

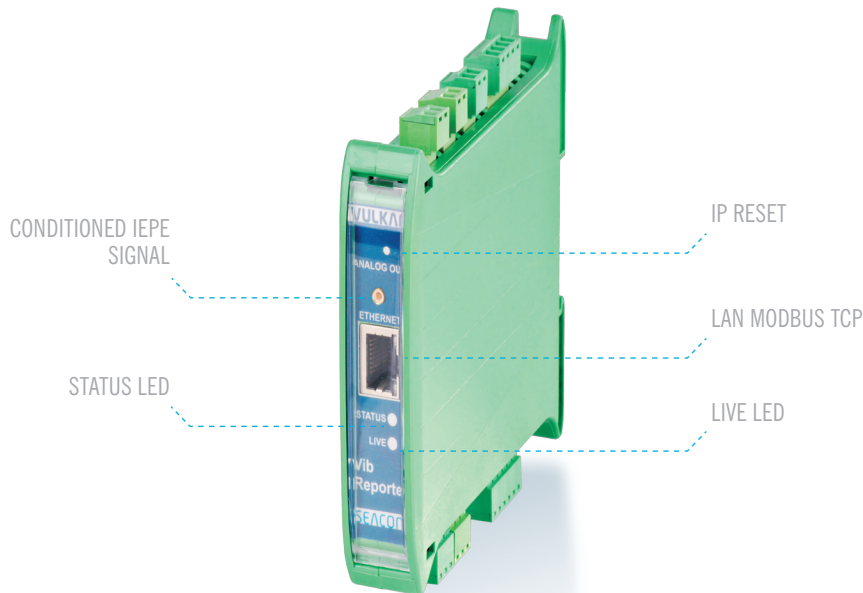
VIBREPORTER VR-122 AD

MEASURING MODULE FOR MACHINE MONITORING

An autarkic measuring instrument for monitoring the vibration level, temperature and alternative parameters of gears, pumps, generators, fans, motors and other units.

Feature:

1. Permanent calculation and evaluation of the amplitude and the effective value of the recorded vibrations (acceleration or speed)
2. Integrated IEPE conditioner
3. Two galvanically separated analogue outputs (4 - 20 mA) for the output of calculated variables
4. SCADA interface
5. Ethernet interface with MODBUS TCP
6. 2 freely configurable digital outputs for alarms
7. 1 digital output as device status
8. Intuitively configurable via internet browser thanks to the integrated web server



TECHNICAL DATA

General

Power supply*	24 V DC (20 - 30 V DC)
Insulation	1 kV
Power consumption	
- minimum	100 mA
- typical	200 mA
- maximum	300 mA
Plug connections	
- Analogue output of the IEPE sensor**	SMB
- LAN interface	RJ45
- other	screwed connections in the grid 3.5 mm
Dimensions	120 x 100 x 22 (L x H x W)
Weight	160 g
Assembly type***	On DIN rail TS 35 mm
Protection type per DIN EN 60529	IP40
Working temperature range	-20 C ÷ 60 C
Permissible humidity (T < 40 C)	< 90% RH
Permissible humidity (T > 40 C)	< 60% RH

* Power unit with stabilised voltage output ** Round receptacle on the front panel
 *** The assembly should be carried out by qualified personnel

