

PRODUCT DATASHEET

ES-SN-C18-S002-V002

80 mm Industrial Sensing Component

Joint Torque Sensors | Joint Torque Sensor Series

Product Overview

80 mm Industrial Sensing Component with accuracy 0.2 %FS, resolution 0.06 %FS and weight 282 g.

Key Specifications

PARAMETER	VALUE	UNIT
Accuracy	0.2	%FS
Resolution	0.06	%FS
Weight	282	g
Nonlinearity	0.1%FS	
Body Outer Diameter	80	mm
Axial Load Capacity	≤500 / 500	N
Bending Moment Capacity	≤50 / 50	N·m
Input Impedance	700 Ω	
Material	Alloy steel	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Nonlinearity	0.1%FS		
Axial Load Capacity	≤500 / 500	N	
Bending Moment Capacity	≤50 / 50	N·m	
Radial Load Capacity	≤500 / 500	N	
Overload Capacity	350 %FS		
Measurement Resolution	0.06 %FS		
Orthogonality Error	1	%FS	
Measurement Repeatability	0.1%FS		
Measurement Accuracy	0.2%FS		
Zero Drift	0.008 %FS		Interval: 10min; Test Condition: constant temperature
ELECTRICAL			
Sensitivity	1.45±0.02mV/V		
Output Impedance	700 Ω		
Recommended Supply Voltage	6	V DC	

Technical Specifications

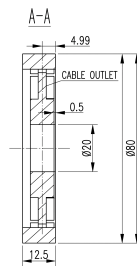
PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Input Impedance	700 Ω	
MECHANICAL		
Weight	282	g
Body Outer Diameter	80	mm
Torsional Stiffness	186500 Nm/rad	
Material	Alloy steel	
ENVIRONMENTAL		
Temperature Zero Drift	0.005 %FS/10°C	
ADDITIONAL SPECIFICATIONS		
Accuracy	0.2	%FS
Resolution	0.06	%FS
Nonlinearity	0.1	%FS
Protection Rating	IP65	
Repeatability	0.1	%FS
Measuring Range	180	Nm

Dimensional & Integration Overview

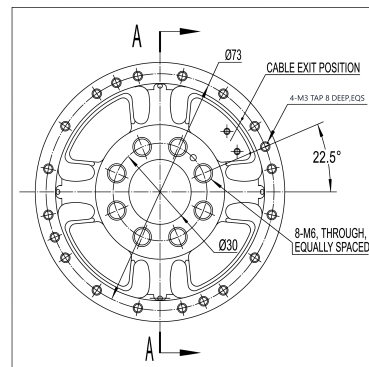
Mechanical Overview

PARAMETER	VALUE	UNIT
Weight	282	g
Body Outer Diameter	80	mm
Torsional Stiffness	186500 Nm/rad	
Material	Alloy steel	

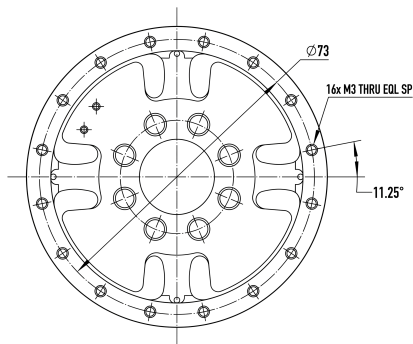
Dimensional Drawings



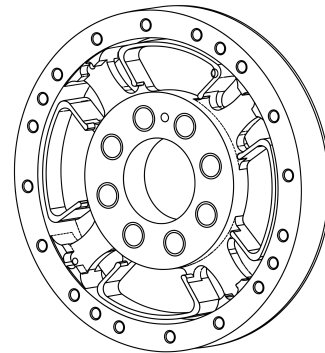
Mechanical View 1



Mechanical View 2



Mechanical View 3



Mechanical View 4

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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.