



M3200 Pressure Transducer

SPECIFICATIONS

- Analog Outputs (V/mA)
- 14-Bit Digital Output for Pressure and 11-Bit for Temperature
- CE Compliance
- Weatherproof
- 0.5% zero offset, 1.5 % accuracy (Total error band)

The M3200 pressure transducer from the Microfused line of TE is suitable for measurement of liquid or gas pressure, even for difficult media such as contaminated water, steam, and mildly corrosive fluids.

The transducer pressure cavity is machined from a solid piece of 17-4PH stainless steel. The standard version includes a 1/4 NPT pipe thread allowing a leak-proof, all metal sealed system. With excellent durability, there are no O-rings, welds or organics exposed to the pressure media.

TE's proprietary Microfused technology, derived from demanding aerospace applications, employs micromachined silicon piezoresistive strain gages fused with high temperature glass to a stainless-steel diaphragm. This approach achieves media compatibility simply and elegantly while providing an exceptionally stable sensor without the PN junctions of conventional micromachined sensors.

This product is geared towards industrial and commercial OEMs for small to high volume applications. Standard configurations are suitable for many applications. Please contact factory for your customization needs.

FEATURES

- One Piece Stainless Steel Construction
- Digital Pressure and Temperature Output or Analog mV/Amplified Output
- Compact
- 17-4PH Stainless Steel
- Customizable

APPLICATIONS

- Pumps and Compressors
- Hydraulic/Pneumatic Systems
- Automotive Test Systems
- Energy and Water Management
- Medical Gas Pressure
- Leak Detection
- Remote Measuring Systems
- General Pressure Measurements

STANDARD RANGES

| Range (psi) | Range (bar) | Gage/Compound |
|-------------|-------------|---------------|
| 0 to 100 | 0 to 007 | • |
| 0 to 250 | 0 to 017 | • |
| 0 to 500 | 0 to 035 | • |
| 0 to 01k | 0 to 070 | • |
| 0 to 2k5 | 0 to 170 | • |
| 0 to 05k | 0 to 350 | • |
| 0 to 7k5 | 0 to 500 | • |
| 0 to 10k | 0 to 700 | • |

PERFORMANCE SPECIFICATIONS (ANALOG)

Unless otherwise specified: All parameters measured at 25°C

| PARAMETERS | MIN | TYP | MAX | UNITS | NOTES |
|--|---|----------------------------|------|---------------|----------------------------|
| Accuracy (Combined linearity, hysteresis & repeatability) | -0.25 | | 0.25 | % F.S BFSL | |
| Zero offset | -0.5 | | 0.5 | %F.S. | @ 25°C |
| Pressure Cycles | 1.0E+6 | | | 0~F.S. Cycles | |
| Proof Pressure | 2X | | | Rated | |
| Burst Pressure | 5X | | | Rated | ≤20kpsi |
| Isolation, Body to Any Lead | 50 | | | MΩ | @ 250V _{DC} |
| Load Resistance (R _L) | | >100 | | kΩ | Voltage Output |
| Load Resistance | | <(Supply Voltage-9V)/0.02A | | Ω | Current Output |
| Current Consumption | | | 5 | mA | Voltage Output |
| Dielectric Strength | | | 2 | mA | @500 V _{AC} 1 min |
| Long Term Stability (1 year) | -0.25 | | 0.25 | %Span | |
| Total Error Band | -1.5 | | 1.5 | %F.S. | Over comp. temp |
| Compensated Temperature | -20 | | 85 | °C | |
| Operating Temperature | -40 | | 125 | °C | Except Cable 105°C max |
| Storage Temperature | -40 | | 125 | °C | Except Cable 105°C max |
| Weather proof Rating | IP67 for cable & M12 type, IP66 for Packard type, IP65 for Form C type | | | | Note 1 |
| Rise Time (10% - 90%) | <2 ms (mV Output); <3ms (mA Output) | | | | |
| Wetted Material | 17-4PH Stainless Steel | | | | |
| Shock | 50g, 11 msec Half Sine Shock per MIL-STD-202G, Method 213B, Condition A | | | | |
| Vibration | ±20g, MIL-STD-810C, Procedure 514.2-2, Curve L | | | | |

Compliances⁶

EN 55022 Emissions Class A & B

IEC 61000-4-2 Electrostatic discharge immunity (4kv contact / 8kv air discharge)

IEC 61000-4-3 Radiated, Radio-Frequency Electromagnetic field immunity (10 V/m; 80M-1GHz; 3 V/m, 1.4 – 2.0GHz; 1 V/m, 2.0 – 2.7GHz)

IEC 61000-4-4 Electrical Fast Transient/Burst Immunity (±1kV)

IEC 61000-4-5 Surge (line to line: ±1.0kV/42Ω; Line to case: ±1.0kV/42Ω)

