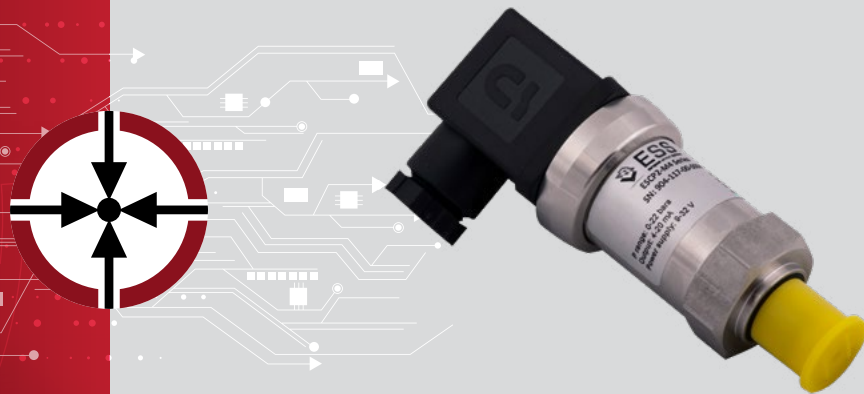


ESCP-MIT1

Medium Isolated MEMS Capacitive Pressure Transmitters



ES Systems has developed a series of medium isolated pressure transmitters suitable for applications with harsh environmental conditions where resistance to corrosive fluids or gases is required. Each sensor integrates a MEMS capacitive pressure sensor die, and a CMOS ASIC for the signal conditioning. The MEMS pressure sensor dies are underpinned by ES Systems' innovative microfabrication process for silicon capacitive sensors.

The ESCP-MIT1 of capacitive pressure sensor dies integrated into the medium isolated pressure systems provide state-of-the-art accuracy and resolution, excellent long-term stability combined with very good repeatability and hysteresis. The total overall error including thermal offsets is lower than $\pm 0.25\%$ FS.

The ESCP-MIT1 is a family of heavy-duty pressure transmitters made from stainless steel 316L. Each transmitter consists of an ESCP-MIS1 sensor, which is O-ring fitted to the housing. The pressure transmitters come in various standard pneumatic ports as well as custom ones upon request. The electrical interface can be either analog (4-20 mA, 0-10 V) or digital (I²C). The sensors can be provided calibrated and compensated at various temperature and pressure ranges from 1 bar to 400 bar. Custom configurations of a variety of pneumatic interfaces, Hastelloy or Titanium material, and output interface are available upon request.



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ESCP-MIT1

Medium Isolated
MEMS Capacitive Pressure Transmitters



Specifications

Pressure Type	Absolute, Gauge
Pressure Range	Up to 400 bar
Power Supply	+8V ... +32V
Total Error	< ±0.25 %FS
Operating Temperature	-20°C ... +85°C
Compensation Temperature	0°C ... +60°C, -20°C ... +85°C
Digital Output	Calibrated Pressure & Temperature
Analog Output	Calibrated Pressure
Output	4-20mA, 0-10V, I ² C
Overpressure Tolerance	Up to 100x
Media Compatibility	Gases, Liquids
Material Options	SS 316 L, Hastelloy, Titanium
Connection Type	M12, ISO4400, Cable
Pneumatic Interface	G1/2", G1/4", 1/2" NPT, 1/4" NPT

Ordering Information

ESCP-MIT1 – NNNNN – NN – NN – NN – NN – NN – N

Pressure Range

Absolute	Full Scale
002BA	2 bar
010BA	10 bar
015BA	15 bar
030BA	30 bar
050BA	50 bar
150BA	150 bar
250BA	250 bar
300BA	300 bar
350BA	350 bar
400BA	400 bar

Output Type

01	4-20mA
02	0-10V
03	I ² C (address 0x28)
04	I ² C (address 0x29)
05	I ² C (address 0x2A)
06	I ² C (address 0x2B)

Temperature Sensor

Y	Yes
N	No

Pneumatic Interface

01	1/2" NPT
02	1/4" NPT
03	G1/2"
04	G1/4"

Material

01	SS 316 L
02	Hastelloy
03	Titanium

Connector

01	M12
02	ISO4400
03	Cable

Compensation Temperature

01	0°C to 60°C
02	-20°C to 85°C



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