# *Product datasheet*
## *Characteristics*

# SM650A20244TE



## Main

| | |
|---|---|
| Range of product | Hyde Park |
| Sensor type | Ultrasonic sensor |
| Series name | Superprox 600 |
| Device short name | SM650 |
| Sensor design | Cylindrical M18 |
| [Sn] nominal sensing distance | 2 in (50.8 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 |
| ISO thread | M18 x 1 |
| 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

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|---|---|
| [Sd] sensing range | 47.6...50.8 mm |
| Maximum differential travel | 0.01 in (0.35 mm) |
| Blind zone | 0.75 in (19 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 | 0.71 in (18 mm) |
| Width | 0.71 in (18 mm) |
| Depth | 0.71 in (18 mm) |
| Length | 2.91 in (73.91 mm) |
| Product weight | 0.07 lb(US) (0.033 kg) |

## Environment

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|---|---|
| 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 |

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| resistance to fast transients | 1 kV (level 3) conforming to IEC 61000-4-4 |

## Contractual warranty

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| Warranty period | 18 months |