

# SGM/C

## For General Industrial Applications



### Product Overview

The SGM/C pressure transmitters offers the user the high stability of ceramic piezoresistive sensor in a low cost OEM package. The SGM/C is developed for applications of processing and control operations involving aggressive media. The compact and rugged design makes these pressure transmitter suitable for applications including process control systems, hydraulic systems and valves, refrigeration and HVAC controls, level measurement and test equipment.

A wide range of process connection and electrical connection options are available to meet almost requirement.

### Applications

- Process control systems
- Refrigeration and HVAC controls
- Hydraulic systems and valve
- Mechanical and plant engineering
- Pumps and compressors

### Features

- Measuring ranges from 1.6bar to 250bar
- Gauge type
- Accuracy:  $\pm 0.5\%$ FSO
- Calibrated and temperature compensated
- Ceramic pressure sensor design
- Variety of Pressure & Electrical connections
- Output 4...20mA, 0...10V, 0.5...4.5V and others

### Standard Pressure Range

Nominal pressure	gauge	sealed gauge absolute
0...1.6bar	●	
0...2.5bar	●	
0...4bar	●	
0...6bar	●	
0...10bar	●	
0...16bar	●	
0...25bar	●	
0...40bar	●	
0...60bar	●	
0...100bar	●	
0...160bar	●	
0...250bar	●	

other pressure ranges available. Please consult the factory.

# Ceramic Pressure Transmitter

## Performance Specifications

Parameter	Value	Units	Notes
<b>General</b>			
Pressure Range	0-1.6,...,250	bar	1bar=14.5psi
Overpressure	1.5xFS	bar	

### Environmental

Operating Temperature Range	-20 to +85	°C	-4 °F to 185 °F
Compensated Temperature Range	0 to +70	°C	32 °F to 158°F
Storage Temperature Range	-40 to +125	°C	-40 °F to 257 °F
Vibration	10	g	20 to 2000Hz
Shock	100	g	10ms
Cycles	10x10 <sup>5</sup>	cycles	

### Electrical @ 25°C(77°F)

Output Signal	4...20mA	0...5Vdc	1...5Vdc	0...10Vdc	0.5...4.5Vdc(ratiometric)
Power Supply(Vs)	12...36Vdc	12...36Vdc	12...36Vdc	15...36Vdc	5Vdc
Load Resistance	<(Vs-12)/0.02A (For current output), >10 kΩ (For voltage output)				
Insulation Resistance	100MΩ@50Vdc				

### Physical Specifications

Media Compatibility	All media compatible with ceramic
Housing	304 stainless steel
Diaphragm	Ceramic
Seal Ring	Viton or NBR
Oil Filling	/
Protection	IP65(Standard), IP66(only for cable outlet)
Net Weight	Approx.175g

Parameter	Minimum	Typical	Maximum	Units	Notes
<b>Performance</b>					
Accuracy	0.25	0.5	1.0	%FSO	1,2
Temp Coeff - Zero		±1.5	±2.0	%FSO	3
Temp Coeff - Span		±1.5	±2.0	%FSO	3
Long-Term Stability		±0.2	±0.3	%FSO/year	1

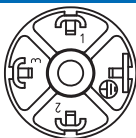
### Notes

- All values measured at 25°C(77°F)
- Including non-linearity, hysteresis and repeatability.
- 0°C to 70°C(32°F to 158°F) with reference to 25°C(77°F).

The listed specifications and dimensions are subject to change without prior notice.