IEC 61000-4-6 Immunity to conducted disturbances, induced by radio-frequency fields (150k-80MHz, 3V_{RMS} for current output model, 10V_{RMS} for voltage model)

PERFORMANCE SPECIFICATIONS (DIGITAL)

Unless otherwise specified: All parameters measured at 25°C & 3.3VDC

| PARAMETERS | MIN | TYP | MAX | UNITS | NOTES |
|--|---|-------|-------|---------------|------------------------|
| Output at Zero Pressure | 750 | 1000 | 1250 | Count | |
| Output at FS Pressure | 14720 | 15000 | 15250 | Count | |
| Current Consumption | | | 3.5 | mA | |
| Current Consumption (sleep mode) | | | 5 | μA | |
| Supply Voltage | 2.7 | | 5.0 | V | |
| Proof Pressure | 2X | | | Rated | |
| Burst Pressure | 5X | | | Rated | No More than 20kpsi |
| Isolation, Body to Any Lead | 50 | | | MΩ | @ 250V _{DC} |
| Pressure Cycles | 1.00E+6 | | | 0-F.S. Cycles | |
| Pressure Accuracy (RSS combined Non-Linearity, Hysteresis & Repeatability) | -0.25 | | 0.25 | %F.S. BFSL | @ 25°C |
| Temperature Accuracy | -3 | | 3 | °C | Note 2 |
| Long Term Stability (1 year) | -0.25 | | 0.25 | %F.S. | |
| Total Error Band | -1.5 | | 1.5 | %F.S. | Over comp Temp. |
| Compensated Temperature | 0 | | 55 | °C | |
| Compensated Temperature Output | 512 | | 1075 | Count | For reference |
| Operating Temperature | -20 | | +85 | °C | |
| Storage Temperature | -40 | | +85 | °C | |
| Response time | | | 3 | ms @ 4MHz | Non-sleep mode, note 3 |
| Response time | | | 8.4 | ms @ 4MHz | Sleep mode, note 3 |
| Wetted Material (except elastomer seal) | 17-4PH Stainless Steel | | | | |
| Shock | 50g, 11 msec Half Sine Shock per MIL-STD-202G, Method 213B, Condition A | | | | |
| Weather proof Rating ³ | IP67 | | | | |
| Vibration | ±20g, MIL-STD-810C, Procedure 514.2-2, Curve L | | | | |

Compliance⁶

EN 55011 Emissions Class A & B

IEC 61000-4-2 Electrostatic Discharge Immunity (4kV contact/8kV air discharge)

IEC 61000-4-3 Radiated Radio-Frequency Electromagnetic Field Immunity (1V/m, 80M-1GHz; 3 V/m, 1.4 – 2.0GHz; 1V/m, 2.0-2.7GHz)

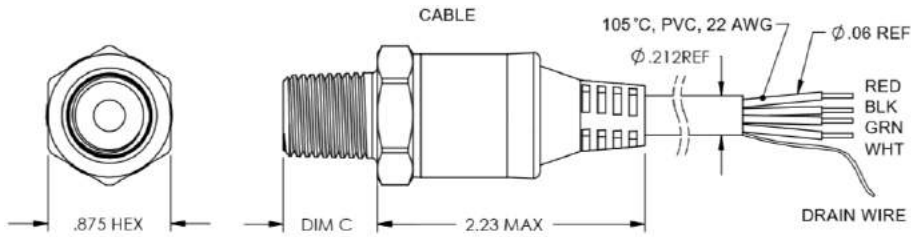
IEC 61000-4-4 Electrical Fast Transient/Burst Immunity (±1kV)

IEC 61000-4-6 immunity to conducted disturbances, induced by radio-frequency fields (150k-80MHz, 3V_{RMS})

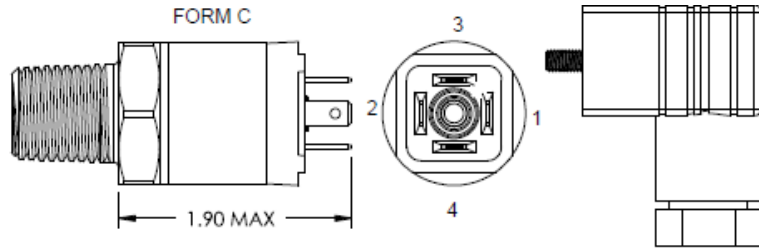
Notes

1. Weather-proof ratings are met when the mating connectors are properly installed and cable termination to dry and clean area. For Cable option, IP67 is guaranteed under room temperature.
2. Reflect pressure port diaphragm temperature over the compensated temperature range.
3. Response time is from power on to reading measurement data.
4. For all CE compliance test, max allowed output deviation is ±1.5%F.S.
5. All Configurations are built with Voltage Reverse and output Short-Circuit Protections.
6. For communication and interfacing, refer to document 'Interfacing to MEAS Digital Pressure Modules' online

