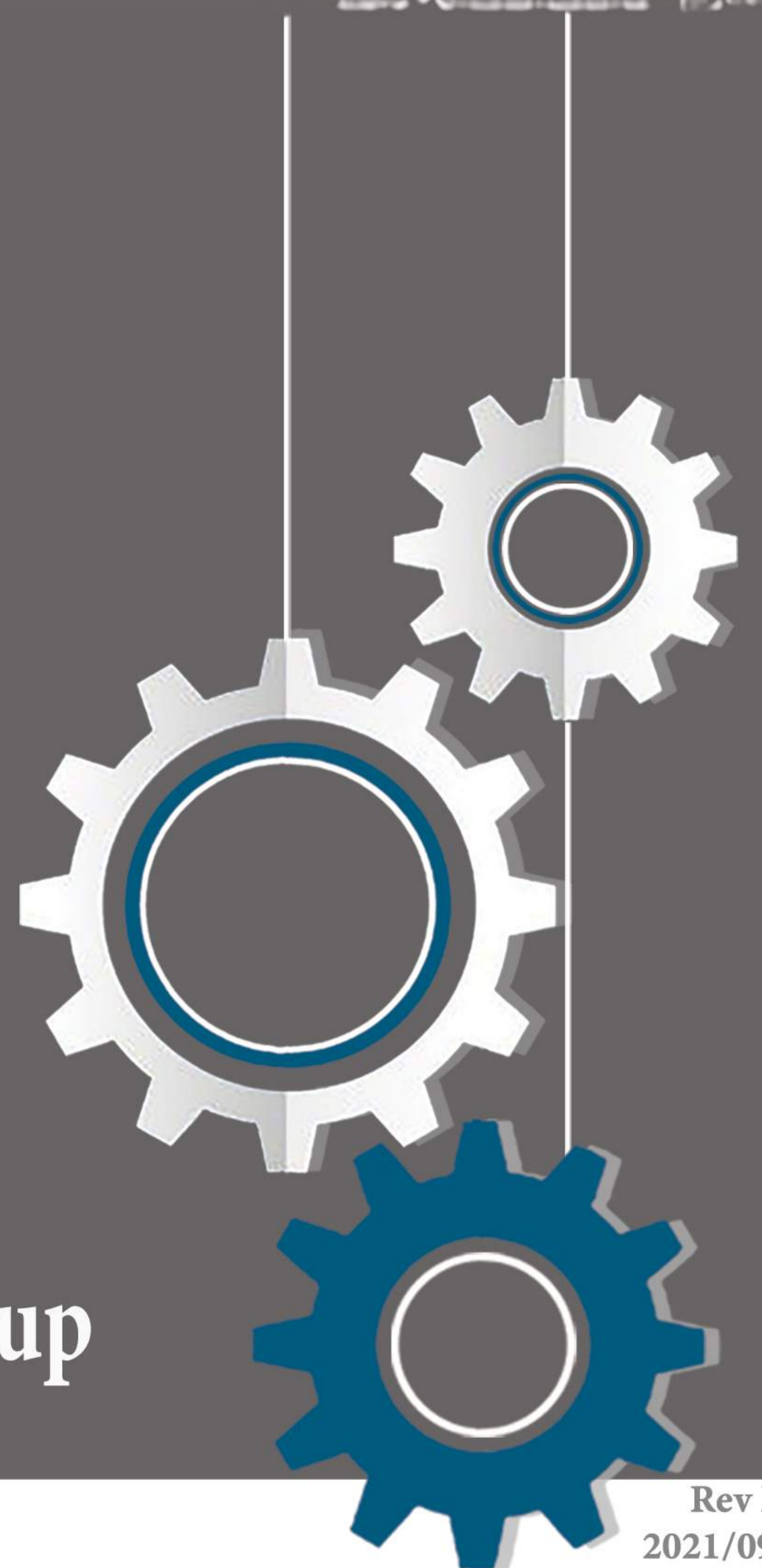
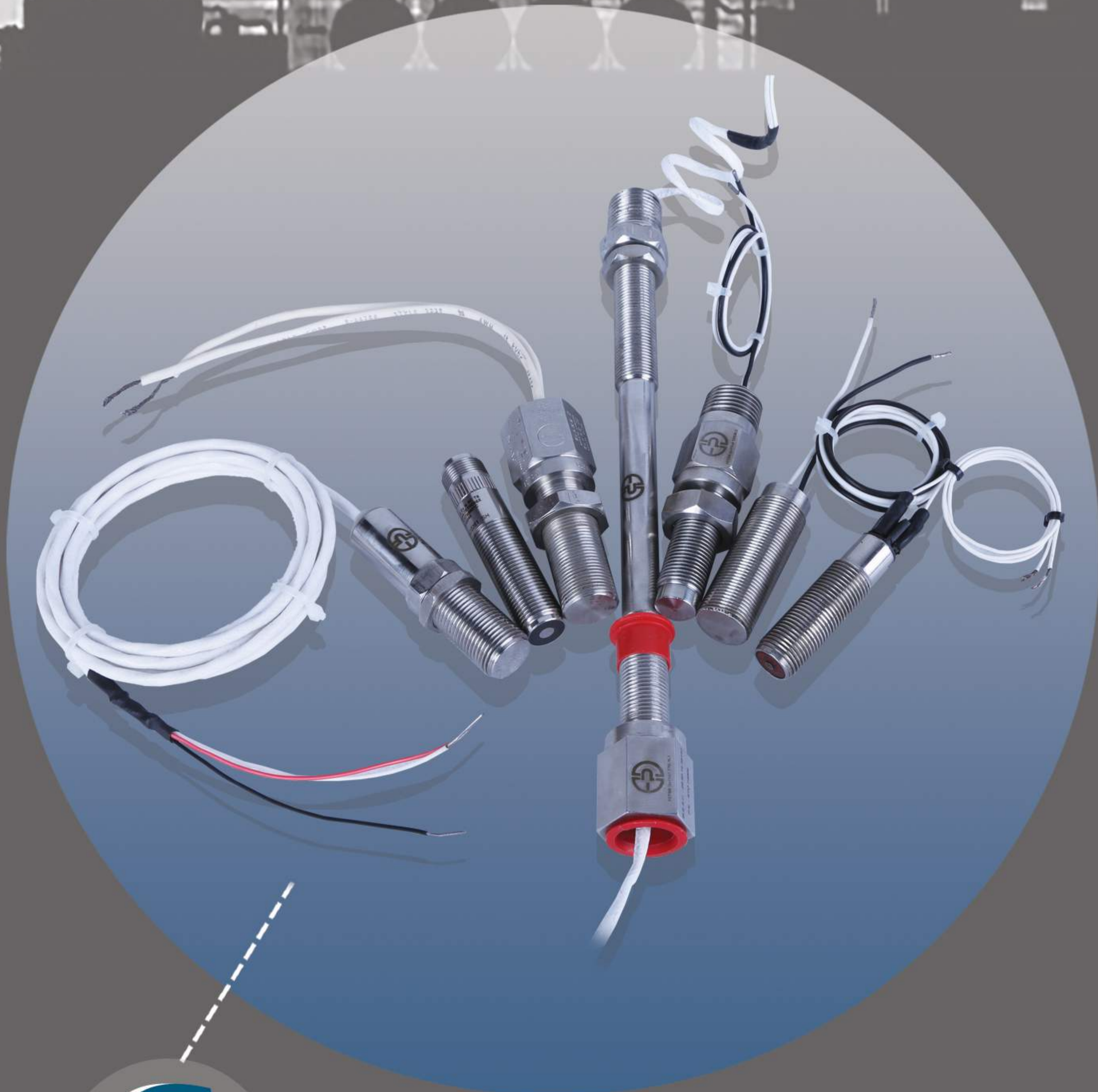
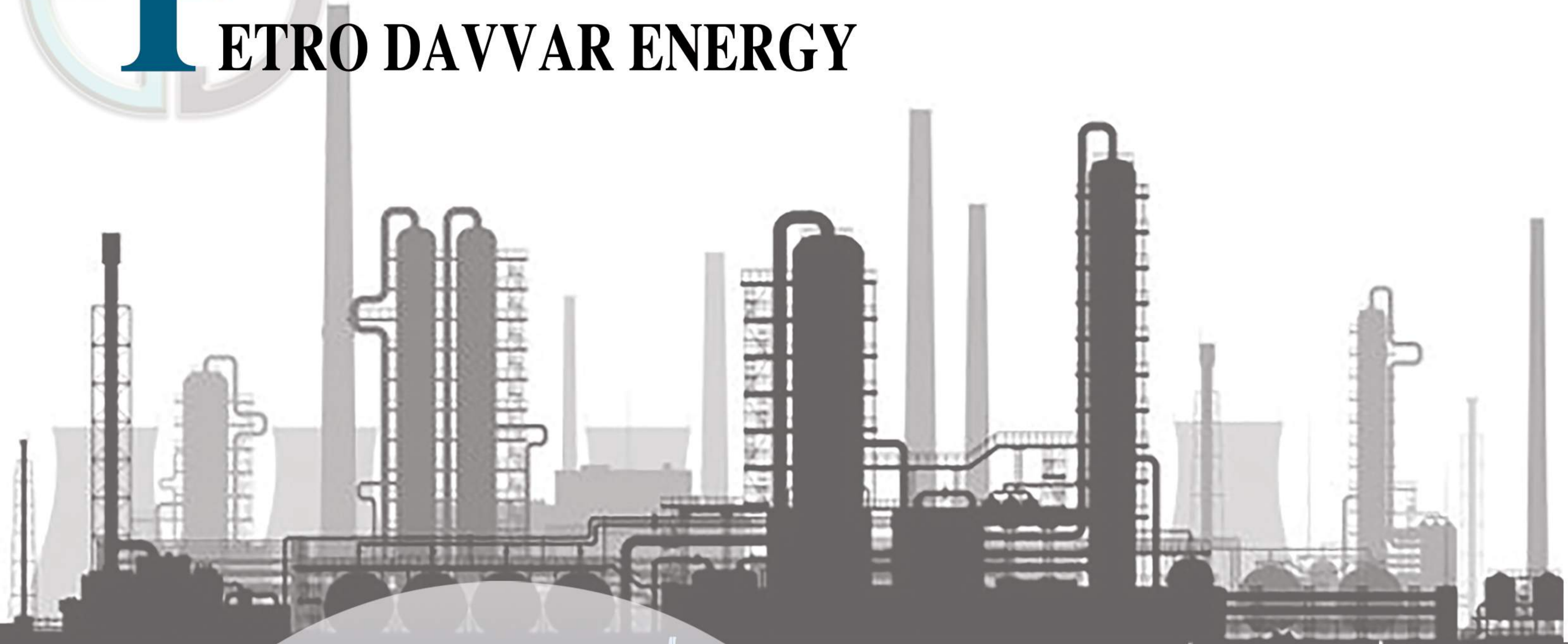




