

# PROGRAMMABLE LED INDICATOR



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



**Application:**

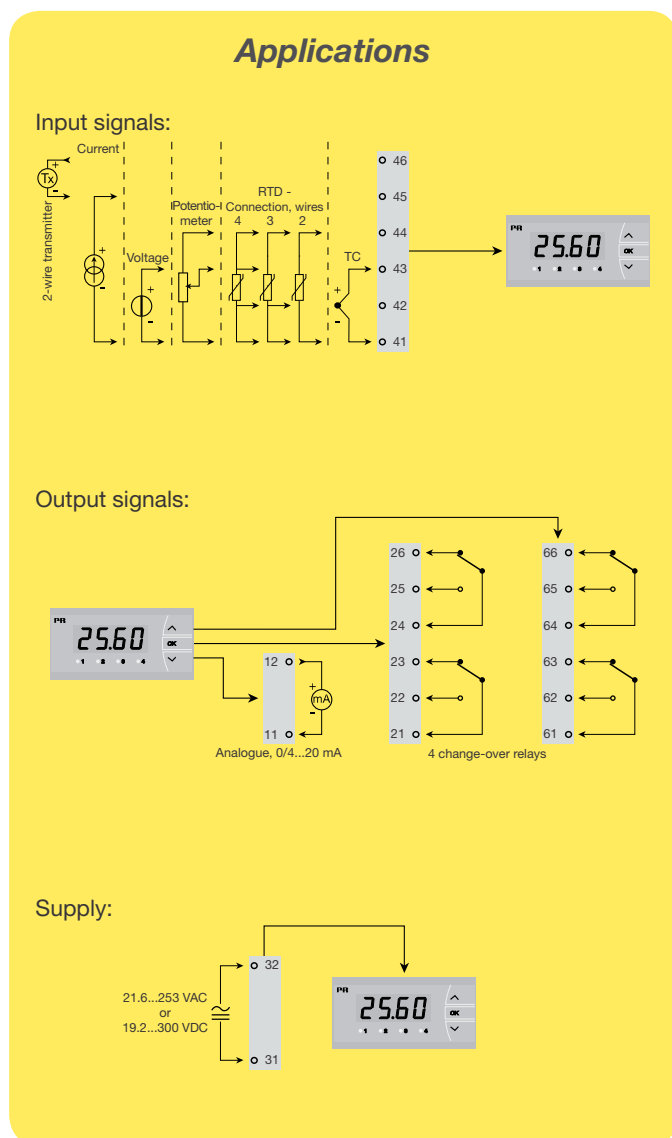
- Display for digital readout of current / voltage / temperature or 3-wire potentiometer signals.
- Process control with 4 pairs of potential-free change-over relays and analogue output.
- For tank level control, with the possibility of customer linearisation ensuring correct level measurement and control 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 linearisation a special input signals.
- Help texts in eight languages can be selected via a menu item.
- A menu item allows the user to minimise 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 (NEMA 4X). For extra protection in extreme environments, PReview 5715 can be delivered with a specially designed splash-proof cover as accessory.



Order: 5715

Type	Version
<b>5715</b>	4 relays . . . . . : B Analogue output and 4 relays : D

**NB!** Please order the splash-proof cover separately!  
Order no. 8335.

**Electrical specifications:**

**Specifications range:**

-20°C to +60°C

**Common specifications:**

Supply voltage, universal ..... 21.6...253 VAC, 50...60 Hz  
or 19.2...300 VDC

**Consumption:**

Type	Internal consumption	Max. consumption
5715B	3.0 W	3.3 W
5715D	3.5 W	3.8 W

Isolation voltage, test / operation..... 2.3 kVAC / 250 VAC  
Signal / noise ratio..... Min. 60 dB (0...100 kHz)  
Communications interface ..... USB Loop Link  
Response time (0...90%, 100...10%):  
Temperature input..... < 1 s  
Current / voltage input..... < 400 ms  
Calibration temperature..... 20...28°C  
Accuracy, the greater of general and basic values:

General values		
Input type	Absolute accuracy	Temperature coefficient
All	≤ ±0.1% of readout	≤ ±0.01% of readout / °C

