Issue June 2004

LOOP-POWERED LCD INDICATOR 5531

- 4-digit LCD display 48 x 96 mm
- Loop-powered
- Easy scalable from front keys
- Backlight
- Intrinsically safe EEx ia IIC T6
- IP65 enclosure from front

Application:
The PReview 5531 indicator is ideal for local readout of 4...20 mA current signals scaled directly in process units. • PReview does not need any external power supply since the indicator is powered by the 4...20 mA loop signal. • The EEx-versions can be used for local readout in hazardous areas classified as zone 0,1 or 2.

Technical characteristics:
Input: 4...20 mA standard signal.
An adhesive label with process units may be attached to the front below the digits.
Input voltage drop is ≤ 1.5 VDC, corresponding to a feed-through resistance of 75 Ω (when backlight is switched off).
Reversed display readout is possible, see routing diagram-me
on reverse.

Programming/scaling:
DIP-switch 1, switch 1 on the rear panel is used to enable/disable the front keys thus facilitating scaling.
Scale mode: In scale mode the indicator may be scaled, see routing diagramme on the reverse side of this data sheet.
Run mode: In run mode the indicator will display the actual current according to the scaling.
Backlight: DIP-switch 1, switch 2 and 3 on the rear panel is used to select backlight intensity, see programming on the reverse of this data sheet. Please note that the input voltage drop is dependent on backlight intensity.

Electrical specifications:

Specification range:
(@: -20°C to +60°C)

Common specifications:
Max. voltage drop at 20 mA:
Without backlight ..... < 1.5 VDC
Half backlight ..... < 6.5 VDC
Full backlight ..... < 10.5 VDC
Response time (0...90%)..... < 1 s
Calibration temperature ..... 20...28°C
Temperature coefficient ..... < ± 0.01% of span/°C
Linearity error ..... <± 0.1% of span
EMC-Immunity influence..... < ±0.5%
Air humidity ..... 0...90% (non-condensing)
Dimensions (HxWxD)..... 48 x 96 x 120 mm
Cut-out dimensions (HxW) ..... 44.5 x 91.5 mm
Tightness (from front) IP65
Weight ..... 150 g

Input:
Measurement range ..... 3.6...23 mA

Display:
Display readout ..... ± 9999 (4 digits)
Min. display readout (span) ..... 0 counts
Decimal point ..... programmable
Digit height ..... 16 mm
Resolution at span < 10000 counts ... 1 count
Resolution at span > 10000 counts ... < 2 counts
Updating speed ..... 500 ms

Ex-data:
$U_{max.in}$ ..... 45 VDC
$I_{max.in}$ ..... 500 mA
$P_{max\ in}$ ..... 0.9 W (U_{max} x I_{max} x 0.25)
C_{eq} ..... 0 µF
L_{eq} ..... 0 mH
Application area ..... Zone 0,1or 2

EEx-approval CENELEC [EEx ia] IIC T6

Observed authority requirements Standard
EMC 89/336/EEC Emission..... EN 50 081-1
Immunity..... EN 50 082-2
Ex 76/117/EEC ..... EN 50 014 and EN 50 020

Of span = Of the presently selected range

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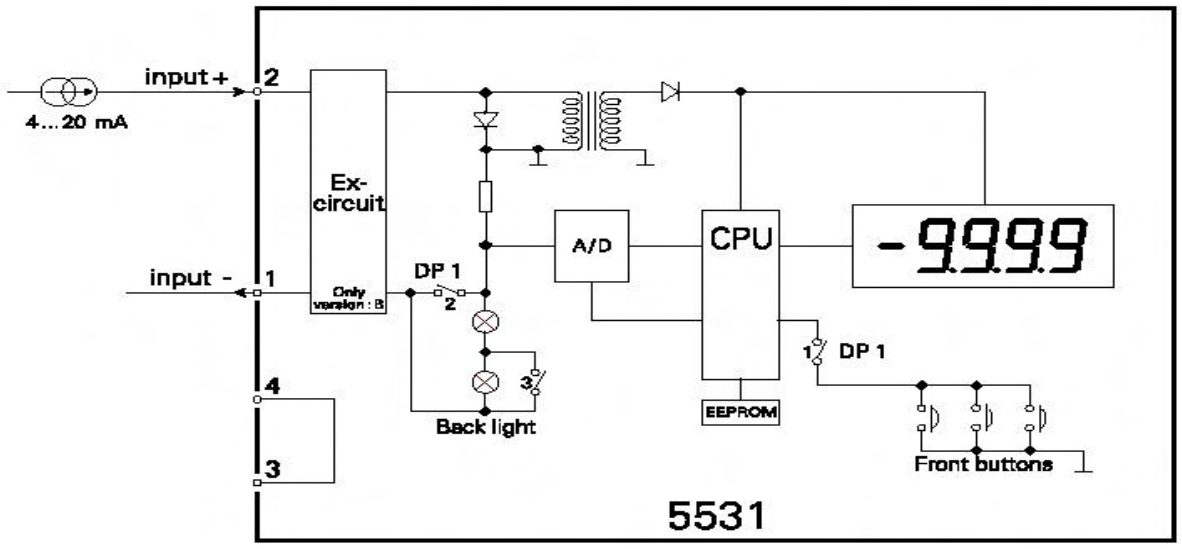
Order : 5531

Type	Version	
5531	Standard	: A
	EEx ia IIC T6	: B

Block diagram:

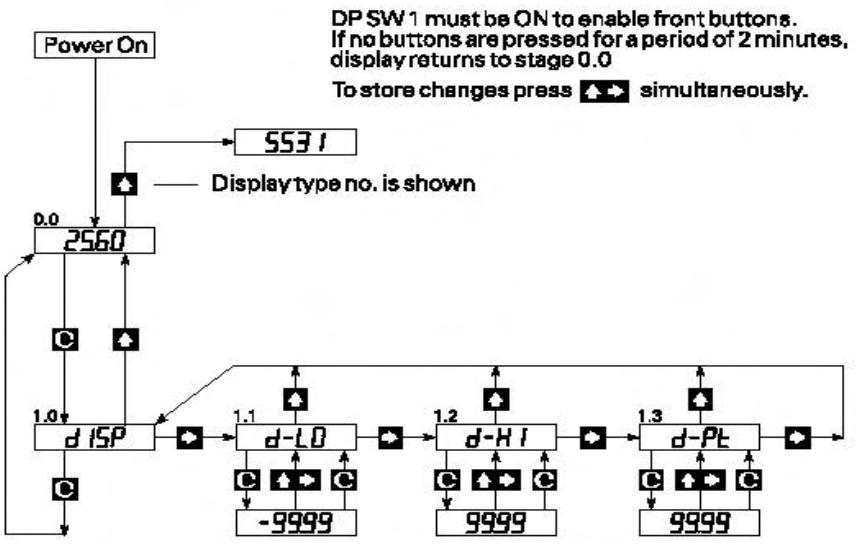


Programming:

DP 1 Front keyboard	SW ON	SW OFF
Keys locked	-	1
Keys NOT locked	1	-

DP 1 Backlight	SW ON	SW OFF
Off	2	-
Half intensity	3	2
Full intensity	-	2,3

Routing diagram:



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