



# PA 440

## Digital Field Display for 4 ... 20 mA Current Loop



Field Display

PA 440

### **Product characteristics**

- ▶ 4-digit, 7-segment LC display
- ▶ easy configuration
- ▶ ingress protection IP 65
- ▶ pressure balance item with PTFE filter
- ▶ rugged housing
- ▶ quick and easy installation

### **Optional versions**

- ▶ IS-version
- ▶ aluminium die cast case
- ▶ up to two configurable contacts
- ▶ LED display



The field display PA 440 has been designed for visualizing an analogue current loop signal and does not require an external supply.

For monitoring the level and the pressure, up to two contacts are optionally available, as well as an intrinsic safe version for hazardous areas. The configuration is done via menu by two push buttons.

### **Preferred areas of use are**



environmental engineering



mechanical engineering and  
plant construction



laboratory application



chemical industry



HVAC application



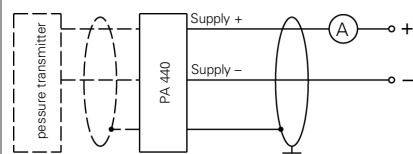
# PA 440

Field Display

Technical Data

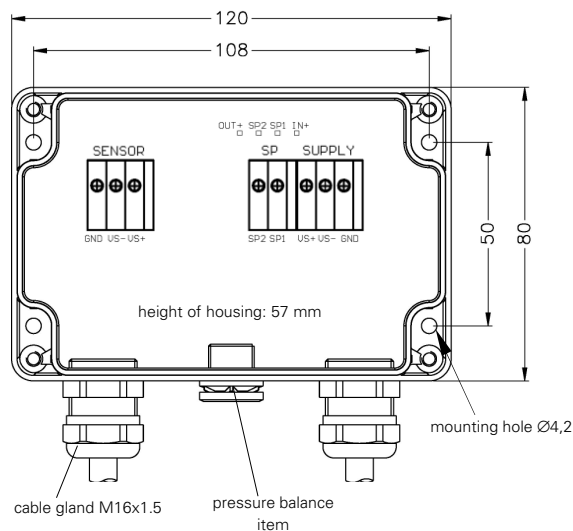
<b>Analogue signal</b>		
Standard	2-wire: 4 ... 20 mA	
Option IS-version	2-wire: 4 ... 20 mA	
Option 3-wire	0 ... 10 V (in preparation)	
Accuracy	IEC 60770: $\leq \pm 0.2\%$ FSO	BFSL: $\leq \pm 0.1\%$ FSO
<b>Supply</b>		
2-wire system	supplied by current loop; voltage drop $\leq 6.5$ V IS version: max. $28 V_{DC}$ (for combination with transmitter and PA 440)	
3-wire system	display is supplied parallel with transmitter; $V_s = 8 V_{DC} \dots 36 V_{DC}$	
<b>Contact (optionally for LED display)</b>		
Number, type	max. 2 independent PNP open collector contacts	
Switching performance	contact rating max. 125 mA, short-circuit resistant	
Repeatability	$\leq \pm 0.2\%$ FSO	
Switching frequency	max. 8/s	
Switching cycles	$> 100 \times 10^6$	
Delay time	0 ... 100 sec	
<b>Miscellaneous</b>		
Electrical protection	reverse polarity protection (no damage, but also no function); electromagnetic compatibility (emission and immunity according to EN 61326); short-circuit protection	
Ingress protection	IP 65	
Display	4-digit, 7-segment LC display, range of indication -1999 ... +9999; accuracy $0.2\% \pm 1$ digit; standard: LC display, digit height 18 mm      option: LED display, digit height 10 mm, red	
Permissible temperatures	electronics / environment / storage: -20 ... 70 °C	
Thermal error offset and span	$\leq \pm 0.15\%$ FSO / 10 K	
Material display housing	standard: plastic ABS, grey option: aluminium die cast case, grey powder-coating	
Cable entries	cable gland M16x1.5 Polyamide, seals NBR, diameter range: standard 5 ... 10 mm	
Atmospheric pressure compensation	pressure compensation element with PTFE filter	
Terminal clamps	vertical clamps for stranded and solid wires up to 2.5 mm <sup>2</sup>	
Weight	plastic housing: approx. 220 g	aluminium die cast case: approx. 550 g
<b>IS protection (optionally)</b>		
Approval AX15-PA 440	zone 1: II 2G Ex ia IIB T4	
Safety technical maximum	$U_i = 28 V_{DC}$ , $I_i = 93$ mA, $P_i = 660$ mW	

### Wiring diagram

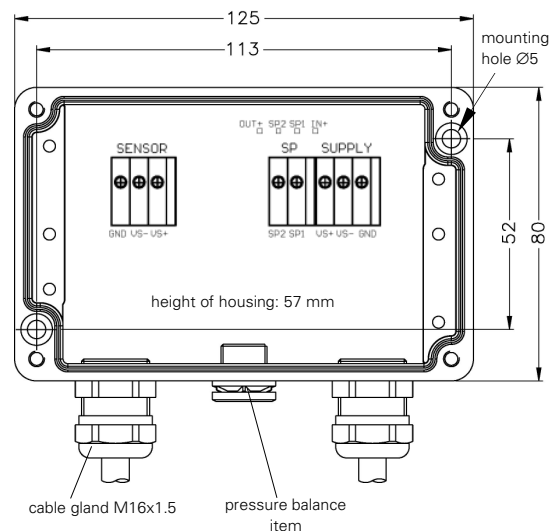


### Dimensions (in mm)

#### plastic housing:



#### aluminium die cast case:





## Ordering code PA 440

### PA 440

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<b>Standard version</b>		8	5	1																
<b>Analogue output</b>		4 ... 20 mA / 2-wire		1																
Intrinsic safety for zone 1 / 4 ... 20 mA / 2-wire				E																
customer				9																consult
<b>Contact</b>		without contact		0																
		1 contact <sup>1</sup>		1																
		2 contacts <sup>1</sup>		2																
<b>Unit</b>		without <sup>2</sup>		0																
		bar		1																
		mbar		2																
		mH <sub>2</sub> O		3																
		%		P																
		mA		A																
customer				9																consult
<b>Label on display</b>		standard							1											
		neutral							N											
customer									9											consult
<b>Display</b>		LC display								C										
		LED display								D										
<b>Housing material</b>		plastic ABS									G									
		Aluminium									L									
<b>Special version</b>		standard										0	0	0						
		overvoltage protection <sup>3</sup>										1	0	1						
customer												9	9	9						consult