



VM3AF - 15H - 2 to 20mm

U.S. Patent No. 11125795

Capacitive Air Gap Measuring Chain



GENERAL SPECIFICATIONS

Sensor

Operation

- Measurement type Non-contact proximity, capacitive technology

Connection

- Integral cable Coaxial
- Connector Male, gold-plated SMA

Environmental

- Operating temperature range 0 to 125°C [32 to 257°F]
- Absolute maximum temperature 155°C [311°F] ¹
- Resistance to industrial chemicals and solvents Very good ²
- Magnetic field immunity Up to 2 Tesla (50 or 60 Hz)
- Dust and oil contamination Films have no effect
- Humidity Up to 95%, non-condensing

Physical Characteristics

- Sensor material Glass reinforced laminates
- Cable material PVDF over FEP jacket / FEP insulation

Extension Cable

Connection

- Cable type Triaxial
- Absolute minimum length 14.5 m [47.6 ft]
- Connectors
 - Sensor side Female, gold-plated SMA and grounding terminal
 - Conditioner side Male, gold-plated SMA and grounding terminal
- Minimum bending radius 10 cm [4 in]

Environmental

- Temperature range 0 to 125°C [32 to 257°F]

Physical Characteristics

- Type H cable material FEP Jacket / FEP Insulation



LIN™ -300 Conditioner

Power Requirements

- Voltage 24 Vdc ±15%
- Consumption 120 mA max.
- Warm-up time 30 minutes

Connection

- Power/Output 5-pin M12 male
- Sensor input Female, gold-plated SMA and grounding terminal

Environmental

- Temperature range
 - Continuous operation 0 to 55°C [32 to 131°F]
 - Storage (measuring chain) -25 to 70°C [-13 to 158°F]

Physical Characteristics

- Body Nickel-plated aluminum
- Mounting 4 oblong holes for #6 (M3.5) screws
- Max. torque on SMA 1.1 Nm [10 in-lb]
- Status indicator Bicolor LED

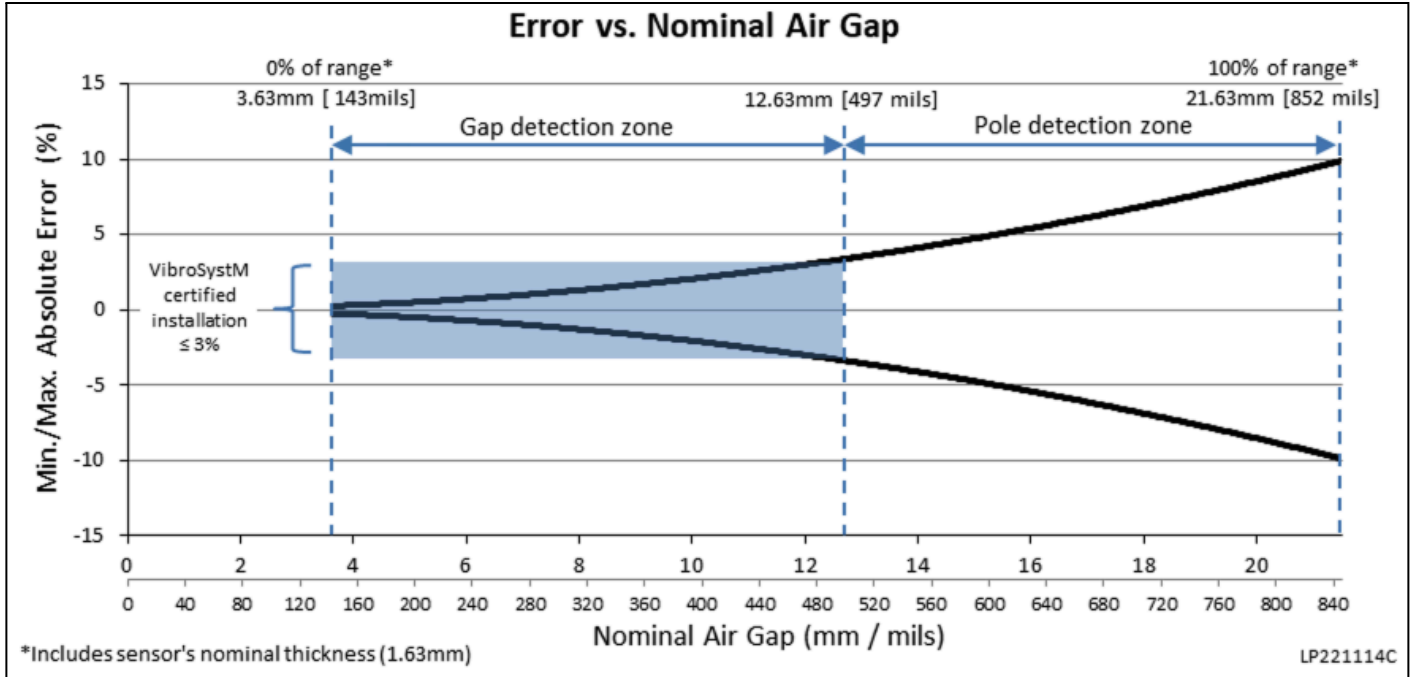
MEASURING CHAIN TECHNICAL SPECIFICATIONS

At room temperature, unless otherwise noted

Sensor	VM3AF - 15H - 2/20
Nominal measuring range	2 to 20 mm [79 to 787 mils]
Sensor integral cable length	0.5 m [19.7 in]
Extension cable nominal length	Type H: 15 m [49.2 ft]
Conditioner model	LIN-33AF-15H-2/20
Output	4 to 20mA
Load at output	500 Ω max.
Bandwidth	DC to 1.2 kHz (-3 dB)
Sensitivity	0.889 mA/mm [22.6 μA/mil]
Accuracy	See figure 1
Repeatability (% of reading)	± 0.3 %
Maximum temperature drift (Standard installation and under normal operation conditions)	± 2% (at mid-range)

