

series 2102 differential pressure bonded strain gage

TELEDYNE® Pressure Transducers

DIFFERENTIAL PRESSURE RANGES: ± 100 , ± 200 , ± 300 , ± 500 psid at 1000 psid maximum reference pressure

specifications

BI-DIRECTIONAL PRESSURE RANGES: ± 100 , ± 200 , ± 300 , ± 500 psid.

REFERENCE PRESSURE: 1000 psi maximum with the following reduction in FSO when used above zero reference pressure:

- ± 100 psid range — 2.50% FSO per 100 psi
- ± 200 psid range — 1.30% FSO per 100 psi
- ± 300 psid range — 0.85% FSO per 100 psi
- ± 500 psid range — 0.60% FSO per 100 psi

MEASURAND FLUIDS: All fluids compatible with Carpenter 20 and 347 stainless steel.

FULL SCALE OUTPUT: 3.0 ± 0.015 mv open circuit per volt excitation for high side.

ZERO BALANCE: 0.00 ± 0.06 mv per volt at $+77^\circ\text{F}$.

ENDPOINT LINEARITY:

- Within $\pm 0.35\%$ FSO for ± 500 psid range.
- Within $\pm 0.50\%$ FSO for ± 300 and ± 200 psid ranges.
- Within $\pm 0.75\%$ FSO for ± 100 psid range.

HYSTERESIS: Less than 0.25% FSO.

REPEATABILITY: Within 0.10% FSO.

RESOLUTION: Infinite.

PROOF PRESSURE: Application of ± 1000 psid will not cause changes in the specified performance characteristics.

BURST PRESSURE RATING: Greater than ± 2000 psid.

ZERO SHIFT W/R BASE PRESSURE: Less than 1.0% FSO.

COMPENSATED TEMPERATURE RANGE: -30°F to $+170^\circ\text{F}$.

OPERATING TEMPERATURE RANGE: -100°F to $+225^\circ\text{F}$.

THERMAL SENSITIVITY SHIFT: Less than 0.5% FSO per 100 $^\circ\text{F}$ over compensated temperature range.

THERMAL ZERO SHIFT: Less than 1.0% FSO per 100 $^\circ\text{F}$ over compensated temperature range.

EXCITATION: 10 volts DC or AC recommended. 18 volts DC or AC maximum.

MECHANICAL SHOCK: 30 g's; 11 milliseconds; any axis will not cause permanent damage.

INPUT IMPEDANCE: 350 ± 3.5 ohms resistive at 77°F . Input circuitry symmetrical.

OUTPUT IMPEDANCE: 350 ± 5.0 ohms resistance.

INSULATION RESISTANCE: Greater than 10,000 megohms at 50 VDC between all terminals in parallel and the transducer case, at a temperature of $+77^\circ\text{F}$.

PRESSURE CONNECTION: 7/16-20 internal thread per AND-10050-4 is standard on both sides.

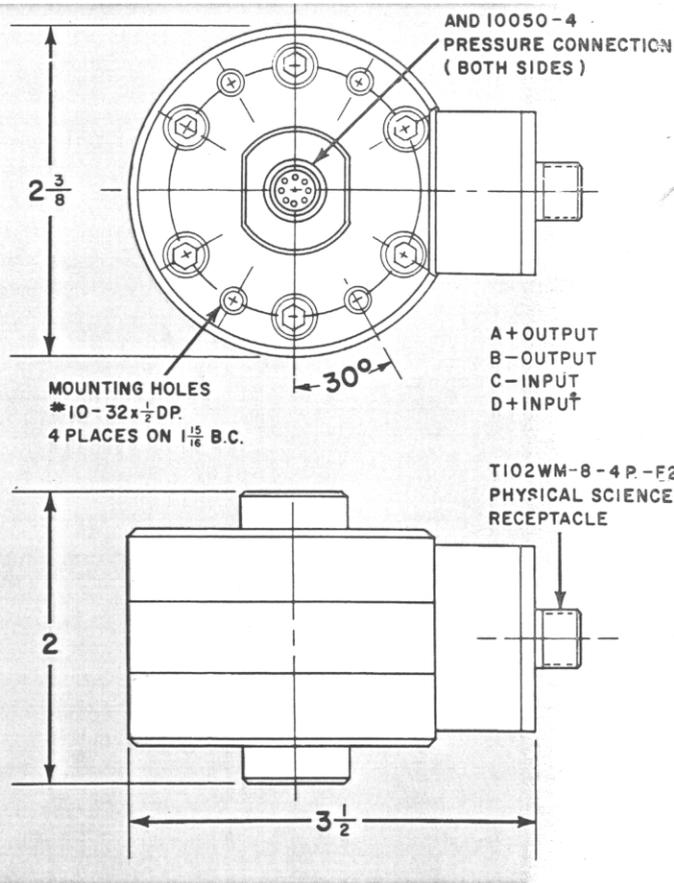
ELECTRICAL RECEPTACLE: Physical Science type TI02WM-8-4P-F2.

