PROGRAMMABLE LED INDICATOR

- **4-digit, 14-segment LED indicator**
- **Input for mA, V, RTD, TC and potentiometer**
- **2 relays and analogue output**
- **Universal supply voltage**
- **Front key programmable**

Application:

- Display for digital readout of current, voltage, temperature or 3-wire potentiometer signals.
- Process control with 2 potential-free relays and / or analogue output.
- For local readout in extremely wet atmospheres with a specially designed splash-proof cover.
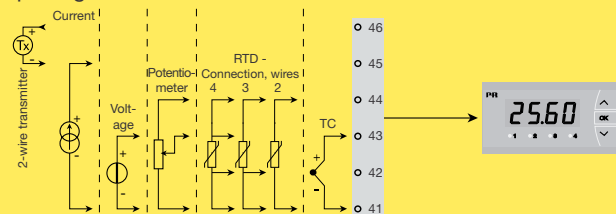
Technical characteristics:

- 4-digit LED indicator with 13.8 mm 14-segment characters. Max. display readout -1999...9999 with programmable decimal point, relay ON / OFF-indication.
- All operational parameters can be adjusted to any application by use of the front keys.
- Help texts in eight languages can be selected via a menu item.
- PReview 5714 is available fully-configured according to specifications ready for process control and visualisation.
- In versions with relay outputs the user can minimise the installation test time by activating / deactivating each relay independently of the input signal.
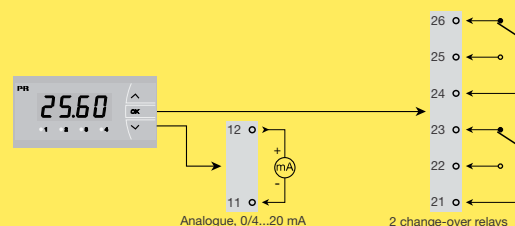
Mounting:

- To be mounted in front panel. 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 5714 can be delivered with a specially designed splash-proof cover as accessory.
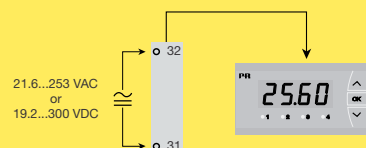
Applications

Input signals:

Output signals:

Analogue, 0/4...20 mA   2 change-over relays

Supply:

21.6...253 VAC or 19.2...300 VDC

PR electronics

Order: 5714

Type	Version
5714	Standard . . . .: A 2 relays . . . .: B Analogue output . . . .: C Analogue output and 2 relays : D

NB! Please order the splash-proof cover seperately. 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
5714A	2.2 W	2.5 W
5714B	2.7 W	3.0 W
5714C	2.7 W	3.0 W
5714D	3.2 W	3.5 W

Isolation voltage, test / operation...... 2.3 kVAC / 250 VAC
Signal / noise ratio............................. Min. 60 dB (0...100 kHz)
Response time (0...90 %, 100...10 %), programmable:
   Temperature input........................ 1...60 s
   Current / voltage input................. 0.4...60 s
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

Auxiliary supplies:
   2 wire supply (pin 46...45)............ 25...15 VDC / 0...20 mA
Wire size, pin 41-46 (max.) .... 1 x 1.5 mm² stranded wire
Wire size, others (max.) .... 1 x 2.5 mm² stranded wire
Relative humidity .... < 95% RH (non cond.)
Dimensions (HxWxD)........................ 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 .... 230 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 pr. 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 curcuit 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
Program. 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:
Measure range.................................. 0...12 VDC
Program. measurement ranges......... 0...1 / 0,2...1 / 0...10 / 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 / 20...4 mA
Load (max.).. 20 mA / 800 Ω / 16 VDC
Load stability .... ≤ 0.01% of span / 100 Ω
Sensor error detection....................... 0 / 3.5 / 23 mA / none
NAMUR NE 43 Upscale.................... 23 mA
NAMUR NE 43 Downscale................ 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