Product datasheet
Characteristics

SM650A71600FP



Main

Range of product	Hyde Park
Sensor type	Ultrasonic sensor
Series name	Superprox 600
Device short name	SM650
Sensor design	Flat form subcompact
[Sn] nominal sensing distance	7 in (177.8 mm)
Type of sensing window	Fixed
Material	Plastic
Enclosure material	ULTEM
Front material	Silicone rubber
Type of output signal	Discrete
Discrete output function	1 NO
Wiring technique	4-wire
[Us] rated supply voltage	12...24 V DC (overload and short-circuit protection)
Supply voltage limits	10...28 V DC
Discrete output type	PNP/NPN
Electrical connection	1 male connector M12 4 pins
Product specific application	Discrete proximity

Complementary

[Sd] sensing range	152.4...177.8 mm
Maximum differential travel	0.01 in (0.35 mm)
Blind zone	2.01 in (51 mm)
Transmission frequency	500 kHz
Repeat accuracy	0.07 %
Beam angle	7 °
Minimum size of detected object	Cylinder diameter 1.59 mm - up to 63.5 mm sensing distance
Current consumption	60 mA
Maximum switching current	100 mA (reverse polarity protection)
Height	0.64 in (16.25 mm)
Width	1.18 in (30 mm)
Depth	0.64 in (16.25 mm)
Length	3.32 in (84.32 mm)
Product weight	0.1 lb(US) (0.045 kg)

Environment

product certifications	UL
marking	CE
NEMA degree of protection	NEMA 4X (indoor use only)
IP degree of protection	IP67
ambient air temperature for operation	32...140 °F (0...60 °C)
ambient air temperature for storage	-40...212 °F (-40...100 °C)
relative humidity	100 % without condensation
vibration resistance	+/-1 mm conforming to IEC 60068-2-6 10...55 Hz
shock resistance	30 gn in all 3 axes 11 ms conforming to IEC 60068-2-27
resistance to electromagnetic fields	9.14 V/yd (10 V/m) (level 3) conforming to IEC 61000-4-3
resistance to fast transients	1 kV (level 3) conforming to IEC 61000-4-4

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Contractual warranty

Warranty period	18 months