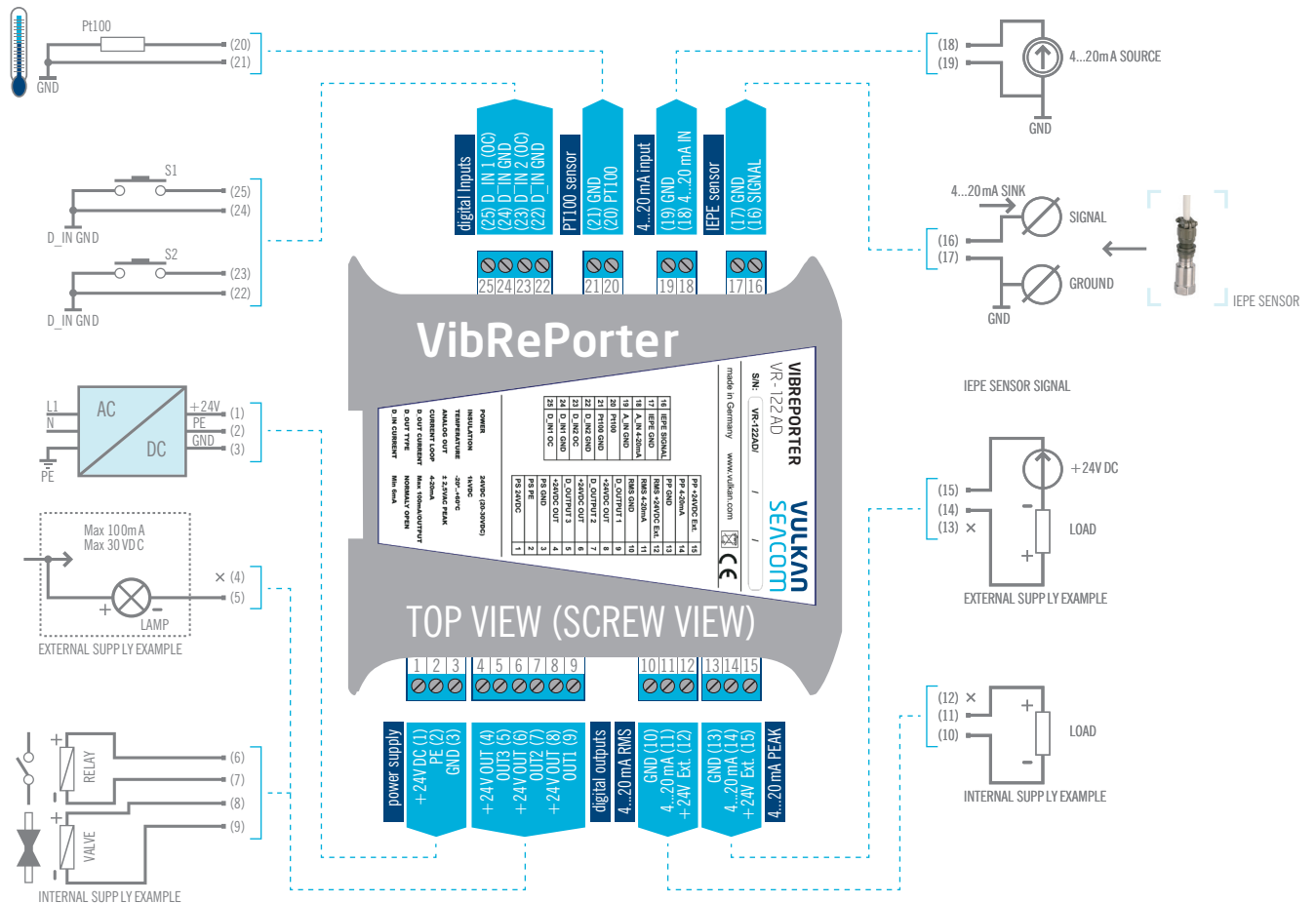
Vibration measuring channel

Vibration pick-up:	
- Type	IEPE
- Measuring ranges*	± 25 g, ± 5 g, ± 2,5 g
- Input measurement range	± 2,5 V
- Power supply	24 VDC
- Power	4 mA ± 0,5 mA
Sub measurement ranges	100%, 25% und 10%
Analogue filter	
- High Pass Filter 6 dB/oct	0,5 Hz
- Low Pass Filter 24 dB/oct	1 kHz, 10 kHz
Sampling frequency	25 kHz
Bandwidth	
- Acceleration	0,5 Hz ÷ 10 kHz
- Speed	5 Hz ÷ 1 kHz
Resolution	16 Bit
Response time**	0,2 s ÷ 3 min

* Measuring range according to the IEPE sensors 100mV/g, 500mV/g and 1000mV/g
 ** Response time is dependent on the time slot setting.

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CIRCUIT DIAGRAMM



Temperature measuring channel

Type	PT100
Measuring range	-40 C ÷ 500 C
Gain range	-50 C ÷ 800 C
Resolution	1 C
Response time	6 s

Analogue input 4...20mA

Type	passive, twinline
Measuring range	4 - 20 mA
Gain range	0 - 30 mA
Resolution	10 Bit
Response time	350 ms

Conditioned IEPE output signal

Output type	Voltage
Measuring range*	±7,5 V
Gain**	1 x, 4 x, 10 x

* Maximum output range ** (IEPE) x (Amplification) = (Analogue output)

Analogue output 4...20mA

Output type	Active/passive, two or three lines
Usable output range	4 - 20 mA
Maximum output range	0 - 30 mA
Resolution	12 Bit
Response time	0,2 s

Digital output

Output type*	OC (NO)
Max. Load	30 V / 100 mA

* open collector (normally open)

Digital input

Internal resistance	3 kΩ
Minimal permissible power in low status	6 mA
Apparent ohmic resistance*	< 1 kΩ

* $R_{A.o.r} < 1 \text{ k}\Omega$, because $(24 \text{ V} / (R_{A.o.r} + R_{\text{Internal}})) > 6 \text{ mA}$