

Load Limitation VMV-0034



MESSELEKTRONIK

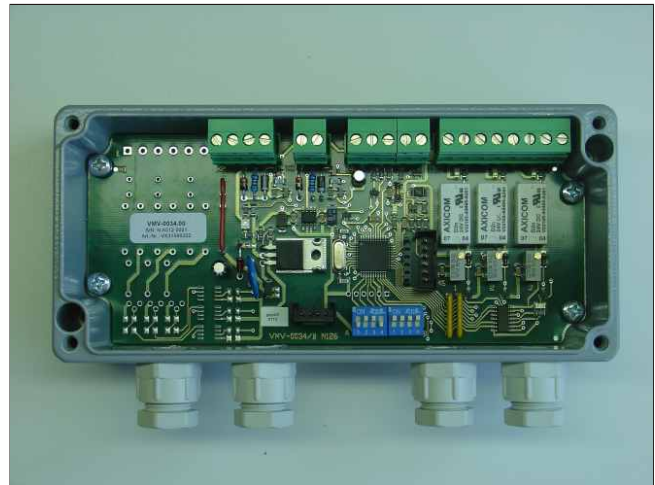
description

The VMV-0034 works as a triple comparator for sensors with current output.

The sensor input is for 1...9 mA oder 4...20 mA signal current range configurable.

With per one calibration potentiometer it is possible to adjust in each case switching threshold which accords to the load of a connected strain gauge transducer.

A 8bit micro controller measure the signal current and switch 3 relays according to the threshold and settings.



characteristics:

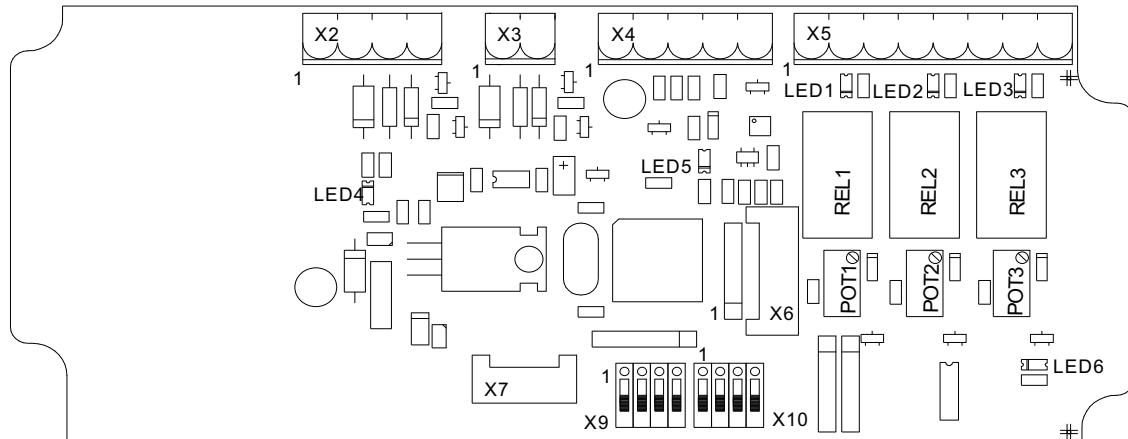
- settings with 8 DIL-switches
- switch function of 3 relays for exception reporting; optionally configurable to switch on or switch off (normally closed or normally open contact)
- internal controller for self-control, in case of a fault it switch the relay in the currentless status
- hysteresis function, optionally adjustable to 20 mV or 70 mV
- by activating the hold function a return to the safe state is impossible
- reset of the assembly with key connection or interruption of power supply
- cable break: relays switch into overload state
- interference and noise suppression with 2 digital filters and 3 s delay
- LED's indicate the active operating state

With the communication port X7 it is possible to connect the assembly via VHB-0202 (RS232) or VHB-0205 (USB) to the PC.

technical data

power supply	24 V DC
current consumption	max. 100 mA (without sensor)
sensor supply	21 V DC
input strain gauge sensor	current input 1 - 9 mA / 4 - 20 mA
load resistor	360 Ω / 180 Ω
output	3 relays (1 A @ 30 V DC)
housing	aluminium diecast housing Euromas A 115 175 mm x 80 mm; height = 57mm

terminal pin assignment



X2 power supply:

port	description	meaning
1	+24 V	positive supply voltage
2	GND	ground
3	CC	calibration check connection
4	GND	ground

X3 key:

port	description	meaning
1	TAST	key button port
2	GND	ground

X4 sensor:

port	description	meaning	colour VELOMAT standard
1	+Ub	positive sensor supply	brown
2	GND	ground	green
3	Is	sensor signal 1...9 mA or 4...20 mA	yellow
4	CC	calibration check signal	white
5	shield	shield of connection cable	blue

X5 relays:

port	description	meaning
1	AK1	closed-circuit contact relays 1
2	MK1	mean contact relays 1
3	AK2	closed-circuit contact relays 2
4	RK2	bottom contact relays 2
5	MK2	mean contact relays 2
6	AK3	closed-curcuit contact relays 3
7	RK3	bottom contact relays 3
8	MK3	mean contact relays 3

terminal pin assignment

X6 service port:

port	description	meaning
1	+Ub	positive supply voltage
2	GND	ground
3	Um	voltage by load resistor
4	POT1	threshold voltage POT1
5	POT2	threshold voltage POT2
6	POT3	threshold voltage POT3

X7 communication port:

port	description	meaning
1	TX	TX-transmit signal
2	RX	RX-receive signal
3	Ub	+5 V internal supply voltage
4	GND	ground

X9 DIL-switch 1:

switch	description	calibration
1	REL1	de-energised contact or normally open contact (NOC) relay 1
2	REL2	de-energised contact or normally open contact (NOC) relay 2
3	REL3	de-energised contact or normally open contact (NOC) relay 3
4	sensor port	1 – 9 mA / 4 – 20 mA

X10 DIL-switch 2:

switch	description	calibration
1	HYST	hysteresis
2	FILT1	filter1
3	FILT2	filter2
4	HALTF	hold function (relay 3)

LED's:

LED	colour	calibration
1	green	relay 1 active
2	green	relay 2 active
3	green	relay 3 active
4	yellow	electricity supply connected
5	green	controller active
6	red	error state

housing

