Number of analog and digital measurement channels	5 with simultaneous sampling, internal 3D accelerometer
Analog input type	3 voltage inputs for external sensors (Binder 420 connector)
Analog input configuration	AC voltage mode with integrated current source for ICP/ IEPE (CLPS™) sensors supply (external channels)
Analog input voltage range	±2,5V (other as an option)
Analogue to digital converter type	4 converters of $\Delta\Sigma$ type
Analogue to digital converter resolution	24 bits
Digital input type	1 opto-isolated digital input for phase sensor or tachometer (low level: <1,4V, high level: >5V, maximum input voltage 9V, other value as an option)
Internal vibration sensor parameter	• perpendicularly oriented 3D • vibration acceleration range: ±100 g (other as an option) • frequency bandwidth (-3dB): 0,4 … 21000 Hz • frequency bandwidth (10%): 0,8 … 10500 Hz • sensitivity tolerance: ±5% • program compensation of temperature influence
Analog input overall noise level	50 μV_{RMS} (for f_{out} = 65,536 kHz, frequency range 25,6 kHz)
Signal sampling frequency (f_s)	1..8 MHz
Effective sampling frequency (f_{out}) (output data actualization frequency)	65,536 kHz maximum
Applied filters	• 3rd order Butterworth analog low-pass filter , frequency limit $f_{3dB\ high}$ = 68 kHz • 1st order analog high-pass filter, frequency limit $f_{3dB\ low}$ = 0,5 Hz • anti-aliasing low-pass filter, linear phase, frequency limit set automatically as $f_{3dB\ high}$ = 0,49f_{out} ($f_{0,005dB\ high}$ = 0,39f_{out}, $f_{-100dB\ high}$ = 0,54f_{out})
Signal gain error	±0,02 % (with calibration in the measurement condition)
Overall maximal measurement error (without/with sensor)	±0,1 % / ± 5% measurement range (with calibration in the measurement condition)
Calibration	• factory calibration of the reference measurement path • built in mechanism of zero level and gain calibration
CLPS™ sensor power supply	2mA / 20V (other as an option)
Integrated contactless IR sensor	• 16 x 4 point matrix (observation angle 60° x 16,4°) • temperature measurement range: –50..+300°C • measurement accuracy (0..+300°C): ±1°C ±3%|T_o-T_a| (T_o: object temperature, T_a: ambient temperature) • measurement accuracy (-50..0°C): ±3°C ±5%|T_o-T_a| (T_o: object temperature, T_a: ambient temperature)
Communication interface	IEEE802.11b/g/n WiFi, WPA2 wireless digital output for measurement synchronisation (option)
Communication protocol	ATC MESbus
Operation condition	Temperature: –5..+60°C; humidity: 10..90% RH
Software	ViMEA DAQ; ViMEA VIDIA; ViMEA DAAC/VSI as an option: API, Matlab control function, LabView driver, application specified
Power supply	• Li-Poly 3,7V/3000mAh internal battery with integrated charger • power supply 5V/1A • working time: up to 20 hours • built-in energy saving and battery protection mechanisms