

## Loop-powered LCD Indicator

### 5531A



- 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 2



#### Application

- The 5531 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 5531 is perfect for remote display of process loops.
- The 5531A display can be panel mounted in the safe area or I.S. / Ex Zone 2 (gas).

#### Technical characteristics

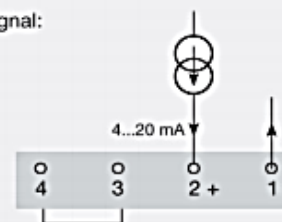
- With a full measurement range of 3.6 to 23 mA, the 5531 is NAMUR NE43 compliant.
- The display can be push-button scaled to any range between -9999 to 9999, and reverse display action is possible.
- The LCD backlight can be set to half or full intensity for easy viewing in low light conditions.
- The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

#### Mounting / Installation

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

#### Connections

Input signal:



**Order:**

Type	Input signal area classification	Field enclosure
5531A	4...20 mA from safe and zone 2	No

**Environmental Conditions**

Specifications range.....	-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 <sup>2</sup> / AWG 26...14 stranded wire
Screw terminal torque.....	0.5 Nm
Cable glands and cable diameter.....	M16 x 1.5 / Ø 5...8 mm

**Common specifications**

<b>Supply</b>	
Supply voltage.....	Input loop-powered
<b>Response time</b>	
Response time (0...90%, 100...10%).....	< 1 s
Signal / noise ratio.....	> 60 dB
Updating time.....	500 ms
EMC immunity influence.....	< ±0.5% of span

**Input specifications**

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

**Approvals**

LVD 2006/95/EC.....	EN 61010-1
EMC.....	EN 61326-1
ATEX 2004/108/EC.....	KEMA 05ATEX1044 X (5531A/B1)
EAC TR-CU 020/2011.....	EN 61326-1

**Output specifications**

<b>Display:</b>	
Display readout.....	± 9999 (4 digits)
Digit height.....	16 mm