DIMENSIONS

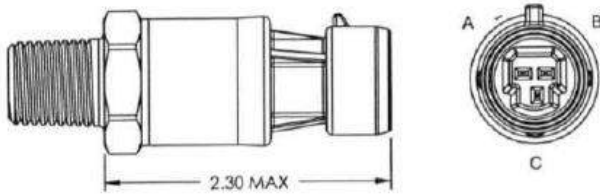


| Connection | +Supply | -Supply | SCL | SDA |
|------------|---------|---------|-------|-------|
| Cable | RED | BLACK | WHITE | GREEN |
| M12 | 1 | 3 | 4 | 2 |

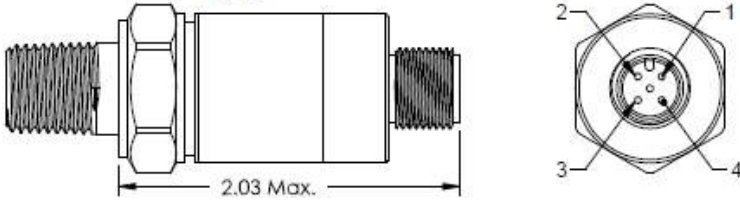


| Connection | +Supply | -Supply | NC. Pins | P _{REF} Vent |
|------------|---------|---------|----------|--------------------------|
| Packard A | A | B | C | Hole through connector |
| Packard B | B | A | C | Hole through connector |
| Form C | 1 | 2 | 3, 4 | Thread through connector |
| Cable | Red | Black | - | In Cable |
| M12 | 1 | 3 | 2,4 | Hole through connector |

PACKARD CONNECTOR



M12



Voltage Output Wiring

| Connection | +Supply | -Supply | +Output | -Output | NC. Pins* | P _{REF} Vent |
|------------|---------|---------|---------|---------------|-----------|--------------------------|
| Packard A | A | B | C | - | - | Hole through Connector |
| Packard B | B | A | C | - | - | Hole through Connector |
| Form C | 1 | 2 | 3 | - | 4 | Thread through Connector |
| Cable | Red | Black | White | Not connected | - | In Cable |
| M12 | 1 | 3 | 2 | | 4 | Hole through Connector |

Notes:

*NC. Pins are reserved for factory use only. **DO NOT CONNECT.**

**For cable connections, drain wire is internally terminated to pressure port.
drain wire is not available for I2C output option

*** Cable material : 4C*22AWG + DRAIN + AL.MYLAR + PVC Jacket

Transmitter of gage pressure type requires vent to atmosphere on the pressure reference side.

- Accomplished via cable from transmitter or through customer mating connector/cable assembly which has internal vent path (end of cable should be terminated to clean & dry area)

Weather-proof Ratings are met when Mating Connectors are installed properly, and cable termination is to dry and clean area.

