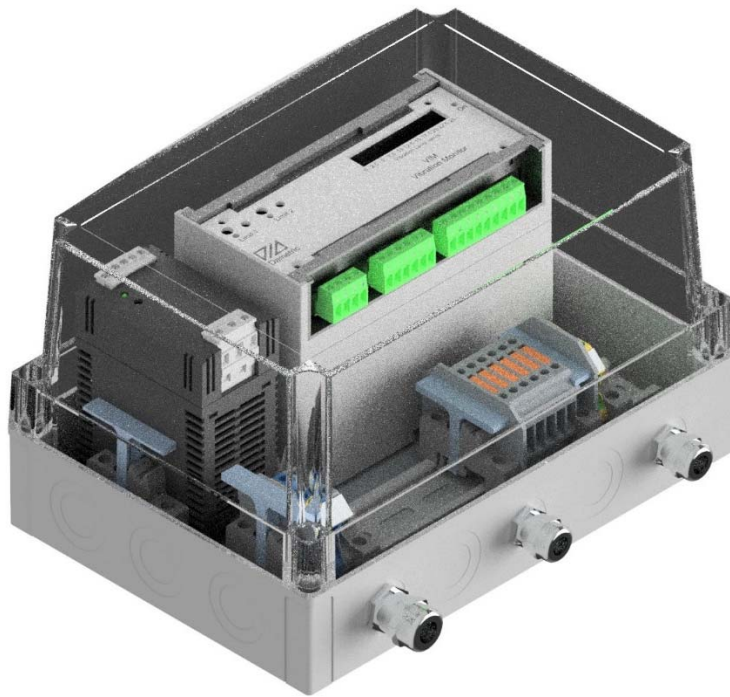


dametric 

VIM-M4

SKC9990106 / VAL0418434

Machine vibration measuring unit



MANUAL

Content

1	GENERAL	2
2	DOCUMENT REVISION	2
3	TECHNICAL SPECIFICATION	2
4	BLOCK DIAGRAM/SPARE PARTS.....	3
5	INSTALLATION	3
5.1	MOUNTING	3
5.2	CONNECTION METHOD.....	4
5.3	CONNECTION	4
5.4	FUNCTIONAL TEST	4
6	CONTACT.....	4

1 General

The VIM-M4 is a unit for machine vibration measurement. The unit is mounted in a plastic closure with transparent top cover. It is powered by 115-230VAC and outputs a 4-20 mA signal current.

The unit is a part of a measurement kit, VIMK-VIM4, which also includes a cable and a sensor.

2 Document revision

March 29, 2019/BL First release.
 April 3, 2019/BL Added spare parts number.

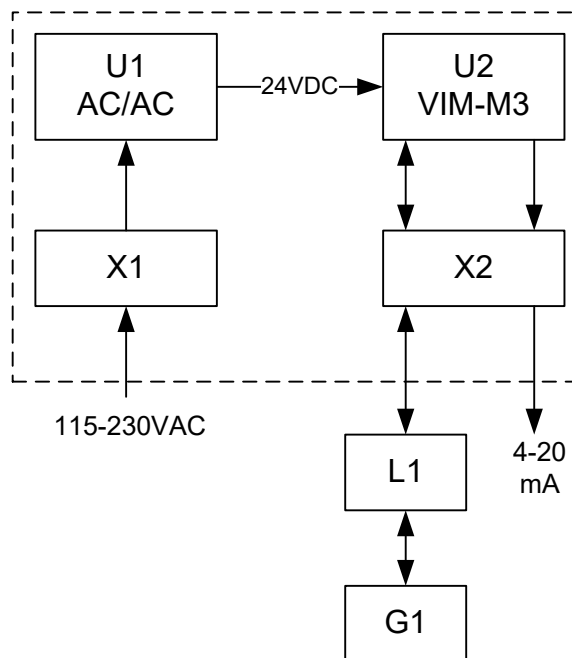
3 Technical specification

Power supply	115 to 230 VAC, +5%/-10%, 48-62 Hz
Power consumption	Max. 20 VA
Temperature range	0 to +70 °C
Amplifier	Voltage input with constant current feed (Isotron-interface)
High pass filter	7 Hz, active, 12dB/octave
Low pass filter	1.1 kHz, active, 12dB/ octave
Integrator	1/f, cut off frequency 160 Hz
Ampl. measurement	RMS to DC conversion
Front display:	Led ramp, scaled 0 - 25 mm/s, 1.25 mm/s per led, indicating the measured vibration level or the alarm limit levels Led, yellow indicating active alarm limit output's Led, green, indicating power on
Signal output:	Galvanically isolated analogue current signal, 4-20 mA, low pass filtered to 1Hz, max 800Ω load
Enclosure	
Size:	With =255, height =180, depth =150mm
Material	Polycarbonate
Color bottom	RAL7035
Color top	Transparent (smoked)
Sealing material	TPE
Sealing class	IP66/IP67 (EN 60529)
Impact strength	IK08 (DIN 62262)
UV resistance	UL508
Fire classification	UL 746C 5"
Mounting	Four holes for M4 screws