Basic values		
Input type	Basic accuracy	Temperature coefficient
mA	≤ ±4 µA	≤ ±0.4 µA / °C
Volt	≤ ±20 µV	≤ ±2 µV / °C
Potentiometer	≤ ±0.1 Ω	≤ ±0.01 Ω / °C
Pt100	≤ ±0.2°C	≤ ±0.02°C / °C
Ni100	≤ ±0.3°C	≤ ±0.03°C / °C
TC type: E, J, K, L, N, T, U	≤ ±1°C	≤ ±0.05°C / °C
TC type: R, S, W3, W5, LR	≤ ±2°C	≤ ±0.2°C / °C
TC type: B 160...400°C	≤ ±4.5°C	≤ ±0.45°C / °C
TC type: B 400...1820°C	≤ ±2°C	≤ ±0.2°C / °C

EMC immunity influence .....	< ±0.5% of readout
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**Auxiliary supply:**

2-wire supply (pin 46...45) ..... 25...15 VDC / 0...20 mA  
Wire size, pin 41...46 (max.) ..... 1 x 1.5 mm<sup>2</sup> stranded wire  
Wire size, others (max.) ..... 1 x 2.5 mm<sup>2</sup> stranded wire  
Relative humidity ..... < 95% RH (non cond.)  
Dimensions (HxBxD)..... 48 x 96 x 120 mm  
Cutout dimensions ..... 44.5 x 91.5 mm  
Protection degree (mounted in panel) .. IP65 /  
NEMA type 4X, UL50E  
Weight ..... 260 g

**RTD and potentiometer input:**

Input type	Min. value	Max. value	Standard
Pt100	-200°C	+850°C	IEC60751
Ni100	-60°C	+250°C	DIN 43760
Potentiometer	10 Ω	100 kΩ	-

**Input for RTD types:**

Pt10, Pt20, Pt50, Pt100, Pt200, Pt250,  
Pt300, Pt400, Pt500, Pt1000  
Ni50, Ni100, Ni120, Ni1000  
Cable resistance per wire, RTD (max.). 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:**

Type	Min. value	Max. value	Standard
B	0°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
LR	-200°C	+800°C	GOST 3044-84

**Cold junction compensation (CJC)**

via internal sensor..... ±(2.0°C + 0.4°C \* Δt)

Δt = internal temperature - ambient temperature

Sensor error detection, all TC types.. Yes

**Sensor error current:**

when detecting ..... Nom. 2 µA  
else ..... 0 µA

**Current input:**

Measurement range ..... 0...20 mA  
Programm. measurement ranges..... 0...20 and 4...20 mA  
Input resistance ..... Nom. 20 Ω + PTC 25 Ω  
Sensor error detection:  
loop break 4...20 mA ..... Yes

**Voltage input:**

Measurement range ..... 0...12 VDC  
Programm. measurement ranges..... 0...1, 0.2...1,  
0...10 and 2...10 VDC  
Input resistance ..... Nom. 10 MΩ

**Outputs:**

**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 (span)..... 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 ..... ≤ 0.01% of span / 100 Ω  
Sensor error detection..... 23 / 0 / 3.5 mA / none  
NAMUR NE 43 Up- / Downscale..... 23 mA / 3.5 mA  
Output limitation:  
on 4...20 and 20...4 mA signals ... 3,8...20.5 mA  
on 0...20 and 20...0 mA signals ... 0...20.5 mA  
Current limit ..... ≤ 28 mA

**Relay outputs:**

Relay function..... Setpoint  
Hysteresis, in % / display counts..... 0.1...25% / 1...2999  
On and Off delay ..... 0...3600 s  
Sensor error detection..... Make / Break / Hold  
Max. voltage ..... 250 VRMS  
Max. current ..... 2 A / AC  
Max. AC power..... 500 VA  
Max. current at 24 VDC..... 1 A

**Marine approval:**

Det Norske Veritas, Ships & Offshore. Stand. for Certific. No.2.4

**GOST R approval:**

VNIIM, Cert. no. .... www.prelectronics.com

**Observed authority requirements: Standard:**

EMC 2004/108/EC ..... EN 61326-1  
LVD 2006/95/EC ..... EN 61010-1  
UL, Standard for Safety..... UL 508