

Pressure Sensors for Liquid and Gas



Sustainable
Sites



Indoor
Environmental
Quality



Energy &
Atmosphere



Pressure Sensor.

Description

The 7MF Series Pressure Sensors are suitable for the measurement of static and dynamic positive pressure in HVAC facilities, particularly in hydraulic and pneumatic systems using liquid or gaseous media (steam applications).

The 7MF Series Pressure Sensors are available in several different pressure ranges, from 0-15 psid to 0-300 psid.

Features

- Piezo-resistive measuring system
- 0 to 10 Vdc and 4 to 20 mA output signals
- Measurement unaffected by changes in temperature
- High temperature stability
- No mechanical aging or creepage
- Excellent EMC characteristics

Applications

The 7MF Series Pressure Sensors are used for the following applications:

- Heating, Ventilation and Air Conditioning (HVAC)
- Energy Management Systems
- Chiller, Boiler and Steam Applications

7MF Specifications

Power Supply

Supply Voltage DC 16...33 V
 Max. Voltage Tolerance ±15 % at AC 24 V
 Current Consumption <4 mA

Output Signal

4 to 20 mA two-wire connection; power supply DC 10 to 36V
 0 to 10 V three-wire connection; power supply DC 15 to 36V

Application Range 0 to 40 bar, refer to table below.

Accuracy

(FS = Full Scale)
 Total of linearity, hysteresis and reproducibility <±0.3 % FS
 Zero point offset voltage <30 Mv

Temperature Drift

TC zero point <±0.015 % FS/K (typically)
 TC sensitivity <±0.015 % FS/K (typically)

Response Time <2 ms

Nominal Pressure Relative pressure as in "Ordering Information" (measurement of difference from ambient pressure)

Max. Admissible Pressure and Rupture Pressure

..... 3 x scale end value of measuring range (FS) <4 bar
 2.5 x scale end value of measuring range (FS) >4 bar

Media Neutral and slightly corrosive liquids and gases

Admissible temperature of medium -40 to +239°F (-40 to +125°C)

Maintenance Maintenance-free

Mounting Position Optional

Connecting Cable PVC, length 5 ft., 3 x 0.25 mm² stranded wires

Screwed Fitting External thread G1/2"

Operation to Climatic Conditions

Temperature -40 to +85°C
 Humidity <95% RH

Storage/transport Climatic Conditions

Temperature -40 to +85°C
 Humidity <95% RH

CE conformity to EMC Directive 89/336/EEC

N474 Conformity to

Australian EMC Framework Radio Communication Act 1992
 Radio Interference Emission Standard AS/NZS 3548

Base Stainless Steel (1.4305)

Measuring Element Ceramics diaphragm

Cover Stainless Steel (1.4305)

Sealant FPM (Viton) spec.

Shipping Weight 0.53 lb. (0.24 kg)

E-50

Sensors

7MF Series Product Ordering

Pressure Range (psi)	Output Signal	Part No.
0 - 15 PSI	4-20ma	7MF156544BB005EA1
	0-10 V	7MF156544BB105EA1
0 - 30 PSI	4-20ma	7MF156544BE005EA1
	0-10 V	7MF156544BE105EA1
0 - 60 PSI	4-20ma	7MF156544BF005EA1
	0-10 V	7MF156544BF105EA1
0 - 100 PSI	4-20ma	7MF156544BG005EA1
	0-10 V	7MF156544BG105EA1
0 - 150 PSI	4-20ma	7MF156544CA005EA1
	0-10 V	7MF156544CA105EA1
0 - 200 PSI	4-20ma	7MF156544CB005EA1
	0-10 V	7MF156544CB105EA1
0 - 300 PSI	4-20ma	7MF156544CD005EA1
	0-10 V	7MF156544CD105EA1