



<b>Input pressure range</b>												
Nominal pressure gauge	[bar]	-1...0	0.10	0.16	0.25	0.40	0.60	1	1.6	2.5	4	6
Nominal pressure abs.	[bar]	-	-	-	-	0.40	0.60	1	1.6	2.5	4	6
Overpressure	[bar]	5	0.5	1	1	2	5	5	10	10	20	40
Burst pressure $\geq$	[bar]	7.5	1.5	1.5	1.5	3	7.5	7.5	15	15	25	50
<b>Output signal / Supply</b>												
Standard		2-wire: 4 ... 20 mA / $V_S = 8 \dots 32 V_{DC}$										
Option IS-protection		2-wire: 4 ... 20 mA / $V_S = 10 \dots 28 V_{DC}$										
Options 3-wire		3-wire: 0 ... 20 mA / $V_S = 14 \dots 30 V_{DC}$ 0 ... 10 V / $V_S = 14 \dots 30 V_{DC}$										
<b>Performance</b>												
Accuracy <sup>1</sup>		standard: $\leq \pm 0.25\%$ FSO option 1: $\leq \pm 0.1\%$ FSO										
Permissible load		current 2-wire: $R_{max} = [(V_S - V_S \text{ min}) / 0.02 \text{ A}] \Omega$ current 3-wire: $R_{max} = 500 \Omega$ voltage 3-wire: $R_{min} = 10 \text{ k}\Omega$										
Influence effects		supply: 0.05 % FSO / 10 V load: 0.05 % FSO / $\text{k}\Omega$										
Long term stability		$\leq \pm 0.1\%$ FSO / year at reference conditions										
Response time		2-wire: $\leq 10 \text{ msec}$ 3-wire: $\leq 3 \text{ msec}$										
<sup>1</sup> accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)												
<b>Thermal effects (Offset and Span)</b>												
Tolerance band		$\leq \pm 0.75\%$ FSO										
in compensated range		-20 ... 85 °C										
<b>Permissible temperatures</b>												
Permissible temperatures		medium: -40 ... 125 °C electronics / environment: -40 ... 85 °C storage: -40 ... 100 °C										
<b>Electrical protection</b>												
Short-circuit protection		permanent										
Reverse polarity protection		no damage, but also no function										
Electromagnetic compatibility		emission and immunity according to EN 61326										
<b>Mechanical stability</b>												
Vibration		10 g RMS (25 ... 2000 Hz) according to DIN EN 60068-2-6										
Shock		100 g / 11 msec according to DIN EN 60068-2-27										
<b>Materials</b>												
Pressure port		stainless steel 1.4404 (316 L)										
Housing		stainless steel 1.4404 (316 L)										
Option compact field housing		stainless steel 1.4305 (303), cable gland brass, nickel plated others on request										
Seals (media wetted)		standard: FKM options: EPDM (for $P_N \leq 160 \text{ bar}$ ) welded version <sup>2</sup> others on request										
Diaphragm		stainless steel 1.4435 (316 L)										
Media wetted parts		pressure port, seals, diaphragm										
<sup>2</sup> welded version only with pressure ports according to EN 837, $P_N \leq 40 \text{ bar}$												
<b>Explosion protection (only for 4 ... 20 mA / 2-wire)</b>												
Approvals DX19-DMP 321		<b>IBExU 10 ATEX 1068 X / IECEx IBE 12.0027X</b> zone 0: II 1G Ex ia IIC T4 Ga zone 20: II 1D Ex ia IIIC T 85°C Da										
Safety technical maximum values		$U_i = 28 V_{DC}$ , $I_i = 93 \text{ mA}$ , $P_i = 660 \text{ mW}$ , $C_i \approx 0 \text{ nF}$ , $L_i \approx 0 \mu\text{H}$ , the supply connections have an inner capacity of max. 27 nF to the housing										
Ambient temperature range		in zone 0: -20 ... 60 °C with $p_{atm}$ 0.8 bar up to 1.1 bar in zone 1 or higher: -20 ... 70 °C										
Connecting cables (by factory)		cable capacitance: signal line/shield also signal line/signal line: 160 pF/m cable inductance: signal line/shield also signal line/signal line: 1 $\mu\text{H}/\text{m}$										

