Enabling the Extraordinary
To Fly To Power To Live

MEGGITT

vibro–meter®

WW 018
proximity sensor

WW 018

CE ⟨Ex⟩ IECEx UKCA
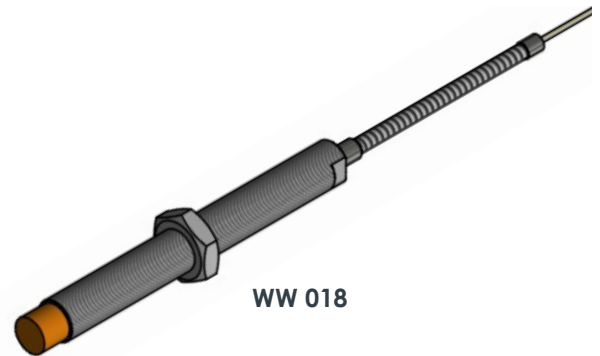
KEY FEATURES AND BENEFITS

- From the vibro-meter® product line

- Available in standard versions and Ex versions certified for use in hazardous areas

- Non-contact measurement of position

- Measurement range: 2 to 12 mm

- Temperature range: −20 to 145°C

- Stainless-steel housing

- Protection rating: IP67 (sensor head)

- Compatible with TWW 103 M1 transmitter

APPLICATIONS

- Shaft relative position measurement chains for machinery protection and/or condition monitoring

- General-purpose position monitoring and protection for stand-alone machines in harsh industrial environments and/or hazardous areas

DESCRIPTION

The WW 018 proximity sensor from Parker Meggitt's vibro-meter® product line is a dedicated non-contact vibration and position measurement probe based on the eddy-current principle.

A WW 018 proximity sensor is used, in combination with a TWW 103 M1 transmitter, to measure the relative position of a target object without touching the target (that is, the non contact measurement of displacement).

Accordingly, such displacement measurement systems consist of a WW 018 proximity sensor and a TWW 103 M1 transmitter, and provide a measurement range (static) of 10 mm.

The WW 018 is available in standard versions for use in standard (non-hazardous) areas and Ex versions for installation in hazardous areas (potentially explosive atmospheres).

For specific applications, contact your local Parker Meggitt representative.

SPECIFICATIONS

Proximity sensor

Measurement range	: 10 mm (2 to 12 mm) max.
Temperature range	: −20 to 145°C
Protection rating (according to IEC 60529)	: IP67 for the sensor head. IP64 for the sensor body and cable connection.
Housing material	: Stainless steel (1.4305)
Linearity deviation	: ±2% of measurement range end value
Deviation over temperature (0 to 145°C)	: ±5% of measurement range end value. Note: WW 018 with 2 m cable in the temperature range and TWW 103 M1 transmitter at 45°C and with an absolute distance of 7 mm.
Test material	: Alloy steel (1.7225)
Environmental resistance	: Against a variety of oils, chemicals and solutions

Cable

Cable type	: Teflon® triax cable, 2-way shielded
Temperature range	: −20 to 200°C
Length	: 5 m (see **Ordering information on page 6**)
Diameter	: 2.9 mm
Bend radius	: 30 mm min.
Environmental resistance	: Against a variety of oils, chemicals and solutions

Connector

Connector type	: Triax (Fischer-connectors)
Temperature range	: −40 to 100°C
Length	: 40 mm
Diameter	: 6.5 mm

Cable protection (ordering option code F1)

Cable protection type (material)	: Stainless steel (1.4305)
Temperature range	: −20 to 250°C
Protection rating (according to IEC 60529)	: IP40
Length	: 4.8 m (see **Ordering information on page 6**)
Diameter	
• Outer	: 10 mm
• inner	: 8 mm
Bend radius	: 45 mm min.
Environmental resistance	: Against a variety of oils, chemicals and solutions

SPECIFICATIONS *(continued)*

Potentially explosive atmospheres

Available in Ex approved versions for use in hazardous areas

Type of protection Ex i: intrinsic safety (**ordering option code A2**)		
Europe	EC type examination certificate	⟨Ex⟩ II 3G (Zone 2) Ex ic IIC T3 Gc CSANe 23 ATEX 1097 X
International	IECEx certificate of conformity	Ex ic IIC T3 Gc IECEx PTZ 17.0002X
United Kingdom	UK type examination certificate	⟨Ex⟩ II 3G Ex ic IIC T3 Gc CSAE 23 UKEX 1054 X

⚠ **For specific parameters of the mode of protection concerned and special conditions for safe use, refer to the Ex certificates that are available from Meggitt SA.**

⚠ **For the most recent information on the Ex certifications that are applicable to this product, refer to the *Ex product register (PL-1511) document* that is available from Meggitt SA.**

