



Fully Compensated TR Series

The TR Series pressure transducer is a rugged, direct-media pressure monitoring solution designed for today's toughest pressure sensing environments.

The TR Series pressure transducer is a fully compensated, amplified output pressure sensor package combining Merit Sensor's Sentium process harsh media MEMS piezoresistive die with state-of-the-art pressure sensor ASIC signal management.

The TR Series "plug and play" design isolates onboard electronics from system media through an inert eutectic alloy solder bond of the MEMS pressure element to a ceramic PCB substrate. Direct media pressure sensing translates into excellent system design flexibility leading to lower cost and ease of manufacture.

The TR Series is designed for air, liquid and gas harsh media compatibility over a broad temperature range from -40°C (-40°F) to 150°C (300°F) with a total error band of less than 1.0%.* The design includes a 4.7kohm circuit protection pull-up resistor, operates on a single 5.0VDC supply, and requires no external components for proper operation. Both gage and absolute pressure reference designs up to 500 psi (35.5 bar) operating range are available.



TYPICAL APPLICATIONS

- Industrial
 - HVAC system monitoring
 - Industrial automation
 - Process monitoring
 - Air-conditioning (refrigerant systems)
 - Portable measurement and analysis instrumentation
 - Water level and pressure monitoring
- Automotive
 - Transmission fluid pressure
 - Fuel system pressure
 - Oil system pressure
 - EGR system pressure
 - Exhaust gas pressure
 - Fuel Rail system pressure
- Medical
 - Diagnostics and analysis equipment

TR Series Part Number Configurator



| Features | Min. | Typ. | Max. | Unit | Notes |
|------------------------------|------|-------|------|-------|---|
| Electrical | | | | | |
| Supply Voltage (Vdd) | 4.5 | 5 | 5.5 | Volts | |
| Supply Current | | | 10 | mA | |
| Output Current | | | 2.5 | mA | |
| Short Circuit Current | -25 | | 25 | mA | |
| Reverse Polarity Protection | -33 | | | Volts | Device will cease operation during supply voltage fault. |
| Overvoltage Protection | | | 33 | Volts | Device will cease operation during supply voltage fault. |
| ESD | >4 | | | kV | Human body model 1.5kOhm/100pF. |
| Performance | | | | | |
| Output Range (Vout) | 10 | | 90 | %Vdd | |
| Output Clamping Limit (Vout) | 8 | | 92 | %Vdd | |
| Resolution | | 0.03 | | %FS | 12 bit DAC |
| Accuracy | | | | | Accuracy includes all error for hysteresis and linearity over the entire operating temperature range. It does not include lifetime drift. -40°C to 150°C. 1% accuracy is only available for parts > 100psi. |
| Standard | -2.5 | 0 | 2.5 | % FS | |
| High Performance | -1.0 | 0 | 1.0 | % FS | |
| Static Proof Pressure | | 2X FS | | PSIA | |
| Burst Pressure | | 3X FS | | PSIA | |
| Lifetime Drift | | | 0.5 | %FS | |
| Repeatability | | | 0.25 | %FS | |
| Environmental | | | | | |
| Operating Temperature | -40 | | 150 | °C | |
| Storage Temperature | -55 | | 150 | °C | |
| Weight | | 1.08 | | Grams | |

CROSS SECTION



ELECTRICAL



DIMENSIONS FOR STANDARD PACKAGING OPTIONS (in millimeters)

Dimensions for reference only.
Engineering drawings (with tolerance) available upon order.

Standard Face Seal



Ferrule



Note: Dimensions in a **rectangle** are basic dimensions



Merit Sensor is based in Salt Lake City, Utah



Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9