## CHARACTERISTICS

- **ULTRA SMALL:**
  SMALLEST SENSOR ON THE MARKET TODAY.
  SMALL SIZE MEANS EASIER INSTALLATION ON TRICKY MACHINERY.
- **ULTRA FAST:**
  NO MECHANICAL MOVING PARTS MEANS THE SENSOR CAN READ ANY PRACTICAL CYCLE SPEED.
- **ULTRA RELIABLE:**
  COMPLETELY SOLID STATE OPERATION FOR HIGH RELIABILITY AND DURABILITY.
- **IP 67 PROTECTION.**
- **FULLY POTTED SOLID STATE DEVICE:**
  MEANS CIRCUIT IS ISOLATED FROM THE ENVIRONMENT.
- **360° LED MONITORING:**
  ALLOWS YOU TO SEE SIGNAL STATUS FROM ANY ANGLE.
- **NPN AND PNP:**
  BOTH INCLUDED AS STANDARD.
- **M12 CONNECTOR:**
  AUTOMOTIVE SPECIFICATIONS PROVIDES ROBUST WIRING SOLUTIONS.

## APPLICATIONS

- **02 SYSTEM**

*Patented:*
*UltraSensor technology is protected by international patents.*
Patented:
US 20080284415 A1

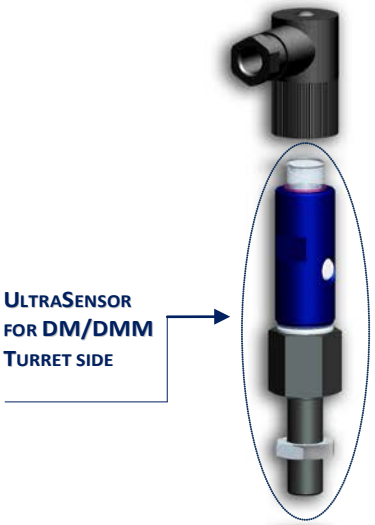
# ULTRASENSOR DM/DMM:

## *ULTRA ULTRA SMALL, ULTRA FAST, ULTRA RELIABLE*

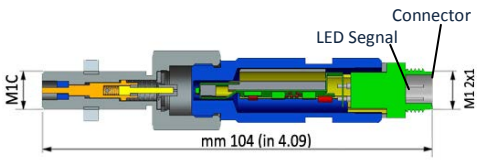
The UltraSensor has been designed as a next generation replacement of Proximity and
Micro switch systems for monitoring spool movement in progressive divider elements.

**Ultrasensor DM/DMM** will work with standard **DM/DMM** divider blocks as a screw-on accessory without requiring special arrangement or modification to the spool.

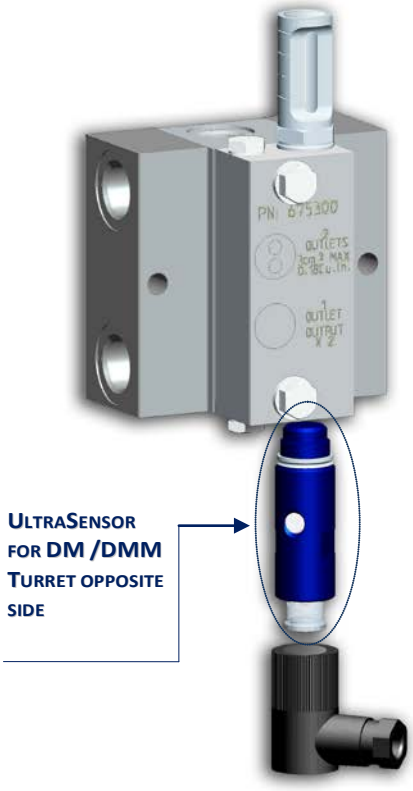
The patented concept works by monitoring magnetic flux variations through a hall-effect sensor as the spool enters the sensing range.

