

# 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.

# ULTRASENSOR M18x1: 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.

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

There are no moving parts which means the solid state device is completely wear free.



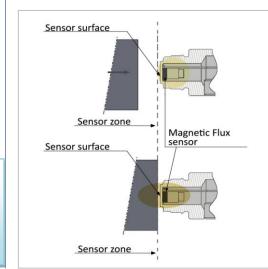




# LED Signal Connector

1655326 ULTRASENSOR M18x1

# **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.

#### Patented: UltraSensor technology is protected by international patents.

Patented: US 20080284415 A1

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# **TECHNICAL INFORMATION**

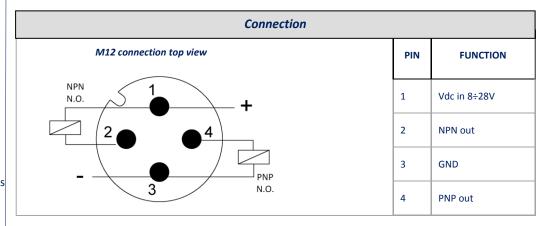
TECHNICAL CHARACTERISTICS	
Material	AISI 316
Max. cycle per minute	1000
Voltage	8 ÷ 28 V DC
Short circuit protection	yes
Protection degree	IP 67
Operating temperature	-10 °C ÷ +60 °C (-4 °F ÷ +158 °F)
Connector	M12x1
Output signals	NPN 2A N.O - PNP 0,7A N.O.
Max allowable pressure on the front sensor surface	300 bar

# **ORDERING INFORMATION**

Part. No.	Description
1655326	Ultrasensor M18x1
OPTIONAL	
0039999	Connettore

Part. No.	ACCESSORIES
0039815	M12 female connector +CABLE L 5 mt

# **MOUNTING INFORMATION**







Ultrasensor is available in the following variants: ULTRASENSOR (1) and UltraSensor DM – DMM – DMG (2)