ETRO DAVVAR ENERGY



Speed Sensors Magnetic Pickup



If there is a will, there is a way...

Rev E
2021/09/05

Speed Sensors Magnetic Pickup

For sensing rotational Speed

To control the rotational speed of a prime mover, speed controls compare actual speed to desired, or set, speed. When a magnetic material (usually a gear tooth driven by shaft) passes through the magnetic field at the end of the magnetic pickup, a voltage is developed. The frequency of this voltage is measured by the speed control.

Installation

Magnetic speed pickup is usually mounted radially to the gear, either through the housing or on a rigid bracket. Sensor must be mounted off the face of the gear, be sure to check For gear end play in addition to gear run out. Petro davvar energy have installation manuals For each sensor.

Types of Magnetic pickups

Petro Davvar Energy is manufacturing Magnetic pickups in different lengths and mounting thread sizes according to API 670. See some of Our magnetic pickups require a connector which you can see on catalog.

Setting the Gap

The gap between the end of the sensor and the gear tooth is set at 0.25 to 1.4 mm (0.010 to 0.055 inch) at the closest point. The sensor will be damaged if it touches the moving gear. A properly installed sensor will provide as much as 50 Vac (rms); most turbine controls require a minimum of 1.5 Vac at the lowest speed.

Voltage decreases as the sensor is moved farther from the gear. If the gap between the pickup and the gear cannot be measured directly, it can be determined by counting the number of turns the pickup is backed away from the gear. One full turn counterclockwise will move the sensor out 0.055 inch (1.4 mm For example For Solar centaur gas turbine).

