

Programmable LED indicator

5714



- 4-digit 14-segment LED display
- Input for mA, V, Ohm, RTD, TC and potentiometer
- 2 relays and analog output
- Universal supply
- Front key programmable



Application

- Display for digital readout of current / voltage / resistance / temperature or potentiometer signals.
- Process control with 2 potential-free relays and / or analog output.
- For local readout in extremely wet atmospheres with a specially designed splash-proof cover.

Technical characteristics

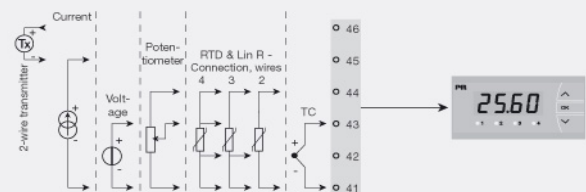
- 4-digit LED indicator with 13.8 mm 14-segment characters. Max. display readout -1999...9999 with programmable decimal point and relay ON / OFF indication.
- All standard operational parameters can be adjusted to any application by way of the front function keys.
- Help texts in eight languages can be selected via a menu item.
- PR5714 is available fully-configured according to specifications ready for process control and visualization.
- In versions with relay outputs the user can minimize the installation test time by activating / deactivating each relay independently of the input signal.

Mounting / installation

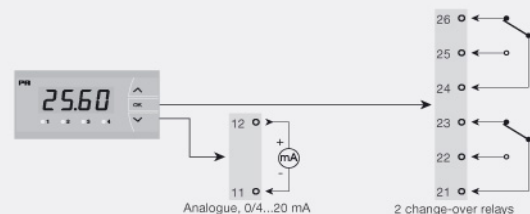
- To be mounted in panel front. The included rubber packing must be mounted between the panel cutout hole and the display front to obtain a protection degree of IP65 (type 4X). For extra protection in extreme environments, PR5714 can be delivered with a specially designed splash-proof cover as accessory.

Connection

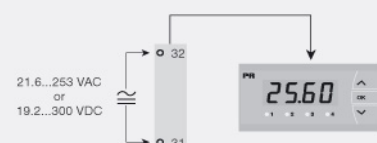
Input signals:



Output signals:



Supply:



Environmental Conditions

Specifications range.....	-20°C to +60°C
Calibration temperature.....	20...28°C
Relative humidity.....	< 95% RH (non-cond.)
Protection degree (mounted in panel).....	IP65 / Type 4X, UL50E

Mechanical specifications

Dimensions (HxWxD).....	48 x 96 x 120 mm
Cut out dimensions.....	44.5 x 91.5 mm
Weight approx.....	230 g
Wire size, pin 41-46 (max.).....	1 x 1.5 mm2 stranded wire
Wire size, others, max.....	1 x 2.5 mm2 stranded wire

Common specifications

Supply voltage, universal.....	21.6...253 VAC, 50...60 Hz or 19.2...300 VDC
Max. power consumption.....	2.5 W (5714A)
Max. power consumption.....	3.0 W (5714B/C)
Max. power consumption.....	3.5 W (5714D)
Internal consumption.....	2.2 W (5714A)
Internal consumption.....	2.7 W (5714B/C)
Internal consumption.....	3.2 W (5714D)
Isolation voltage, test / working.....	2.3 kVAC / 250 VAC
Signal / noise ratio.....	Min. 60 dB (0...100 kHz)
Response time (0...90%, 100...10%): Temperature input (programmable).....	1...60 s
mA / V input (programmable).....	0.4...60 s
Auxiliary supply: 2-wire supply (pin 46...45).....	25...15 VDC / 0...20 mA
EMC immunity influence.....	< ±0.5% of readout

Input specifications

RTD input.....	Pt10, Pt20, Pt50, Pt100, Pt200, Pt250, Pt300, Pt400, Pt500, Pt1000 Ni50, Ni100, Ni120, Ni1000, Cu10, Cu20, Cu50, Cu100
RTD input.....	Linear resistance
RTD input.....	Potentiometer
Cable resistance per wire (max.), RTD.....	50 Ω
Sensor current, RTD.....	Nom. 0.2 mA
Effect of sensor cable resistance (3-/4-wire), RTD.....	< 0.002 Ω / Ω
Sensor error detection, RTD.....	Yes
Short circuit detection, RTD.....	< 15 Ω
TC input: Thermocouple type.....	B, E, J, K, L, N, R, S, T, U, W3, W5, LR
CJC via internally mounted sensor.....	±(2.0°C + 0.4°C * Δt)
Δt =	internal temperature-ambient temperature
Sensor error detection, TC.....	Yes
Sensor error current - when detecting / else.....	Nom. 2 μA / 0 μA
Current input: Measurement range.....	0...20 mA
Current input: Programmable measurement ranges.....	0...20 and 4...20 mA
Input resistance, current input.....	Nom. 20 Ω + PTC 25 Ω
Sensor error detection, current.....	Loop break 4...20 mA
Voltage input: Measurement range.....	0...12 VDC
Programmable measurement ranges, VDC.....	0/0.2...1; 0/2...10 VDC
Input resistance, voltage input.....	Nom. 10 MΩ

Output specifications

Display readout.....	-1999...9999 (4 digits)
Decimal point.....	Programmable
Digit height.....	13.8 mm
Display updating.....	2.2 times / s
Input outside input range is indicated by.....	Explanatory text
Current output: Signal range.....	0...20 mA
Programmable signal ranges.....	0...20 / 4...20 / 20...0 and 20...4 mA
Load (max.).....	20 mA / 800 Ω / 16 VDC
Load stability, current output.....	≤0.01% of span/100 Ω
Sensor error detection, current output.....	0 / 3.5 / 23 mA / none
NAMUR NE 43 Upscale/Downscale.....	23 mA / 3.5 mA
Output limitation, on 4...20 and 20...4 mA signals.....	3.8...20.5 mA
Output limitation, on 0...20 and 20...0 mA signals.....	0...20.5 mA
Current limit.....	≤ 28 mA
Relay output: Relay functions.....	Setpoint
Hysteresis.....	0...100%
ON and OFF delay.....	0...3600 s
Sensor error reaction.....	Break / Make / Hold
Max. voltage.....	250 VRMS
Max. current.....	2 AAC
Max. AC power.....	500 VA
Max. load at 24 VDC.....	1 A

Approvals

EMC.....	EN 61326-1
LVD.....	EN 61010-1
GOST R.....	Yes
DNV Marine.....	Stand. f. Certific. No. 2.4
UL.....	UL 508