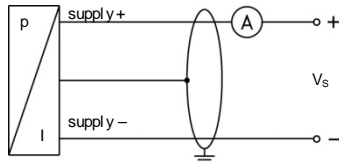
Miscellaneous	
Current consumption	signal output current: max. 25 mA signal output voltage: max. 7 mA
Weight	approx. 140 g
Installation position	any <sup>3</sup>
Operational life	> 100 x 10 <sup>6</sup> pressure cycles
CE-conformity	EMC Directive: 2004/108/EC Pressure Equipment Directive: 97/23/EC (module A) <sup>4</sup>
ATEX Directive	94/9/EG

<sup>3</sup> Pressure transmitters are calibrated in a vertical position with the pressure connection down.

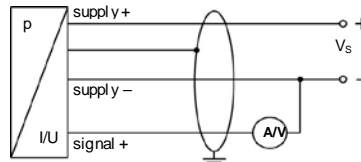
<sup>4</sup> This directive is only valid for devices with maximum permissible overpressure > 200 bar

### Wiring diagrams

2-wire-system (current)



3-wire-system (current / voltage)

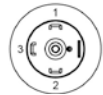
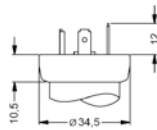


### Pin configuration

Electrical connection	ISO 4400	Binder 723 (5-pin)	M12x1 / metal (4-pin)	field housing	cable colours (DIN 47100)
Supply +	1	3	1	IN +	wh (white)
Supply -	2	4	2	IN -	bn (brown)
Signal + (only for 3-wire)	3	1	3	OUT +	gn (green)
Shield	ground pin	5	4	⊥	ye/gn (yellow / green)

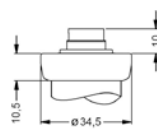
### Electrical connections (dimensions in mm)

#### standard

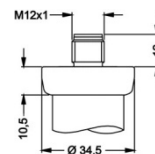


ISO 4400 (IP 65)

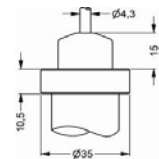
#### option



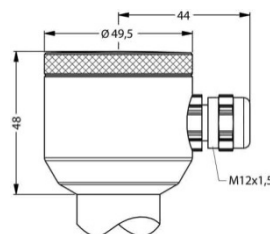
Binder Series 723 5-pin (IP 67)



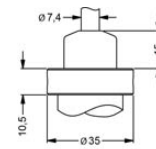
M12x1 4-pin (IP 67)



cable outlet with PVC cable (IP 67)<sup>5</sup>



compact field housing (IP 67)



cable outlet, cable with ventilation tube (IP 68)<sup>6</sup>

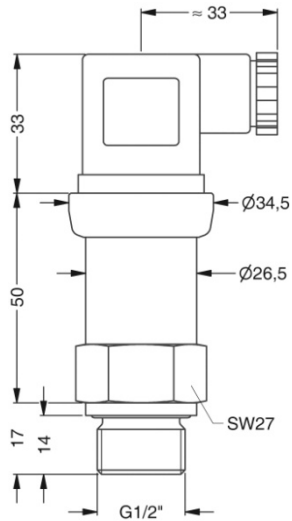
⇒ universal field housing stainless steel 1.4404 (316 L) with cable gland M20x1.5 (ordering code 880) and other versions on request

<sup>5</sup> standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)

<sup>6</sup> different cable types and lengths available, permissible temperature depends on kind of cable

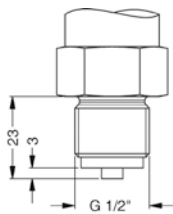
**Mechanical connections (dimensions in mm)**