OUTPUT FREQUENCY OF MAGNETIC PICUP HERTZ

$$\text{Hz} = \text{NO. OF GEAR TEETH} \times \text{GEAR RPM} / 60$$

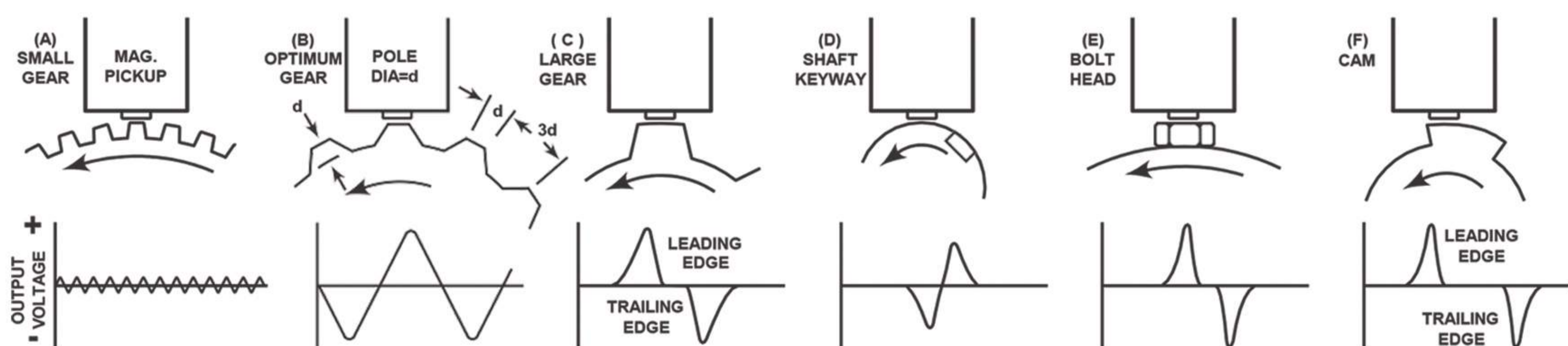


Figure 1: Out put WaveForms With Various Target Shapes & Sizes

PICK UP For Rolls-Royce Gas Turbine

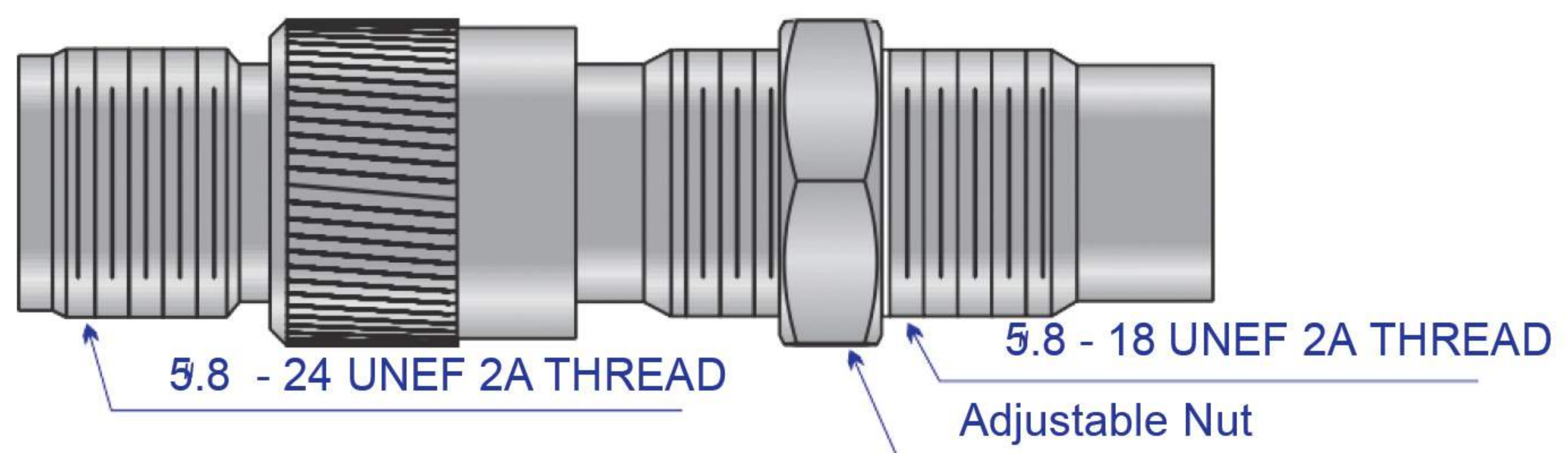
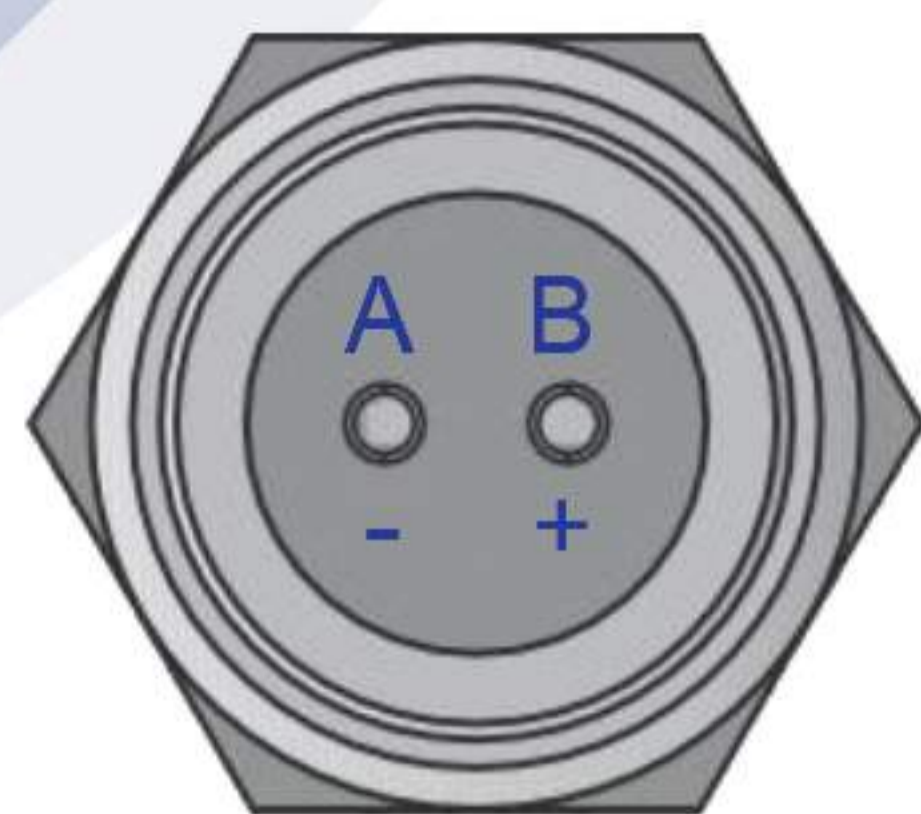
Our P/N: PD-MPU-3011



IP & EX Certificate

Our Sensor Have IP67 Certificates and EX ecIIA T4 Approvals By EPIL Co.

Description	Hall-effect sensor
voltage range	60 V (p-p)
Operating frequency range	0 TO 25 K HZ
Operating temperature	-40 °C to 150 °C [-40 °F to 302 °F]
Inductance	75 m H Max
Thread Size & lock Nut	5/8 UNF
Connector	MS3106



