

With integrated temperature measurement, standardized output signal and heated sensor tip

DAP Series Pressure Transducer



The DAP Series incorporate a heated sensor tip, which prevents the most common cause of sensor damage: damage to the membrane when installing or removing the pressure transducer.

With the patented heatable sensor tip, the sensor can easily be removed even when the melt has already cooled down. It also guarantees extreme robustness against retreating, cooling melts. The DAP is revolutionizing the handling of critical media such as PC, PMMA or ABS..

Technical specifications

Pressure range	0..100 to 0..2000 bar 0..1500 to 0..30000 psi
Accuracy incl. linearity, hysteresis, and reproducibility in % to full scale	0.25 % 0.50 %
Reproducibility in % to full scale	± 0.1 %
Membrane coating	G-Coating
Resolution	Infinite
Max. pressure overload without influence on operating value	2 x range up to 1000 bar (14500 psi) 1.5 x pressure range over 1000 bar (14500 psi)
Bridge resistance	350 Ω Wheatstone Bridge
Temperature element:	Type J; K; L, PT 100
Heater:	24V 150W
Supply voltage	6..10 V DC
Output signal	2.00 mV/V 2.50 mV/V 3.33 mV/V
Transmission medium	NTX™ as standard
Process connection	1/2" 20 UNF or M18 x 1.5
Calibration point	80% of measuring range
Insulation resistance	>1000 MOhm at 50 V
Max. temperature at diaphragm	300°C NTX™ (572°F) 400°C Hg (750°F) 500°C NaK (932°F)
Max. temperature at terminal head during operation	- 40 .. + 125°C (40°F...260°F)
Zero deviation with temperature Variations at the diaphragm:	± 0.003 % from final value/°C
Zero deviation with temperature Variations at the measuring head:	± 0.002 % from final value/°C
Ingress protection housing	IP 65 /
Ingress protection connector	IP 55
Max torque	1/2" 20 UNF 30 Nm (22 lbf ft) M18 x 1.5 50 Nm (32 lbf ft)

- Heater with 24V
- Combined pressure- and temperature measurement
- Highly tough design with flexible components
- G-coating to counteract adhesive materials
- Patented technology
- Removal possible even when extrusion line is down or at ambient temperature
- Longlife design



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Order specification DAP Series

Pressure Transducer Premium with mV/V output and temperature measurement, heated head

valid from: 01.01.2015

Order specification	→	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Standard configuration		DAP																				
Total measurement error FSO																						
0.25%	*1	1																				
0.50%		2																				
Output signal																						
2.0 mV/V			00																			
2.5 mV/V			05																			
3.3 mV/V			50																			
Thermocouple																						
Thermocouple type J				THJ																		
Thermocouple type L				THL																		
Thermocouple type K				THK																		
Meas. resistance PT-100 (2-wire)				PT2																		
Meas. resistance PT-100 (3-wire)				PT3																		
Meas. resistance PT-100 (4-wire)				PT4																		
Thread connection																						
1/2" UNF 2A (Standard)					12A																	
M18 X 1.5 A					18A																	
M18 X 1.5 B					18B																	
Pressure range																						
100 bar						B10Z																
200 bar						B20Z																
350 bar						B35Z																
400 bar						B40Z																
500 bar						B50Z																
600 bar						B60Z																
700 bar						B70Z																
800 bar						B80Z																
1000 bar						B10H																
1400 bar						B14H																
2000 bar						B20H																
1500 psi						P15H																
3000 psi						P30H																
5000 psi						P50H																
6000 psi						P60H																
7500 psi						P75H																
9000 psi						P90H																
10000 psi						P10T																
12000 psi						P12T																
15000 psi						P15T																
20000 psi						P20T																
30000 psi						P30T																
Shaft length (rigid)																						
152 mm, 6" (Standard)							S0															
Special length							S9															
Length of flexible capillary																						
457 mm, 18" (Standard)								F5														
610 mm, 24"								F6														
760 mm, 30"								F8														
Special length								F9														
Diaphragm																						
Alloy 718	*2																			I		
Special diaphragm																				S		
Sensor medium																						
Mercury-free (NXT 300°C / 572°F)																					W	
Mercury-free high temp. (NaK 500°C 932°F)	*5																				N	
Mercury (Hg 400°C / 752°F)																					M	
Electrical connection																						
6-pole connection (Standard)																						6P
8-pole connection																						8P
Cable exit stainless steel , 3 m	*3																					33
Special design																						
No special design																						000
Special design																						XXX

*1 Only available >= 100 bar (1500 psi)
 *2 As a standard, all diaphragms are coated with Gneuss unique "G-Coating" against adhesive and glutinous media. Special coatings are available on request.
 *3 For cable exit, please confirm cable length. Unless specified, the standard length will be 3 m.
 *5 Mercury-free High Temperature >= 300°C (only available for 100 bar (1500 psi) up to 800bar (12000 psi))