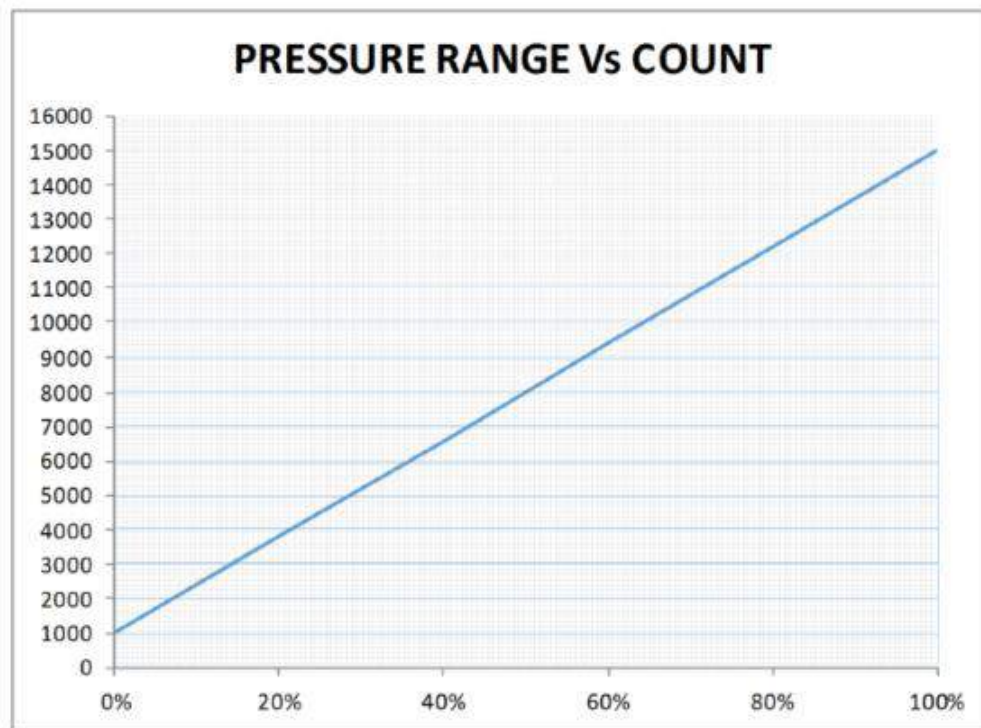
PRESSURE PORTS

| Code | Pressure Port | Dim C | Recommended Torque [Nm] |
|------|---|--------------|-------------------------|
| 4 | 7/16-20 UNF Male SAE J1926-2 Straight Thread O-Ring BUNA-N 90SH ID8.92xW1.83mm | 0.45 [11.43] | 18-20 |
| 5 | 1/4-18 NPT | 0.65 [16.51] | 2-3 TFFT* |
| 6 | 1/8-27 NPT | 0.53 [13.46] | 2-3 TFFT* |
| B | G1/4 JIS B2351 with NBR O-ring | 0.47 [11.94] | 30-35 |
| E | 1/4-19 BSPT | 0.50 [12.70] | 2-3 TFFT* |
| P | 7/16-20 UNF Female SAE J513 Straight Thread w/ Integral Valve Depressor | 0.43 [10.92] | 15-16 |

*Turn From Finger Tight

DIGITAL PRESSURE OUTPUT

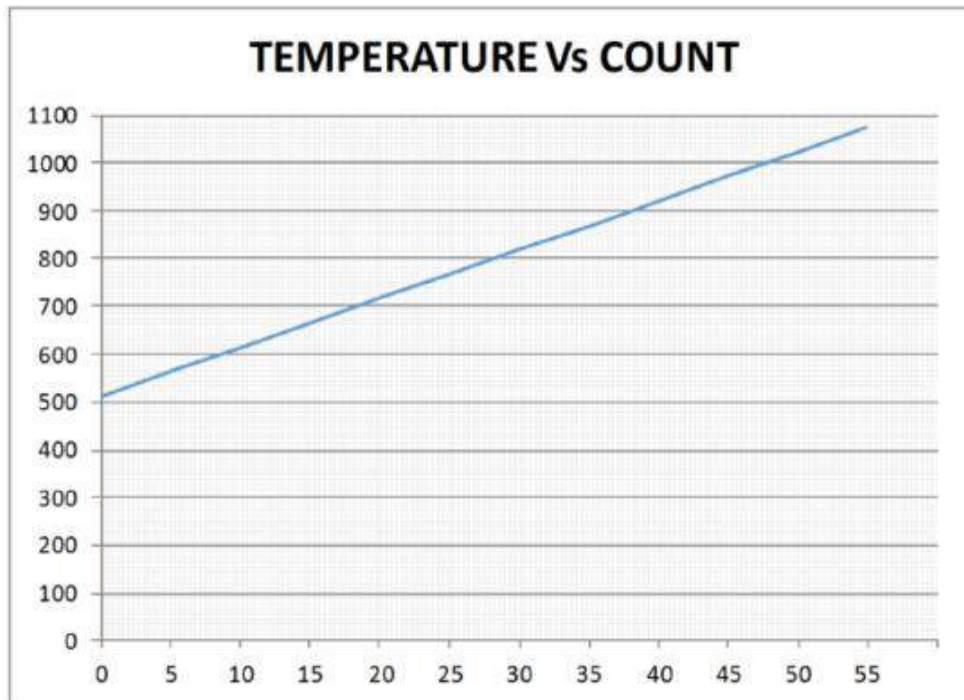
| % Output | Digital Counts (Decimal) | Digital Counts (Hex) |
|----------|--------------------------|----------------------|
| 0% | 1000 | 0x3E8 |
| 5% | 1700 | 0X6A4 |
| 10% | 2400 | 0X960 |
| 50% | 8000 | 0X1F40 |
| 90% | 13600 | 0X3520 |
| 95% | 14300 | 0X37DC |
| 100% | 15000 | 0X3A98 |



$$\text{OUTPUT (DECIMAL COUNTS)} = \frac{15000-1000}{P_{\text{max}}-P_{\text{min}}} \times (P_{\text{applied}}-P_{\text{min}}) + 1000$$

DIGITAL TEMPERATURE OUTPUT

| Output °C | Digital Counts (Decimal) | Digital counts |
|-----------|--------------------------|----------------|
| 0 | 512 | 0x200 |
| 10 | 614 | 0x266 |
| 25 | 767 | 0x2FF |
| 40 | 921 | 0x399 |
| 55 | 1075 | 0x433 |



$$\text{OUTPUT (DECIMAL COUNTS)} = \frac{(\text{OUTPUT } ^\circ\text{C} + 50 ^\circ\text{C}) \times 2048}{150 ^\circ\text{C} - (-50 ^\circ\text{C})}$$