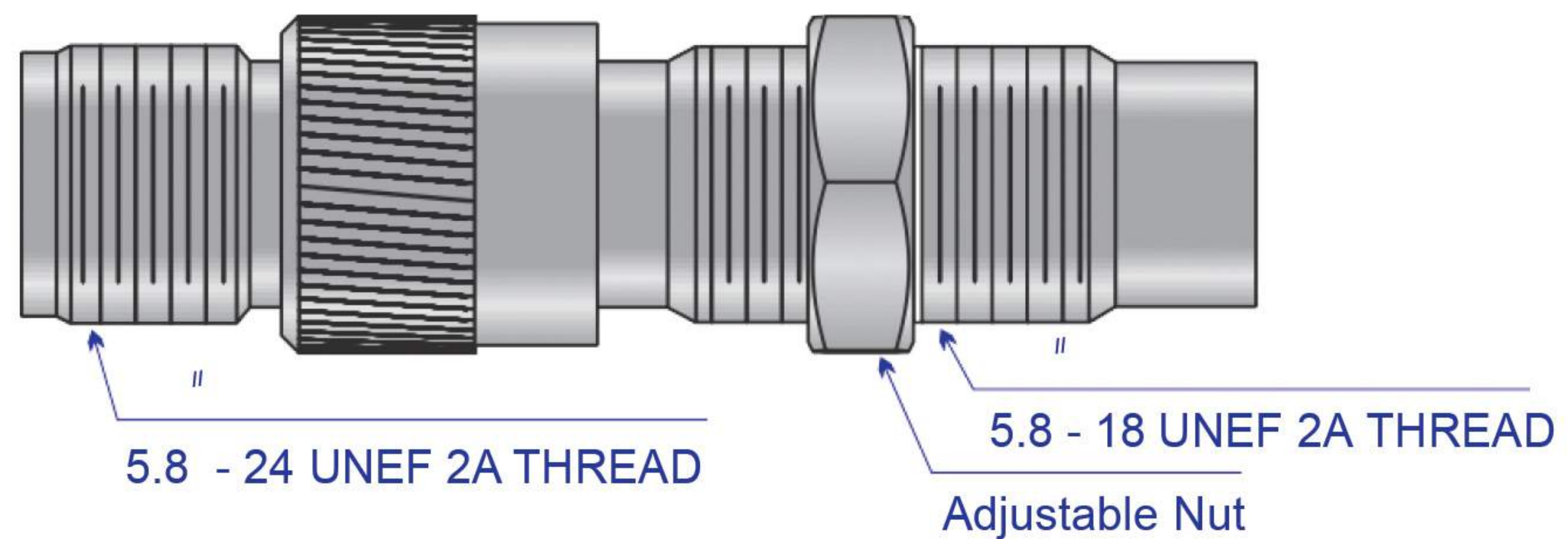
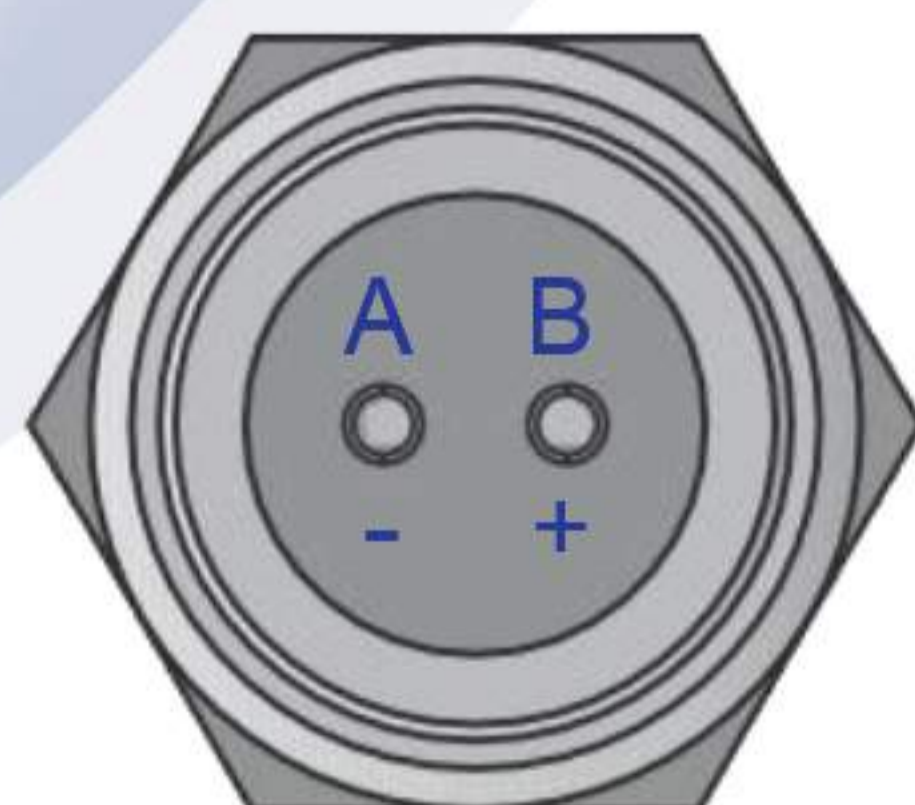


PICK UP For Rolls-Royce Gas Turbine

OEM P/N For Sensor : 3030-HTB
Our P/N: PD-MPU-3022



Description	Hall-effect sensor
voltage range	120 V (p-p)
Operating frequency range	0 TO 25 K HZ
Operating temperature	-40 °C to 150 °C [-40 °F to 302 °F]
Inductance	450 m H Max
Thread Size & lock Nut	5/8 UNF
Connector	MS3106



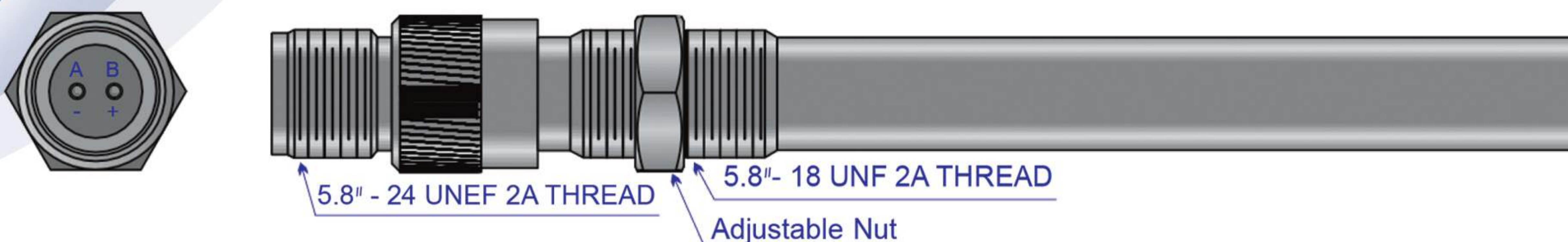
PICK UP For Solar Gas Turbine

OEM P/N For Sensor : 45783-1

Our P/N: PD-MPU-2033



Description	Hall-effect sensor
voltage range	60 V (p-p)
Operating frequency range	0 TO 25 K HZ
Operating temperature	-40 °C to 150 °C [-40 °F to 302 °F]
Inductance	75 m H Max
Thread Size & lock Nut	5/8 UNF
Connector	MS3106

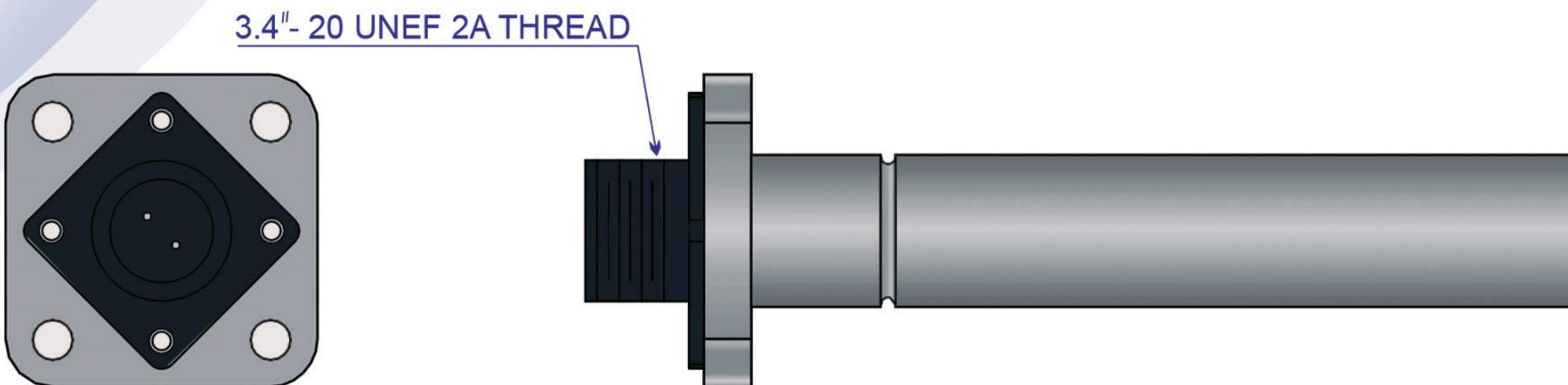


PICK UP For GEC Gas Turbine

Our P/N: PD-MPU-6099



Description	Hall-effect sensor
voltage range	60 V (p-p)
Operating frequency range	0 TO 25 K HZ
Operating temperature	-40 °C to 150 °C [-40 °F to 302 °F]
Inductance	120 m H Max
Thread Size & lock Nut	N/A
Connector	3/4"-20 UNEF 2A THREAD



