

6A SERIES 6-AXIS HIGH CAPACITY LOAD CELLS - Fx Fy Fz Mx My Mz (U.S. & METRIC)

FEATURES & BENEFITS

- 6-Axis – force and torque in all six axes
- Compact size
- Force and moment values MUST be calculated using supplied 72-term coefficient matrix
- Low crosstalk - <1%
- Temperature compensated
- Optional BX8 amplifier and software can be used for force and moment value calculation

Interface's 6-axis load cell measures forces simultaneously in three mutually perpendicular axes and three simultaneous torques about those same axes. 12 full bridges provide mV/V output on 12 independent channels.

Interface's 6-axis load cell is ideally suited to many industrial and scientific applications, such as aerospace, robotics, automotive and medical research (orthopedics and biomechanical).

A 72-term coefficient matrix is included for calculating the load and torque values in each axis.

Interface's BX8 Amplifiers including BlueDAQ software greatly simplify the data acquisition process.

CHARACTERISTICS

See Drawing	MODEL			
	6A225			6A300
	A	B	C	A
Fx (N)	50K	100K	200K	400K
Fy (N)	50K	100K	200K	400K
Fz (N)	100K	250K	500K	800K
Mx (Nm)	10K	15K	20K	40K
My (Nm)	10K	15K	20K	40K
Mz (Nm)	10K	15K	20K	40K
Diameter (mm)	225			300
Height (mm)	140			175
Weight (kg)	24			25
Material	Stainless steel with stainless steel housing			
Protection (IP)	65			65

STANDARD CONFIGURATION



Model 6A225 (Shown)

SPECIFICATIONS

ACCURACY – (MAX ERROR)		
Nonlinearity – %FS		± 0.2%
Hysteresis – %FS		± 0.2%
Creep, in 20 min – %		± 0.1
TEMPERATURE		
Effect on Zero – %RO / deg	°C	± 0.01
Effect on Output – % / deg	°C	± 0.05
Compensated Range	°C	-10 to +70
	°F	+14 to +158
Operating Range	°C	-10 to +85
	°F	+14 to +185
ELECTRICAL		
Rated Output – mV/V (Nominal)		±0.4
Excitation Voltage – V MAX		5
Crosstalk – %		±1
Zero Balance – mV/V		< 2
Input Resistance – Ω		350
Tolerance Input Resistance – Ω		50
Output Resistance – Ω		350
Tolerance Output Resistance – Ω		20
MECHANICAL		
Safe Overload – %CAP		150
Ultimate Overload – %RO		300
Cable Length	m	5
	ft	16.4

Note: Higher capacities available upon request

U.S. dimensions and capacities are provided for conversion only. Standard product will be sold in kN and Metric dimensions. U.S. capacities available upon special request and at an additional cost.

6A300 6-AXIS HIGH CAPACITY LOAD CELL (U.S. & METRIC)

STANDARD CONFIGURATION



Model 6A225 (Shown)

DIMENSIONS

See Drawing	Metric	U.S.
	mm	in
(1)	2x $\varnothing 12$ E7 $\downarrow 18$ $\oplus 0.02/A/B$	2x $\varnothing 0.47$ E7 $\downarrow 0.7$ $\oplus 0.0007/A/B$
(2)	12x M20 x 2.5 $\downarrow 25 \sphericalangle 118^\circ$	12x M20 x 2.5 $\downarrow 0.98 \sphericalangle 118^\circ$
(3)	$\varnothing 225$	$\varnothing 8.85$
(4)	$\varnothing 215$	$\varnothing 8.46$
(5)	$\varnothing 180$	$\varnothing 7.08$
(6)	$\varnothing 145$ H8 $\downarrow 4$	$\varnothing 5.7$ H8 $\downarrow 0.15$
(7)	2x $\varnothing 12$ E7 $\downarrow 18$ $\oplus 0.02/C/D$	2x $\varnothing 0.47$ E7 $\downarrow 0.7$ $\oplus 0.0007/C/D$
(8)		30°
(9)		45°
(10)	58	2.28
(11)	140	5.51
(12)	224.5	8.83
(13)	5	0.19