OUTPUT (ANALOG)

| Code | Output | Supply | Ratiometricity | Red | Black | Green | White |
|----------|------------|-----------|----------------|---------|---------|---------------|---------------|
| 3 | 0.5 – 4.5V | 5 ± 0.25V | Yes | +Supply | Common | Not connected | +Output |
| 5 | 4 – 20mA | 9 – 30V | No | +Supply | -Supply | Not connected | Not connected |
| 6 | 0 – 5 V | 8 – 30V | No | +Supply | -Supply | Not connected | +Output |
| 7 | 0 – 10 V | 12 – 30 V | No | +Supply | -Supply | Not connected | +Output |
| 8 | 1 – 5 V | 8 – 30 V | No | +Supply | -Supply | Not connected | +Output |

OUTPUT (DIGITAL)

| Code | Output | Supply | Red | Black | Green | White |
|----------|------------------|------------|---------|---------|-------|-------|
| J | I ² C | 2.7 – 5.0V | +Supply | -Supply | SDA | SCL |

ORDERING INFORMATION

For Analog Output:

M32 3 4 - 00000 4 - 250P G

| Output | |
|--------|----------|
| Code | Output |
| 3 | 0.5-4.5V |
| 5 | 4-20mA |
| 6 | 0-5V |
| 7 | 0-10V |
| 8 | 1-5V |

| Connection | |
|------------|------------------------------|
| 4 | Packard A Connector |
| 6 | Form C with Mating Connector |
| 9 | Packard B Connector |
| D | M12 Connector |
| L | Cable 0.5m |
| M | Cable 1m |
| N | Cable 2m |
| P | Cable 5m |

| Snubber | |
|---------|---------------|
| 0 | No snubber |
| 1 | With snubber* |

*Available for G1/4 port only, more snubber option, please consult with factory

For Digital Output, see "For Digital Output" Ordering Information
All Configurations are built with Voltage Reverse and Output Short-Circuit Protections.

| Pressure Type | |
|---------------|----------|
| G | Gage |
| C | Compound |

Compound pressure range is -14.7 to XXX psiG or -1 to XXX barG.
i.e. 200PC: -14.7 to 200psiG, 020BC: -1 to 20 barG

| Pressure Range | |
|----------------|------------|
| psi STD | bar STD |
| 100P | 007B |
| 250P | 017B |
| 500P | 035B |
| 01KP | 070B |
| 2K5P | 170B |
| 05KP | 350B |
| 7K5P | 500B |
| 10KP | 700B |

Pressure Ranges between 100-10000psi (7-700bar) are all available. Change Pressure Number Accordingly

| Pressure Port | |
|---------------|---|
| Code | Description |
| 4 | 7/16-20 UNF Male SAE J1926-2 Straight Thread O-ring 90SH ID8.92xW1.83mm |
| 5 | 1/4-18 NPT |
| 6 | 1/8-27 NPT |
| B | G1/4 JIS B2351 with NBR O-ring |
| E | 1/4-19 BSPT |
| P | 7/16-20 UNF Female SAE J513 Straight Thread with Integral Valve Depressor |

Click [here](#) for Torque Recommendation

For Digital Output:

M32 J L – 000 0 0 4 – 250P G

| Output | |
|--------|------------------|
| Code | Output |
| J | I ² C |

| Connection | |
|------------|---------------|
| L | Cable 0.5m |
| M | Cable 1m |
| D | M12 connector |

| Snubber | |
|---------|---------------|
| 0 | No snubber |
| 1 | With snubber* |

*Available for G1/4 port only, More snubber options, please consult with factory.

| Sleep Mode (Digital ONLY) | |
|---------------------------|----------------|
| 0 | Non-Sleep Mode |
| 1 | Sleep Mode |

| Digital Address (Digital ONLY) | |
|--------------------------------|-------|
| 0 | 0X28H |
| 1 | 0X36H |
| 2 | 0X46H |
| 3 | 0X48H |
| 4 | 0X51H |

| Pressure Type | |
|---------------|----------|
| G | Gage |
| C | Compound |

Compound pressure range is -14.7 to XXX psiG or -1 to XXX barG.
Ex. 200PC: -14.7 to 200psiG, 020BC: -1 to 20 barG

| Pressure Range | |
|----------------|---------|
| psi STD | bar STD |
| 100P | 007B |
| 250P | 017B |
| 500P | 035B |
| 01KP | 070B |
| 2K5P | 170B |
| 05KP | 350B |
| 7K5P | 500B |
| 10KP | 700B |

Pressure Ranges between 100-10000psi (7-700bar) are all available. Change Pressure Number Accordingly

| Pressure Port | |
|---------------|--|
| Code | Description |
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| 5 | 1/4-18 NPT |
| 6 | 1/8-27 NPT |
| B | G1/4 JIS B2351 with NBR O-ring |
| E | 1/4-19 BSPT |
| P | 7/16-20 UNF Female SAE J513 Straight Thread with Integral Valve Depressor |

Click [here](#) for Torque Recommendation

All Configurations are built with Voltage Reverse and Output Short-Circuit Protections.