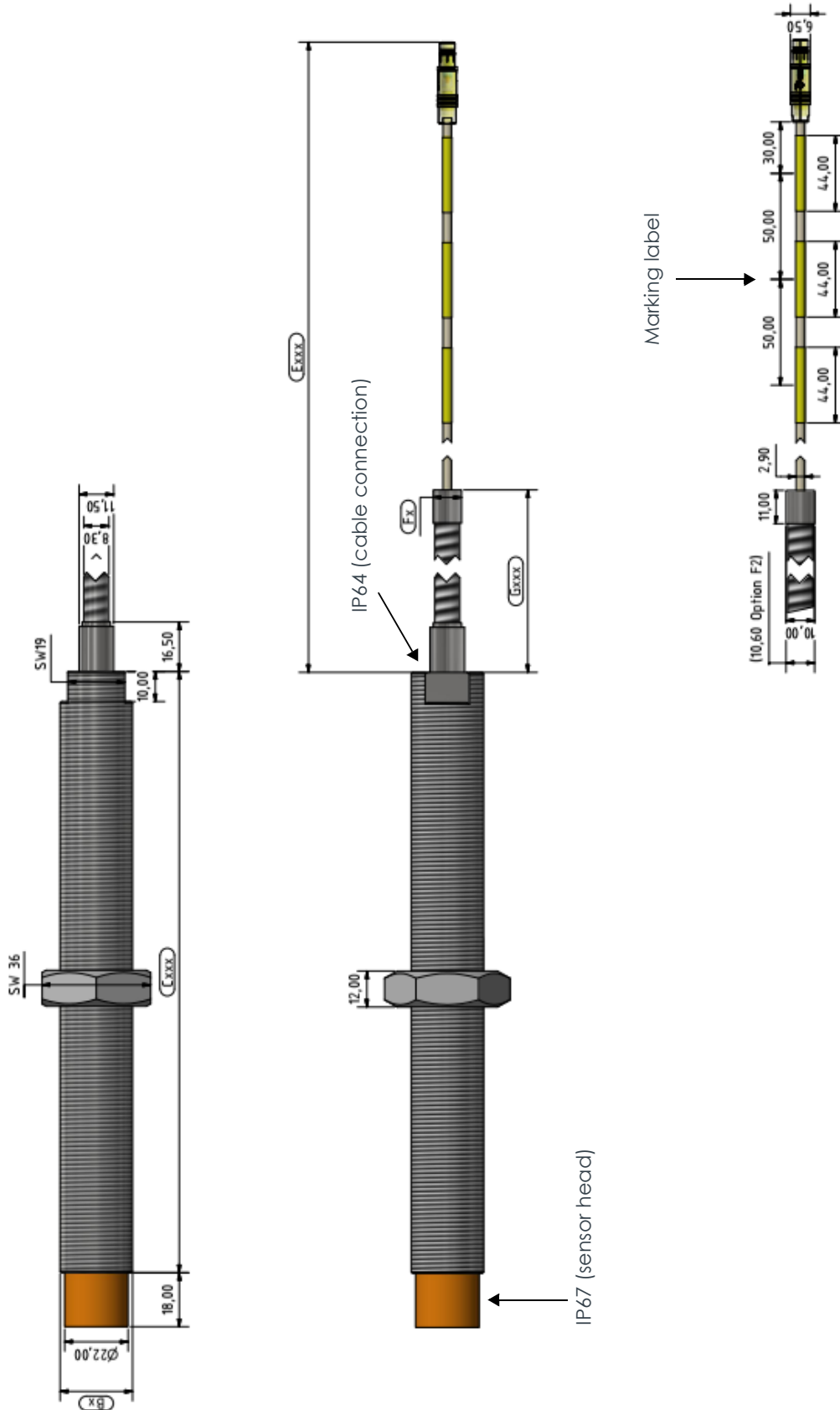Note: See **Mechanical drawing – standard version only on page 5**.

Approvals

Conformity	:	European Union (EU) declaration of conformity (CE marking)
Electromagnetic compatibility (EMC)	:	EMC compliant (2014/30/EU): EN 55011:2009. EN 61000-4-2:2009. EN 61000-4-3:2020. EN 61000-4-4:2012. EN 61000-4-5:2014 + A1:2017. EN 61000-4-6:2014. DIN EN 61326-1:2013.
Electrical safety	:	DIN EN 61010-1:2020
Environmental management	:	RoHS compliant (2011/65/EU)
Hazardous areas	:	Ex approved versions (see **Potentially explosive atmospheres on page 3**)

Physical

Dimensions	:	See **Mechanical drawings on page 4**
Mounting	:	See **Mounting requirements on page 5**

DRAWINGS

Mechanical drawings

IP64 (cable connection)

IP67 (sensor head)

Marking label
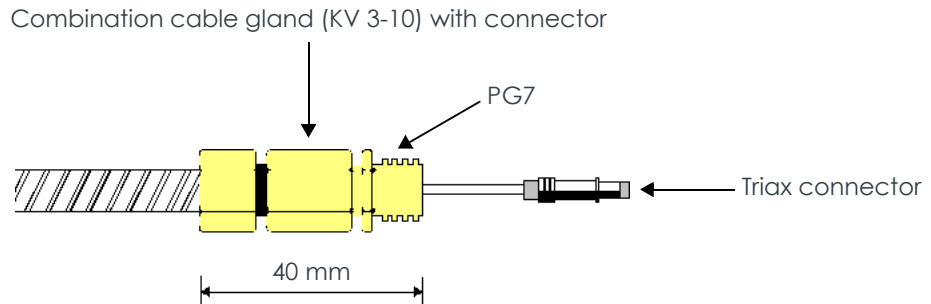
Note: All dimensions in mm unless otherwise stated.