ENCLOSURE: Entire housing and pressure cavity is of stainless steel. All electrical components are sealed against adverse environmental conditions.

WEIGHT: Less than 32 ounces.

The Taber Instrument Corporation reserves the right to make changes without notice at any time in colors, materials, specifications and models, and also to discontinue models.

	Model or Cat. No.	Price
TELEDYNE Pressure Transducer - Standard - Sensitivity adjusted to 3.00 ± 0.015 mv/v, with input circuitry symmetrical, for double shunt calibration and common mode rejection—Calibration certificate supplied with each instrument giving millivolt output, at 6 points throughout range of instrument. Differential Pressure Ranges: ± 100 , ± 200 , ± 300 , ± 500 psid.	2102	Refer to Price List PL-100



	Model or Cat. No.	Price
TELEDYNE Pressure Transducer — Sensitivity Adjustment with input circuitry symmetrical, for double shunt calibration and common mode rejection to a value or tolerance other than that specified above..... additional cost Sensitivity Adjustment with input circuitry split, in order that output from standard shunt calibration resistors will track actual or theoretical Full Scale output through compensated temperature range...additional cost	2102	Refer to Price List PL-100
External Thread Pressure Cap per MS 33656-4		Refer to Price List PL-100
Mating Electrical Plug To mate with TI02WM-8-4P-F2	Bendix PCS06E-8-4S(R)	Refer to Price List PL-100

how to order

When ordering, be sure to specify the following: (1) Model number. (2) Pressure range. (3) Pressure connection. (4) Electrical receptacle and wiring. (5) Sensitivity adjustment. (6) Specifications: If standard specifications so state; if deviate from standard, list specific deviations. (7) List accessories (if any) such as mating electrical plug as separate items.

NOTE: Complete ordering information is necessary to permit prompt and efficient processing of order and insure that the order is filled correctly.

warranty

Taber Instrument warrants all parts and equipment supplied by it to be free from defects in workmanship or material under normal use and service. All such parts and equipment supplied subject to this warranty, and the Company's obligation thereunder is limited to repairing or replacing at its factory any part thereof which shall be returned, transportation charges prepaid, within one year from date of shipment, and which our examination shall disclose to our satisfaction to have been thus defective. This warranty is expressly in lieu of all other warranties expressed or implied, and of all obligations or liabilities on its part for damages following the use or misuse of the articles supplied. Any unauthorized disassembly or attempt at repair shall void this warranty. No agent is authorized to assume for it any liability except as set forth above.

Warranty specifications and qualitative calibration data, as supplied with each transducer, are based on tests performed on and values obtained with N.B.S. traceable laboratory standards and test equipment of the Taber Instrument Corporation.

service information

A complete department is maintained for recalibrating, repairing or rebuilding TELEDYNE Pressure Transducers. Instruments should be carefully packed and forwarded with a letter describing the malfunction to TABER INSTRUMENT CORPORATION, North Tonawanda, N. Y., U.S.A.