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MHR SERIES

Miniature General Purpose AC LVDT

SPECIFICATIONS

- **Small size and low mass core**
- **High output signal**
- **Stroke ranges from ± 0.005 to ± 2 inches**
- **AC operation from 2kHz to 20kHz**
- **Stainless steel housing**
- **Imperial or metric threaded core**

The legendary **MHR Series** LVDTs provide precision measurements in space restrictive applications. With a diameter of just 3/8 inch [9.5mm], and an extremely lightweight core, the MHR Series is ideal for applications where excessive core weight could influence the motion; with less inertia, accurate measurements at higher displacement speeds are easier to achieve. The lightweight core also reduces mechanical stresses and helps preserve the structural integrity of the core actuation assembly.

The high output sensitivity resulting from the close electrical coupling between the coil and core provides ample signal for interfacing with practically all signal conditioners and conditioning circuits. The magnetic stainless steel housing provides electromagnetic and electrostatic shielding.

The high temperature operation (200°C) model, MHR-T is available for stroke ranges of ± 0.025 to ± 1 inch. A High pressure (vented case) model, MHR-V is also available. The MHR is compatible with the full line of Measurement Specialties LVDT signal conditioners.

Like in most of our LVDTs, the MHR windings are vacuum impregnated with a specially formulated, high temperature, flexible resin, and the coil assembly is potted inside its housing with a two-component epoxy. This provides excellent protection against hostile environments such as high humidity, vibration and shock.

FEATURES

- Compact size
- Lightweight core
- $\pm 0.25\%$ linearity (100% stroke)
- Shock and vibration tolerant
- Stainless steel case
- Calibration certificate supplied with each unit

APPLICATIONS

- X, Y, Z stage position feedback
- Wire-die bonding machines
- Cylinder position feedback
- Voice coil testing
- Materials testing machines
- Space restricted installations

PERFORMANCE SPECIFICATIONS

| ELECTRICAL SPECIFICATIONS (common) | |
|------------------------------------|-------------------|
| Input voltage | 3 VRMS sine wave |
| Input frequency | 2kHz to 20kHz |
| Test frequency | 2.5kHz (standard) |

| ELECTRICAL SPECIFICATIONS @ 10kHz (recommended operation) | | | | | | | | | |
|---|-------------------|-------------------|-------------------|------------------|------------------|------------------|-----------------|----------------|----------------|
| Parameter | MHR 005 | MHR 010 | MHR 025 | MHR 050 | MHR 100 | MHR 250 | MHR 500 | MHR 1000 | MHR 2000 |
| Stroke range | ±0.005 [±0.13] | ±0.010 [±0.25] | ±0.025 [±0.64] | ±0.05 [±1.27] | ±0.10 [±2.54] | ±0.25 [±6.35] | ±0.5 [±12.7] | ±1 [±25.4] | ±2 [±50.8] |
| Sensitivity V/V/inch [mV/V/mm] | 8.70 [343] | 6.05 [238] | 8.10 [319] | 3.15 [124] | 2.80 [110] | 2.07 [81.5] | 1.96 [77.2] | 0.77 [30.3] | 0.49 [19.3] |
| Output at stroke ends mV/V (*) | 43.5 | 60.5 | 202.5 | 157.5 | 280 | 517.5 | 980 | 770 | 980 |
| Phase shift | +38° | +20° | +21° | +8° | +5° | +7° | +7° | -1° | -15° |
| Input impedance (PRIMARY) | 84Ω | 165Ω | 238Ω | 419Ω | 400Ω | 345Ω | 264Ω | 155Ω | 504Ω |
| Output impedance (SECONDARY) | 302Ω | 300Ω | 485Ω | 154Ω | 200Ω | 420Ω | 810Ω | 450Ω | 1780Ω |
| Non-linearity | ±% of FR | | | | | | | | |
| @ 50% stroke | 0.20 | 0.10 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.20 | / |
| @100% stroke (max) | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.50 |
| @125% stroke | 0.30 | 0.35 | 0.25 | 0.35 | 0.25 | 0.35 | 0.30 (**) | 0.50 | / |
| @150% stroke | 0.40 | 0.35 | 0.30 | 0.50 | 0.30 | 0.50 (**) | 0.75 (**) | / | / |
| Null voltage (max.) | 2.5% FRO | 1.0% FRO | 0.5% of FRO | | | | | | |

