

OIL IN AIR SENSOR

CHARACTERISTICS

- **OIL IN AIR OPTICAL SENSING FOR MINIMAL LUBRICATION AIR OIL APPLICATION**
- **TWIN SENSING HEAD AT 90 DEGREES PROVIDES SUPERIOR DETECTION IN ANY ORIENTATION**
- **EASILY INSTALLATION**
- **DIFFERENTIATED FLOW CATEGORY SENSING (3 LEVELS OF SENSITIVITY)**
- **PROVIDES ELECTRONIC FEEDBACK OF CORRECT OPERATION OF MINIMAL LUBRICATION SYSTEMS**
- **PROTECT BEARINGS FROM FAILURE!**

APPLICATIONS

- **AIR/OIL SYSTEMS WITH CYCLIC PULSE**
- **SPINDLE HEAD**

OIL IN AIR SENSOR

'OIL IN AIR SENSOR' is an optical sensor that detects the oil inside the air mainly used for MINIMAL lubrication air oil applications.

This sensor is equipped with twin sensing head at 90° which provides a superior detection in any orientation than other sensors commercially available.

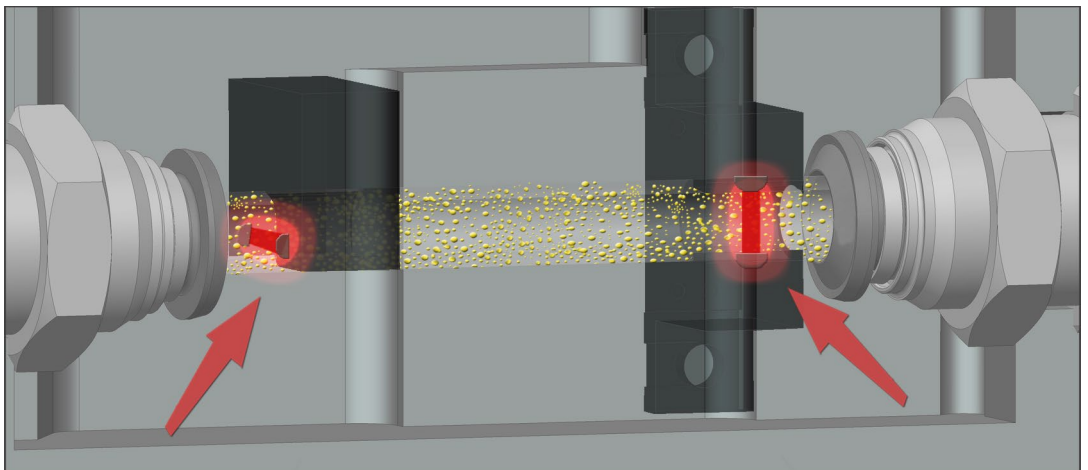
OIL IN AIR SENSOR is placed directly on the air-oil outlet pipes checking the correct presence of lubricant in the air, therefore provides electronic feedback of correct operation of minimal lubrication



OPERATING PRINCIPLE

The sensor works with an optical sensing principle.

A superior detection is guaranteed by twin sensing head at 90 degrees which detect the presence of micro oil particles in multiple directions. This solution allows a better monitoring of the pipe section.



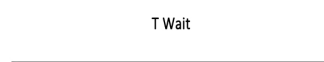
As shown above the optical sensing analyzes the passage of oil carried from the air in default time. According to oil quantity detected it generates a number of pulses proportional to detection. Number of pulses generated depends on system type and operating parameters, for example the air pressure.

The user according to system type can easily put in their PLC controller suitable number of pulses for a correct lubrication of system.

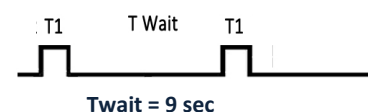
OUTPUT SIGNAL OF SENSOR: T1 =0,5 sec

T2 = 0,5 sec

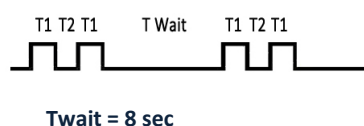
- NO FLOW



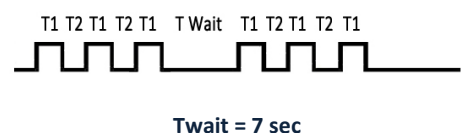
- LOW FLOW



- MEDIUM FLOW



- HIGH FLOW

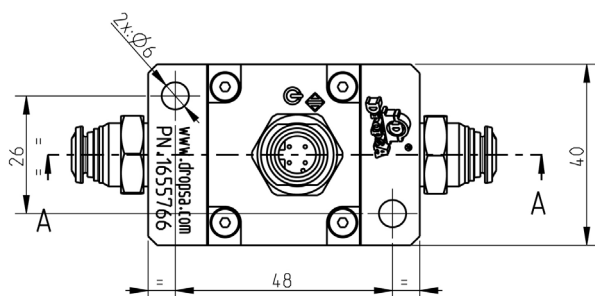
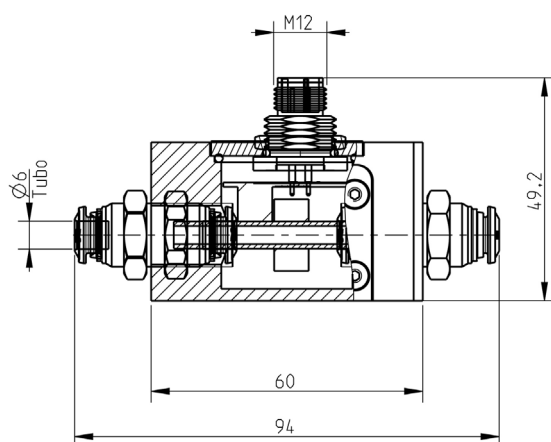


TECHNICAL INFORMATION

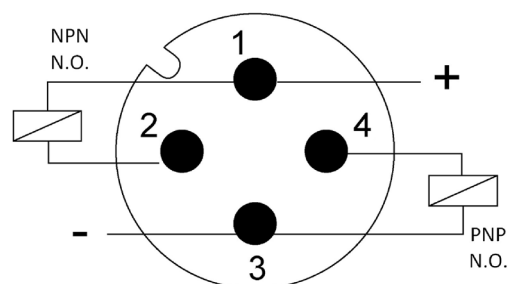
TECHNICAL CHARACTERISTICS

Material	Aluminium anodized
Minimum reading range	5 mm ³ /min
Inlet - output minimum delta of air pressure	2 bar
Voltage	8 ÷ 28 V DC
Short circuit protection	Yes
Protection degree	IP 67
Connector	M12x1
Output signals	NPN 2A - PNP 0,7A

DIMENSIONS



ELECTRICAL CONNECTION



M12 connection top view

PIN	FUNCTION
1	VDC in 8 ÷ 28V
2	NPN out
3	GND
4	PNP out

ORDERING INFORMATION

DESCRIPTION	PART NO.
Oil in air sensor	1655766
ACCESSORIES	
M12 female connector	0039999
M12 female connector + 5 mt cable	0039815