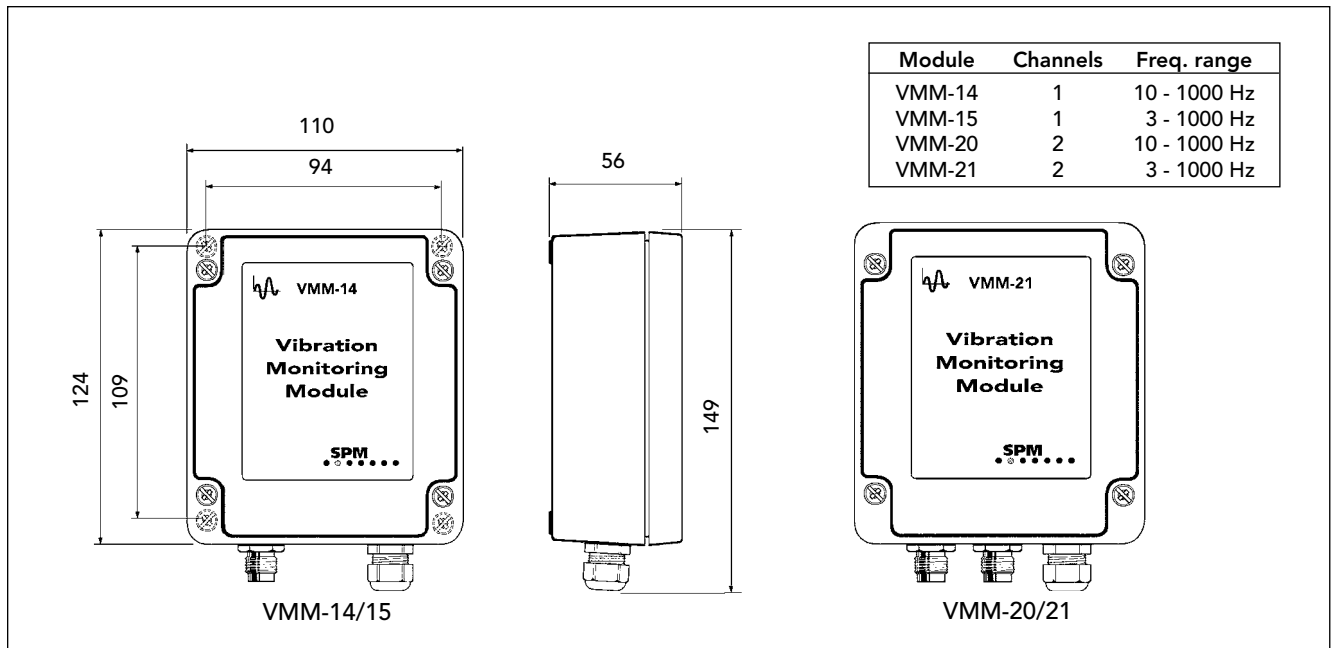


CMM System - Vibration Monitoring Module VMM



Vibration Monitoring Modules VMM are programmable converters which supply a 4-20 mA signal proportional to the RMS-value of vibration velocity. There are four versions:

VMM-14: 1 channel, frequency range 10 - 1000 Hz

VMM-15: 1 channel, frequency range 3 - 1000 Hz

VMM-20: 2 channels, frequency range 10 - 1000 Hz

VMM-21: 2 channels, frequency range 3 - 1000 Hz.

The frequency range of 3 to 1000 Hz is suitable for machines with rotational speed down to 180 r.p.m.

The measuring range can be DIP switch set to either 0 to 5, 0 to 10, 0 to 20 or 0 to 40 mm/s.

The 4-20 mA output can be supplied to a display module type DMM, to a PLC or to a computer controlled monitoring system (e.g. SPM's CMS System).

A transducer line fault causes an output of <1 mA. If this should interfere with PLC operations, the min. output can be jumper set to 4 mA, individually for each channel.

The vibration transducer is connected via coaxial cable with TNC connectors. The module is wall mounted with 4 screws \varnothing 4 mm and supplied with 12 to 24 V DC. The cable inlet is tight for cable diameters 5.5 to 10 mm.

Technical data

Measuring method: vibration severity similar to ISO 10816 (modified frequency range, VMM-15/21)

Channels: 1 (VMM-14/15), 2 (VMM-20/21)

Measuring range 1: 0 - 5 mm/s (0 - 0.19 inch/s)

Resolution: 3.2 mA = 1 mm/s; 1 mA = 0.313 mm/s

Measuring range 2: 0 - 10mm/s (0 - 0.39 inch/s)

Resolution: 1.6 mA = 1 mm/s; 1 mA = 0.625 mm/s

Measuring range 3: 0 - 20mm/s (0 - 0.78 inch/s)

Resolution: 0.8 mA = 1 mm/s; 1 mA = 1.25 mm/s

Measuring range 4: 0 - 40mm/s (0 - 1.57 inch/s)

Resolution: 0.4 mA = 1 mm/s; 1 mA = 2.5 mm/s

Frequency range: 10 to 1000 Hz (VMM-14/20)

3 to 1000 Hz (VMM-15/21)

Transducer type: TRV-18/19, SLD121

Transducer cable: coaxial cable, SPM 90005-L, or 90267-L, (L = max. 50 m)

Analog output: 4 to 20 mA, no galvanic separation

Fault indication: \leq 1 mA out for open or short circuit

Loop resistance: 100 Ω . Higher resistance will reduce signal accuracy (max. 400 Ω at 12 V, 800 Ω at 24 V)

Power supply: 12 to 24V DC (\pm 10%, according to EN 50082-2)

Supply current: max 0.1 A

Cable inlet: IP 65 at \varnothing 5.5 to 10 mm

Input connectors: silver plated brass, 10 to 15 μ

Housing: polycarbonate, IP65

Temperature range: 0° to 55° C

Dimensions: 110 x 149 x 56 mm

Mounting screws: 4 screws, \varnothing 4mm, spacing 109x94 mm

Weight: 300 g

