PRODUCT DATASHEET

ES-SN-C00-S004-V004

Industrial Sensing Component

Multidimensional Tactile Sensors | Core Multidimensional Tactile Sensor Series

Product Overview

Industrial Sensing Component with measurement Accuracy 1 %FS, operating Temperature 0-50 °C and dimensions 30 × 13 × 10 mm.

Key Specifications

PARAMETER	VALUE	UNIT
Measurement Accuracy	1	%FS
Operating Temperature	0-50	°C
Dimensions	30 × 13 × 10	mm
Stray Magnetic Field Resistance	Chip-level magnetic resistance	
Flame Retardancy Rating	V-0 (UL94)	
Force Signals in Array	96	signals
Ingress Protection Rating	IP68	
Maximum Operating Current	300	mA
Maximum Output Frequency	1,000	Hz

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Measurement Repeatability	<0.5	%FS
Spatial Resolution	0.1	mm
Minimum Detectable Force	0.01	N
ELECTRICAL		
Maximum Operating Current	300	mA
Force Signals in Array	96	signals
Measurement Sampling Frequency	1,000,000	Hz
Measurement Output	Triaxial force array, triaxial resultant force, and triaxial torque	
Maximum Output Frequency	1,000	Hz
Maximum Tactile Signal Channels	Up to 717	channels
Torque Sensing	Any-point rotation-axis sensing supported	
MECHANICAL		
Surface Coverage	Front face and side curved edges	
INTERFACES		
Measurement Accuracy	1	%FS

Technical Specifications

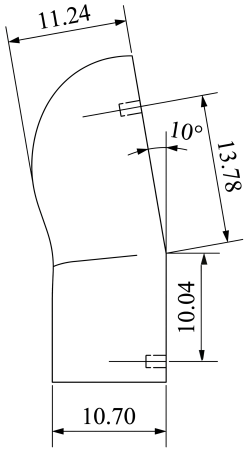
PARAMETER	SPECIFICATION	UNIT
ENVIRONMENTAL		
Operating Temperature	0-50	°C
Overload Temperature	-20-120	°C
Stray Magnetic Field Resistance	Chip-level magnetic resistance	
Flame Retardancy Rating	V-0 (UL94)	
SAFETY		
Ingress Protection Rating	IP68	
RELIABILITY		
Mechanical Cycle Life	>10 million measurement	cycles
Shock Overload	300	%
Safe Load	200	%
CONFIGURATION		
Dimensions	30 × 13 × 10	mm
ADDITIONAL SPECIFICATIONS		
Normal Force Range (Fz)	0-25	N
Tangential Force Range (Fxy)	±10	N

Dimensional & Integration Overview

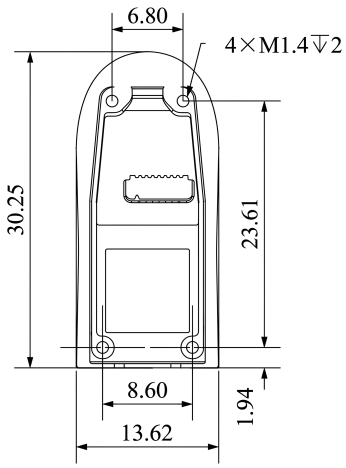
Mechanical Overview

PARAMETER	VALUE	UNIT
Surface Coverage	Front face and side curved edges	
Dimensions	30 × 13 × 10	mm

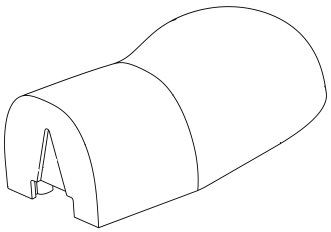
Dimensional Drawings



Mechanical View 1



Mechanical View 2



Mechanical View 3

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Top width	Top width 11.24 mm
	Side inclination angle	Side inclination angle 10 degrees
	Upper side vertical extent	Upper side vertical extent 13.78 mm
	Middle vertical extent	Middle vertical extent 10.04 mm
	Bottom width	Bottom width 10.70 mm
Mechanical View 2	Upper mounting hole center distance	Upper mounting hole center distance 6.80 mm
	Mounting threaded hole specification and quantity	4 places M1.4 threaded holes, depth 2 mm
	Overall height	Overall height 30.25 mm
	Mounting hole vertical center distance	Mounting hole vertical center distance 23.61 mm
	Lower mounting hole center distance	Lower mounting hole center distance 8.60 mm
	Bottom vertical offset	Bottom vertical offset 1.94 mm
	Overall width	Overall width 13.62 mm

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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.