



PRESSURE TRANSDUCERS FOR HEAVY-DUTY HYDRAULIC AND HIGH PRESSURE GAS APPLICATIONS

DESIGN-IN QUESTIONS

- What pressure range and operating environment will the transducer see?
- What electrical output is needed and what kind of electrical environment is expected? Will the sensor need to be resistant to electrical noise, over voltage, mis-wiring or surge?
- What is the operational environment including expected temperature range, vibration requirements, ingress protection. Will the sensor be submerged?

The drive to continuously improve operational efficiency in hydraulic machinery and compressed gas applications results in the increased demand for high quality, reliably performing sensors and components. To serve this need TE Connectivity (TE) developed a series of one piece stainless steel pressure transducers based on our proven Microfused strain gage technology that can operate at pressures up to 700 bar in extreme conditions.

The rugged design and reliable performance of the M9100 pressure transducer addresses the pressure sensing needs of heavy-duty applications. In extreme conditions where high levels of vibration, high temperatures and difficult media are present the M9100 offers durability and long-term stability. For applications with less demanding environmental and electrical requirements, TE also offers the M7100 pressure transducer. Also available from the TE Microfused family is the M3200 pressure transducer featuring a digital output version and a wide range of pressure port and connector options.

- **CONSTRUCTION VEHICLES AND EQUIPMENT**
- **AGRICULTURE VEHICLES**
- **HYDROSTATIC TRANSMISSION AND BRAKES**
- **HYDRAULIC CYLINDERS**
- **LIFT EQUIPMENT**
- **HYDRAULIC SYSTEMS**
- **COMPRESSED GAS**

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HEAVY-DUTY PRESSURE TRANSDUCERS

	M9100  	M7100  	M3200  
Overview	<ul style="list-style-type: none"> Rugged design compatible with heavy-duty connection systems Excellent EMI/EMC performance and high levels of circuit protection Suited for high volume applications 	<ul style="list-style-type: none"> Good EMI/EMC performance Available in mid to high volumes 	<ul style="list-style-type: none"> Digital and analog output signals available Design flexibility with multiple configurations of pressure port and connector options
Pressure Type	Gage	Gage	Gage or Compound
Pressure Range	40 to 700 bar 500 to 10,000 PSI	10 to 700 bar 150 to 10,000 PSI	7 to 700 bar 100 to 10,000 PSI
Accuracy	±0.25% F.S.		
Long-term Stability	0.25%/year		
Total Error Band (TEB)	±1.0% F.S. (0 to 100°C) ±2% F.S. (-40 to 125°C)	±1.0% F.S. (-20 to 85°C)	±1.5% F.S. (-20 to 85°C)
Oper. Temp. Range	-40 to 125°C		
IP Rating	IP69	IP65	IP67 or IP66 or IP65
Output Types	0.5 - 4.5V	0.5 - 4.5V, 1 - 5V	I ² C 0.5 - 4.5V, 4 - 20mA, 0 - 5V, 0 - 10V, 1 - 5V
EMI/EMC Performance	ISO 11452 >100V/m	IEC 6100-4 100V/m	IEC 6100-4 10V/m
Proof Pressure	2x Rated	2x Rated	2x Rated
Burst Pressure	5x Rated	5x Rated	5x Rated
Snubber Option	Available		
Connector Options	DEUTSCH DT04-3P DEUTSCH DT04-4P DIN 72585	AMP070 Series Sumitomo HVO40 Series Packard 150 Series Cable (various lengths)	Packard A Packard B Form C M12, Cable (various lengths)