| ELECTRICAL SPECIFICATIONS @ 2.5kHz (standard calibration) | | | | | | | | | |
|---|-------------------|-------------------|-------------------|------------------|------------------|------------------|-----------------|---------------|---------------|
| Parameter | MHR 005 | MHR 010 | MHR 025 | MHR 050 | MHR 100 | MHR 250 | MHR 500 | MHR 1000 | MHR 2000 |
| Stroke range | ±0.005 [±0.13] | ±0.010 [±0.25] | ±0.025 [±0.64] | ±0.05 [±1.27] | ±0.10 [±2.54] | ±0.25 [±6.35] | ±0.5 [±12.7] | ±1 [±25.4] | ±2 [±50.8] |
| Sensitivity V/V/in [mV/V/mm] | 3.19 [126] | 3.36 [132] | 4.36 [172] | 2.55 [100] | 2.40 [94] | 1.73 [68] | 1.60 [63] | 0.70 [27] | 0.47 [19] |
| Output at stroke ends, mV/V (*) | 16 | 33.6 | 109 | 127.5 | 240 | 432.5 | 800 | 700 | 940 |
| Phase shift | +73° | +59° | +58° | +36° | +30° | +33° | +23° | +6° | +3° |
| Input impedance (PRIMARY) | 59Ω | 78Ω | 116Ω | 141Ω | 135Ω | 147Ω | 145Ω | 100Ω | 304Ω |
| Output impedance (SECONDARY) | 260Ω | 192Ω | 286Ω | 90Ω | 125Ω | 268Ω | 445Ω | 370Ω | 13620Ω |
| Non-linearity | ±% of FR | | | | | | | | |
| @ 50% stroke | 0.20 | 0.10 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.20 | / |
| @100% stroke (max) | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| @125% stroke | 0.30 | 0.35 | 0.25 | 0.35 | 0.25 | 0.35 | 0.30 (**) | 0.50 | / |
| @150% stroke | 0.40 | 0.35 | 0.30 | 0.50 | 0.30 | 0.50 (**) | 0.75 (**) | / | / |
| Null voltage (max) | 3% FRO | 1.5% FRO | 0.5% of FRO | | | | | | |

(*) Unit for output at stroke ends is millivolt per volt of input voltage

(**) Requires special reduced core length

MHR SERIES

Miniature General Purpose AC LVDT

| ENVIRONMENTAL SPECIFICATIONS & MATERIALS | |
|--|---|
| Operating temperature | -65°F to +300°F [-55°C to 150°C] |
| Shock survival | 1,000 g (11ms half-sine) |
| Vibration tolerance | 20 g up to 2KHz |
| Housing material | AISI 400 Series stainless steel |
| Electrical connection | Six lead-wires, 32 AWG stranded Copper, PTFE insulated, 1 foot [0.3m] long (<i>longer wires optional</i>) |
| IEC 60529 rating | IP61 |

Notes:

All values are nominal unless otherwise noted

Electrical specifications are for the test frequency indicated in the table

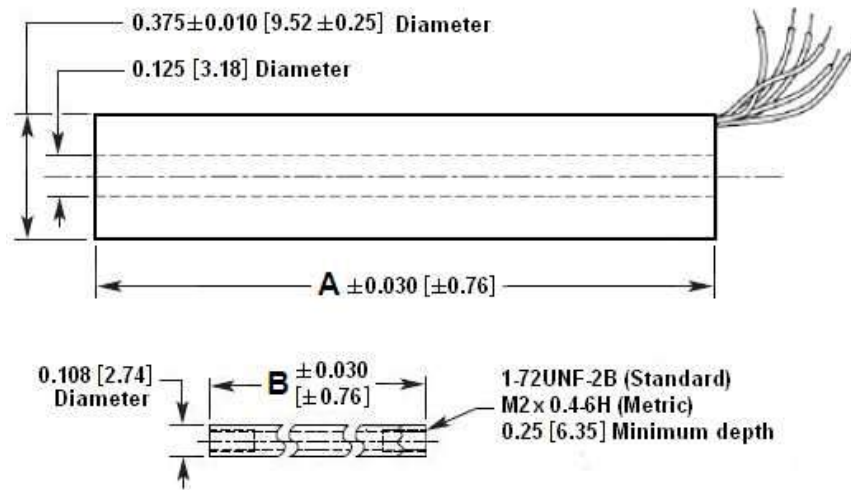
Dimensions are in inch [mm] unless otherwise noted

FR: Full Range is the stroke range, end to end; FR=2xS for ±S stroke range

FRO (Full Range Output): Algebraic difference in outputs measured at the ends of the range

