

Pressure and Combined sensor

PSCG / TSCG G1/4" • Measuring range to 400 bar (5800 PSI) • Temperature measuring range - 40 ... +125 °C (-40 ... 257 °F)



Technical Features

- › Pressure and Combined Temp. / Press. sensor also suitable for mobile applications
- › Exceptional Long Term Stability
- › High Proof Pressures with All Stainless Steel Wetted Parts
- › Broad Choice of Outputs, Electrical Connectors, and Pressure Ports
- › Dual Pressure and Temperature sensing option
- › Service-life more than 100 million pressure cycles
- › Certification CE, UL, CRN, RoHS

Functional Description

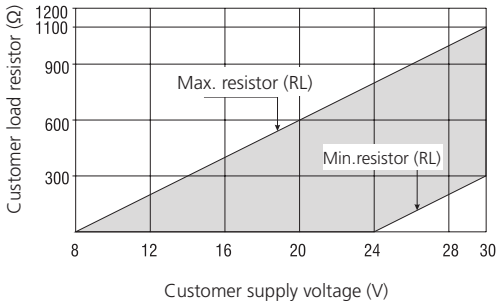
PSCG / TSCG Sensor offers high level of stability, reliability and service-life with more than 100 million pressure cycles in small package size. A broad choice of electrical and pressure connections allow stock configurations to suit most applications without any modification.

Technical Data

Measuring range pressure	bar (PSI)	0 - 100 (0 -1450)	0 - 250 (0 - 3600)	0 - 400 (0 - 5800)	
Temperature measuring range	°C (°F)	- 40 ... + 125 (-40 +257)			
Maximal pressure	bar (PSI)	300 (4350)	750 (11000)	1200 (17500)	
Burst pressure	bar (PSI)	2000 (29000)	2500 (36000)	4000 (60000)	
Parameters					
Accuracy		PSCG - 0.25 % FS of the span > 60 bar (1000 PSI) 0.50 % FS of the span < 60 bar (1000 PSI) TSCG - 3.50 % FS of the span			
Thermal Error		2 % FS / 100 °C of the span < 60 bar (1000 PSI)			
Zero Tolerance		0.50 % of the span > 60 bar (1000 PSI) 1.00 % of the span < 60 bar (1000 PSI)			
Span Tolerance		0.50 % of the span > 60 bar (1000 PSI) 1.00 % of the span < 60 bar (1000 PSI)			
Response time		1 ms			
Service-Life		> 10 ⁸ cycles			
Connecting thread	A	G1/4"			
Weight		50 - 150 g configuration dependet			
Environmental conditions					
Compensated temperatures	°C (°F)	-40 +125 (-40 +257)			
Operating temperatures	°C (°F)	-40 +125 (-40 +257)			
Wetted parts		17-4 PH Stainless Steel			
Housing		304 Stainless Steel			
EMC resistance		100 V / m			
Approvals		CE, UL, CRN			
Vibration resistance		40 g, 20-1000 Hz sinus MIL-STD-810E			
Shock resistance		IEC 68-2-32 procedure 1			
Enclosure type		IP 67			
Electrical connections					
Output signals for PSCG		4 – 20 mA	0 – 5 V DC	1 – 5 V DC	0 - 10 V DC
Output signals for TSCG		-	-	1 – 5 V DC	-
Supply Voltage	V DC	8 – 30			
Output - Ratiometric	mA	4,5			
Supply voltage - Ratiometric	V DC	5±10 %			

Characteristic

Current Output Mode (Load Resistor Range)



	Datasheet	Typ
General Technical Information	GI 0060	Products and operating conditions

Minimum Resistor Value $[\Omega] = 50 \cdot (+V - 24)$ valid for $+V > 24$ V
 Maximum Resistor Value $[\Omega] = 50 \cdot (+V - 8)$ valid for $+V > 8$ V

Ordering Code / Table of possible setups

 - - - - **1**

Pressure sensor PSCG
Combined temperature and pressure sensor TSCG

Output signal*
 Current 4 - 20 mA **1**
 Voltage 0 - 5 V DC **2**
 Voltage 1 - 5 V DC **3**
 Voltage 0 - 10 V DC **4**

*TSCG - only available output signal is type 3

Connection to the circuit
 G1/4"-19 Integral Face-Seal

Electrical Connection**
M M12x1
A AMP Superseal 1.5
D Deutsch DT04-4P
MP Packard MetriPack

Measuring range
100 0 - 100 bar (0 - 1450 PSI)
250 0 - 250 bar (0 - 3630 PSI)
400 0 - 400 bar (0 - 5800 PSI)

Electrical connection

Wiring Diagram	Electrical Connection								
	M12x1	M	Packard MetriPack	MP	Deutsch DT04-4P	D	AMP Superseal 1.5	A	
	PIN	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode
	1 (A)	+IN	+IN	0V	0V	0V	0V	V_{out}	Do Not Connect
	2 (B)	$V_{out} 1$ (pressure)	Do Not Connect	+IN	+IN	+IN	+IN	0V	0V
	3 (C)	0V	0V	V_{out}	Do Not Connect	PE or $V_{out} 2$ (temp) [#]	PE	+IN	+IN
4 (E)	PE or $V_{out} 2$ (temp) [#]	PE	-	-	$V_{out} 1$ (pressure)	Do Not Connect	-	-	

*This pin is used for temperature sensing output when this option is utilized. Otherwise, the pin is used for PE.

Dimensions in millimeters (in)

Connection to the circuit	1	M12x1 - M	M	Packard MetriPack	MP	Deutsch DT04-4P	D	AMP Superseal 1.5	A

Electrical enclosure IP 67 is reached only in the case that the connector socket is properly fastened.