

TECHNICAL DATA

FLOW PRESSURE TEMPERATURE LEVEL



DMP 343

Industrial **Pressure Transmitter**

Without Media Isolation

accuracy according to IEC 60770: 0,35 % FSO

Nominal pressure

from 0 ... 10 mbar up to 0 ... 1000 mbar

Product characteristics

- excellent linearity
- small thermal effect
- excellent long term stability

Optional versions

- IS-version: Ex ia = intrinsically safe for gases and
- SIL 2 application according to IEC 61508 / IEC 61511
- different electrical and mechanical connections
- customer specific versions

The pressure transmitter DMP 343 has been especially designed for the measurement of very low gauge pressure and for vacuum applications. Permissible media are gases, pressurized air and non-aggressive low viscos oils.

The DMP 343 features excellent thermal behaviour and outstanding long term stability. A variety of standard output signals as well as mechanical and electrical connections make the DMP 343 covering a wide field of applications.

Preferred areas of use are



Plant and Machine Engineering



Heating and Air Conditioning













DMP 343

Industrial Pressure Transmitter

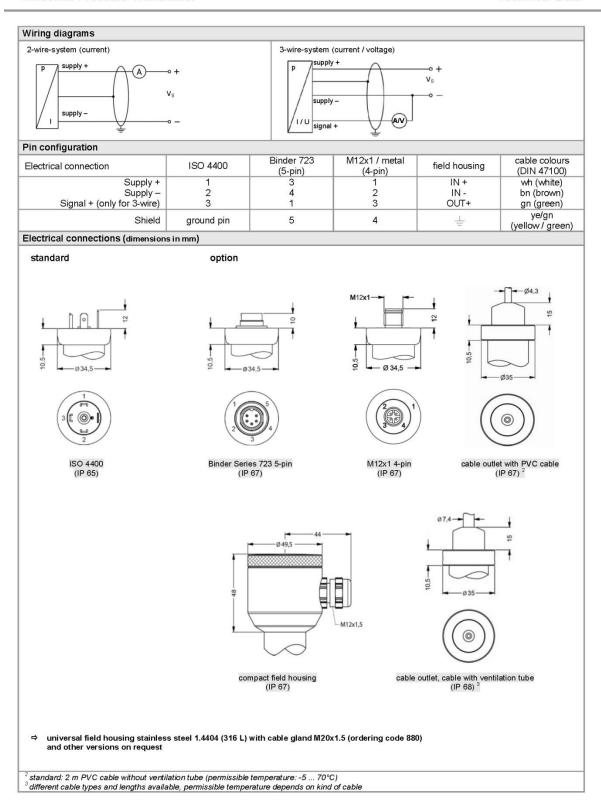
Technical Data

Input pressure range													
Nominal pressure gauge	[mbar]	-1000 0	10	16	25	40	60	100	160	250	400	600	1000
Overpressure	[bar]	3	0.2	0.2	0.2	0.5	0.5	1	2	3	3	3	3
Burst pressure	[bar]	5	0.3	0.3	0.3	0.75	0.75	1.5	3	5	5	5	5

