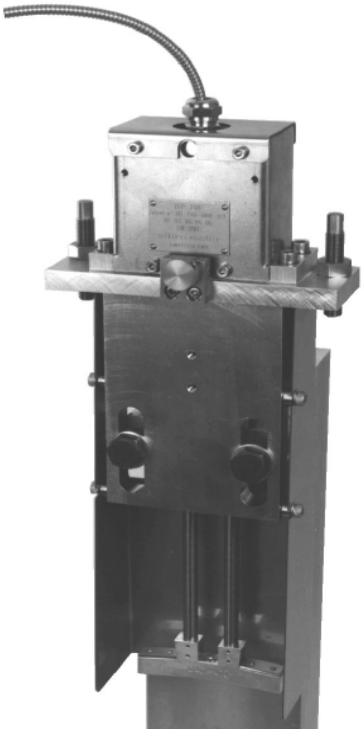
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MEGGiTT

DP 243

Vibro-Meter
Pendulum Probe

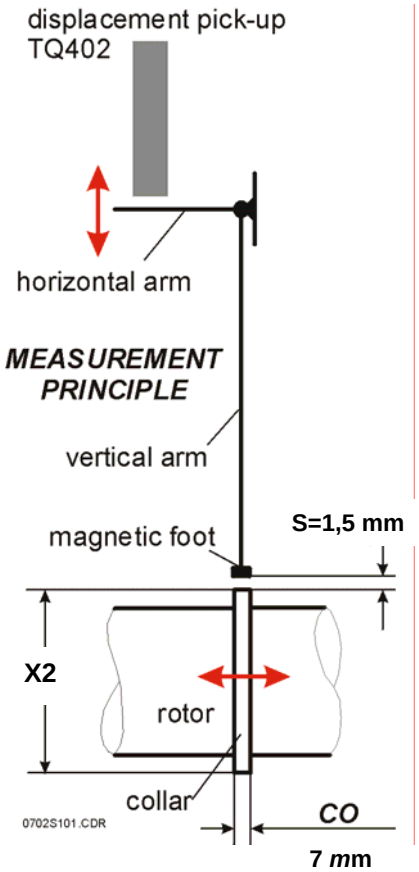


FEATURES

- Non contacting measurement
- Eddy current principle based on TQ 402 sensors
- Measuring range on request
- Temperature range : up to +200 °C

DESCRIPTION

The pendulum-type measuring system is based on the proximity measurement principle. A displacement transducer of the TQ 402 family is mounted in the pendulum's head and observes the relative displacement of a target, which is mechanically linked with the pendulum's arm.



The target's relative displacement is proportional to the displacement of the pendulum's magnetic base, whereby the measured displacement is linked by the transmission of the length between the vertical and horizontal arm. Like all passive transducers, the TQ 402 requires a complementary signal conditioner (i.e. oscillator/ demodulator of the IQS 450 series signal conditioners). The IQS 450 provides the TQ 402 with a high-frequency stimulus and also conditions the proximity signal for processing by other electronic modules. The TQ 402 is equipped with an integral cable, to which an EA 402 extension cable may be connected, if necessary, to link the proximity transducer to the signal conditioner. In any given configuration, the total length will be:

