

Model 8691

6-Axis Force/Torque Transducers

Description

Model 8691 is designed as a 6-axis force/torque transducer, which measures the force/torque and decouple it into three force components (F_x , F_y , F_z) and three torque components (M_x , M_y , M_z) simultaneously.

This 8691 transducer is mostly used to make analysis of direction and magnitude of force and torque, and has found a wide range of applications, such as robotics or test of unknown force/torque.

Thanks to advanced strain gauge technology from BCM SENSOR, it ensures the 8691 transducers to deliver stable and accurate measuring results. To compliant with hush environment, model 8691 transducers are made from stainless steel and equipped with IP66 connector as its electrical interface. Integrated with delegated sensor signal conditioning (SSC) circuitry, the 8691 transducer can have its output signal either of RS485 with one 5-pin connector or of mV/V analogue with six 4-pin connectors.

In addition, the 8691 transducer can be integrated with TEDS (transducer electronic data sheet) on request, by which it can be easily recalibrated on site without using conventional calibration facility.



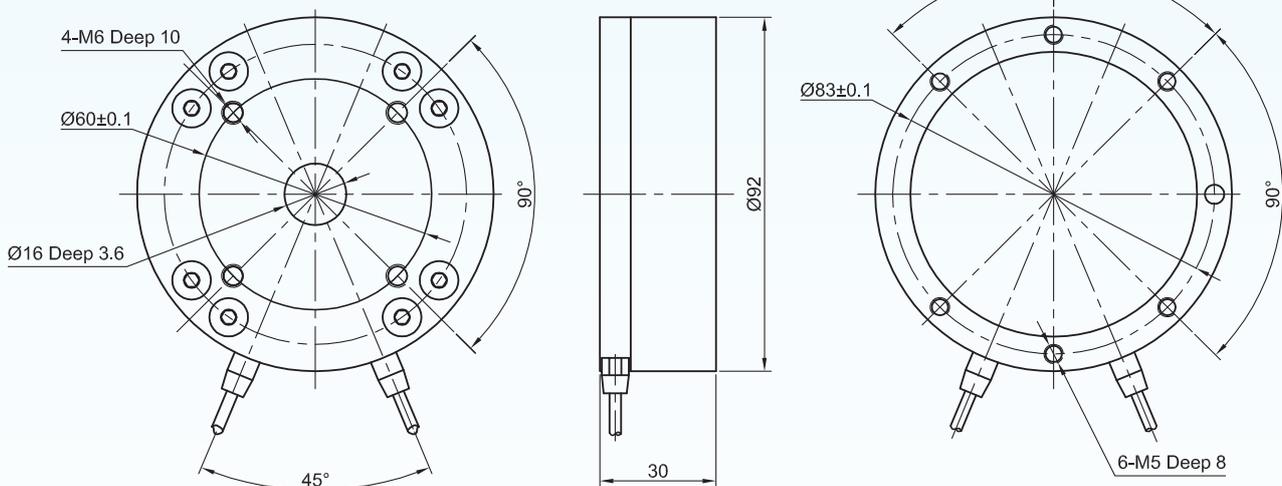
Features

- measuring 6-axis simultaneously
- TEDS available on request
- accuracy up to 1%fs
- robust design
- IP66 rating

Applications

- unknown force and torque analysis
- robotic system test
- industrial robotics
- automotive components and systems

Dimensions



Note: All dimensions are in mm.

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Technical Data

Parameters		Units	Specifications
capacity	Fx, Fy	kN	0.5
	Fz	kN	2
	Mx, My, Mz	Nm	50
safe load limit		%fs	300
ultimate overload		%fs	500
output signal (O/P)	bridge circuit O/P	mV/V	≥3
	conditioned O/P		RS485
zero unbalance		%fs	≤±5
accuracy		%fs	±1
excitation (supply voltage)		Vdc	10
max. excitation voltage		Vdc	15
input resistance		Ω	700±20
output resistance		Ω	700±20
insulation resistance		MΩ	≥5000 @100Vdc
storage temp. range		°C	-35 ~ +60
operating temp. range		°C	-20 ~ +60
compensated temp. range		°C	-10 ~ +40
temp. coefficient of sensitivity		%fso/°C	≤±0.005
temp. coefficient of zero		%fso/°C	≤±0.005
load cell body material			17-4ph stainless steel
sealing			sealing ring with fastened screws
mechanical interface			refer to the dimensions on the datasheet
electrical interface	bridge circuit O/P		six 4-pin connectors with six detachable cable of the matting connector, cable jacket material = silicone rubber, cable length = 3m.
	conditioned O/P		one 5-pin connector with one detachable cable of the matting connector, cable jacket material = silicone rubber, cable length = 3m.
environment protection			IP65 (standard), IP66
unit weight		kg	~1.5

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