Weight	2.3 kg
Connection	Detachable screw plinths, max 2.5mm ² cable area

4 Block diagram/spare parts

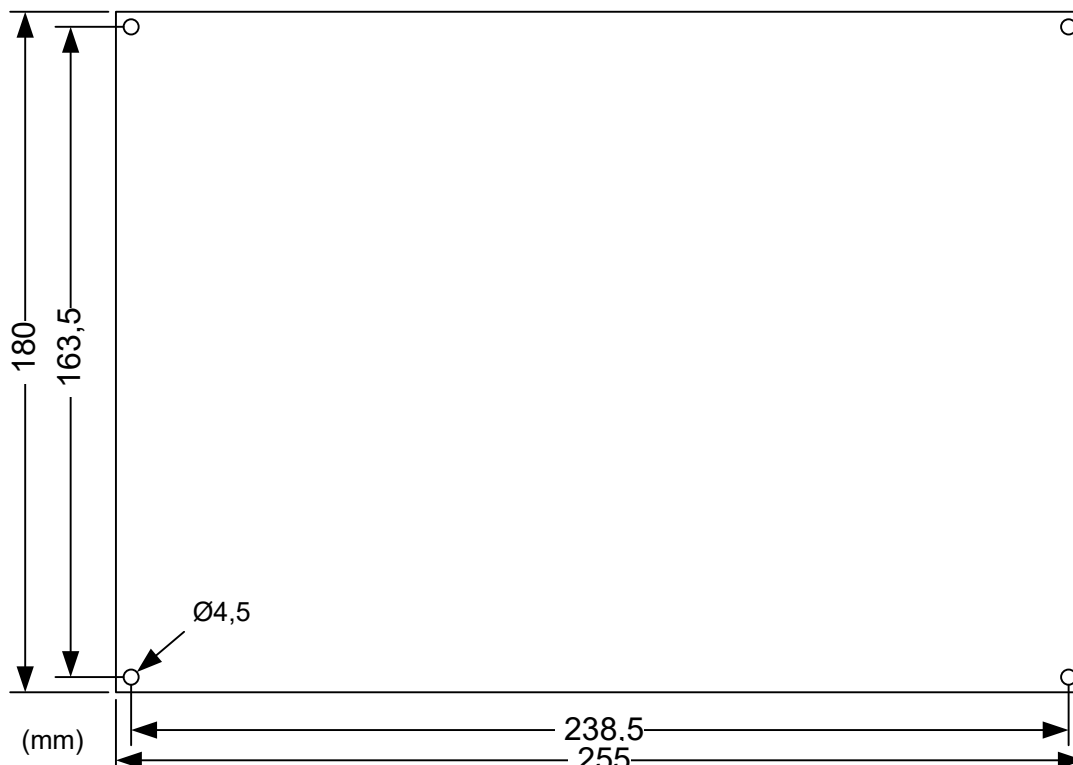
X1	Plinth power supply
X2	Plinth for sensor and signal output
U1	Power supply 115-230VAC/24VDC VAL0187585
U2	Measuring unit VIM-M3 SKC2602408 / VAL0308990
L1	Cable, K-VIMS5 SKC9990130 / VAL0418433
G1	Sensor, VIM-T2 SKC9691128 / VAL0116214



5 Installation

5.1 Mounting

Use the four mounting holes. Maximum screw diameter is 4,5 mm.



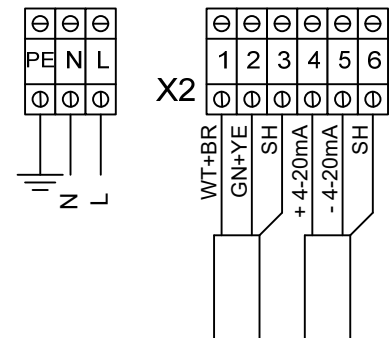
5.2 Connection method

The connections are done during installation by skilled and properly educated personnel.
All internal connections are done and should not be changed during installation.
All external connections are connected to screw plinths mounted on a DIN rail.

5.3 Connection

X1/PE Protective ground.
X1/N Neutral, 115-230VAC
X1/L Phase, 115-230VAC

X2/1	Excitation sensor	K-VIMS25/white + brown
X2/2	0V sensor	K-VIMS25/green + yellow
X2/3	Shield for sensor cable	K-VIMS25/shield
X2/4	Not used	
X2/5	Positive signal output, 4-20mA	
X2/6	Negative output, 4-20mA	
X2/7	Shield for signal output cable.	

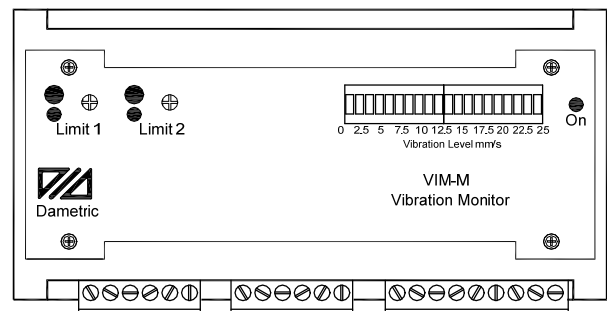


5.4 Functional test

Do a functional test before the unit is activated into operation.

Connect a current monitor in series with the signal output on plinth X02/4.

- Connect the mains supply to the unit.
The green led "On" should be on.
- Loosen the connector to the sensor:
All leds in the bar graph "Vibration level" should be on.
The signal output should generate 20.0 mA.
- Attach the connector to the sensor.
All leds in the bar graph "Vibration level" should be off.
The signal output should generate 4.0 mA.
- Hold the sensor in your hand and shake it.
The leds in "Vibration level" should vary.
The signal output should vary between 4 and 20 mA.



6 Contact

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