

Product data sheet

Characteristics

SM650A78010FP

Hyde Park, Ultrasonic sensor, discrete, subcompact flat profile, 12 24 V DC



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	7.00 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 NC
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	2.00...7.00 in (50.8...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)
Net Weight	0.10 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 10...55 Hz) IEC 60068-2-6

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Shock resistance	30 gn in all 3 axes 11 ms IEC 60068-2-27
Resistance to electromagnetic fields	9.14 V/m (10 V/m) level 3 IEC 61000-4-3
Resistance to fast transients	1 kV level 3 IEC 61000-4-4

Ordering and shipping details

Category	22490 - SENSORS-ULTRASONIC (XX5,6)
Discount Schedule	DS2
GTIN	00785901812272
Nbr. of units in pkg.	1
Package weight(Lbs)	0.13 lb(US) (0.06 kg)
Returnability	No
Country of origin	US

Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Diisobutyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)  EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental Profile
Circularity Profile	 End Of Life Information

Contractual warranty

Warranty	18 months
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