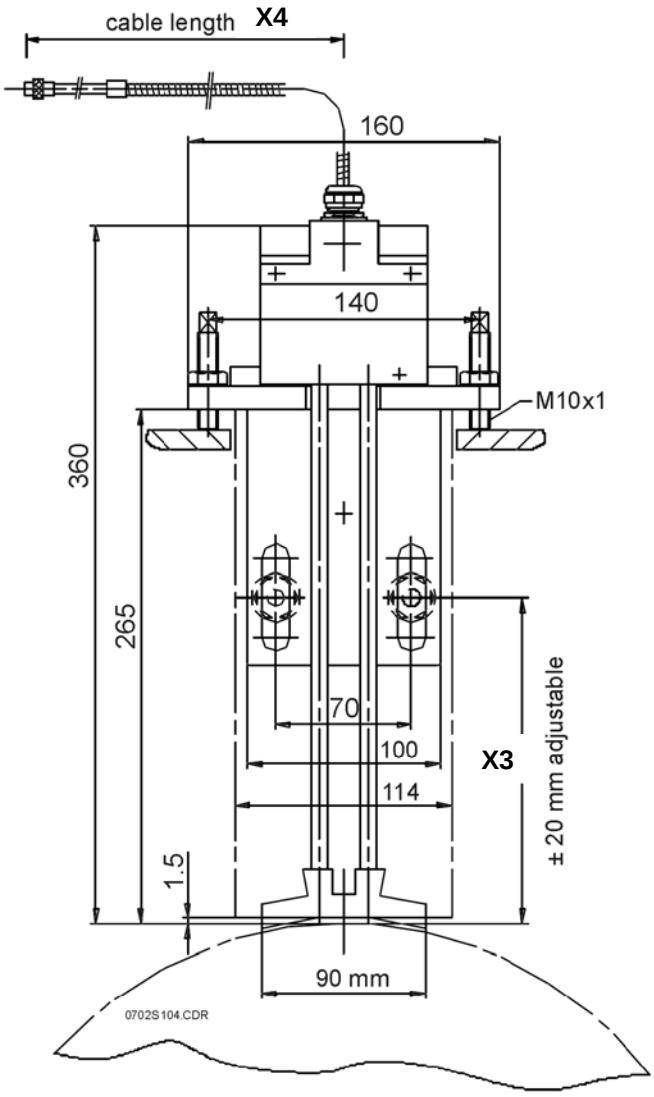
- either 5m (5m integral cable or 1m integral cable + 4m extension cable) or
- 10m (10m integral cable or 1m integral cable + 9m extension cable)

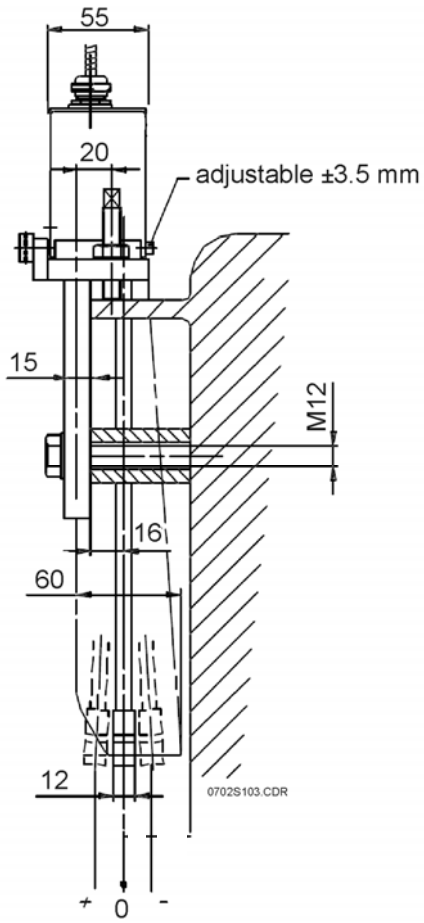
The distance separating the measurement point from the area where the machinery monitoring system is located will determine whether a 2-wire or a 3-wire transmission technique may be used:

- 2-wire transmission may be used up to a distance of 1000m (nominal sensitivity TQ/IQS 1.25 µA/µm)
- 3-wire transmission may be used up to a distance of 200m (nominal sensitivity TQ / IQS 4 mV/µm)

The 2-wire technique uses a current modulation method. A galvanic separation (e.g. GSI 124) is required to provide a voltage-modulated signal that can be processed by the modules in non-Vibro-Meter standard machinery monitoring system using only voltage inputs. This galvanic separation is required irrespective of whether intrinsically safe (Exi) versions of equipment are used, or not.

The 3-wire technique uses a voltage modulation method, therefore directly compatible with the modules in general machinery monitoring systems.





