



Kasper Aero

18D1000 Magnetic Debris Detector (MDD)

Single-Bolt Flange 0-10V Output

4-Wire Interface

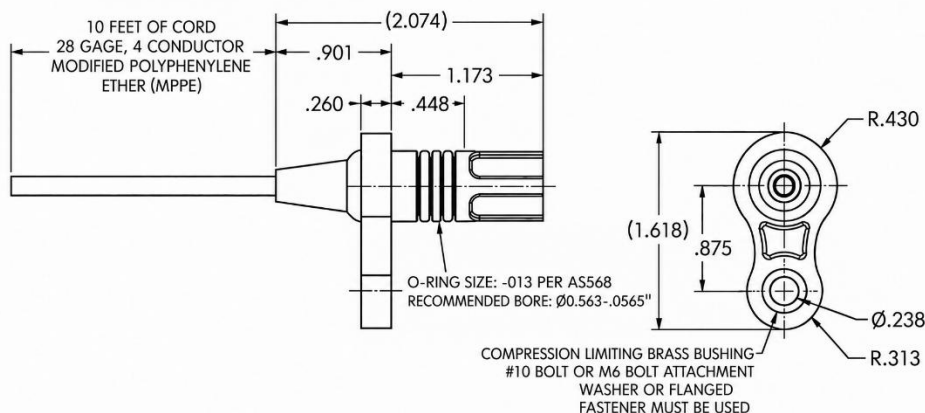
KasperAero Technical Data Sheet

About the 1030 Product Family

The KasperAero 18D1000 is our automotive line of ferrous debris detection sensors, designed for demanding environments. Powered by our proprietary NZMS technology, the 18D1000 delivers industry-leading debris monitoring performance in a durable high-temperature platform.



Entire Sensor
(no separate electronics)



Electrical Data	
Green Wire, Analog Output	0.50V – 10.0V
Green Wire, Analog Output Resolution	0.010V
Green Wire, Analog Output Sensitivity	0.010 Volt / 0.010 Gram
Analog Output Baseline (No Debris) = 0.50V	
If Analog Output Voltage = 0.25V, Sensor Error (Contact KasperAero)	
White Wire, Digital Output (< 0.050 grams of debris)	0V
White Wire, Digital Output (> 0.050 grams of debris)	Supply Voltage
Black Wire, Ground	
Red Wire, Power	11V – 26V
Max Report Rate [Hz]	10 Hz Max
Circuit Protection	
Reverse Polarity Protection	YES
Over Voltage Protection	YES
Short Circuit Protection	YES
Type of Short Circuit Protection	PULSED
Overload Protection	YES

Mechanical	
Minimum Detectable Debris	1mg of Ferrous Debris (0.026 inch ball)
Maximum Detectable Debris	9.50 grams of 10-micron Ferrous Debris (0.520 inch ball)
Detectable Debris Media	Ferrous Only (Aluminum and Ceramic Debris Immune)
Sensor Body Material	PA12 Nylon
Environmental	
Sensor Protection	IP66 / IP68
Maximum Operating Pressure	120 psi
Proof Pressure	180 psi
Operating Temperature	-40°F to 170°F
Short-term maximum	350°F
Liquids	
Fuels	Gasoline, Diesel, Kerosene, Jet-A, JP-8, Avgas
Oils / Grease	Petroleum Oil, Grease, Mineral Oil, Synthetic Ester, Gear Oil, PAO based Oils, Automatic Transmission Fluid (ATF), Aeroshell Grease, Aero Lubriplate, Bunker Oil, Polyalkylene Glycol, Vegetable Oil
Hydraulics	Hydraulic Oils (HVI and ISO VG), Mineral Oil Based, Water-Glycol
Coolants	Ethylene Glycol, Propylene Glycol, Organic Acid Technology (OAT)
Other	Water, Salt Water, Methanol, Isopropyl Alcohol

Product not designed for ATEX environments. ATEX debris sensors must be custom solution.