PRODUCT DATASHEET

ES-SN-C00-S004-V005

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 23 × 24 × 8 mm.

Key Specifications

PARAMETER	VALUE	UNIT
Measurement Accuracy	1	%FS
Operating Temperature	0-50	°C
Dimensions	23 × 24 × 8	mm
Stray Magnetic Field Resistance	Chip-level magnetic resistance	
Flame Retardancy Rating	V-0 (UL94)	
Force Signals in Array	68	signals
Ingress Protection Rating	IP68	
Maximum Operating Current	350	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	350	mA
Force Signals in Array	68	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

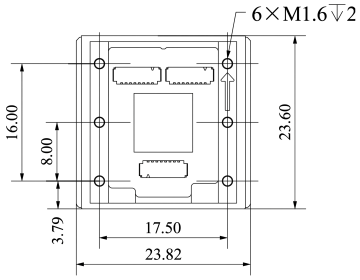
PARAMETER	SPECIFICATION	UNIT
ENVIRONMENTAL		
Operating Temperature	0-50	°C
Overload Temperature	-20-120	°C
Stray Magnetic Field Resistance	Chip-level magnetic resistance	
Flame Retardancy Rating	V-0 (UL94)	
SAFETY		
Ingress Protection Rating	IP68	
RELIABILITY		
Mechanical Cycle Life	>10 million measurement	cycles
Shock Overload	300	%
Safe Load	200	%
CONFIGURATION		
Dimensions	23 × 24 × 8	mm
ADDITIONAL SPECIFICATIONS		
Normal Force Range (Fz)	0-25	N
Tangential Force Range (Fxy)	±10	N

Dimensional & Integration Overview

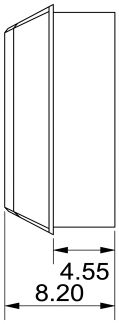
Mechanical Overview

PARAMETER	VALUE	UNIT
Surface Coverage	Front face and side curved edges	
Dimensions	23 × 24 × 8	mm

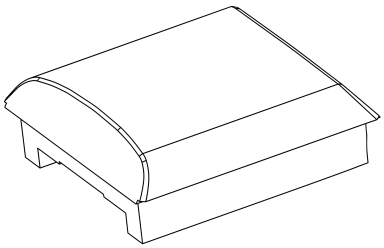
Dimensional Drawings



Mechanical View 1



Mechanical View 2



Mechanical View 3

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Threaded mounting hole quantity and size	6 × M1.6 threaded holes, depth 2
	Overall height	23.60 mm overall height
	Left mounting hole vertical center distance	16.00 mm vertical center distance
	Mounting hole vertical offset from reference edge	8.00 mm vertical offset
	Bottom edge to mounting hole center distance	3.79 mm bottom offset
	Mounting hole horizontal center distance	17.50 mm horizontal center distance
	Overall width	23.82 mm overall width
Mechanical View 2	Rear body thickness	Rear body thickness = 4.55 mm
	Overall thickness	Overall thickness = 8.20 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.