

# VM1PTOQ

Hyde Park, ultrasonic sensor flat form + M18,  
Sn508mm, NO/NC, 12...24 VDC, M12



## Main

|                              |                                                         |
|------------------------------|---------------------------------------------------------|
| Range of product             | Hyde Park                                               |
| Sensor type                  | Ultrasonic sensor                                       |
| Series name                  | Virtu VM1                                               |
| Device short name            | VM1                                                     |
| Sensor design                | Flat form + cylindrical M18                             |
| Type of sensing window       | Adjustable                                              |
| Material                     | Plastic                                                 |
| Enclosure material           | Valox                                                   |
| Front material               | Glass epoxy                                             |
| Type of output signal        | Discrete                                                |
| Discrete output function     | 1 NO or 1 NC programmable                               |
| Wiring technique             | 4-wire                                                  |
| [Us] rated supply voltage    | 12...24 V DC with overload and short-circuit protection |
| Supply voltage limits        | 10...28 V DC                                            |
| Discrete output type         | PNP                                                     |
| Electrical connection        | Male connector M12 4 pins                               |
| Product specific application | -                                                       |

## Complementary

|                                       |                                                          |
|---------------------------------------|----------------------------------------------------------|
| [Sn] nominal sensing distance         | 508 mm                                                   |
| [Sd] sensing range                    | 50.8...508 mm                                            |
| [Sa] assured operating distance       | 50.8...508 mm remote teach push-button                   |
| Blind zone                            | 0...51 mm                                                |
| Transmission frequency                | 300 kHz                                                  |
| Repeat accuracy                       | 1.27 %                                                   |
| Beam angle                            | 5 °                                                      |
| Minimum size of detected object       | Cylinder diameter 2.5 mm - up to 200 mm sensing distance |
| Current consumption                   | 40 mA                                                    |
| Maximum switching current             | 100 mA with reverse polarity protection                  |
| Resistance to electrostatic discharge | 8 kV level 4 conforming to IEC 61000-4-2                 |
| Height                                | 43.7 mm                                                  |
| Width                                 | 18 mm                                                    |
| Depth                                 | 43.7 mm                                                  |
| Length                                | 59.69 mm                                                 |
| Net weight                            | 0.033 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 | -30...70 °C                                          |
| Ambient air temperature for storage   | -40...85 °C                                          |
| Relative humidity                     | 100 % without condensation                           |
| Vibration resistance                  | +/-1 mm conforming to IEC 60068-2-6 (f = 10...55 Hz) |

|                                      |                                                            |
|--------------------------------------|------------------------------------------------------------|
| Shock resistance                     | 30 gn in all 3 axes for 11 ms conforming to IEC 60068-2-27 |
| Resistance to electromagnetic fields | 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                   |

### Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 8.415 cm |
| Package 1 Width              | 1.27 cm  |
| Package 1 Length             | 8.415 cm |
| Package 1 Weight             | 58.967 g |

### Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status                   | Green Premium product                                                                                                                                                                                                                                                                                                                                                             |
| 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> |
| For all Reach Rohs enquiries contact us at | <a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>                                                                                                                                                                                                                                                                                                    |

### Contractual warranty

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