**standard**

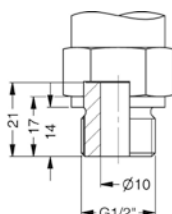


1/2" DIN 3852  
with ISO 4400

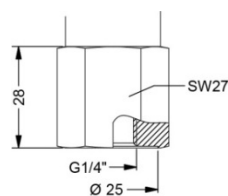
**option**



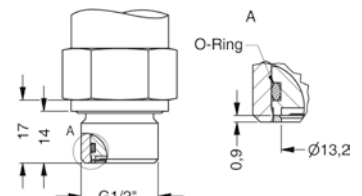
G1/2" EN 837



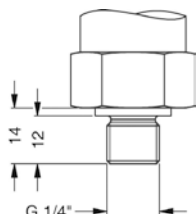
G1/2" open port



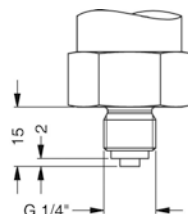
G 1/4" DIN3852  
internal thread



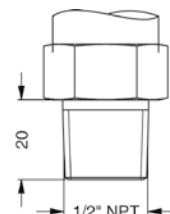
G1/2" DIN 3852  
with flush sensor



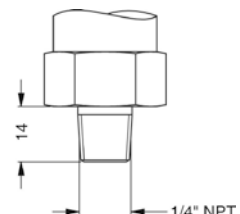
G1/4" DIN 3852



G1/4" EN 837



1/2" NPT



1/4" NPT

⇒ metric threads and other versions on request

## IMP 321



<b>Pressure</b>									
	gauge	1	1	5					
	absolute <sup>1</sup>	1	1	6					
<b>Input</b>									
	[bar]								
	0.10 <sup>1</sup>	1	0	0	0				
	0.16 <sup>1</sup>	1	6	0	0				
	0.25 <sup>1</sup>	2	5	0	0				
	0.40	4	0	0	0				
	0.60	6	0	0	0				
	1.0	1	0	0	1				
	1.6	1	6	0	1				
	2.5	2	5	0	1				
	4.0	4	0	0	1				
	6.0	6	0	0	1				
	10	1	0	0	2				
	16	1	6	0	2				
	25	2	5	0	2				
	40	4	0	0	2				
	60	6	0	0	2				
	100	1	0	0	3				
	160	1	6	0	3				
	250	2	5	0	3				
	400	4	0	0	3				
	600	6	0	0	3				
	-1 ... 0	X	1	0	2				
	customer	9	9	9	9				consult
<b>Output</b>									
	4 ... 20 mA / 2-wire				1				
	0 ... 20 mA / 3-wire				2				
	0 ... 10 V / 3-wire				3				
	Intrinsic safety 4 ... 20 mA / 2-wire				E				
	customer				9				consult
<b>Accuracy</b>									
	standard	0.25 %			2				
	option	0.1 %			1				
	customer				9				consult
<b>Electrical connection</b>									
	Male and female plug ISO 4400				1	0	0		
	Male plug Binder series 723 (5-pin)				2	0	0		
	Cable outlet with PVC cable <sup>2</sup>				T	A	0		
	Cable outlet <sup>3</sup>				T	R	0		
	Male plug M12x1 (4-pin) / metal				M	1	0		
	Compact field housing								
	stainless steel 1.4305				8	5	0		
	customer				9	9	9		consult
<b>Mechanical connection</b>									
	G1/2" DIN 3852				1	0	0		
	G1/2" EN 837				2	0	0		
	G1/4" DIN 3852				3	0	0		
	G1/4" DIN 3852, internal thread				J	0	0		
	G1/4" EN 837				4	0	0		
	G1/2" DIN 3852								
	with flush sensor				F	0	0		
	G1/2" DIN 3852 open pressure port				H	0	0		
	1/2" NPT				N	0	0		
	1/4" NPT				N	4	0		
	customer				9	9	9		consult
<b>Seals</b>									
	FKM							1	
	EPDM							3	
	without (welded version) <sup>4</sup>							2	
	customer							9	consult
<b>Special version</b>									
	standard							0	0
	customer							9	9

<sup>1</sup> absolute pressure possible from 0.4 bar

<sup>2</sup> standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C), optionally without ventilation tube

<sup>3</sup> cable with ventilation tube (code TR0 = PVC cable), different cable types and lengths available, permissible temperature depends on kind of cable, price without cable

<sup>4</sup> welded version only with pressure ports according to EN 837, possible for P<sub>N</sub> ≤ 40 bar