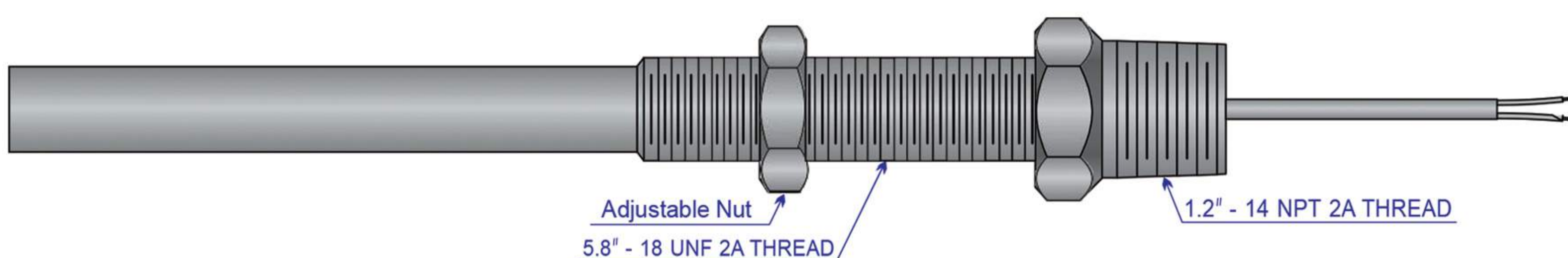
PICK UP For Solar Gas Turbine

OEM P/N: GEA6251849

Our P/N: PD-MPU-2055

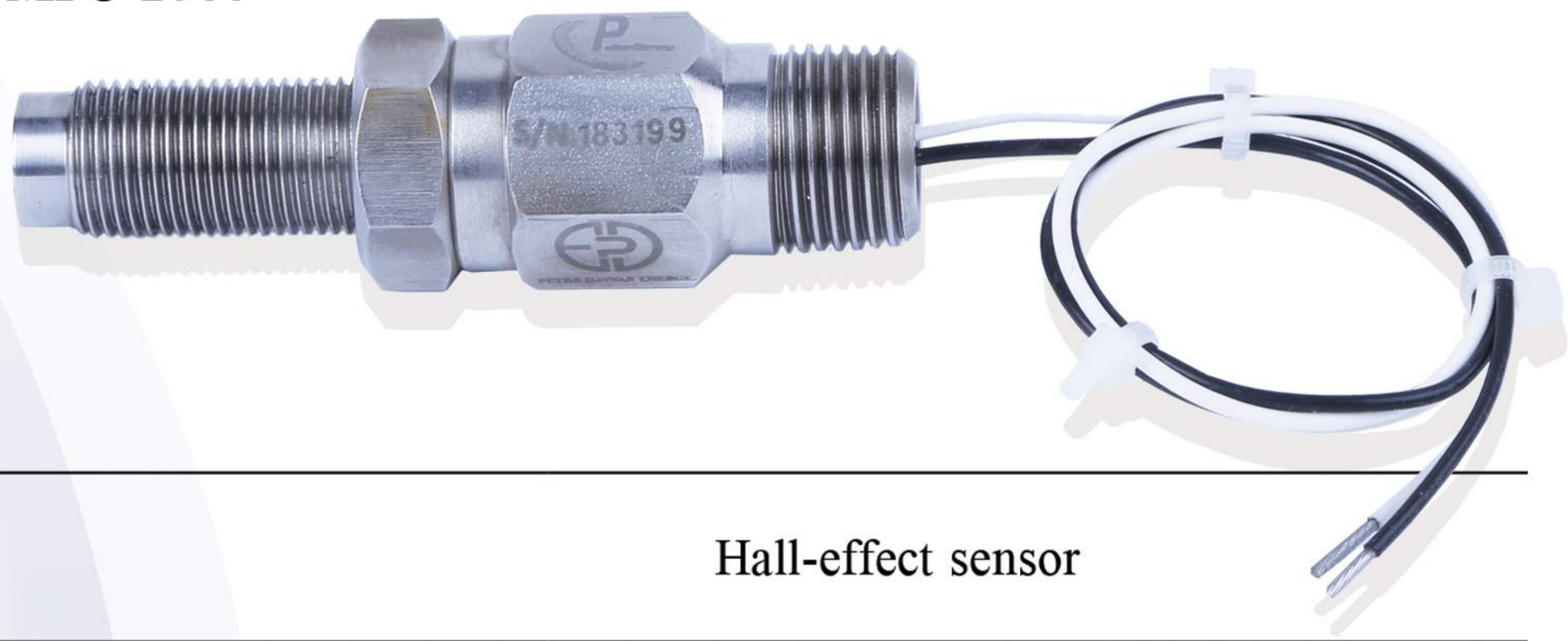


Description	Hall-effect sensor
voltage range	60 V (p-p)
Operating frequency range	0 TO 25 K HZ
Operating temperature	-40 °C to 150 °C [-40 °F to 302 °F]
Inductance	100 m H Max
Cable Length	200 mm
Cable Polarity	White= + , black= -
Thread Size & lock Nut	5/8 UNF
Cable Gland	1/2 NPT

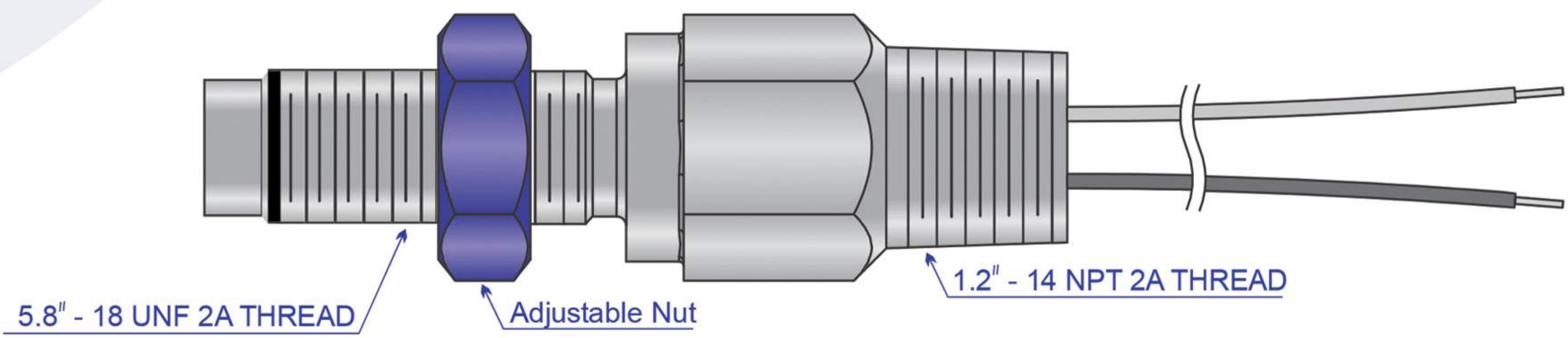


PICK UP For Solar Gas Turbine

OEM P/N: 993439 C 1
 Our P/N: PD-MPU-2044



Description	Hall-effect sensor
voltage range	60 V (p-p)
Operating frequency range	0 TO 25 K HZ
Operating temperature	-40 °C to 150 °C [-40 °F to 302 °F]
Inductance	75 m H Max
Cable Length	200 mm
Cable Polarity	White= + , black= -
Thread Size & lock Nut	5/8 UNF
Cable Gland	1/2 NPT

