

Programmable LED indicator

5715



- 4-digit 14-segment LED display
- Input for mA, V, Ohm, RTD, TC and potentiometer
- 4 relays and analog output
- Universal supply
- Programmable via front keys and PC



Application

- Display for digital readout of current / voltage / resistance / temperature or 3-wire potentiometer signals.
- Process control with 4 pairs of potential-free change-over relays and analog output.
- For tank level control, with the possibility of customer linearization ensuring correct level measurement and control in non-linear tanks.

Technical characteristics

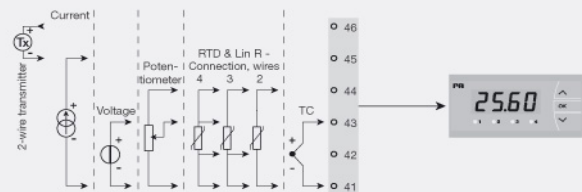
- 4-digit LED indicator with 13.8 mm 14-segment characters. Max. display readout -1999...9999 with programmable decimal point and relay ON / OFF indication.
- All standard operational parameters can be adjusted to any application by way of the front function keys. When programming is carried out by way of a PC and the configuration program PReset, additional configuration options are available, such as customer-defined linearization and special input signals.
- Help texts in eight languages can be selected via a menu item.
- A menu item allows the user to minimize the installation test time for the relay outputs by activating / deactivating each relay independently of the input signal.

Mounting / installation

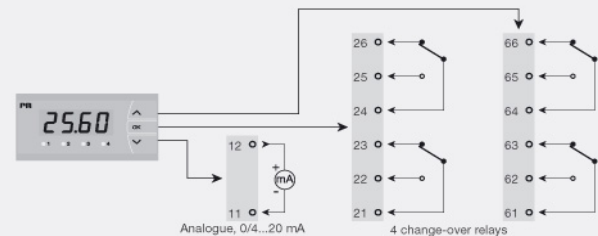
- To be mounted in panel front. The included rubber packing must be mounted between the panel cutout hole and the display front to obtain a protection degree of IP65 (type 4X). For extra protection in extreme environments, PR5715 can be delivered with a specially designed splash-proof cover as accessory.

Connections

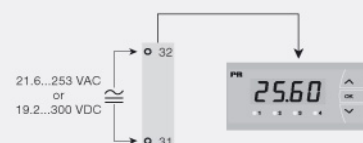
Input signals:



Output signals:



Supply:



Order:

Type	Version
5715	4 relays : B Analog output and 4 relays : D

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.....	260 g
Wire size, pin 41-46 (max.).....	1 x 1.5 mm ² stranded wire
Wire size, others, max.....	1 x 2.5 mm ² stranded wire
Vibration.....	IEC 60068-2-6 : 2007
Vibration: 2...25 Hz.....	±1.6 mm
Vibration: 25...100 Hz.....	±4 g

Common specifications

Supply voltage, universal.....	21.6...253 VAC, 50...60 Hz or 19.2...300 VDC
Max. power consumption.....	3.3 W (5715B)
Max. power consumption.....	3.8 W (5715D)
Internal consumption.....	3.0 W (5715B)
Internal consumption.....	3.5 W (5715D)
Isolation voltage, test / working.....	2.3 kVAC / 250 VAC
Signal / noise ratio.....	Min. 60 dB (0...100 kHz)
Accuracy.....	Better than 0.1% of selected range
Communications interface.....	USB Loop Link
Response time (0...90%, 100...10%): Temperature input.....	≤ 1 s
Response time (0...90%, 100...10%): mA / V input.....	≤ 400 ms
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
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
Linear resistance input.....	0 Ω...10000 Ω
Potentiometer input.....	10 Ω...100 kΩ
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 input.....	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 current 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 indication, 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 2006/95/EC.....	EN 61010-1
EAC TR-CU 020/2011.....	EN 61326-1
DNV Marine.....	Stand. f. Certific. No. 2.4
UL.....	UL 508