

# CHARATTERISTICS

- 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:**

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 will work with standard DM 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.











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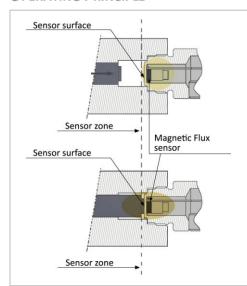
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# **TECHNICAL INFORMATION**

TECHNICAL CARATTERISTICS		
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)  NPN N.O.  1 PNP PNP N.O.	PIN	FUNCTION
	1	Vdc in 8÷28V
	2	NPN out
	3	GND
NPN and PNP connection options are standard within the same sensor.	4	PNP out

# **ORDERING INFORMATION**

Part. No.	Description
1655310	Ultrasensor for DM - TURRET SIDE Nickel-plated brass
1655350	Ultrasensor for DM - TURRET SIDE AISI 316
1655314	Ultrasensor for DM TURRET OPPOSITE SIDE Nickel-plated brass
1655344	Ultrasensor for DM TURRET OPPOSITE SIDE AISI 316
0039999	Connector

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