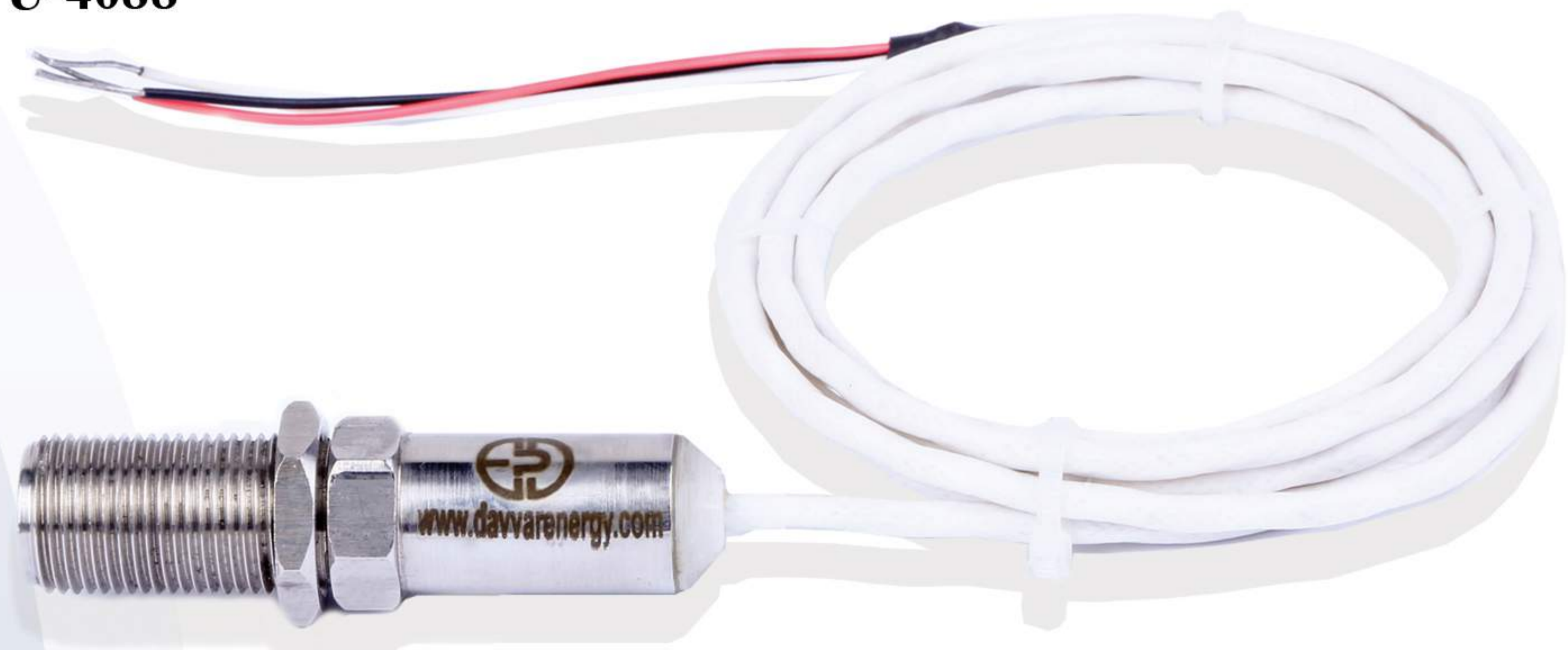


PICK UP For Sulzer Gas Turbine

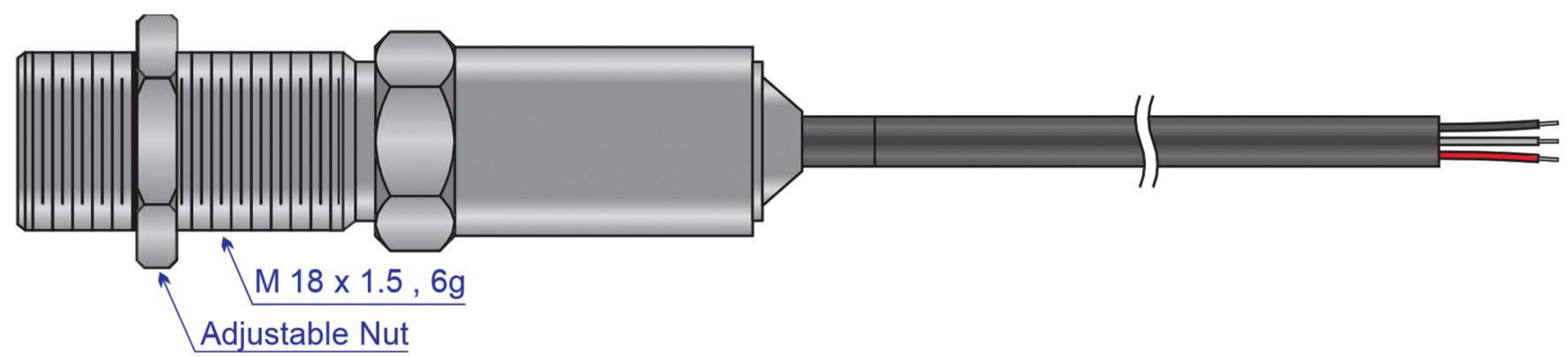
JAQUET P/N: DSE 182011 SHZ 1150

OEM P/N: 105.008.233.001

Our P/N: PD-MPU-4088



Description	Hall-effect sensor
voltage range	120 V (p-p)
Operating frequency range	0 TO 25 K HZ
Operating temperature	-40 °C to 150 °C [-40 °F to 302 °F]
Inductance	250 m H Max
Cable Length	3000 mm
Cable Polarity	White= + , black= -
Thread Size & lock Nut	M18 x 1.5