DRAWINGS *(continued)*

Mechanical drawing – standard version only

Combination cable gland (KV 3-10) with connector

PG7

40 mm

Triax connector

Notes

All dimensions in mm unless otherwise stated.

Standard versions of the WW 018 proximity sensor (ordering option code A1) come with a combination cable gland (KV 3-10) attached near the transmitter end of the cable, as shown above.
Ex versions of the WW 018 sensor (ordering option code A2) do not have this combination cable gland as it is not certified for use in hazardous areas (potentially explosive atmospheres).

Accordingly, it is important to note that versions of the WW 018 proximity sensor with the combination cable gland are not certified for use in hazardous areas (potentially explosive atmospheres).
See also **Ordering information on page 6**.

Mounting requirements

A

B

B
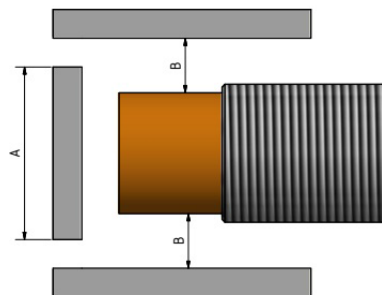
A = Target object diameter: ≥27 mm.

B= Minimum sensor to "casing" distance: 6.5 mm.

Note: All dimensions in mm unless otherwise stated.

ORDERING INFORMATION

To order, please specify the version(s) of the WW 018 proximity sensor required …

Ordering number (PNR):

WW018 — [A] — [B] — [C] — [E] — [F] [G] — [H] —

Version / Environment (A)	
Standard [See note 1]	1
Explosive (Ex) [See note 2]	2

Body thread (B)	
M24 × 1.5	1

Body length (C)	
200 mm	200
300 mm	300

Cable length (E)	
5 m	050

System length (H)	
05	5 m [See note 5]

Cable protection length (G)	
000	None (0 m) [See note 3]
048	4.8 m [See note 4]

Cable protection (F)	
0	None
1	Flexible stainless steel

Notes

The normalized versions of the WW 018 that are readily available are listed below (see **Normalized Ex versions (for use in hazardous areas) on page 7** and **Normalized standard (non-Ex) versions on page 7**).
Other versions (combinations of ordering option codes) can be made available, subject to sufficient demand.

1. Standard versions of the WW 018 proximity sensor (A1) come with a combination cable gland (KV 3-10) attached near the transmitter end of the cable (see **Mechanical drawing – standard version only on page 5**).

2. Ex versions of the WW 018 proximity sensor (A2) do not have a combination cable gland (KV 3-10) as it is not certified for use in hazardous areas (potentially explosive atmospheres).

3. A cable protection length of 0 m (G000) must be specified when no cable protection is selected (F0).

4. A cable protection length of 4.8 m (G048) must be specified when cable protection is selected (F1).

5. A system length of 5 m (H05) must be specified for a cable length of 5 m (E050).

ORDERING INFORMATION *(continued)*

Normalized Ex versions (for use in hazardous areas)

Type	Designation	Ordering number (PNR)
WW 018	See Ordering number (PNR) above	WW018-A2-B1-C200-E050-F1-G048-H05
WW 018	See Ordering number (PNR) above	WW018-A2-B1-C300-E050-F1-G048-H05

Normalized standard (non-Ex) versions

Type	Designation	Ordering number (PNR)
WW 018	See Ordering number (PNR) above	WW018-A1-B1-C200-E050-F1-G048-H05

RELATED PRODUCTS

TWW 103 M1	Transmitter	: Refer to corresponding data sheet

Meggitt (Meggitt PLC) is a leading international engineering company, headquartered in England, that designs and delivers high-performance components and subsystems for aerospace, defence and selected energy markets. Meggitt comprises four customer-aligned divisions: Airframe Systems, Engine Systems, Energy & Equipment and Services & Support.

The Energy & Equipment division includes the Energy Sensing and Controls product group that specialises in sensing and monitoring solutions for a broad range of energy infrastructure, and control valves for industrial gas turbines, primarily for the Power Generation, Oil & Gas and Services markets. Energy & Equipment is headquartered in Switzerland (Meggitt SA) and incorporates the vibro-meter® product line, which has over 65 years of sensor and systems expertise and is trusted by original equipment manufacturers (OEMs) globally.

Sales offices

Meggitt has offices in more than 30 countries. For a complete list, please visit our website.

afaq ISO 9001 Qualité AFNOR CERTIFICATION

afaq ISO 14001 Environnement AFNOR CERTIFICATION

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