

# Continuous, multi-function oil condition sensing

- 4 oil condition measurement parameters
- Captures and retains ferrous debris
- Continuous real-time monitoring
- Easy installation
- Low cost of ownership
- 4-20mA, 0-10v & CAN outputs

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## ANALOGUE OUTPUT

	Voltage	4-20mA
<b>Channel 1 (fine)</b>	0.25 – 10V DC (configurable)	4mA - 20mA (configurable)
<b>Channel 2 (coarse)</b>	0.25 – 10V DC (configurable)	4mA - 20mA (configurable)
<b>Channel 3 (oil/temp) (switched)</b>	0.25 – 10V DC (configurable)	4mA - 20mA (configurable)
<b>Error indication</b>	<0.25 – 10V DC (configurable)	1mA - 20mA (configurable)

## DIGITAL OUTPUT

<b>J1939 data length</b>	8 bytes
<b>PGN</b>	130816
<b>Byte 0</b>	Coarse measurement percentage, no scaling Value 255 – optional output inhibited during calibration
<b>Byte 1</b>	Fine measurement percentage, no scaling Value 255 – optional output inhibited during calibration
<b>Byte 2</b>	8 Status bits Bit 0 - High/low temperature exceeded Bit 1 - Oil upper threshold exceeded Bit 2 - Oil lower threshold exceeded Bit 3 - Fine measurement error Bit 4 - Coarse measurement error Bit 5 - Oil measurement error Bit 6 - Internal temperature sensor error Bit 7 - External temperature sensor error
<b>Byte 3-7</b>	Manufacturer use

## ORDERING

<b>Output:</b> 048 = 4-20mA 049 = 0-10V 050 = CAN	<b>Mounting Thread Code:</b> See table overleaf
4212 - PK - <input type="text"/> <input type="text"/> <input type="text"/> - <input type="text"/>	<b>USB cable</b> = 1000-CO-116 <b>USB software</b> = 1000-SW-001

## ELECTRICAL

	Voltage	4-20mA	CAN
<b>Supply voltage</b>	6 - 32V DC	9 - 32V DC	5 - 32V DC
<b>Over voltage protection</b>		>32V DC	
<b>Power consumption</b>	<0.7W	<2.6W	<0.7W
<b>Reverse polarity protection</b>		to -32V DC	
<b>Analogue resolution</b>		10 bit	
<b>Report rate</b>	10Hz	10Hz	1Hz
<b>Sensor configuration</b>			Accessible via USB

## MECHANICAL

<b>Sensor size</b>	57 x ø24.5mm
<b>Enclosure</b>	55 x 30 x 12mm
<b>Enclosure mounting</b>	2 off M4 clearance holes
<b>Materials (sensor)</b>	Aluminium alloy, FEP, PEI
<b>Materials (enclosure)</b>	Aluminium alloy, st/steel, polyester

## LIQUIDS

<b>Fuels</b>	Diesel, gasoline
<b>Oils</b>	Hydraulic, gear, mineral, vegetable, synthetic ester, semi-synthetic, polyalphaolefin, polyalkyleneglycol
<b>Coolants</b>	Ethylene glycol, Water
<b>Other</b>	Salt water