SYSTEM SPECIFICATION

Transducer input requirements:	HF-power source by conditioner type IQS 450
Weight:	approx. 4 to 10 kg (see Test Certificate)
Mounting:	vertical (± 30° angle, head in up position
Temperature:	up to +200°C
Air gap between foot and shaft collar:	1,0…1,5mm, max. 1.5 mm (S)
Collar width nominal:	7 mm (CO)
Material:	stainless steel
Integral cable:	diameter 3.6 mm FEP coaxial cable without protection
Sensitivity DP 243:	see Test Certificate

ORDERING INFORMATION

To order please specify: Type and designation e.g. DP 243 Pendulum Probe
Ordering Number: **PNR: VMD-DP243–A – B – C – D – E – F – G – H – I**

Measuring Range (A)	
-XX …+YY mm	XXYY

shaft collar diameter (B) mm	
XXX mm	XXX

Length (C) = X3	
XXX mm	XXX

	Cable length (D)
01	1 m
05	5 m
10	10 m

	Extension Cable (E)
00	0 m
04	4 m
09	9 m

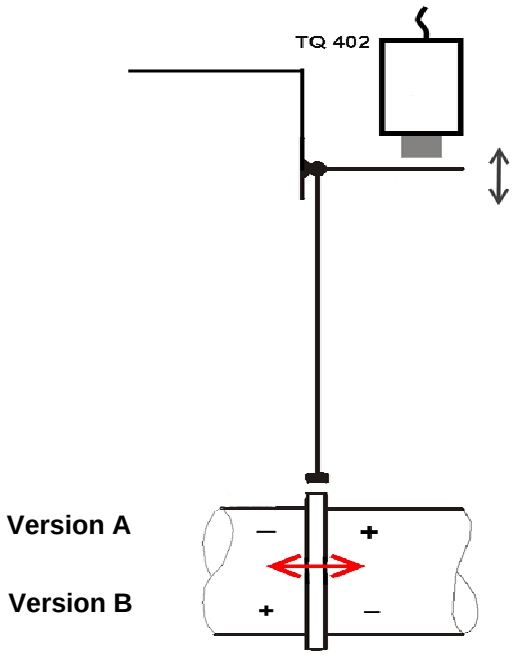
	Protection Cable (F)
00	none
01	BOA

	System Length (G)
05	5 m
10	10 m

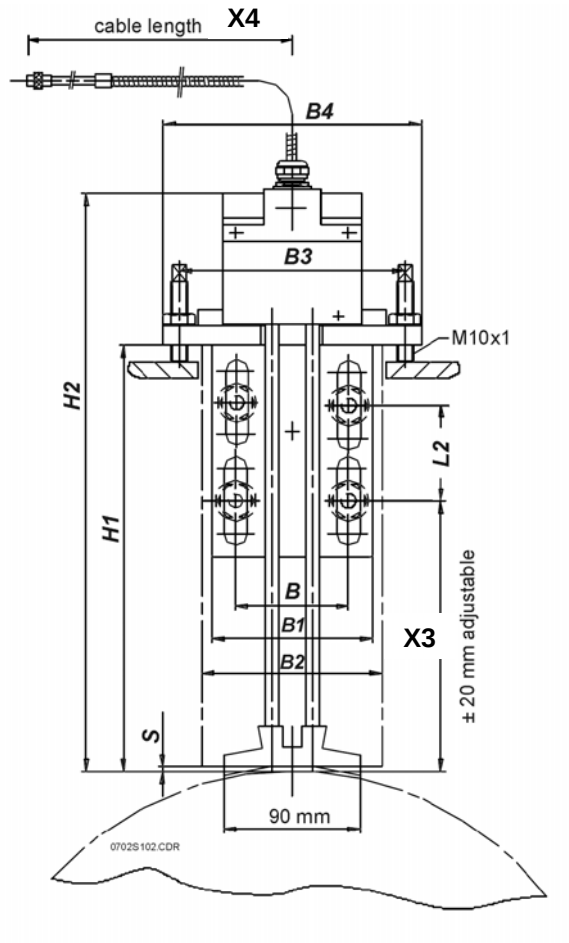
	Direction (H)
A	Version A
B	Version B

	Probe (I)
1	1x TQ 402
3	3x TQ 402

Note:
The matching conditioner type IQS 450 (with voltage output mV/µm) has to be ordered separately also the Transmitter TWW 212 if the 4…20 mA output is required.



Other dimensions and measurement ranges on request. Pendulums with redundant measurement devices are available (e.g. 3xTQ 402 sensors with consequently modified head design, see below).



Selectable dimensions on request



e.g. Sensor head with three TQ 402 sensors

Although care has been taken to assure the accuracy of the data presented in this publication, we do not assume liability for errors or omissions. We reserve the right to alter any part of this publication without notice.

Sales Offices

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The complete list can be found on our webpage
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ISO 9001

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