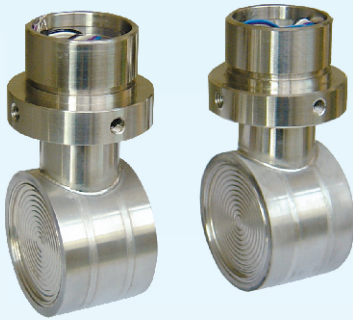


Model 160M Silicon Piezoresistive Differential Pressure Modules

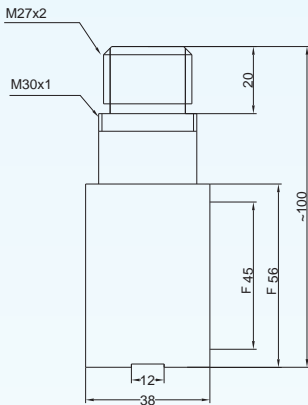


160M differential pressure module is built with BCM multifunction pressure sensor die (SE 105). The module can measure the differential pressure, system pressure and media temperature at same time. With the characteristics of all stainless steel housing, 316L isolating diaphragm and standard assembly ports, reliability and stability at measuring pressure of liquids and gases, 160M modules are key element to produce differential pressure transmitters which are widely used in oil chemical industry, electric station, metallurgy and many other fields.

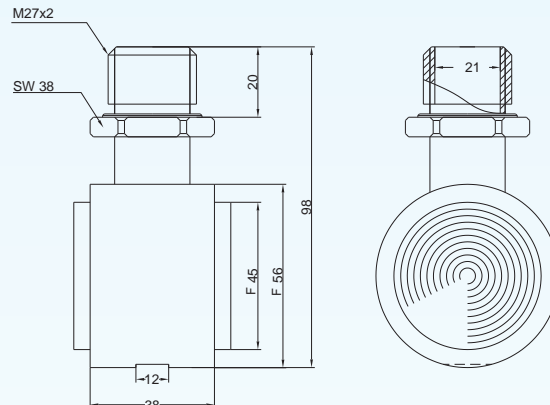
The differential pressure measuring range of 160M module is from 0~0.2 bar to 0~10 bar with an accuracy up to 0.25%fso (fso = full scale output). The system pressure is as high as 100 bar with low system pressure effect of 0.005%fso/bar. The temperature measurement range is -30 ~ +80 °C.



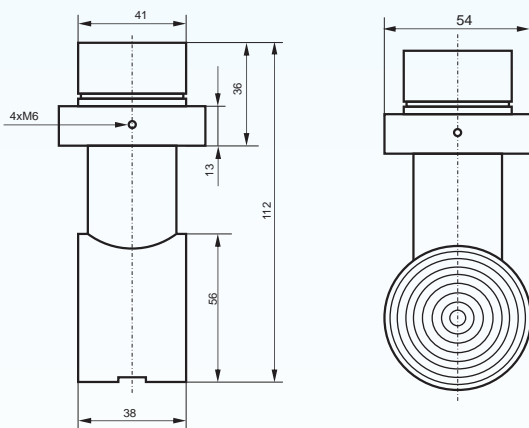
capable of measuring the differential pressure and monitoring the system pressure and the media temperature at the same time
diff. pressure ranges from 0~0.2 bar to 0~10 bar
high system pressure up to 100 bar
high measuring accuracy of 0.25 %fso
temperature measurement in a range of -30~+80 °C
current (recommended) and voltage excitation available
all stainless steel housing, 316L SS isolating diaphragm



type I



type II



type III

BCM SENSOR TECHNOLOGIES BVBA

Model 160M

Silicon Piezoresistive Differential Pressure Modules

Technical data:

parameters		units	specifications	
pressure media			gases, oils or dilute liquids which are compatible with the materials of pressure diaphragm and flange	
diff. pressure ranges		bar	0~0.2, ~0.4	~1, ~4, ~10
overload pressure		bar	40	100
system pressure		bar	40	100
full scale output*		mV	50 (25 for 0.2 bar)	50
output signal of temperature			P-N junction thermistor	
zero offset		mV	20 (for diff. pressure measurement), 30 (for system pressure measurement)	
accuracy**, ***		%fso	± 0.25 (standard), ± 0.5	
system pressure effect on diff. pressure		%fso/bar	± 0.005, ± 0.01 (standard)	
long-term stability of zero		%fso/year	± 0.2	
life time		cycle	10 ⁸	
excitation	current (recommended)	mA	1 (recommended), 0.5, ..., 1.5	
	voltage	Vdc	5	
bridge resistance		k	5 ± 1 (for diff. pressure measurement), 10 ± 2 (for system pressure measurement)	
insulation resistance		M @100Vdc	100	
resistance of thermistor		k	25 ± 5 (> 15 °C)	
storage temperature range		°C	-40 ~ +90	
operating temperature range****		°C	-30 ~ +80	
temperature coefficient of ZERO		%fso/°C	± 0.1	
temperature coefficient of SPAN		%fso/°C	± 0.05	
process interface^		flange	1/4" NPT female (standard), other thread types available on request	
electrical interface^^			10-pin flat ribbon cable, 60 mm	
material	membrane		316L SS	
	housing for electronics		316 SS	
	flange		304 SS	
net weight		gram	950 (without flange)	

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

Reference of test conditions: excitation = 1 mA, temperature = 25 °C, humidity = 40 %RH.

*: The output signal of diff. and system pressure measurements are mV output with the same magnitude.

** : The listed accuracies are available for both diff. and system pressure measurement.

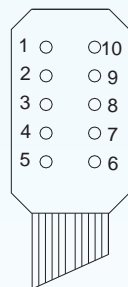
***: For diff. pressure range 0~0.4 bar, the standard accuracy is 0.5 %fso.

****: Medium temperature measurement function is available on request.

^: Flange is available on request.

^^: The cable length is measured from the top edge of the electronics housing.

Electrical connection: (defined from the pin side)



1	○	○10	Differential pressure Excitation(+):	6
2	○	○9	Differential pressure Excitation(-):	4
3	○	○8	Differential pressure output signal(+):	5
4	○	○7	Differential pressure output signal(-):	7
5	○	○6	Line pressure Excitation(+):	8
			Line pressure Excitation(-):	2
			Line pressure output signal(+):	3
			Line pressure output signal(-):	1
			Temperature resistor:	9, 10

How to order:

model&housing type-diff. pressure range-diff. pressure O/P-accuracy-system pressure-system pressure effect
 -system pressure O/P-temperature O/P-excitation-pressure port (option)-electric interface
 -customized requests (if any)

ordering code example:

160M(type I)-0/0.4barD-50mV-0.5%fso-40bar-0.005%fso/bar-50mV-thermistor-1mA
 -via flanges with 1/4NPT, female-10-pin flat ribbon cable,60mm



BCM SENSOR TECHNOLOGIES BVBA

ISO9001 Certified Company