PRODUCT DATASHEET

ES-SN-C30-S001-V009

Industrial Sensing Component

Six Axis Force Sensors | Six Axis Force Sensor Series

Product Overview

Industrial Sensing Component with torque Range (Mz) 150 N·m, torque Range (Mxy) 150 N·m and force Range (Fxy) 3000 N.

Key Specifications

PARAMETER	VALUE	UNIT
Torque Range (Mz)	150	N·m
Torque Range (Mxy)	150	N·m
Force Range (Fxy)	3000	N
Measurement Axes	6	axes
Communication Interface	Ethernet; EtherCAT; RS-485; analog output	
Operating Temperature	-10 to +55	°C
Power Consumption	0.5	W
Force Range (Fz)	4000	N
Mass	1450	g

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Nonlinearity	2	%FS
Resolution (Mxy)	0.01	%FS
Resolution (Fz)	0.02	%FS
Resolution (Fxy)	0.02	%FS
Resolution (Mz)	0.01	%FS
Axis Crosstalk	2	%FS
Overload Capacity	350	%
ELECTRICAL		
Communication Interface	Ethernet	
	EtherCAT	
	RS-485	
	Analog output	
Power Consumption	0.5	W
Maximum Output Data Rate	2000	Hz

Technical Specifications

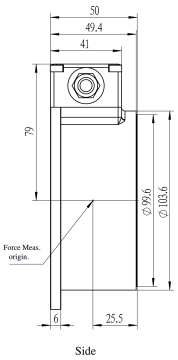
PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
External Connector Type	Cold-pressed terminal	
MECHANICAL		
Mass	1450	g
Housing Material	Aluminum Alloy	
ENVIRONMENTAL		
Operating Temperature	-10 to +55	°C
Ingress Protection	IP65; IP67 customization available	
CONFIGURATION		
Dimensions	142 × 126 mm (diameter) × 50 mm	
System Architecture	Digital output with adapter	
ADDITIONAL SPECIFICATIONS		
Torque Range (Mz)	150	N·m
Torque Range (Mxy)	150	N·m
Force Range (Fxy)	3000	N
Measurement Axes	6	axes
Force Range (Fz)	4000	N
Supply Voltage	12-24	VDC

Dimensional & Integration Overview

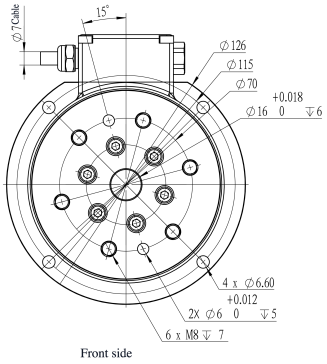
Mechanical Overview

PARAMETER	VALUE	UNIT
Mass	1450	g
Housing Material	Aluminum Alloy	
Dimensions	142 × 126 mm (diameter) × 50 mm	

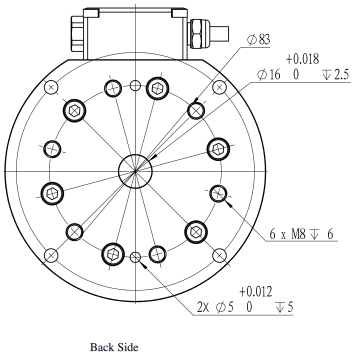
Dimensional Drawings



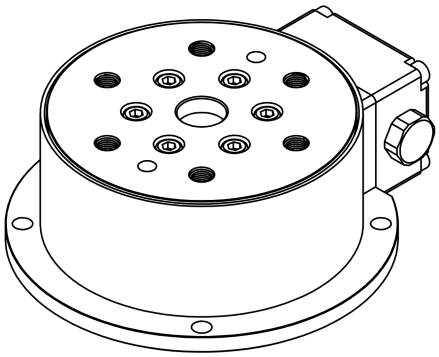
Mechanical View 1



Mechanical View 2



Mechanical View 3



Mechanical View 4

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Top overall width	50 mm
	Top inner width	49.4 mm
	Top mounting block span	41 mm
	Left side height	79 mm
	Main body outside diameter	Diameter 99.6 mm
	Maximum outside diameter	Diameter 103.6 mm
	Left bottom thickness	6 mm
	Right bottom offset	25.5 mm
	View label	Side view
Mechanical View 2	Angular offset	15 degrees
	Outer diameter	Diameter 126
	Mounting bolt circle diameter	Diameter 115
	Inner feature circle diameter	Diameter 70
	Hole diameter with unilateral tolerance and depth	Diameter 16, tolerance +0.018/0, depth 6
	Four through-hole diameter	4 holes diameter 6.60
	Two holes diameter with unilateral tolerance and depth	2 holes diameter 6, tolerance +0.012/0, depth 5
	Threaded mounting holes and depth	6 threaded holes M8, depth 7
	View label	Front side view

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 3	Outer diameter	Diameter 83
	Locating hole diameter and depth	Diameter 16, tolerance +0.018/0, depth 2.5
	Threaded mounting holes and depth	6 holes, M8 thread, depth 6
	Dowel/pin hole diameter and depth	2 holes, diameter 5, tolerance +0.012/0, depth 5
	View label	Back side view

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01 Specifications are subject to change without notice. Verify the current product configuration before final design release.

02 2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.