## Connection Diagrams

### Connector DIN43650



	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

### Connector M12x1(4-pin)



	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

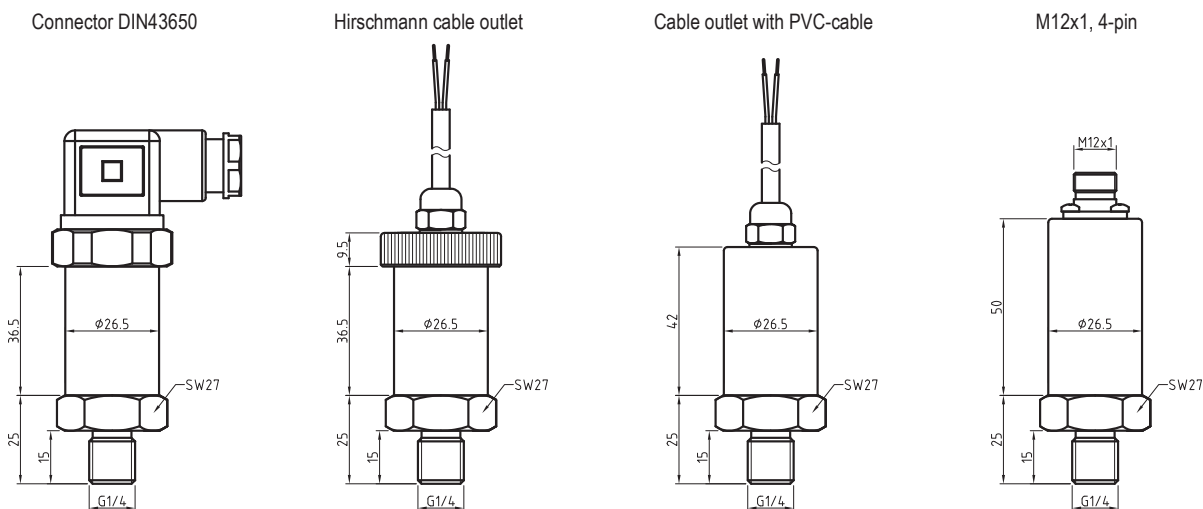
### Cable outlet



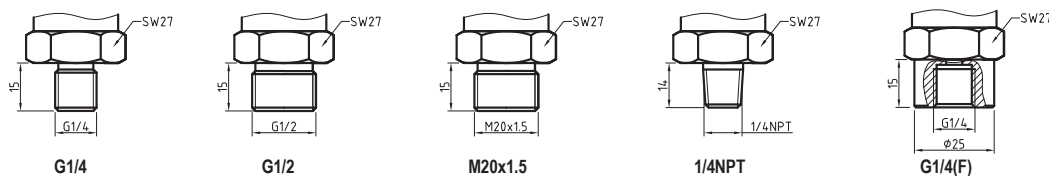
	2-wire(current)	3-wire(voltage)
Supply+	red	red
Signal+	black	green
Gnd	-	black

# Ceramic Pressure Transmitter

## Dimensions (in mm)



## Mechanical Connection (in mm)



## Ordering Information

Option1: Model							
SGM/C	Ceramic Pressure Transmitter						
Option2: Pressure Ranges							
0016	0...1.6bar 0400 0...40bar						
0025	0...2.5bar 0600 0...60bar						
0040	0...4bar 1000 0...100bar						
0060	0...6bar 1600 0...160bar						
0100	0...10bar 2500 0...250bar						
0160	0...16bar Cxxx Customized range						
0250	0...25bar						
Option3: Pressure Type							
G	gauge						
Option4: Output Signal							
42	4...20mA						
05	0...5Vdc						
15	1...5Vdc						
10	0...10Vdc						
45	0.5...4.5(ratiometric)						
Option5: Accuracy							
05	0.5%FSO						
10	1.0%FSO						
Option6: Electrical Connection							
D	Connector DIN43650						
H	Hirschmann cable outlet,length=1.5m						
C	Cable outlet with PVC-cable,length=1.5m						
M	M12x1, 4-pin						
Option7: Mechanical Connection							
M2	M20x1.5(male)	N1	1/4NPT(male)				
G4	G1/4(male)	F4	G1/4(female)				
G2	G1/2(male)	Nx	Customized				
SGM/C	0060	G	42	05	D	G4	Examples of Ordering Code: SGM/C/0060/G/42/05/D/G4