

**PRESSURE SENSORS** 

# **ESCP-MIS1**

Medium Isolated MEMS Capacitive Pressure Sensors



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ES Systems has developed a series of medium isolated pressure sensors 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 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-MIS1 is a family of pressure sensors in the standard Ø19 stainless steel 316L capsule. In this type of sensors, the pressure is transferred hydrolically to the hermetically sealed sensing element through the oil used to fill the cavity between the sensing element and the stainless-steel diaphragm. The pressure capsule interface is either I<sup>2</sup>C, SPI or analog. The sensors are provided calibrated and compensated at various temperature and pressure ranges from 10 bara to 350 bara. Custom materials like Hastelloy or Titanium are available upon request.



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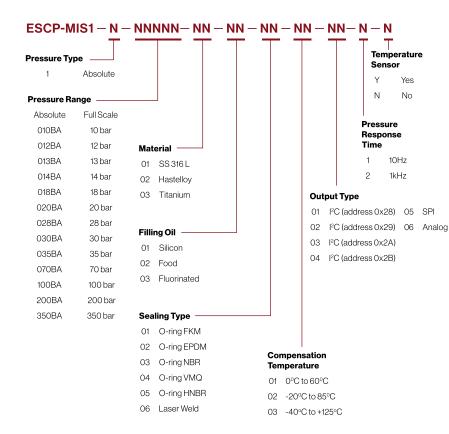
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## Specifications

Pressure Type	Absolute
Pressure Range	Up to 350 bar
Power Supply	3.1 to 5.5V
Current Consumption, full operation	< 2.3mA
Total Error	< ±0.25%FS
Operating Temperature	-40°C +125°C
Compensation Temperature	0°C+60°C,-20°C+85°C,-40°C+125°C
Digital Output	Calibrated Pressure & Temperature
Analog Output	Calibrated Pressure
Output	I <sup>2</sup> C, SPI, Analog 0.5 to 2.5V
Overpressure Tolerance	Up to 100x
Media Compatibility	Gases, Liquids
Material Options	SS 316 L, Hastelloy, Titanium

### Ordering Information









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