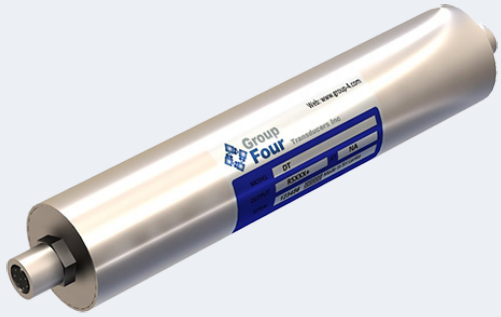
Group Four Transducers Inc

Pioneering | Measured | Solutions

digital load cell

DIGITAL TUBE DT-GEN/A

Group Four Transducers introduces your key to the digital world. Group Four's innovative Digital Tube technology enables you to convert any passive transducer into digital one. Ease of system integration with RS232+CAN open or RS485+Rs422 communication interface, simplifies connection to your PC, PLC or HMI.



FEATURES

- Analog Loadcell Capacity: No limit
- Input: -3.3 to +3.3 mV/V analog signal
- Stainless steel construction
- Environmental protection IP69
- AD conversion rate up to 1200upd/Sec
- Free professional software to set up digital tube

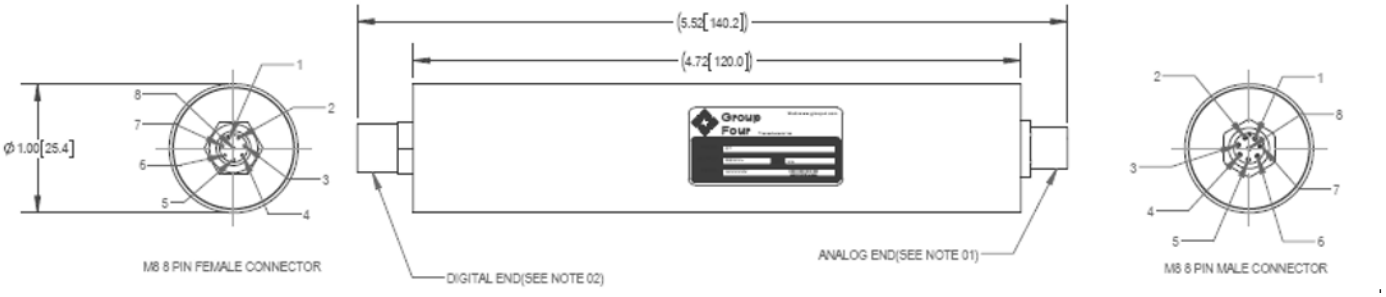
APPLICATIONS

- All types of analog load cells
- Miniature load cells like button type/donut type
- Weighbridge load cells

OPTIONS

- Communication Interface
- Gen (CAN + RS 232)
- A (RS485 + RS422)
- Load cells can be supplied with calibration certificates as per ASTM E74

DIMENSIONS



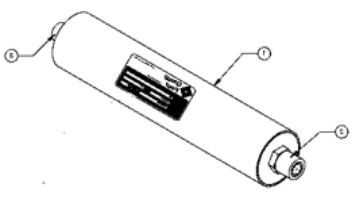


TABLE 01 : PART NUMBERS

ITEM NO	DESCRIPTION	DWG. NO	QTY
1	TUBE COVER	208772	1
2	M8 8 PIN FEMALE CONNECTOR	-	1
3	M8 8 PIN MALE CONNECTOR	-	1

TABLE 02 : M8 8 PIN FEMALE HEADER 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+

TABLE 03 : M8 8 PIN MALE HEADER PIN CONFIGURATION

PIN NO	ANALOG LOAD CELL CONNECTION
1	EXC+
2	EXC-
3	SIG+
4	SIG-
5	TEMP+
6	TEMP-
7	N/A
8	SHIELD

SPECIFICATIONS

Model	**Digital Tube**	
Analog load cell FSO	mV/V	-3.3 to +3.3
Output resolution at full load, raw counts	Increments	512000
Creep error (30 min)	%FS	≤0.017
Performances		
Fix digital low pass IIR filter, default	Hz	18 (suppress 50Hz and 60Hz influence)
Adjustable, digital low pass IIR filter	Hz	18-0.25; selectable in 8 steps
Adjustable, digital low pass FIR filter	Hz	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		CAN and RS232
Hardware interface, RS version		RS485 abd RS422 (both four wire)
Data transmission rate CAN	Kb	125:250:500:1000
Data transmission rates RS485/RS422/RS232	Kb	9.6;19.2;38.4;57.6;115.2;230.4;460.8
Protocol CAN		CANopen
Protocol RS485/RS422/RS232		ASCII or Modbus RTU
Logical Input, programmable		Trigger Level 2-30VDC, <3mA, Ref to Gnd
Power supply		VDC +10 -+30 ≤0.4 Watt
Influences		
Temperature range	°C	Operating: -10/+40
EMC performance		MID class E2 (Industrial locations)
I/O protection, all pins		Reversed polarity; Excess voltage and surge
Isolation body/ Electronics at 500 VDC	GΩ	≥1
Vibration		2.5G operational; 5G non-operational
Environmental protection per IEC 529		IP67
Corrosion resistance		Stainless Steel

PIN CONFIGURATION

M8 8 Pin female header pin configuration

Pin #	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+

M8 8 Pin male header pin configuration

PIN #	ANALOG LOAD CELL CONNECTION
1	EXC+
2	EXC-
3	SIG+
4	SIG-
5	TEMP+
6	TEMP-
7	N/A
8	SHIELD

PART NUMBERS

OPTION	COMMUNICATION INTERFACE	G4 PART NUMBER
GEN	RS232+CAN	DT-GEN
A	RS485+RS422	DT-A

3.10.21

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