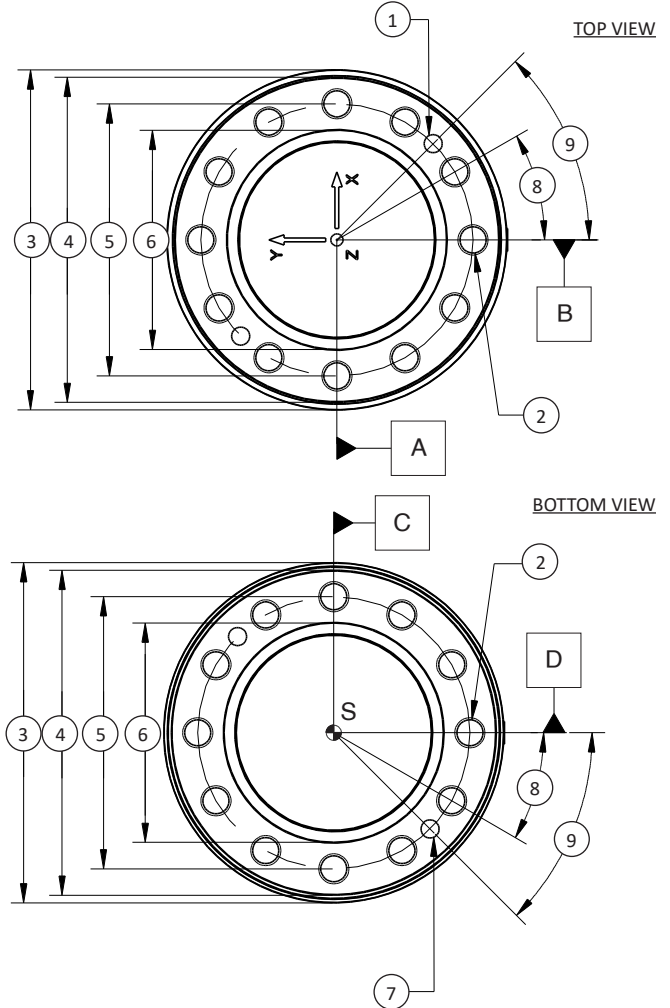
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APPLICATIONS

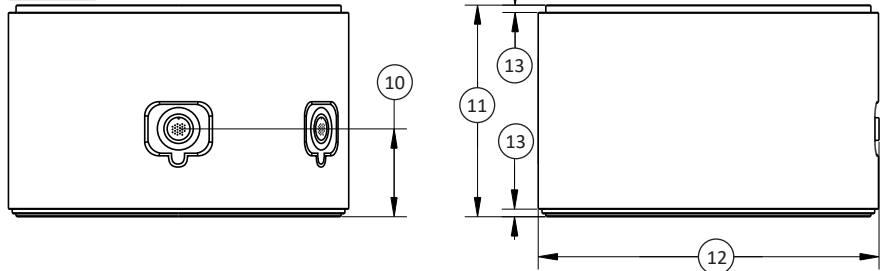
- Automation and robotics

CONNECTOR

- 2x integrated round plug connector (UP13), 27-pole, male



SIDE VIEW



6A300 6-AXIS HIGH CAPACITY LOAD CELL (U.S. & METRIC)

STANDARD CONFIGURATION



Model 6A300 (Shown)

DIMENSIONS

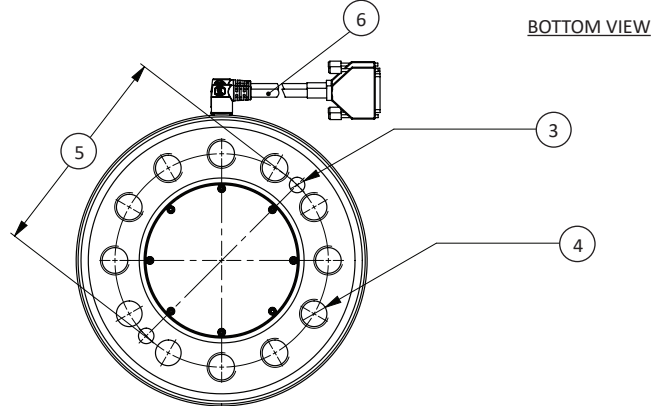
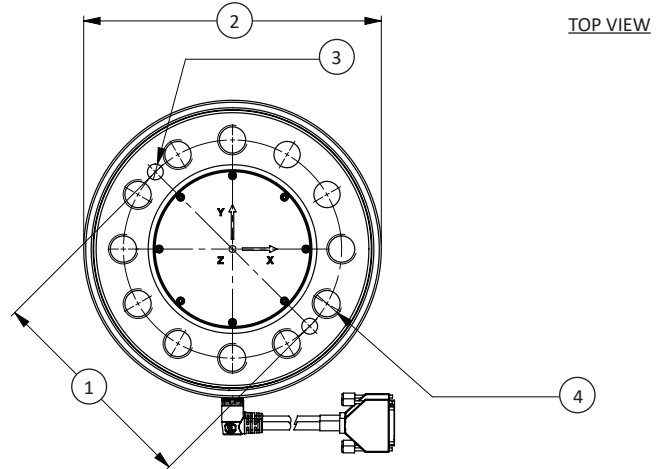
See Drawing	Metric	U.S.
	mm	in
(1)	$\varnothing 220 +0.02$	$\varnothing 8.66 +0.0007$
(2)	$\varnothing 300$	$\varnothing 11.81$
(3)	2x $\varnothing 16 E7 \downarrow 30$	2x $\varnothing 0.62 E7 \downarrow 1.18$
(4)	12x $\varnothing 26.50 \downarrow 50$ M30 - 6H $\downarrow 45$	12x $\varnothing 1.04 \downarrow 1.96$ M30 - 6H $\downarrow 1.77$
(5)	$\varnothing 220 \pm 0.02$	$\varnothing 8.66 +0.0007$
(6)	Cable Length 5m	Cable Length 16.4ft
(7)	175	6.88
(8)	349	13.74
(9)	46	1.811
(10)	80	3.14
(11)	49	1.92

APPLICATIONS

- Automation and robotics

CONNECTOR

- 2x integrated round plug connector (UP13), 27-pole, male



SIDE VIEW

