

PRODUCT DATASHEET

ES-SN-C30-S001-V003

Industrial Sensing Component

Six Axis Force Sensors | Six Axis Force Sensor Series

Product Overview

Industrial Sensing Component with torque Range (Mz) 30 N·m, torque Range (Mxy) 30 N·m and force Range (Fxy) 1000 N.

Key Specifications

PARAMETER	VALUE	UNIT
Torque Range (Mz)	30	N·m
Torque Range (Mxy)	30	N·m
Force Range (Fxy)	1000	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)	1400	N
Mass	502	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

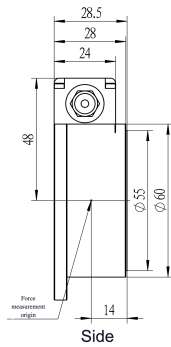
PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
External Connector Type	Cold-pressed terminal	
MECHANICAL		
Mass	502	g
Housing Material	Stainless Steel	
ENVIRONMENTAL		
Operating Temperature	-10 to +55	°C
Ingress Protection	IP65; IP67 customization available	
CONFIGURATION		
Dimensions	87 × 78 mm (diameter) × 28.5 mm	
System Architecture	Digital output with adapter	
ADDITIONAL SPECIFICATIONS		
Torque Range (Mz)	30	N·m
Torque Range (Mxy)	30	N·m
Force Range (Fxy)	1000	N
Measurement Axes	6	axes
Force Range (Fz)	1400	N
Supply Voltage	12-24	VDC

Dimensional & Integration Overview

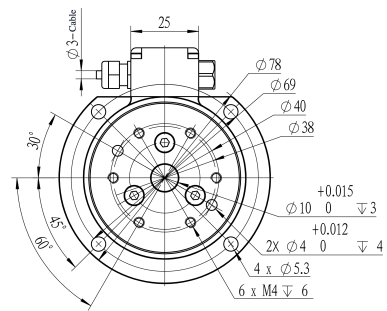
Mechanical Overview

PARAMETER	VALUE	UNIT
Mass	502	g
Housing Material	Stainless Steel	
Dimensions	87 × 78 mm (diameter) × 28.5 mm	

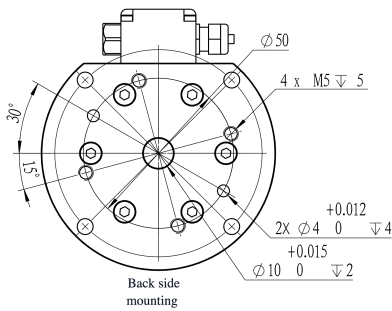
Dimensional Drawings



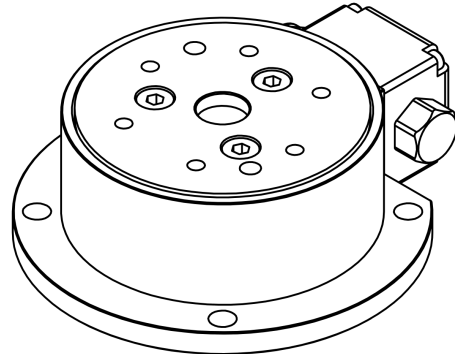
Mechanical View 1



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
	Inner cylindrical diameter	Diameter 55 mm
	Outer cylindrical diameter	Diameter 60 mm
	Bottom horizontal offset distance	14 mm
	View label	Side view
Mechanical View 2	Top feature width	25
	Outer diameter	Diameter 78
	Mounting hole pitch circle diameter	Diameter 69
	Inner circular step diameter	Diameter 40
	Inner diameter	Diameter 38
	Hole angular spacing	30 degrees
	Central hole diameter and tolerance	Diameter 10, tolerance +0.015/0, surface finish $\nabla 3$
	Hole angular spacing	45 degrees
	Two hole diameter and tolerance	2x diameter 4, tolerance +0.012/0, surface finish $\nabla 4$

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 3	Mounting hole pitch circle diameter	Diameter 50
	Back mounting tapped holes	4 × M5 tapped holes, depth 5
	Angular spacing dimension	30 degrees
		15 degrees
	Dowel/pin hole diameter and tolerance	2 × diameter 4, upper tolerance +0.012, lower tolerance 0, finish/depth mark 4
	Central hole diameter and tolerance	Diameter 10, upper tolerance +0.015, lower tolerance 0, finish/depth mark 2
	View label	Backside mounting 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.