

# GEMCMV

## MACHINE PROTECTION AND COLLISION DETECTION

### Properties

- Detection of dynamic collisions
- 3 independent acceleration sensor inputs with a frequency range of 10 Hz - 8 kHz and a sampling rate of 16 kHz with a resolution of 16 bits
- Physical I/O interface (3 inputs - 4 outputs)
- 3 different operation modes
- 3 different static limits per mode
- Fast alarm output (< 1 ms)
- Recording of shutdown events
- Log file with signal values

If GEMCMV is connected to the GENIOR MODULAR system, the following additional signals are available for tool and process monitoring:

- 3 x acceleration (g)

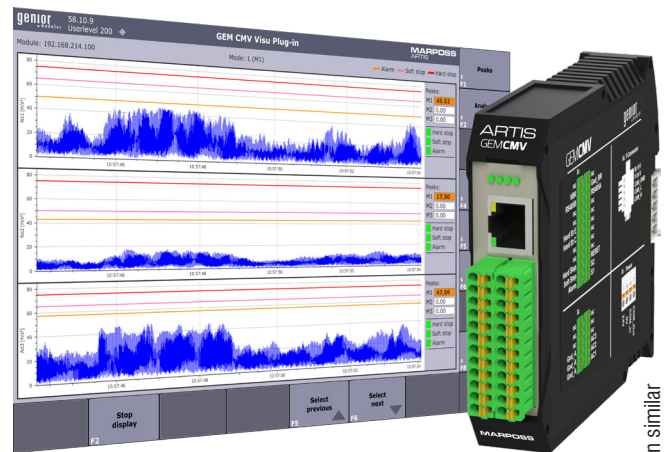
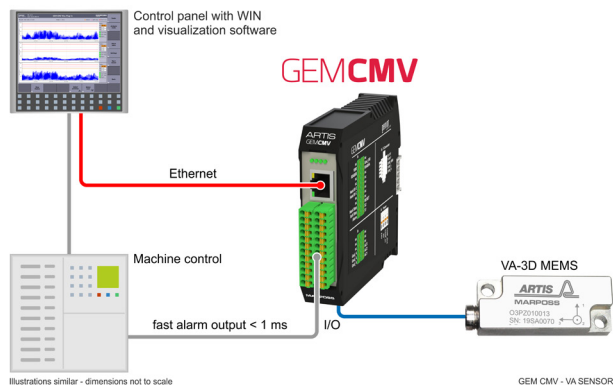


Illustration similar

### Application example

GEMCMV is the ideal solution for detecting dynamic collisions. The following application example shows a GEMCMV acceleration measuring transducer with a VA-3D MEMS sensor and the GEMCMV Visu software (here via a control panel).



### GEMCMV in stand-alone mode

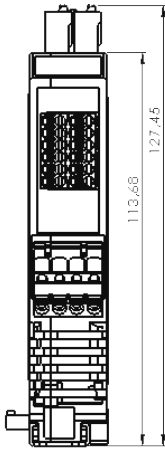
#### Additional features in stand-alone mode in combination with GEMCMV Visu

- Alarm event data recording
- Signal values stored in a .CSV log file
- Physical I/O interfaces (3 inputs, 4 outputs)

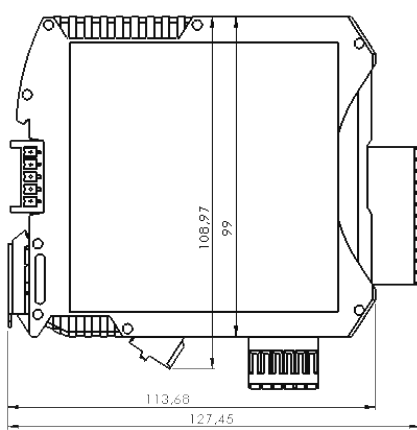
#### Available signals

- 3 x acceleration (m/s<sup>2</sup> or g)

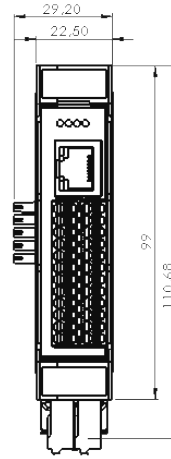
Front view



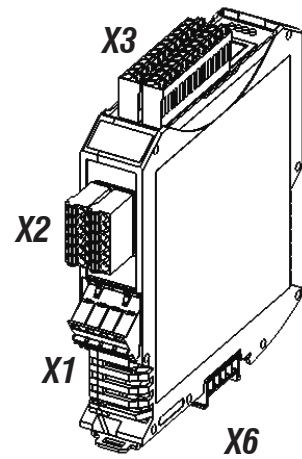
View from the left side



Top view



Perspective view



GENERAL DATA	
ARTICLE NUMBER	0830Z910102
STANDARD IP ADDRESS	192.168.214.100
DIMENSIONS	see drawing
WEIGHT	0.196 kg
MATERIAL	Polyamide PA 6.6
STORAGE TEMPERATURE	-20 °C... +60 °C
OPERATING TEMPERATURE	+5 °C... +50 °C
UL-CLASSIFICATION	VO (UL94)
DEGREE OF PROTECTION	IP30
ATMOSPH. REL. HUMIDITY	Storage < 95 % Operation < 85 % + ... 85 % ≤ RH < 95 %
INSTALLATION	DIN EN 60715 standard mounting rail
CONTACTING	Spring terminal, in-rail bus connector

MEASURING	
MEASURING INPUTS	3 x IEPE suitable sensors (order separately): all acceleration sensors with IEPE-interface 1 x RS485 (for VA-3D MG sensor)
ACCURACY	< 0.5 %
FREQUENCY RANGE	10 Hz ... 8 kHz
SAMPLING RATE	16 kHz
RESOLUTION	16 bit

SOFTWARE REQUIREMENTS VISUALIZATION	
OPERATING SYSTEM	<ul style="list-style-type: none"> <li>Microsoft Windows® as of WIN XP SP3</li> <li>Siemens 840D as of V 04.05. (PCU/TCU)</li> </ul>

MINIMUM RAM	512 MB
MIN. CLOCK FREQUENCY	600 MHz
MOUSE/TOUCHSCREEN OPERATION	recommended
ETHERNET	10/100 MBit/s

CONNECTIONS		
CONNECTION X1	24 V DC ±20 %, max. 5 % ripple (or via in-rail bus connector X6)	
NOM. CURRENT CONSUMPTION	max. 250 mA	
CONNECTION X2	3 x IEPE	
CONNECTION X3	3 input signals, 4 output signals	
IN-/OUTPUT SIGNALS		
INPUTS		
1-SIGNAL SOURCE		8 V ... 36 V / 5 mA
0-SIGNAL SOURCE		0 V ... 7 V / 5 mA
1-SIGNAL SINK	0 V ... 19 V / 5 mA	
0-SIGNAL SINK	20 V ... 36 V /5mA	
OUTPUTS	24 V typical, max. 100 mA	
1-SIGNAL SOURCE		
0-SIGNAL SOURCE		open
1-SIGNAL SINK		0 V ... 1 V
0-SIGNAL SINK	open	
CONNECTION X6	CAN bus 24 V DC	
CONFORMITY	CE, UKCA	

OPERATION WITH GENIOR MODULAR	
Interface	CAN bus



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For a full list of address locations, please consult the Marposs official website

ODN6422EN25 – Edition 01/2025 – Specifications are subject to modifications  
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