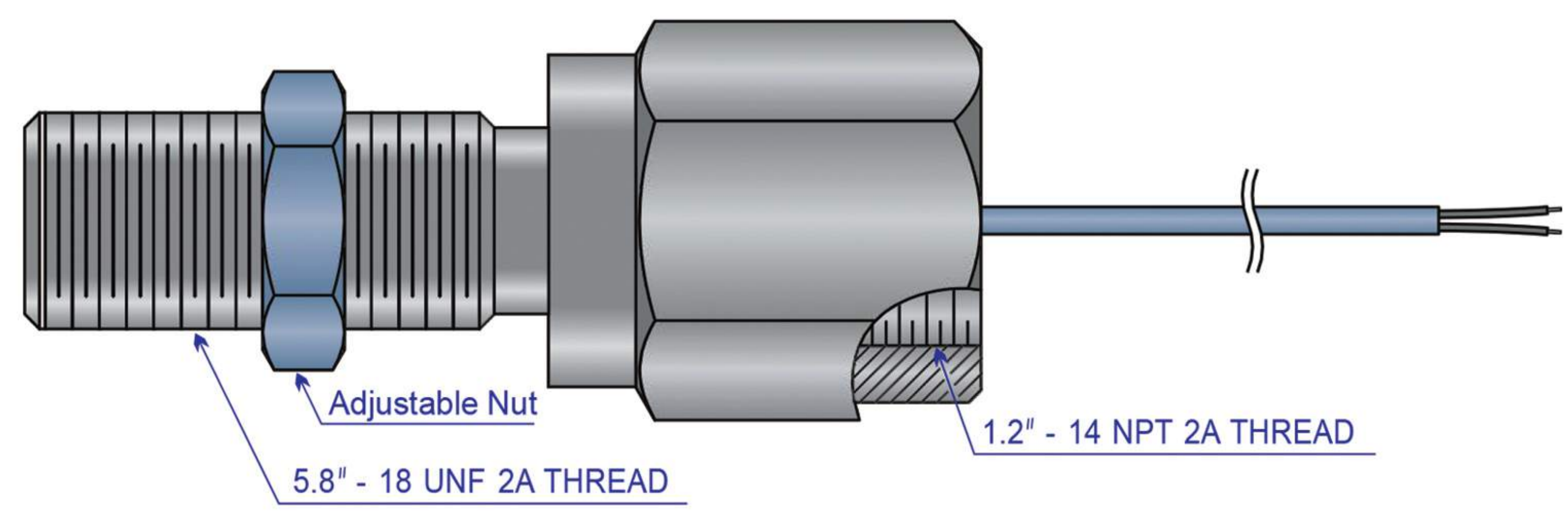


PICK UP For Nuovopignone Gas Turbine

OEM P/N: RTO 74046
 P/N: 70085-1010-249
 Our P/N: PD-MPU-5066



Description	Hall-effect sensor
voltage range	60 V (p-p)
Operating frequency range	0 TO 25 K HZ
Operating temperature	-40 °C to 150 °C [-40 °F to 302 °F]
Inductance	100 m H Max
Cable Length	300 mm
Cable Polarity	White= + , black= -
Thread Size & lock Nut	5/8 UNF
Cable Gland	1/2 NPT