Output signal / Supply									
Standard	2-wire: 4 20 mA /	Vs = 8 32 Vnc							
Option IS-protection		2-wire: 4 20 mA / V _S = 8 32 V _{DC} 2-wire: 4 20 mA / V _S = 10 28 V _{DC}							
Options 3-wire	3-wire: 0 20 mA / V _S = 10 20 V _{DC}								
options o wife	0 10 V / V _S = 14 30 V _{DC}								
Performance									
Accuracy 1	standard:	≤ ± 0.35 % FSO)						
	nominal pressure ≤ 100 mbar: ≤ ± 0.50 % FSO								
Permissible load	current 2-wire: $R_{\text{max}} = [(V_S - V_{S \text{ min}}) / 0.02 \text{ A}] \Omega$								
	current 3-wire: $R_{\text{max}} = 500 \Omega$								
In fly and a seffect a	voltage 3-wire: $R_{min} = 10 \text{ k}\Omega$ supply: 0.05 % FSO / 10 V								
Influence effects									
Response time	load: 0.05 % FSO / kΩ 2-wire: ≤ 10 msec								
	3-wire: ≤ 3 msec								
Long term stability	≤ ± 0,3 % FSO / year at reference conditions, for P _N < 100 mbar								
		reference conditions, for	P _N ≥ 100 mbar						
accuracy according to IEC 60770 – Iim		ity, hysteresis, repeatability)							
Thermal effects (Offset and Spar	<u></u>		1						
Nominal pressure P _N [mbar]		≤ 100	≤ 400	> 400					
Tolerance band [% FSO]		≤ ± 1.5	≤±1	≤ ± 0.75					
in compensated range [°C]	-20 85	0 50	0 70	-20 85					
Permissible temperatures	l p	10 1							
Permissible temperatures	medium: -40 125 °C								
	electronics / environment: -40 85 °C storage: -40 100 °C								
Electrical protection	1								
Short-circuit protection	permanent								
Reverse polarity protection	no damage, but also no function								
Electromagnetic	emission and immunity according to EN 61326								
compatibility	emission and immunity a	iccording to EN 61326							
Mechanical stability									
Vibration	10 g RMS (25 2000 Hz) according to DIN EN 60068-2-6								
Shock	500 g / 1 msec according to DIN EN 60068-2-27								
Materials		-							
Pressure port	stainless steel 1.4404 (3	16L)							
Housing	stainless steel 1.4404 (316L)								
Seals (media wetted)	FKM								
Sensor	stainless steel 1.4404 (316L), silicon, epoxy or RTV, mineral glass								
Media wetted parts	pressure port, seals, sensor								
Explosion protection (only for 4	·								
Approvals	IBEXU 10 ATEX 1068 X / IECEX IBE 12.0027X								
DX19-DMP 343	zone 0: II 1G Ex ia IIC T4 Ga zone 20: II 1D Ex ia IIIC T 85°C Da								
	$U_i = 28 \text{ V}, I_i = 93 \text{ mA}, P_i = 660 \text{ mW}, C_i \approx 0 \text{ nF}, L_i \approx 0 \text{ μH},$								
Safety technical maximum values	the supply connections have an inner capacity of max. 27 nF opposite the housing								
Permissible temperatures for		20 60 °C with p _{atm} 0.8							
environment	in zone 1 or higher: -20 70 °C								
Connecting cables	cable capacitance: sig		line/signal line: 160 pF/m						
(by factory)	cable inductance: sig	nal line/shield also signal	line/signal line: 1 μH/m						
Miscellaneous									
Option SIL 2 application	according to IEC 61508 / IEC 61511								
Current consumption	signal output current: max. 25 mA								
		max. 7 mA							
Weight	approx. 140 g any								
Installation position CE-conformity									
E-conformity EMC Directive: 2004/108/EC TEX Directive 94/4/EG									
AT LA DITCOUVE	U=) =/ EU								

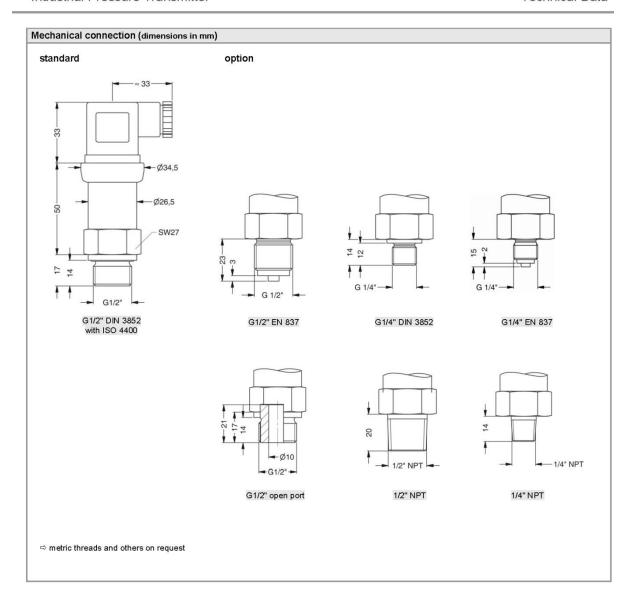


Industrial Pressure Transmitter





Industrial Pressure Transmitter





Ordering code DMP 343 **DMP 343** Pressure 1 0 0 gauge Input [mb ar] 10 16 25 40 60 100 160 250 400 600 1000 -1000 ... 0 customer consult 4 ... 20 mA / 2-wire 0 ... 20 mA / 3-wire 2 3 E 9 0 ... 10 V / 3-wire Intrinsic safety 4 ... 20 mA / 2-wire customer consult standard for $P_{\rm N}$ > 100 mbar standard for $P_{\rm N}$ \leq 100 mbar 0.35 % 0.5 % 3 1 0 0 2 0 0 T A 0 T R 0 Male and female plug ISO 4400 Male plug Binder series 723 (5-pin) Cable outlet with PVC cable 1 Cable outlet 2 Male plug M12x1 (4-pin) / metal M 1 0 Compact field housing 8 5 0 stainless steel 1.4305 customer 9 9 9 consult Mechanical connection 0 0 0 0 0 0 0 0 0 0 0 0 4 0 9 9 G1/2" DIN 3852 G1/2" EN 837 G1/4" DIN 3852 G1/4" EN 837 G1/2" DIN 3852 open pressure port 1/2" NPT 1/4" NPT customer 3 consult FKM customer consult Special version 0 0 0 9 9 9 standard customer consult



¹ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C), optionally cable with ventilation tube

 $^{^2}$ cable with ventilation tube (code TR0 = PVC cable), different cable types and lengths available, price without cable

³ metric threads and others on request