

# SM650A70060AAFP

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 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

|                                 |                                                            |
|---------------------------------|------------------------------------------------------------|
| 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         |
| 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                  | 03389119105491                     |
| Nbr. of units in pkg. | 1                                  |
| Package weight(Lbs)   | 0.13 lb(US) (0.06 kg)              |
| Returnability         | No                                 |
| Country of origin     | US                                 |

### Offer Sustainability

|                           |                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| California proposition 65 | WARNING: This product can expose you to chemicals including: Diisononyl 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| EU RoHS Directive         | Not applicable, out of EU RoHS legal scope                                                                                                                                                                                                                                                                                                                                        |

### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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