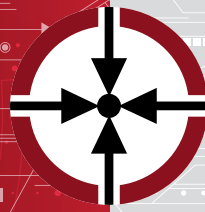


# ESCP-MIT1

## 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 (I<sup>2</sup>C). 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

<b>Pressure Type</b>	Absolute, Gauge
<b>Pressure Range</b>	Up to 400 bar
<b>Power Supply</b>	+8V ... +32V
<b>Total Error</b>	< ±0.25 %FS
<b>Operating Temperature</b>	-20°C ... +85°C
<b>Compensation Temperature</b>	0°C ... +60°C, -20°C ... +85°C
<b>Digital Output</b>	Calibrated Pressure & Temperature
<b>Analog Output</b>	Calibrated Pressure
<b>Output</b>	4-20mA, 0-10V, I <sup>2</sup> C
<b>Overpressure Tolerance</b>	Up to 100x
<b>Media Compatibility</b>	Gases, Liquids
<b>Material Options</b>	SS 316 L, Hastelloy, Titanium
<b>Connection Type</b>	M12, ISO4400, Cable
<b>Pneumatic Interface</b>	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 <sup>2</sup> C (address 0x28)
04	I <sup>2</sup> C (address 0x29)
05	I <sup>2</sup> C (address 0x2A)
06	I <sup>2</sup> 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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