

Loop-powered LCD indicator

5531B



- 4 digit 1/8 DIN (48 x 96 mm) loop-powered LCD display
- Easy push-button configuration
- Backlit LCD display is readable in low light conditions
- Display can be mounted in the safe area or in I.S. / Ex zone 1



Application

- The 5531B indicator is powered by the 4 to 20 mA current loop and is easily scaled to display the correct process value.
- Because it does not require separate power wiring, the 5531B is perfect for remote display of process loops.
- The 5531B can be mounted in Ex Zone 1.

Technical characteristics

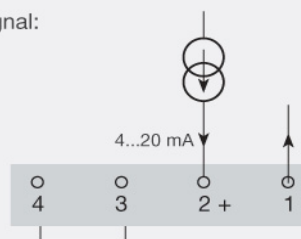
- With a full measurement range of 3.6 to 23 mA, the 5531B is NAMUR NE43 compliant.
- The display can be push-button scaled to any range between -9999 to 9999, and reverse display action is possible.
- The LCD backlight can be set to half or full intensity for easy viewing in low light conditions.
- The display only requires 1.5 VDC, (75 Ω loop load), with the backlight turned off.
- The input is HART transparent.
- The front push-buttons can be disabled to prevent unauthorized adjustment.

Mounting / installation

- Once panel mounted with the included gasket, the 5531B provides IP65 ingress protection.

Applications

Input signal:



Order

Type	Version
5531B	Zone 1, 2

Environmental Conditions

Operating temperature.....	-20°C to +60°C
Storage temperature.....	-20°C to +60°C
Calibration temperature.....	20...28°C
Relative humidity.....	< 95% RH (non-cond.)
Protection degree.....	IP65, from front

Mechanical specifications

Dimensions (HxWxD).....	48 x 96 x 120 mm
Cut out dimensions.....	44.5 x 91.5 mm
Weight approx.....	200 g
Wire size, connector terminal	
1 - 4.....	0.13...2.08 mm ² / AWG 26...14 stranded wire

Common specifications

Supply

Supply voltage.....	Input loop-powered
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Response time

Response time (0...90%, 100...10%).....	< 1 s
EMC immunity influence.....	< ±0.5% of span
Programming.....	Front-programmable
Signal / noise ratio.....	> 60 dB
Updating time.....	500 ms

Input specifications

Current input

Measurement range.....	3.6...23 mA
Loop error detection, 4...20 mA: Low.....	~ < 3 mA
Loop error detection, 4...20 mA: High.....	~ > 24 mA
Input voltage drop, without backlight.....	< 1.5 V @ 20 mA
Input voltage drop, with half backlight.....	< 6.5 V @ 20 mA
Input voltage drop, with full backlight.....	< 10.5 V @ 20 mA

Output specifications

Display

Display readout.....	± 9999 (4 digits)
Digit height.....	16 mm

Observed authority requirements

EMC.....	2014/30/EU
ATEX.....	2014/34/EU
RoHS.....	2011/65/EU
EAC.....	TR-CU 020/2011
EAC Ex.....	TR-CU 012/2011

Approvals

ATEX.....	KEMA 05ATEX1105X
IECEx.....	DEK 24.0002X
CCC.....	2024322309006239
EAC Ex.....	EAEU KZ 7500361.01.01.08756

For pricing or any further information, please contact Omni Instruments Ltd.



Measurement and data acquisition solutions

Contact Details:

Tel: +44 1382 443000
Email: info@omni.uk.com

Website: www.omniinstruments.co.uk

Mailing Address: Unit 1, 14 Nobel Road,
Wester Gourdie Industrial Estate,
Dundee, DD2 4UH.