MECHANICAL SPECIFICATIONS

| Parameter | MHR 005 | MHR 010 | MHR 025 | MHR 050 | MHR 100 | MHR 250 | MHR 500 | MHR 1000 | MHR 2000 |
|-----------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|
| Body length "A" | 0.375 [9.5] | 0.535 [13.6] | 0.660 [16.8] | 0.815 [20.7] | 0.990 [25.1] | 1.850 [47.0] | 3.300 [83.82] | 5.600 [142.2] | 8.000 [203.2] |
| Core length "B" | 0.180 [4.6] | 0.233 [5.9] | 0.400 [10.2] | 0.500 [12.7] | 0.625 [15.9] | 1.125 [28.6] | 2.000 [50.8] | 3.000 [76.2] | 3.00 [76.2] |
| Body weight oz [g] | 0.07 [2] | 0.11 [3] | 0.18 [5] | 0.21 [6] | 0.21 [6] | 0.32 [9] | 0.60 [17] | 0.92 [26] | 1.4 [40] |
| Core weight oz [g] | 0.004 [0.1] | 0.007 [0.2] | 0.016 [0.5] | 0.016 [0.5] | 0.025 [0.7] | 0.032 [0.9] | 0.056 [1.6] | 0.088 [2.5] | 0.088 [2.5] |

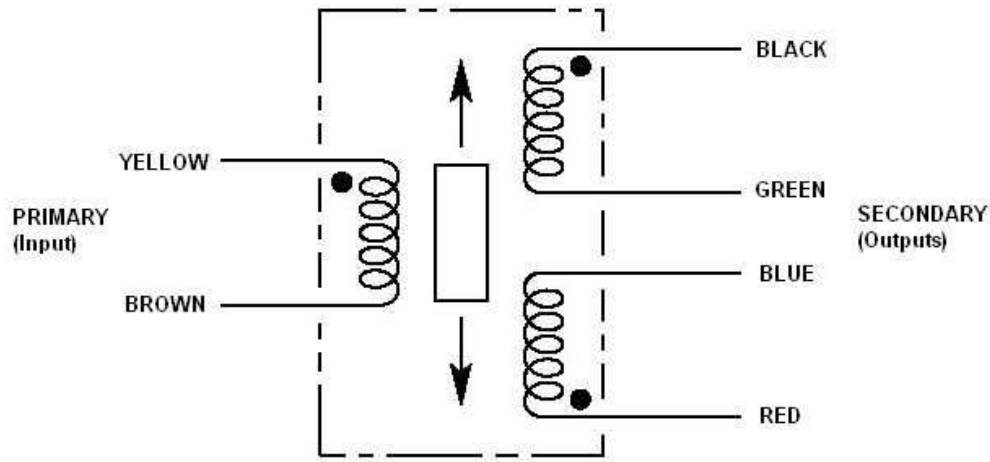


Dimensions are in inch [mm]

MHR SERIES

Miniature General Purpose AC LVDT

WIRING INFORMATION



Connect Blue to Green for differential output

ORDERING INFORMATION

| Description | Model | Part Number |
|------------------|---------|--------------|
| ±0.005 inch LVDT | MHR 005 | 02560405-000 |
| ±0.010 inch LVDT | MHR 010 | 02560406-000 |
| ±0.025 inch LVDT | MHR 025 | 02560407-000 |
| ±0.05 inch LVDT | MHR 050 | 02560408-000 |
| ±0.10 inch LVDT | MHR 100 | 02560409-000 |

| Description | Model | Part Number |
|-----------------|----------|--------------|
| ±0.25 inch LVDT | MHR 250 | 02560410-000 |
| ±0.5 inch LVDT | MHR 500 | 02560411-000 |
| ±1 inch LVDT | MHR 1000 | 02560412-000 |
| ±2 inch LVDT | MHR 2000 | 02561033-000 |

| OPTIONS | | |
|-------------------------|-----------------|--------------|
| 5.0 kHz calibration | | XXXXXXXX-002 |
| 10 kHz calibration | | XXXXXXXX-003 |
| Metric threaded core | | XXXXXXXX-006 |
| 10 foot long lead-wires | Consult factory | XXXXXXXX-040 |

Note: Add multiple option dash numbers together to determine proper ordering suffix

Example: MHR 1000, ±1 inch, with 5 kHz calibration and metric threaded core, P/N 02560412-008

| ACCESSORIES | |
|--|--------------|
| Core connecting rod, 6 inches long, 1-72 threads | 05282945-006 |
| Core connecting rod, 12 inches long, 1-72 threads | 05282945-012 |
| Core connecting rod, 24 inches long, 1-72 threads | 05282945-024 |
| Core connecting rod, 36 inches long, 1-72 threads | 05282945-036 |
| Core connecting rod, 6 inches long, M2x0.4 metric threads | 05282976-006 |
| Core connecting rod, 12 inches long, M2x0.4 metric threads | 05282976-012 |
| Mounting block | 04560954-000 |

MHR SERIES

Miniature General Purpose AC LVDT

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