

Gozinta® Force Transducer

FEATURES

- Simple press fit mounting
- Stainless steel construction
- Hermetically sealed
- Corrosion resistant
- Low temperature sensitivity
- Field installable into existing structures
- Measures tension, compression, shear, bending, torsion
- Full double bridge configuration
- Single capacity for all applications

APPLICATIONS

- Agricultural equipment
- Rolling mill sensing
- Stamping press control
- Lift trucks
- Machine tool wear sensing
- Intrusion alarms
- Structural load measuring
- Moment sensing
- Tank weighing systems
- In-rail weighing systems

DESCRIPTION

An innovative approach to sensor design combined with proven strain gage technology has resulted in a small, accurate stainless steel sensor with wide-ranging application possibilities. The Gozinta® overcomes a



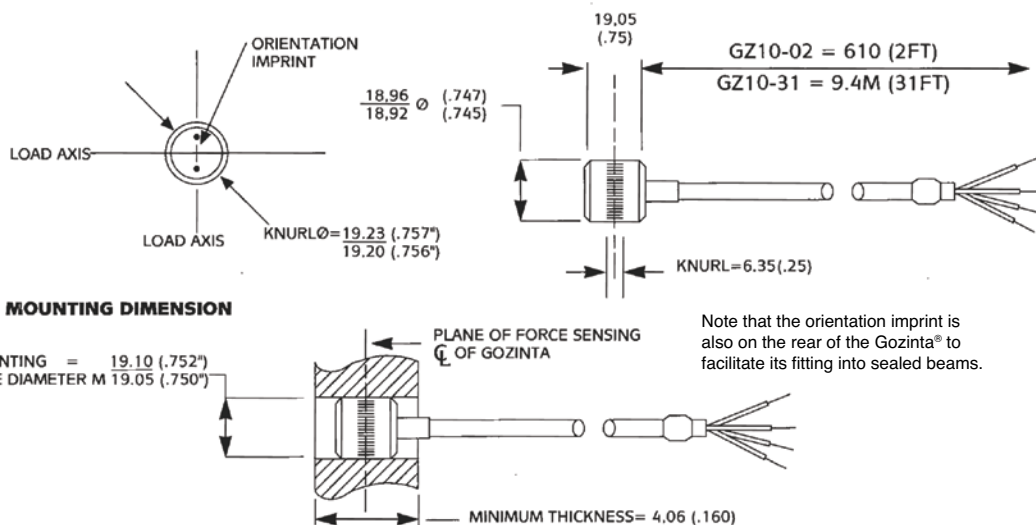
number of current sensor problems and limitations such as installation ease, size, load limit, location and operating temperature conditions. In addition, the Gozinta® has unchallenged application versatility and a wide range of machines, devices or structures can use Gozinta® sensors as a cost-effective, accurate solution to sensing needs.

The Gozinta® sensor is mounted into the machine or structure and the sensor's output can be calibrated to meet the system needs.

As a result, the maximum load of the system is determined by the structure, rather than by the sensor. Sensitivity to thermal effects is minimal due to the Gozinta®'s unique patented design.

The Gozinta® is configured with a full bridge circuit for low non-linearity, hysteresis and non-repeatability. A certain degree of care should be taken when positioning or locating the sensor in a structure. In addition, the number of sensors used in a structure, the amount of strain an individual Gozinta® senses, and the material of the structure will affect the overall accuracy. Installation is optimized through the use of specific installation tools, supported by extensive application notes.

OUTLINE DIMENSIONS in millimeters



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SPECIFICATIONS		
PARAMETER	VALUE	UNIT
Excitation voltage	up to 15	VAC/VDC
Zero balance	0.00±0.05 (Prior to installation)	mV/V
Bridge configuration	Full/Double bridge	
Input resistance	700±20	Ω
Output resistance	700±20	Ω
Insulation resistance	≥5000	MΩ
Nonlinearity	±1.0	% FS ¹
Hysteresis	±0.05	% FS ¹
Non-repeatability	±0.1	% FS ¹
Temperature coefficient: Output	0.036	% of reading/°C
Zero	0.35 (-1° to +45°C)	% FS/°C
Temperature range: Storage	-50 to +90	°C
Temperature range: Operating	-40 to +80	°C
Maximum safe output ⁽²⁾		
Tension	2.5	mV/V
Compression	2.5	mV/V
Shear	4.0	mV/V

⁽¹⁾ Specifications for the Gozinta® GZ-10 installed into a mild steel test block (90 x 38 x 305) and subjected to a tensile force of 24000N. Nominal output is 1mV/V. Other specifications are given for uninstalled GZ-10.

⁽²⁾ The maximum safe output for the Gozinta® based on 10⁴ full negative to full positive operating cycles (zero to minus to plus to zero).

Caution: The endurance limits of the beam must be determined separately.

All specifications subject to change without notice.

Wiring Schematic Diagram

