

DESCRIPTION

The VM 5.0 Capacitive Sensor is a flat, noncontact type sensor which generates the necessary electric field to measure the distance between its surface and a target. The raw signal from the sensor is sent through a triaxial extension cable to the LIN-250 Linearization Module to be conditioned and transmitted to a ZOOM Processing Unit or a PCU-100 Programmable Monitor.

Slim design and high immunity make the VM 5.0 a universal proximity sensor. Its measuring range, accuracy, and reliability are unaffected by: deposits of oil, carbon dust and dirt; strong magnetic fields; high shock vibration; and EMI-RFI.

The VM 5.0 is a passive sensor, with no moving parts or active electronic elements and is compatible with most types of conductive and semi-conductive target material.

VM 5.0

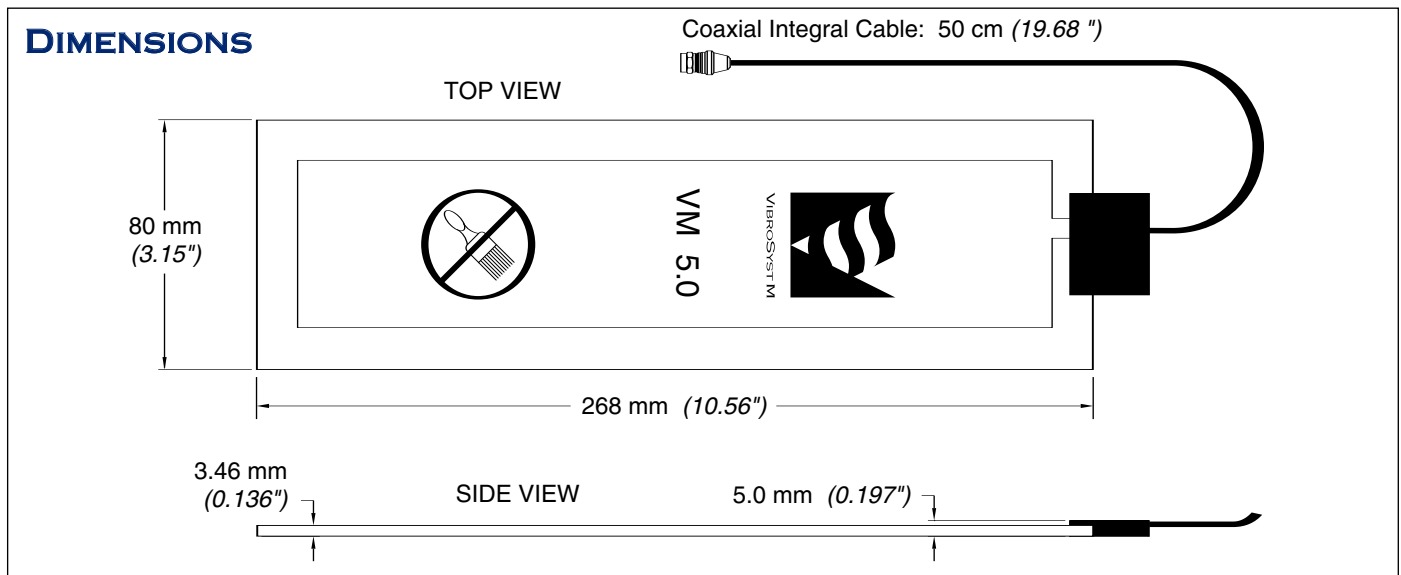
AIR GAP CAPACITIVE SENSOR

APPLICATIONS

- On-line air gap measurements for:
 - generators
 - synchronous condensers
 - large electric motors
- On-line proximity measurements
- Specified for gaps larger than 14 mm (550 mils) and up to 50 mm (2 in.)

FEATURES

- Range: 5 to 50 mm (200 to 2000 mils)
- Used with LIN-250 Linearization Module and ZOOM Processing Unit (ZPU) or PCU-100 Programmable Monitor
- Highly immune to deposits of oil and carbon dust, and strong magnetic fields
- Easy to install on stator wall without removing the rotor or poles
- Noncontact, nonintrusive sensor
- Over 20 years of field experience





VM 5.0 GENERAL SPECIFICATIONS

Operation

- Linear Measuring Range 5 to 50 mm standard
(200 to 2000 mils)
Custom ranges available
- Power Source 455 kHz
- Frequency Response Limited by the LIN-250
Linearization Module
- Interchangeability ±5%

Environmental

- Temperature Range 0° to 125°C
(32° to 260°F)
- Magnetic Field Up to 1.5 tesla
[50 Hz or 60 Hz]
- Dust and Oil Contamination Small deposits have
no effect on performance

Connection

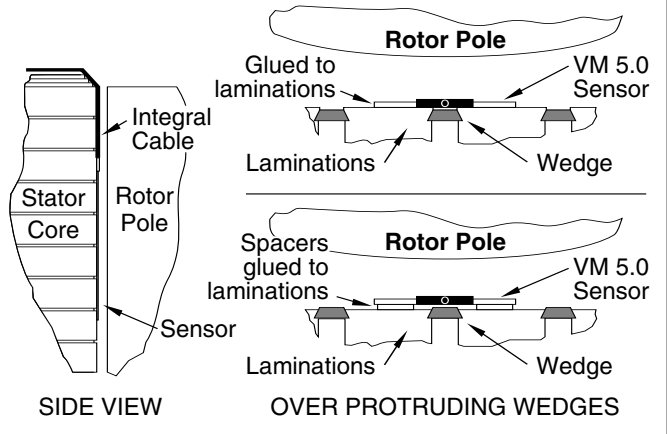
- Integral Cable Type Teflon coaxial
 - Connector Male SMA
 - Length 50.0 cm (19.7 in.)
- Extension Cable Type Belden Triaxial
 - Connectors Female SMA and ground lug
on sensor end;
Male BNC coaxial and
ground lug on LIN end
 - Length Fixed, 10 m (32.8 ft)
Custom lengths available

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* Protected by patents around the world: US patents 7,064,559; 6,307,385; 6,552,667;
6,075,464; 5,990,807; 5,182,612; and other patents pending.

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INSTALLATION OVER RECESSED WEDGES



Dimensions

- Height 285.50 mm (11.24 in.)
- Width 80.00 mm (3.15 in.)
- Thickness 3.46 mm (0.14 in.)
- Clearance 5.00 mm (0.20 in.)