## ENVIRONMENTAL

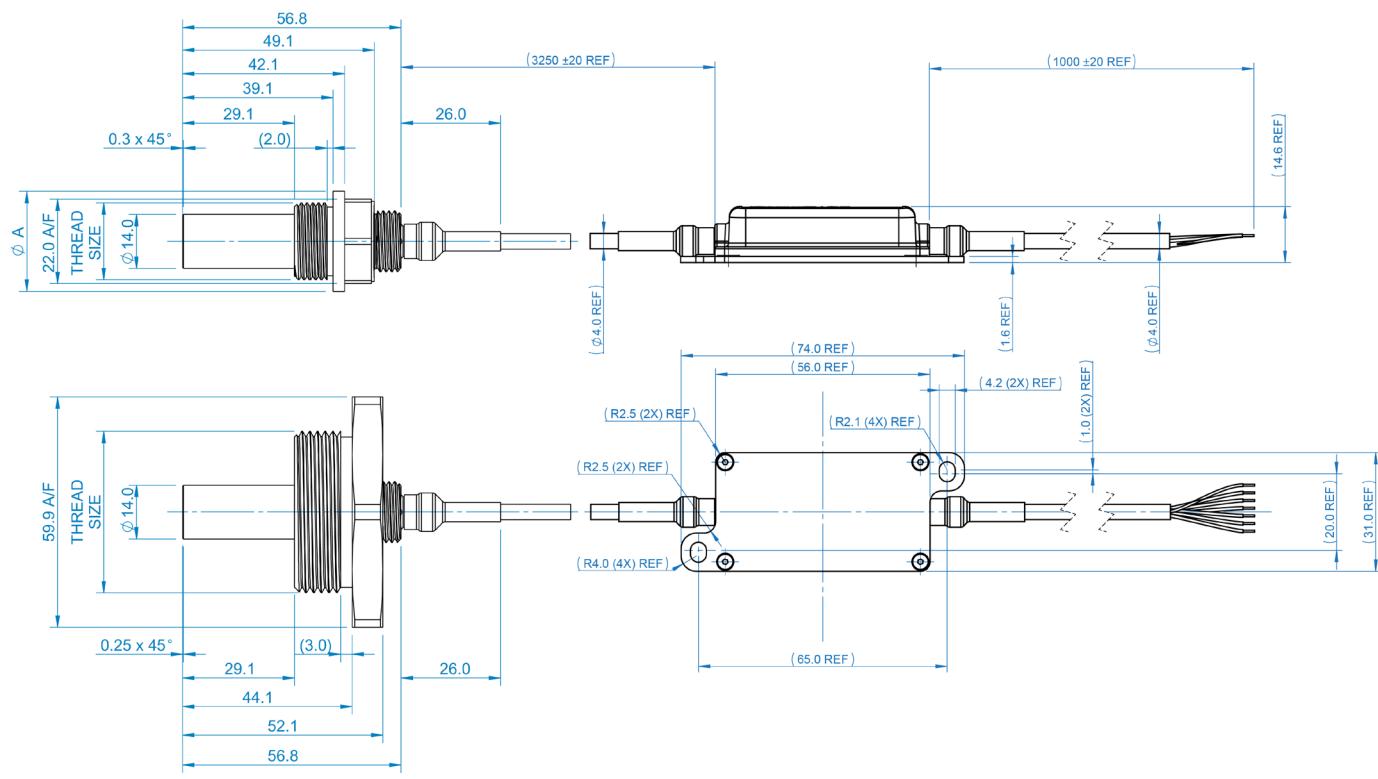
<b>Sensor protection</b>	IP66 / IP68 / IP69k
<b>Enclosure protection</b>	IP66 / IP68 / IP69k
<b>Differential pressure</b>	10 Bar
<b>Sensor operating temperature</b>	-40° to +150°C
<b>Enclosure operating temperature</b>	-40° to +125°C
<b>Humidity</b>	95% RH @ +55°C

More information at  
[nvms.com.au/gill-sensors-and-control](http://nvms.com.au/gill-sensors-and-control)

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## DIMENSIONS



## MOUNTING THREADS

Thread Code	Thread Size	Outside Dia A	Spanner A/F	Torque ±10%	Thread Code	Thread Size	Outside Dia	Spanner A/F	Torque ±10%
A	M22 x 1.5	26.0	22.0	50 Nm	N	M42 x 2.0	67.0	60.0	100 Nm
B	M24 x 2.0	26.0	22.0	50 Nm	P	1 1/2" BSPP	67.0	60.0	100 Nm
C	3/4" x 16 UNF	26.0	22.0	50 Nm	Q	1" BSPP	67.0	60.0	100 Nm
D	1/2" BSPP	26.0	22.0	50 Nm	R	1 1/8" 12 UNF	67.0	60.0	100 Nm
E	M20 x 1.5	26.0	22.0	50 Nm	S	1 5/16" 12 UNF	67.0	60.0	100 Nm
F	M25 x 1.5	32.0	22.0	50 Nm					
G	M26 x 1.5	32.0	22.0	50 Nm					
H	M27 x 2.0	32.0	22.0	50 Nm					
J	M30 x 1.5	32.0	22.0	50 Nm					
K	3/4" BSPP	32.0	22.0	50 Nm					
L	1" 14 UNF	32.0	22.0	50 Nm					
M	1" 18 UNF	32.0	22.0	50 Nm					

## WIRING DESIGNATION

## 4-20mA &amp; 0-10V

	White	Fine
	Red	Power
	Black	Power ground
	Orange	Oil / temperature
	Blue	(Not connected)
	Green	Coarse
	Spare (clear)	Screen

## WIRING DESIGNATION

## CAN

	White	CAN H
	Red	Power
	Black	Ground
	Orange	(Not connected)
	Blue	CAN L
	Green	(Not connected)
	Spare (clear)	Screen

More information at  
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