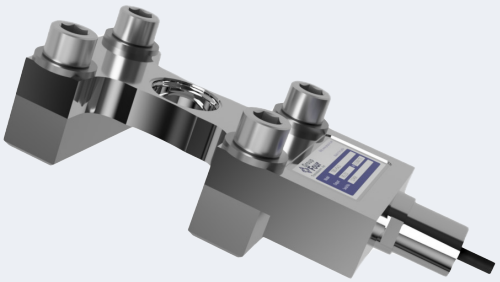
Group Four Transducers Inc

Pioneering Measured Solutions

digital special sensor

TIBD

The Type TIB Stainless steel sensor is ideal for bulk weighing, tank weighing, silo, hopper material measurement. Often referred to as extensometers, the TIB is designed to attach to the structure to measure load



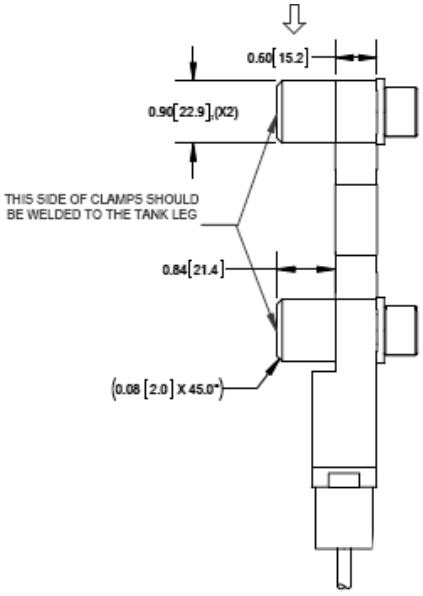
FEATURES

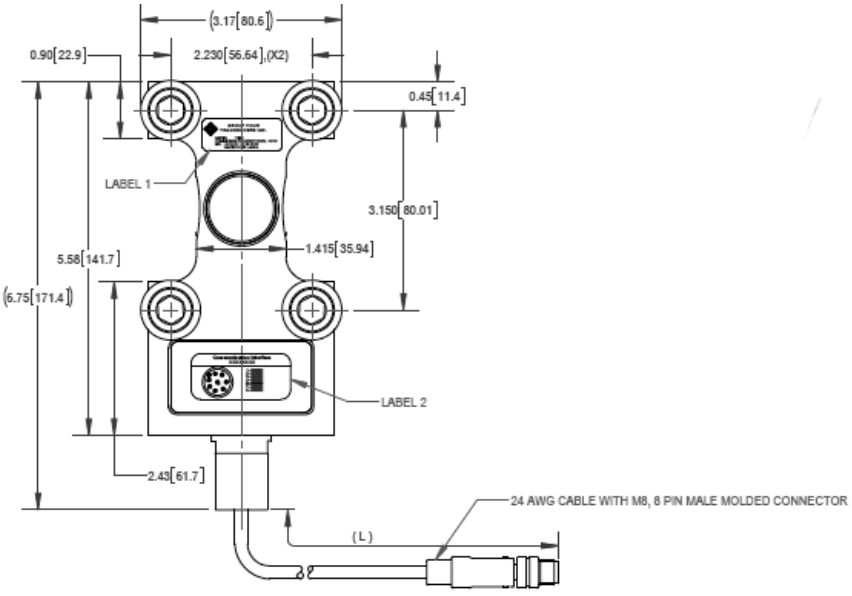
- Stainless steel construction
- Environmental protection IP69
- Digital output
- Output RS232 and RS485
- Special SWAGE clamp

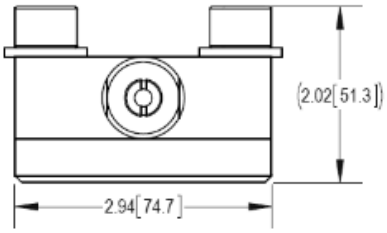
APPLICATIONS

- Tank weighing
- Silo weighing
- Hopper weighing
- Material elongation measurement
- Anti-overload applications
- Lift up instruments
- Retrofitting

OUTLINE DIMENSIONS







SPECIFICATIONS

Model	TIBD	
Capacities	klb	4.5
PERFORMANCES		
Combined error	%FS	≤±0.017
Creep @30min	%FS	≤±0.03
Zero balance, raw counts	increments	±2000
Output resolution at full load, raw counts	increments	512000
Internal AD conversion rate	upd./sec	1200
Fix, digital low pass IIR filter, default	Hz	18 (supress 50Hz and 60Hz influence)
Adjustable, digital low pass IIR filter Adjustable, digital low pass FIR filter	Hz	18-0.25; Selectable in 8 steps 40-5; Selectable in 8 steps
Adjustable, external output update rate	upd/sec	1200-9; selectable in 8 steps
GENERAL I/O'S		
Hardware interface, CAN version Hardware interface, RS version		CAN and RS232 RS485 and RS422 (both four wire)
Data transmission rates CAN Data transmission rates RS485/RS422/RS232	kb	125;250;500;1000 9,6; 19.2; 38.4; 57.6; 115.2; 230.4; 460.8
Protocol CAN Protocol RS485/RS422/RS232		CANopen ASCII or Modbus RTU
Power supply	VDC	+10-+30≤0.4 Watt
Cable length (L)	m	$5\ ^{+0.1}_{0}$
INFLUENCES		
Safe load limit	%*Emax	150
Ultimate load	%*Emax	300
Temperature effect on zero	%FS10ºC	≤±0.04
Temperature effect on span	%FS10ºC	≤±0.04
Temperature range	ºC	Operating: -10 to +40
EMC performance		MID Class E3 (Industrial locations)
I/O protection, all pins		Reversed polarity; Excess voltage and surge
Isolation body/Electronics at 500 VDC	GΩ	≥1
Environmental protection per IEC 529		IP69
Element material		All stainless steel

PIN CONFIGURATION

PIN NO	RS232 + CAN	RS485+RS422
1	GND1	GND1
2	PROGRAM	PROGRAM
3	CANH	Rx+
4	TRIGGER INPUT	TRIGGER INPUT
5	CANL	Rx-
6	RxD	Tx-
7	TxD	Tx+
8	PWR+	PWR+

PART NUMBER

Communication Interface	RS232+CAN	RS485+RS422
Group Four P/N	TIBD-RS232	TIBD-RS485

Notes:
1. Permissible deflection is 0.2mm
2. Postive loading direction is shown by arrows
3. Two clamps should be welded to the tank leg and load cell should not be installed until all welding is completed
4. Recommended bolt torque is 90 ftlb

8.27.21

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