

FSP Series

Force Sensing Potentiometer



SERIES SPECIFICATIONS

Series	Active area	Sensor overall width	Sensor overall length	Tail length	Tail width
FSP01CE	13.00 x 100.00mm	20.00 x 109.00mm	184.00mm	75.00mm	10.00mm
FSP02CE	13.00 x 50.00mm	20.00 x 59.00mm	134.00mm	75.00mm	10.00mm
FSP03CE	ø16.00mm in / ø36.00mm out	ø46.00mm	95.80mm	49.80mm	11.00mm

CHARACTERISTICS

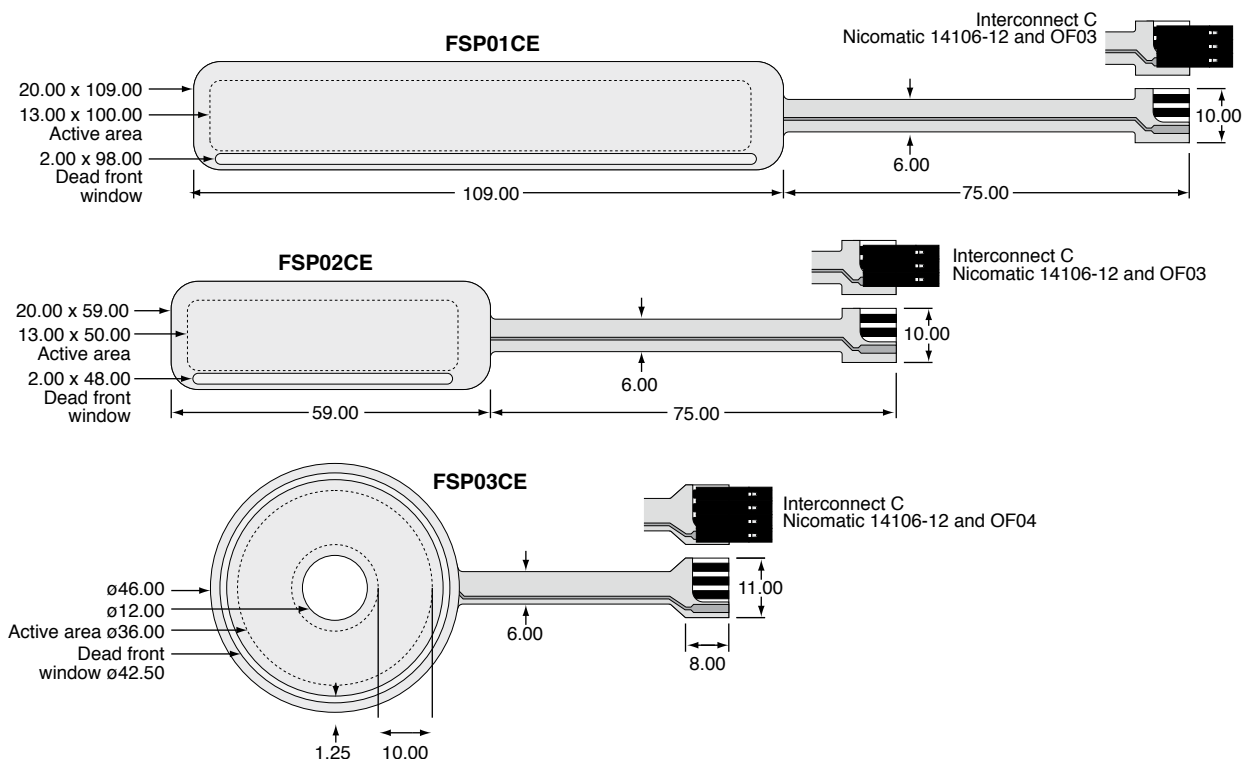
Thickness	0.375mm (inc. 0.05mm adhesive)	Characteristic	Description	Value
Mode	Thru	Actuation force	Force to reach 10MΩ, Average of 100 samples	< 20g
Trace width	0.25mm	Force range	linear region of log/log, Higher forces can be achieved with custom sensor and actuation methods	Up to 1kg
Trace pitch	0.50mm	Long term drift	1kg for 48hrs, Per log time	< 2%
Spacer height	0.125mm	Single part repeatability	100 actuations of 1kg, 1 standard deviation/mean	5%
		Part to part repeatability	100 sensors same batch, 1 std. deviation/mean	±10%
		Low temp. storage	-20°C for 250hrs, Avg. change in resistance of 5 sensors	2%
		High temp. storage	+85°C for 250hrs, Avg. change in resistance of 5 sensors	9%
		High humidity storage	+85°C/85%RH for 250hrs, Avg. change in resistance of 5 sensors	10%
		Lifecycle durability	(10M) 1kg force at 3Hz, Avg. change in resistance of 4 sensors	4%
		Hysteresis	100 actuations of 1kg, Avg. change in resistance of 100 samples	5%
		Operational temp. range	100 cycles at 0.5kg,	-20 to +60°C
		Linear resistance	Resistance between pins 1 & 2, Average of 100 parts same batch	FSP01CE: 1.25k, ±15% FSP02CE: 0.76k, ±15% FSP03CE: ±15%

Note: All values typical, and quoted at 10N applied force unless otherwise stated. Force dependant on actuation interface, mechanics, touch location, and measurement electronics.

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DIMENSIONS



ORDERING INFORMATION

Terminal type
A = Bare tail
B = Solder tab
C = Connector housing (female)
D, E... = Assigned sequentially for custom designs

F S P 0 3 C X E - RoHS Compliant

Series FSP
Force sensing potentiometer

Format
01 = Short strip
02 = Long strip
03 = Round wheel
04, 05... = Assigned sequentially for custom designs

Modifier
for custom designs (optional)