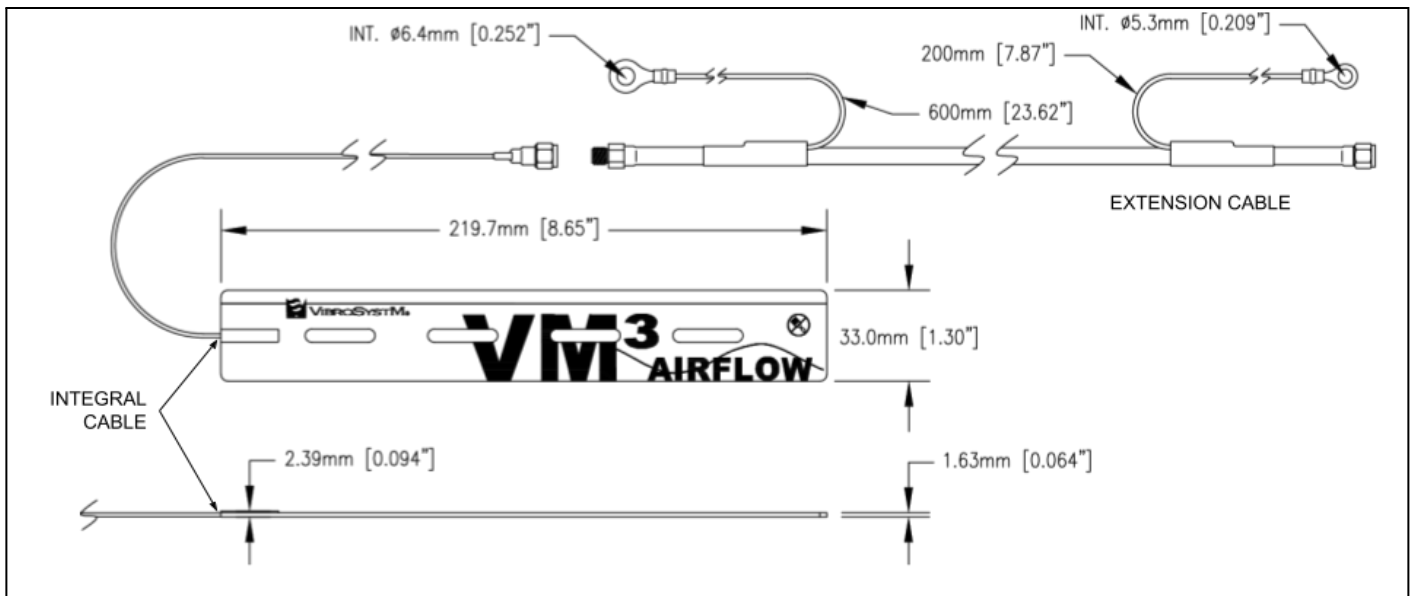


Figure 1: LIN-33AF-15H-2/20 Measuring Chain



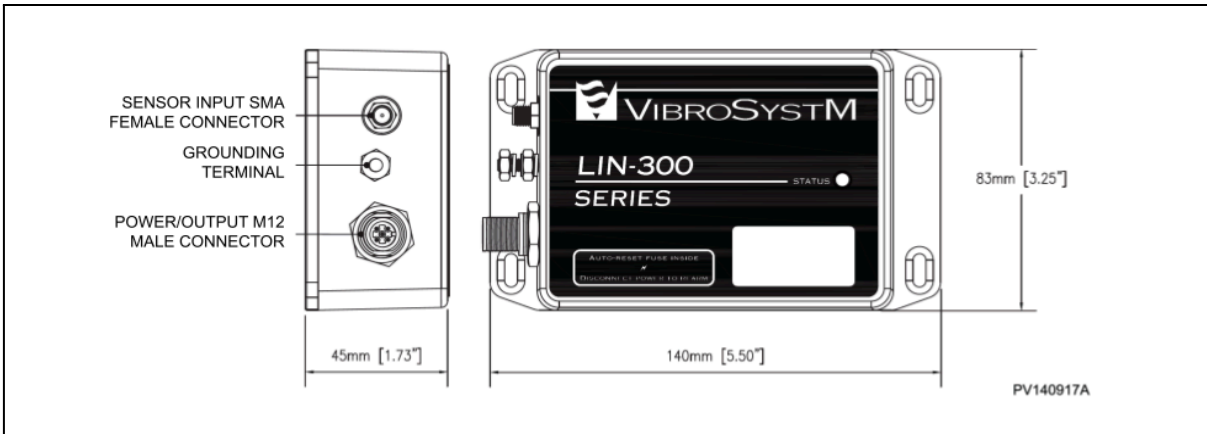
VM3AF MEASURING CHAINS OVERVIEW

VM3AF Sensor with Extension Cable





LIN-300 Series Conditioner



PRODUCT INFORMATION

Product Number	Description
LIN-33AF-15H-2/20 Measuring Chain	
VSM-VM3AF	VM3 AIRFLOW air gap sensor
VSM-L33AF-15H-2/20	LIN-33AF-15H conditioner (2-20 mm)
VSM-CBL-331-2/20-15H	Cable / Triaxial - SMA/SMA / (15 m/49.2 ft)

¹ Applicable to the sensor body in the event of a fault, for a short period of time (<3h per event). If left continuously at temperature above operating range, premature aging of the sensor will occur.

² Compatible with acetone, alcohol isopropyl, and paint thinner. Do not soak or submerge. Tests any other product on a small area of the sensor before using it. If in doubt, contact VibroSystM for support.