


Option EP 500 - 500

EP 500

Pressure Transmitter

**Special application:
level measurement
via air bubbling**

Characteristics:

- ▶ capacitive ceramic sensor
- ▶ nominal pressure range from 0 ... 60 mbar up to 0 ... 20 bar
- ▶ output signal 4 ... 20 mA / 2-wire
- ▶ hat rail housing
- ▶ programming via integrated interface



Technical Data

Input pressure range								
Nominal pressure P _N rel. [bar]	0.06	0.16	0.4	1	2	5	10	20
Nominal pressure P _N abs. [bar]	on request							
Permissible overpressure [bar]	2	4	6	8	15	25	35	40
Permissible vacuum for P _N rel. [bar]	-0.2	-0.3	-0.5			-1		
Output signal / Supply								
Standard	2-wire: 4 ... 20 mA / V _S = 9 ... 32 V _{DC} ; V _{S Nenn} = 24 V _{DC}							
Current consumption	max. 21 mA							
Performance								
Accuracy ¹	IEC 60770 ² : ≤ ± 0.2 % FSO				BFSL: ≤ ± 0.1 % FSO			
Turn-on time	700 msec							
Permissible load	R _{max} = [(V _S - V _{S min}) / 0.02] Ω							
Long term stability	≤ ± 0.1 % FSO / year							
Response time (10 ... 90 %)	120 msec – without consideration of electronic damping					measuring rate 8/sec		
¹ for nominal pressure ranges ≤ 0.4 bar the accuracy is calculated as follows: ≤ ± [0.2 + 0.04 x nominal pressure range / adjusted range] % FSO								
² accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)								
Thermal errors (Offset and Span)/ Permissible temperatures								
Thermal error	≤ ± (0.02 x nominal range / adjusted range) % FSO / 10 K in compensated range 0 ... 80 °C							
Permissible temperatures	medium: -40 ... 125 °C				electronics / environment / storage: -40 ... 85 °C			
Electrical protection								
Short-circuit protection	permanent							
Reverse polarity protection	no damage, but also no function							
Electrical connection								
Input	terminal clamps (3-pin)							
Communication connector	M12x1 (8-pin), metal							

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Materials			
Pressure port	standard: stainless steel 1.4301 on request: brass		
Housing	version EP 500:	PA6 (housing foot: PA66)	
	version EP 500 - 500:	ABS	
Seals (media wetted)	FKM		
Diaphragm	ceramic Al ₂ O ₃ 96 %		
Media wetted parts	pressure port, seals of sensor, diaphragm		
Category of the environment			
Germanischer Lloyd (GL)	C, EMC1	number of certificate: 86 482 - 09 HH	
Miscellaneous			
Ingress protection	IP 00		
Function display	green SMD-LED - lights by information flow through the transmitter		
Installation position	any		
Operational life	> 100 x 10 ⁶ pressure cycles		
Weight	approx. 200 g		
Adjustability	configuration via programming kit CIS 700 ³ ; following configurations are possible: - electronic damping: 0 ... 100 sec - offset: 0 ... 67 % FSO - turn down of span: max. 1:20 - configuration of pressure unit - calibration via connected pressure reference		
³ programming kit has to be ordered separately (software appropriate for Windows® 95, 98, 2000, NT Version 4.0 or higher, and XP)			
Pin configuration			
Electrical connections		terminal clamps	M12x1 (8-polig), metal
	Supply +1	1	-
	Supply +2	-	4
	Supply -	2	2
	Tx	-	5
	Rx	-	6
	GND	-	7
	NC	-	1
	Shield	3	3
Wiring diagram			

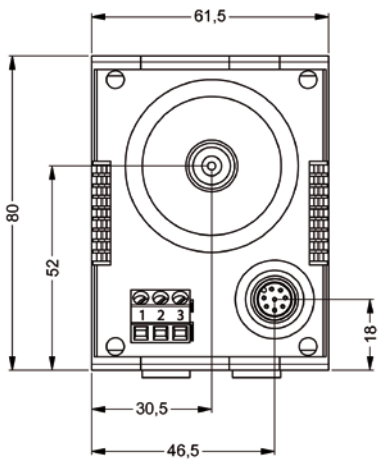
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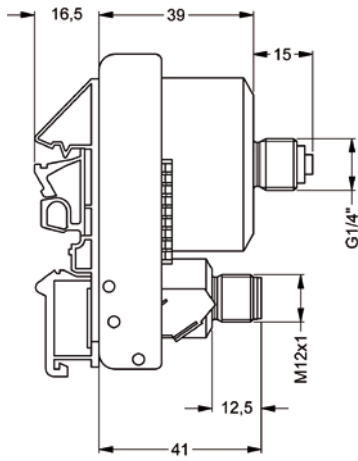
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Dimensions (in mm)

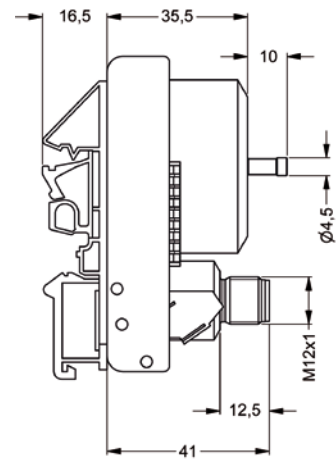
standard EP 500:



G1/4"

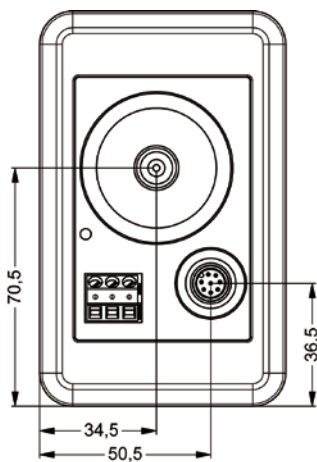


optionally for $P_N \leq 5$ bar:

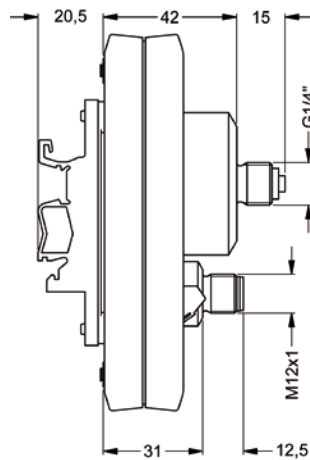


hose connection for flexible hoses \varnothing 4 mm

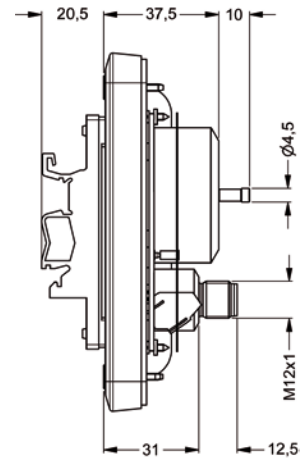
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G1/4"



optionally for $P_N \leq 5$ bar:



hose connection for flexible hoses \varnothing 4 mm

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