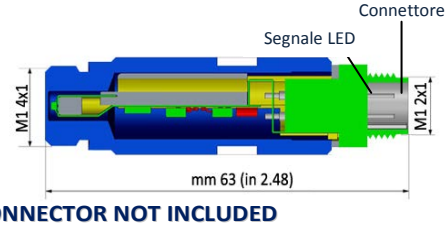

**ULTRASENSOR FOR DM/DMM TURRET SIDE**




**CONNECTOR NOT INCLUDED**




**1655314 -1655344**
**ULTRASENSOR FOR DM**
**TURRET OPPOSITE SIDE**



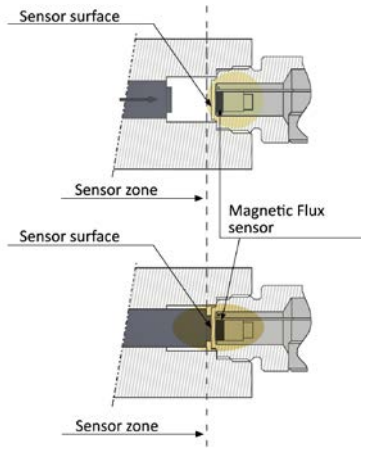

**CONNECTOR NOT INCLUDED**

# ULTRASENSOR
## DM /DMM

## TECHNICAL INFORMATION

| TECHNICAL CHARACTERISTICS | |
|---|---|
| **Material** | AISI 316 - Nickel-plated brass |
| **Max. cycle per minute** | 1000 |
| **Voltage** | 8 ÷ 28 V DC |
| **Short circuit protection** | yes |
| **Protection degree** | IP 67 |
| **Operating temperature** | -10 °C ÷ +60 °C (-4 °F ÷ +158 °F) |
| **Connector** | M12x1 |
| **Output signal** | NPN 2A N.O - PNP 0,7A N.O. |
| **Max allowable pressure on the front sensor surface** | 400 bar |

## OPERATING PRINCIPLE



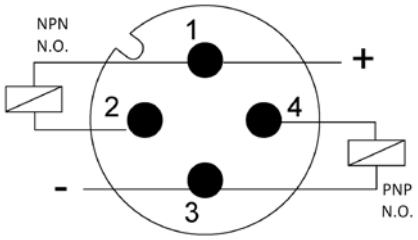

Normally, the magnetic field is balanced around the hall sensor.

With the spool in the sensing range, the flux density is modified allowing the Hall Effect sensor to detect the presence of the spool.

The use of a Magnetic Flex variation allows an extended sensing zone which avoids problems on systems with low flow rates and backpressure where the spool can often stop or bounce on the sensing surface.

### CONNECTIONS

*M12 connector - (Top view)*




| PIN | FUNCTION |
|---|---|
| 1 | Vdc in 8÷28V |
| 2 | NPN out |
| 3 | GND |
| 4 | PNP out |

***NPN and PNP connection options are standard within the same sensor.***

## ORDERING INFORMATION

| Description | Part. No. | | |
|---|---|---|---|
| Ultrasensor for DM - TURRET SIDE Nickel-plated brass | **1655310** | ○ | _____ |
| Ultrasensor for DM/DMM - TURRET SIDE AISI 316 | **1655350** | ○ | _____ |
| Ultrasensor for DM/DMM TURRET OPPOSITE SIDE Nickel-plated brass | **1655314** | ○ | _____ |
| Ultrasensor for DM/DMM TURRET OPPOSITE SIDE AISI 316 | **1655344** | ○ | _____ |

| ACCESSORIES | | | |
|---|---|---|---|
| | M12 female connector | **0039999** | ○ _____ |
| | M12 female connector +CABLE L 5 mt | **0039815** | ○ _____ |
| | 2 m cable, M12 female connector | **0039168** | ○ _____ |
| | 2 m cable, 90°- M12 female connector | **0039830** | ○ _____ |
| | 5 m cable, 90°- M12 female connector | **0398115** | ○ _____ |

Info distributor:



Dropsa products can be purchased from Dropsa subsidiary and Dropsa sales representatives, visit www.dropsa.com/contact or contact us sales@dropsa.com