

PRODUCT DATASHEET

ES-SN-C30-S001-V002

Industrial Sensing Component

Six Axis Force Sensors | Six Axis Force Sensor Series

Product Overview

Industrial Sensing Component with torque Range (Mz) 15 N·m, torque Range (Mxy) 15 N·m and force Range (Fxy) 600 N.

Key Specifications

PARAMETER	VALUE	UNIT
Torque Range (Mz)	15	N·m
Torque Range (Mxy)	15	N·m
Force Range (Fxy)	600	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)	800	N
Mass	255	g

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Nonlinearity	1.25	%FS
Resolution (Mxy)	0.01	%FS
Resolution (Fz)	0.01	%FS
Resolution (Fxy)	0.01	%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

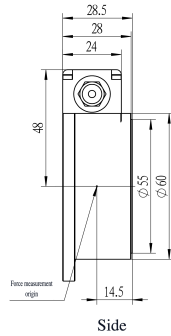
PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
External Connector Type	Cold-pressed terminal	
MECHANICAL		
Mass	255	g
Housing Material	Alloy Steel and Aerospace Aluminum	
ENVIRONMENTAL		
Operating Temperature	-10 to +55	°C
Ingress Protection	IP65; IP67 customization available	
CONFIGURATION		
Dimensions	87 × 78 mm (diameter) × 28.5 mm	
System Architecture	Digital output with adapter	
ADDITIONAL SPECIFICATIONS		
Torque Range (Mz)	15	N·m
Torque Range (Mxy)	15	N·m
Force Range (Fxy)	600	N
Measurement Axes	6	axes
Force Range (Fz)	800	N
Supply Voltage	12-24	VDC

Dimensional & Integration Overview

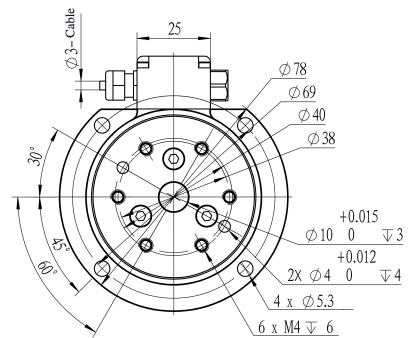
Mechanical Overview

PARAMETER	VALUE	UNIT
Mass	255	g
Housing Material	Alloy Steel and Aerospace Aluminum	
Dimensions	87 × 78 mm (diameter) × 28.5 mm	

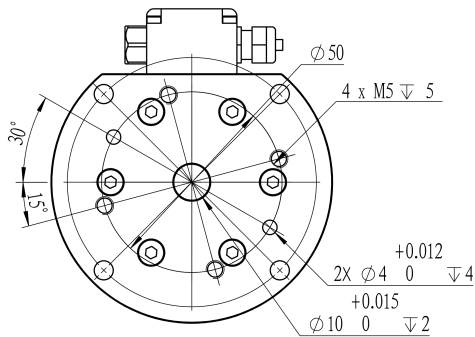
Dimensional Drawings



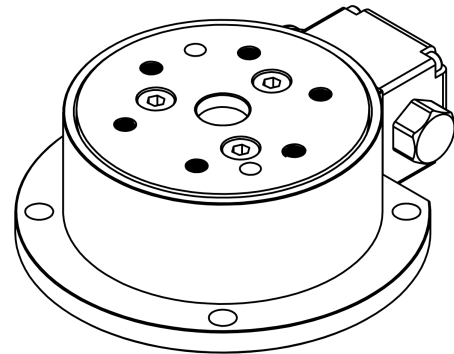
Mechanical View 1



Mechanical View 2



Mechanical View 3



Mechanical View 4

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Top maximum width	28.5 mm
	Top intermediate width	28 mm
	Top inner width	24 mm
	Upper body height	48 mm
	Inner cylindrical diameter	Diameter 55 mm
	Outer cylindrical diameter	Diameter 60 mm
	View name	Side view

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 2	Top body width	25
	Outer diameter	Diameter $\Phi 78$
	Mounting circle diameter	Diameter $\Phi 69$
	Inner circular feature diameter	Diameter $\Phi 40$
		Diameter $\Phi 38$
	Hole angular spacing	30 degrees
		45 degrees
		60 degrees
	Central hole diameter with tolerance and depth	$\Phi 10$, tolerance +0.015/0, depth 3
	Two holes diameter with tolerance and depth	2X $\Phi 4$, tolerance +0.012/0, depth 4
Mechanical View 3	Through hole specification	4 x $\Phi 5.3$ through holes
	Threaded hole specification	6 x M4 threaded holes; depth Not specified from OCR
	Outer diameter	Diameter 50
	Threaded mounting holes and depth	4 x M5 threaded holes, depth 5
	Hole pattern angle	30 degrees
		15 degrees
	Dowel hole diameter, tolerance and depth	2 holes, diameter 4, tolerance +0.012/0, depth 4
	Center hole diameter, tolerance and depth	Diameter 10, tolerance +0.015/0, depth 2

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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.