PERFORMANCE MADE SMARTER

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

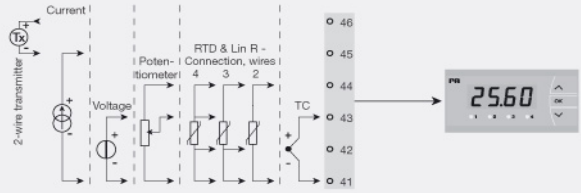
- 4-digit LED indicator with 13.8 mm 14-segment characters. Max. display readout -1999...9999 with programmable decimal point and relay ON / OFF indication.
- All standard operational parameters can be adjusted to any application by way of the front function keys. When programming is carried out by way 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.
- 2.3 kVAC galvanic isolation between input, output and supply.

Mounting / installation

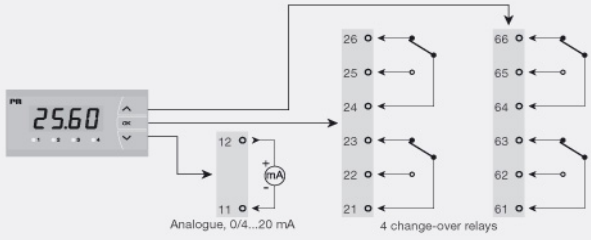
- To be mounted in panel front. The included rubber packing must be mounted between the panel cutout hole and the display front to obtain a protection degree of IP65 (type 4X). For extra protection in extreme environments, PR 5715 can be delivered with a specially designed splash-proof cover as accessory.

Applications

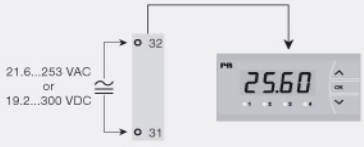
Input signals:



Output signals:



Supply:



This page is automatically generated on the basis of information provided on www.prelectronics.com and affiliated websites. It is provided to you as a service and for information purpose only. While we have attempted to maintain the information as accurately as possible, the page may contain errors or omissions for which we disclaim any and all liability

Order:

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

Environmental Conditions

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

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.)	0.05...1.31 mm^2 AWG 30...16 stranded wire
Wire size, others, max.	0.05...3.31 mm^2 / AWG 30...12 stranded wire
Vibration	IEC 60068-2-6
2...13.2 Hz	±1 mm
13.2...100 Hz	±0.7 g

Common specifications

Supply

Supply voltage, universal	21.6...253 VAC, 50...60 Hz or 19.2...300 VDC
Max. required power	3.3 W (5715B)
Max. required power	3.8 W (5715D)
Internal power dissipation	3.0 W (5715B)
Internal power dissipation	3.5 W (5715D)

Isolation voltage

Isolation voltage, test / working	2.3 kVAC / 250 VAC

Response time

Temperature input (0...90%, 100...10%)	≤ 1 s
mA / V input (0...90%, 100...10%)	≤ 400 ms

Auxiliary supplies

2-wire supply (pin 46...45)	> 15 VDC @ 0...20 mA
Signal / noise ratio	Min. 60 dB (0...100 kHz)
Accuracy	Better than 0.1% of sel. range
Programming	Loop Link
EMC immunity influence	< ±0.5% of readout

Input specifications

RTD input

RTD type	Pt10/20/50/100/200/250; Pt300/400/500/1000; Ni50/100/120/1000; Cu10/20/50/100
Cable resistance per wire	50 Ω (max.)
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

Linear resistance input

Linear resistance min....max	0 Ω...10000 Ω

Potentiometer input

Potentiometer min....max	10 Ω...100 kΩ

TC input

Thermocouple type	B, E, J, K, L, N, R, S, T, U, W3, W5, LR
CJC via int. mounted sensor	±(2.0°C + 0.4°C * Δt)
Sensor error detection	Yes
Sensor error current: When detecting / else	Nom. 2 µA / 0 µA

Current input

Measurement range	0...20 mA
Programmable measurement ranges	0...20 and 4...20 mA
Input resistance	Nom. 20 Ω + PTC 25 Ω
Sensor error detection	Loop break 4...20 mA

Voltage input

Measurement range	0...12 VDC
Programmable measurement ranges	0/0.2...1; 0/2...10 VDC
Input resistance	Nom. 10 MΩ

Output specifications

Display

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...0/20...4 mA
Load (@ current output)	≤ 800 Ω
Load stability	≤ 0.01% of span / 100 Ω
Sensor error indication	0 / 3.5 / 23 mA / none
NAMUR NE43 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

Observed authority requirements

EMC	2014/30/EU & UK SI 2016/1091
LVD	2014/35/EU & UK SI 2016/1101
RoHS	2011/65/EU & UK SI 2012/3032
EAC	TR-CU 020/2011
EAC LVD	TR-CU 004/2011

Approvals

c UL us, UL 508	E248256
EU RO MR Type Approval	MRA000000Z