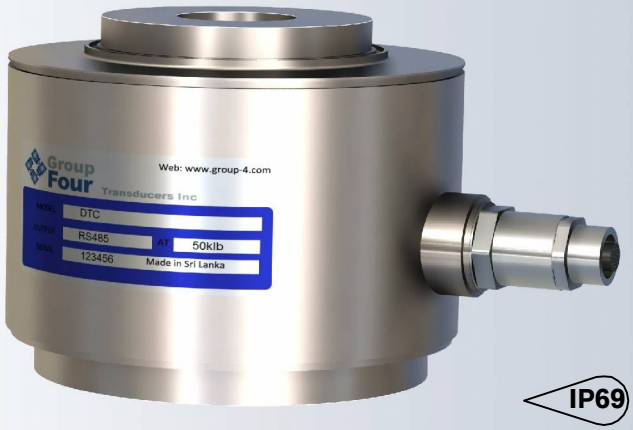
Group Four Transducers Inc

Pioneering Measured Solutions

column load cell

DTC 5043D

Digital column type load cell designed for tank weighing and force testing applications. The stainless steel load cell is hermetically sealed and is ideal for use in heavy wash down applications.



IP69

FEATURES

- Capacity range 1k-50k.
- Stainless steel construction.
- Environmental protection IP69.
- AD conversion rate up to 1200upd./sec.
- Free software for simple load cell set up and operation.

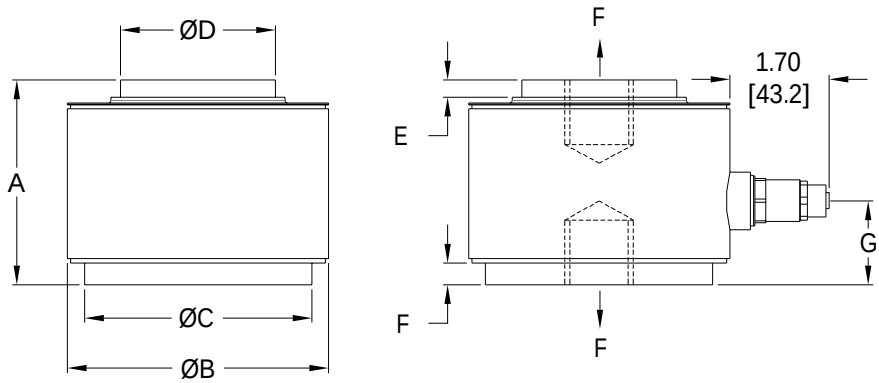
APPLICATIONS

- Aircraft weighing, Tank weighing, Truck scales, Digital force testers.

OPTIONS

- Load cells can be supplied with calibration certificates as per ASTM E74.

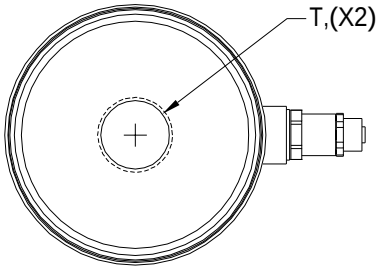
OUTLINE DIMENSIONS



NOTE:

POSITIVE LOADING DIRECTION IS SHOWN BY ARROWS.

M12, 8PIN MALE CONNECTOR TO OPEN ENDED, 6 FEET LONG MATING CABLE PROVIDED WITH THE LOAD CELL.



Capacity (klb)	A	B	C	D	E	F	G	T
10	2.51 [63.8]	3.48 [88.4]	2.53 [64.3]	1.25 [31.8]	0.12 [3.0]	0.12 [3.0]	1.00 [25.4]	5/8-18UNF-3B, 1.12[28.4]DP.
50	3.50 [88.9]	4.46 [113.3]	3.89 [98.8]	2.65 [67.3]	0.30 [7.5]	0.37 [9.4]	1.43 [36.4]	1-1/4-12UNF-3B 1.40[35.5]DP.

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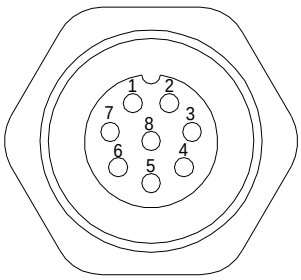
column load cell

DTC 5043D

WIRING

Female Connector Signal Electronics M12AF0008		
Pin No.	RS-232+CAN	RS-485+RS-422
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+

PIN CONFIGURATION



SPECIFICATIONS

Model	DTC		
Capacities (E_{max})	klb	10	50
PERFORMANCES			
Minimum Load Cell Verification Interval(V_{min})	g	E_{max}/10000	
Combined Error	%FS	≤±0.017	
Creep @ 30min	%FS	≤±0.017	
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 transm. 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	CAN Open ASCII or Modbus RTU		
Logical Input, Programmable	Trigger Level 2-30Vdc,<3mA,Ref to Gnd.		
Power supply	VDC	10-30 ≤ 0.4 Watt	
Connections	Standard 8 pin, female M12AF0008		
OPERATING SOFTWARE	Complete set-up, Calibration and load analysis program available		
INFLUENCES			
Safe Load Limit	%* E_{max}	140	
Ultimate Load	%* E_{max}	150	
Temperature Effect on Zero	%*E_{max}/10°C	0.01	
Temperature Effect on Span	%*E_{max}/10°C	0.01	
Temperature Range	°C	Operating: -10/+40 Storage: -40/+70	
I/O Protection, All Pins	Reversed Polarity; Excess Voltage and Surge		
Isolation Body/ Electronics at 500VDC	GΩ	≥1	
Vibration	2.5G Operational; 5G Non-Operational		
Environmental Protection	Body IP69; Connectors IP68		
Corrosion Resistance	Stainless Steel		

PART NUMBERS

Capacity(klb)	Option	Part No.
10	RS-232+CAN	5043D-000-00
50	RS-232+CAN	5043D-001-00

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Dimensions and specifications subject to change without notice

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