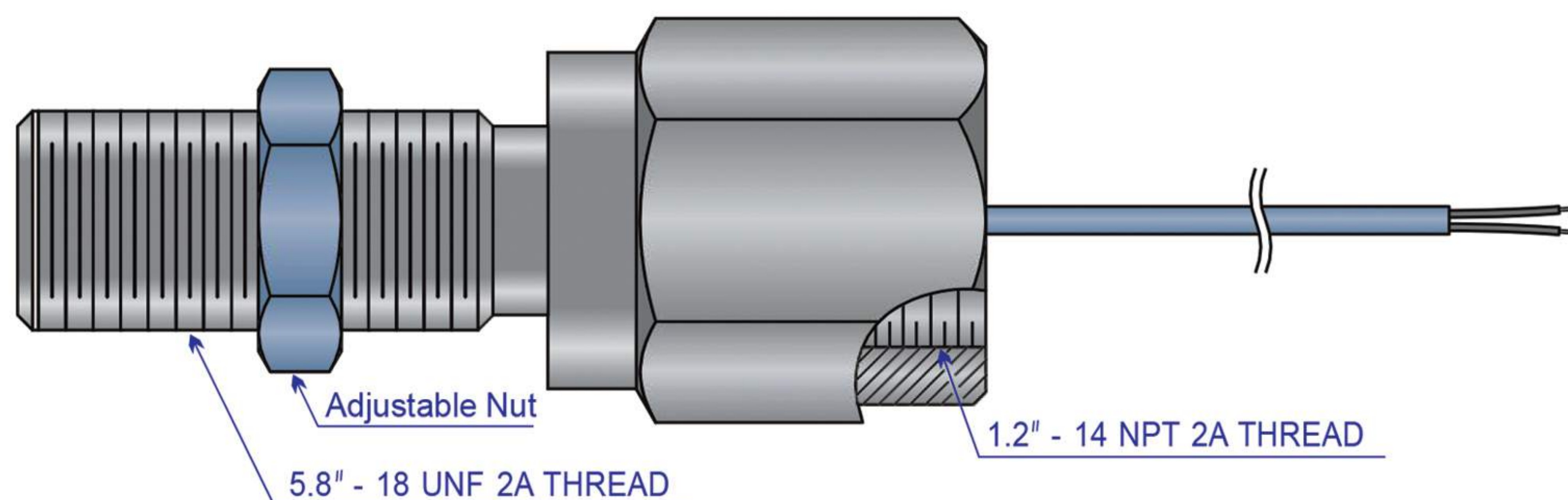


PICK UP For Nuovopignone Gas Turbine

OEM P/N: RTO 74066
P/N:70085-1010-403
Our P/N: PD-MPU-5077

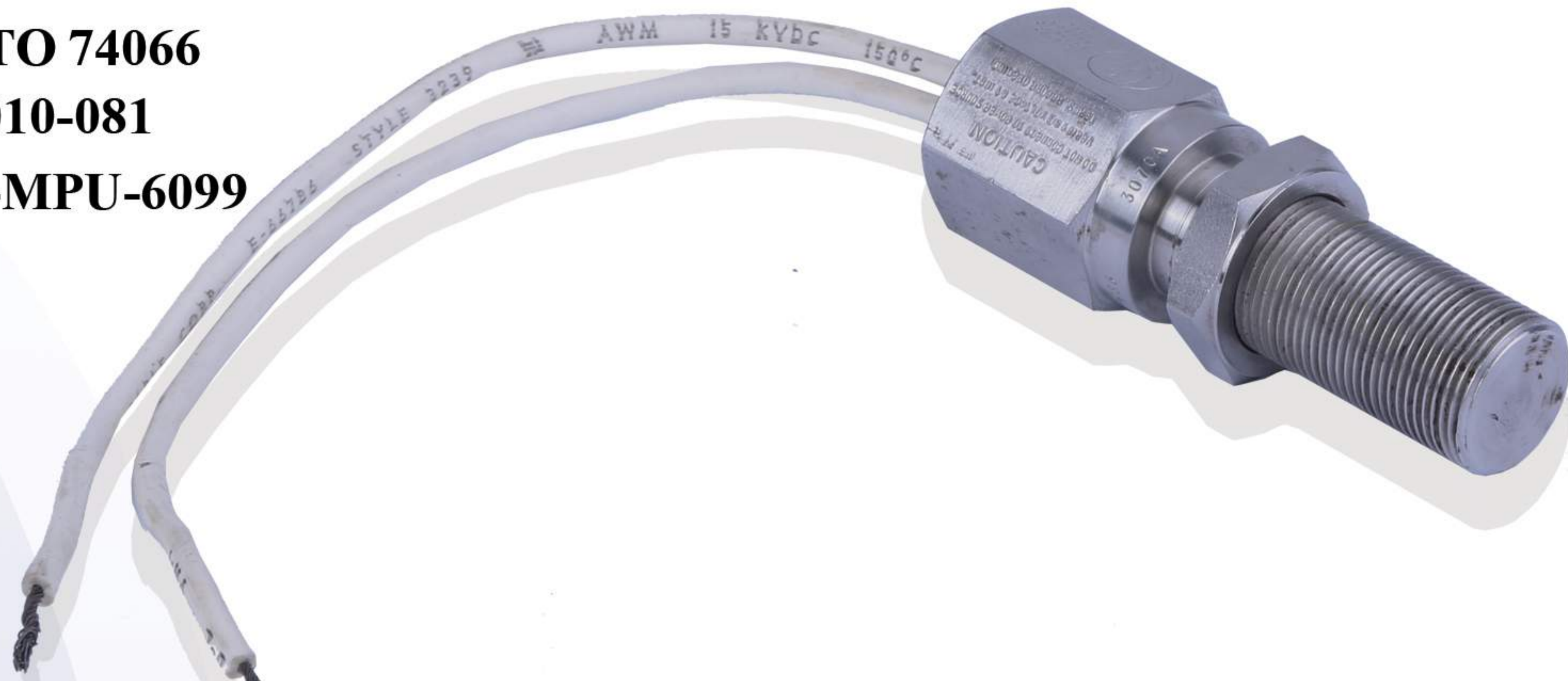


Description	Hall-effect sensor
voltage range	90 V (p-p)
Operating frequency range	0 TO 25 K HZ
Operating temperature	-40 °C to 150 °C [-40 °F to 302 °F]
Inductance	210 m H Max
Cable Length	4500 mm
Cable Polarity	White= + , black= -
Thread Size & lock Nut	5/8 UNF
Cable Gland	1/2 NPT

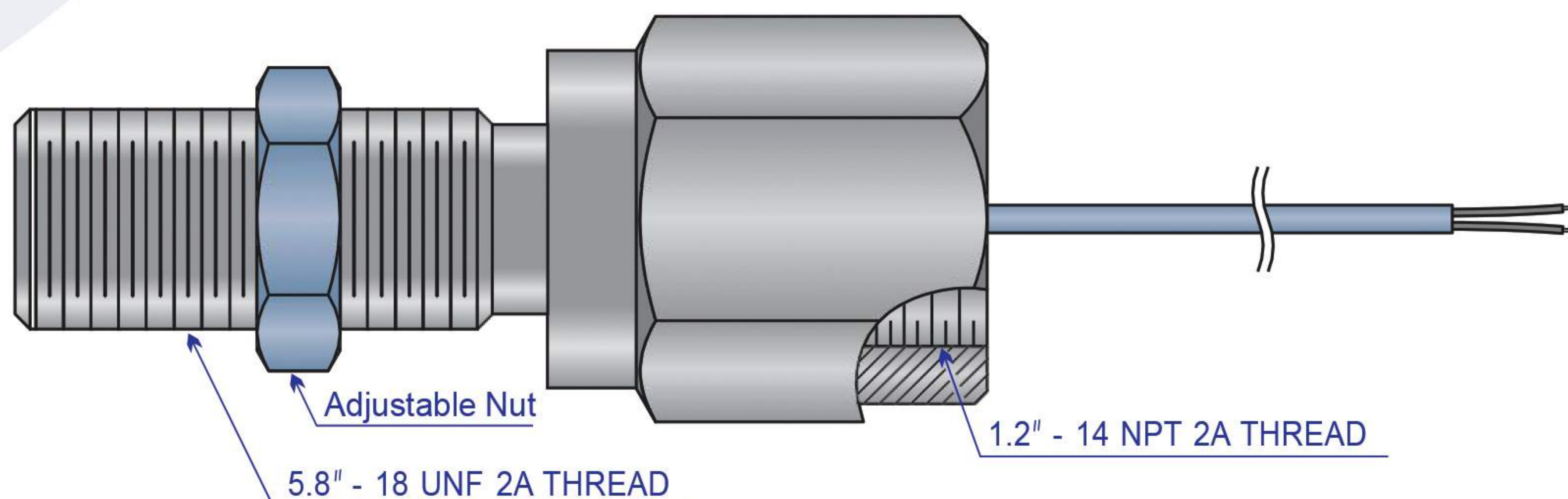


PICK UP For GE Gas Turbine

OEM P/N: RTO 74066
 P/N: 70085-1010-081
 Our P/N: PD-MPU-6099



Description	Hall-effect sensor
voltage range	54 V (p-p)
Operating frequency range	0 TO 25 K HZ
Operating temperature	-65 °C to 100 °C [-85 °F to 212 °F]
Inductance	100 m H Max
Cable Length	300 mm
Cable Polarity	White= + , black= -
Thread Size & lock Nut	5/8 UNF
Cable Gland	1/2 NPT



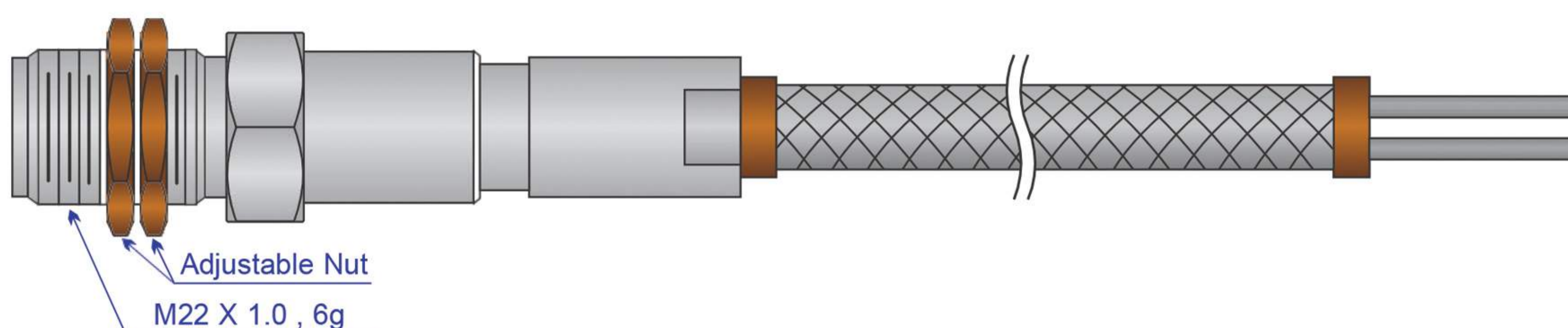
PICK UP For Werkspoor Gas Turbine

OEM P/N: FTG 1052 SMEXI

Our P/N: PD-MPU-8010



Description	Hall-effect sensor
Supply voltage range	4.5 VDC to 26.5 VDC (inclusive)
Supply current	20 mA
Output type	digital sinking (open collector)
Operating frequency range	0 TO 25 k HZ
Operating temperature range	-40 °C to 150 °C [-40 °F to 302 °F]
Inductance	250 mH Max
Cable Length	5000 mm
Cable Polarity	White= + , black= -
Thread Size & lock Nut	M22 x 1.0





PETRO DAVVAR ENERGY

If there is a will, there is a way...



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