

PRODUCT DATASHEET

ES-SN-C30-S001-V007

Industrial Sensing Component

Six Axis Force Sensors | Six Axis Force Sensor Series

Product Overview

Industrial Sensing Component with torque Range (Mz) 60 N·m, torque Range (Mxy) 60 N·m and force Range (Fxy) 1800 N.

Key Specifications

PARAMETER	VALUE	UNIT
Torque Range (Mz)	60	N·m
Torque Range (Mxy)	60	N·m
Force Range (Fxy)	1800	N
Measurement Axes	6	axes
Communication Interface	Ethernet; EtherCAT; RS-485; analog output	
Operating Temperature	-10 to +55	°C
Power Consumption	1.5	W
Force Range (Fz)	2400	N
Mass	488	g

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Nonlinearity	0.5	%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	1.5	W
Maximum RS-485 Output Data Rate	2200	Hz

Technical Specifications

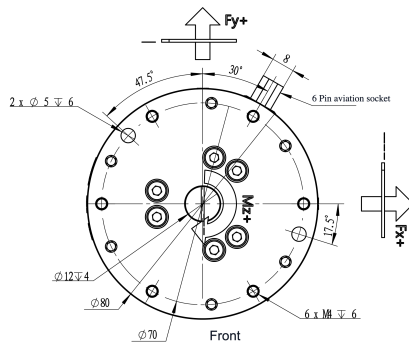
PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Maximum Output Data Rate	2700	Hz
External Connector Type	Cold-pressed terminal	
MECHANICAL		
Mass	488	g
Housing Material	Aluminum Alloy	
ENVIRONMENTAL		
Operating Temperature	-10 to +55	°C
Ingress Protection	IP64; IP67 customization available	
CONFIGURATION		
System Architecture	Digital output with adapter	
Dimensions	26 × 80 (diameter)	mm
ADDITIONAL SPECIFICATIONS		
Torque Range (Mz)	60	N·m
Torque Range (Mxy)	60	N·m
Force Range (Fxy)	1800	N
Measurement Axes	6	axes
Force Range (Fz)	2400	N

Dimensional & Integration Overview

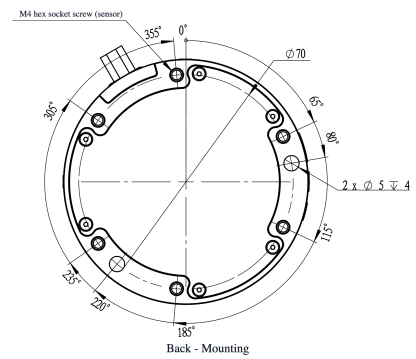
Mechanical Overview

PARAMETER	VALUE	UNIT
Mass	488	g
Housing Material	Aluminum Alloy	
Dimensions	26 × 80 (diameter)	mm

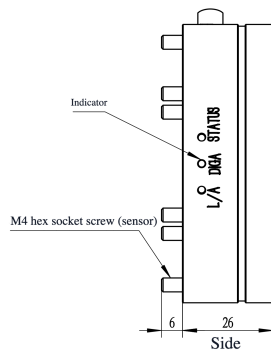
Dimensional Drawings



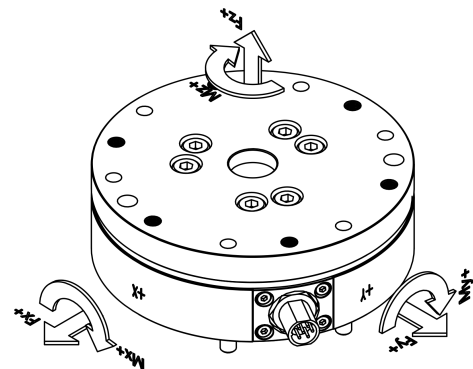
Mechanical View 1



Mechanical View 2



Mechanical View 3



Slfx

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Positive Y force direction label	Fy+ positive force direction
	Angular position	30 degrees angular position
	Two diameter 5 holes depth 6	2 x Ø5 holes, depth 6
	Positive Z moment direction label	Mz+ positive moment direction
	Angular position	17.5 degrees angular position
	Positive X force direction label	Fx+ positive force direction
	Diameter 12 hole depth 4	Ø12 hole, depth 4
	Outer diameter	Ø80 outer diameter
	Six M4 threaded holes depth 6	6 x M4 threaded holes, depth 6
	Bolt circle diameter	Ø70 bolt circle diameter
	View name	Front view

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 2	Sensor supplied screw note	M4 hex socket screw supplied with sensor
	Angular zero reference position	0 degrees angular reference
	Mounting angular position	355 degrees
	Outer diameter	Diameter 70 mm
	Mounting angular position	305 degrees
		80 degrees
	Two diameter 5 holes depth 4	2 holes, diameter 5 mm, depth 4 mm
	Mounting angular position	115 degrees
		220 degrees
		185 degrees
	View title	Back mounting face view
Mechanical View 3	Indicator label	Indicator
	M4 hex socket screw supplied with sensor	
	Side body thickness	26 mm
	Side protruding mounting length	6 mm
	View label	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.