaded system) which allow it to be used in environments with strong vibrations. The converter is made of a silicon based material which, when united to the particularly broad functional temperature range (-40 .. +85°C), allows installation even in non-standard applications where complete thermal separation is not guaranteed between the transmitter and the process.

The circuit is capable of identifying the malfunctioning of the probe by signalling it by means of limit values of current which can be set (burnout).

Each single transmitter is equipped with a identification serial number which, combined with a TAG No. (label) composed of 15 characters that can be programmed with the software, allows for the programming data, name of customer, etc. to be accessed at any moment.

MAINS FEATURES

- Transmitter 4..20mA for Pt100 sensors
- To microprocessor (completely digital)
- For sensors of 2, 3 o 4 wires
- Precision < 0.25°C
- Offset sensor correction
- Compensation (2 wires) of the resistance of the cable automatic / configurable
- Identification and signalling of faulty sensor
- Programmable by means of the PC
- Programmable damping
- Engineering units °C or °F
- Function of datalogger by means of the PC
- Broad range of working temperature
- ***Available even in the EEx and IIC T5/T6, ATEX II 1G version***

TECHNICAL DATA

INPUT

- Accuracy (span < 250 °C) : < 0,25 °C
- Accuracy (span > 250 °C) : 0,1% of span
- Sample time : < 0,7 s
- Pt100 standard : IEC/DIN/EN 60 751-2

- Sensor type : 2, 3 o 4 wires
- Measuring range : -200..+850 °C
- Minimum span : 25 °C
- Protection : +/- 35 Vdc
- Resolution : 14 bit

OUTPUT

- Signal span : 4..20 mA 2 wires
- Accuracy : < 0,1% of span
- Supply range : 8..35 Vcc
- Burn-out : positive / negative
- Up/Down limits : 23 mA / 3,5 mA
- Damping : 0..30 s
- Reversed polarity protection
- Resolution : 12 bit

ENVIRONMENTAL CONDITIONS

- Operating temperature : -40..+85 °C
- Humidity : < 98% RH

EMC DATA

- Immunity : EN 50 082-2
- Emission : EN 50 081-1

Ex DATA (DEMKO)

- Supply range : 8..28 Vcc
- Internal inductivity : < 10 µH
- Internal capacity : < 10 nF
- Barrier data : Umax 28 Vcc, Imax 0,1 A, Pmax 0,7 W
- Approval : EEx ia IIC T5/T6, ATEX II 1G
- EEx ia IIC T1..T5 : -40..+85 °C
- EEx ia IIC T6 : -40..+50 °C
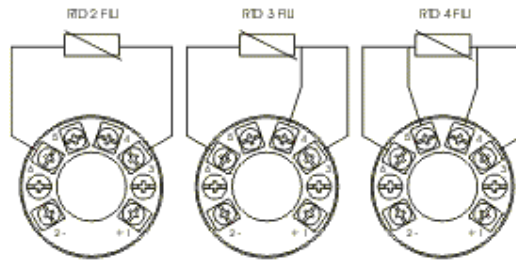- Standard : EN 50 014 e EN 50 020

DIMENSIONS

- Dimensions : Ø 44 x 19 mm
- Protection class : housing IP40, terminals IP00

OTHER DATA

- Temperature drift : typical 0,003 %/°C, max. 0,01 %/°C
- Power-on time : 10 s
- TAG No. configurable : 15 characters

CONNECTIONS

ORDERING CODES

Code	Notes
FLEXTOP 2201	-
FLEXTOP 2201C	Supplied already configured (for correct programming it is necessary to supply the above and below mentioned parameters during the ordering phase)
FLEXPROGRAMMER	Software and programmer

For more info please refer to the operating manual

Characteristics can be subject to change without notice