

Product Information VGW-2

CONTROLS

Dual Limit Switch VGW-2

Application / Specified Usage

- Limit switch for standard signals (0...10 V / 0/4...20 mA)
- Level control with relay (option)

Features

- Menu guidance using LC display
- Settable operating point, hysteresis and delay without external devices
- Switching function "min" / "max" can be toggled
- Independently settable switch-on/-off points
- Sensor power supply for two-wire measuring transducer
- 2 limit values, adjustable separate or as level logic (option)
- Broken wire and short circuit monitoring of input signal
- Relay output for failure indication
- Connection via plug-in terminal blocks
- Narrow design (22,5mm)
- Universal power supply 24/20...255 V AC/DC
- Snap-on case for mounting on standard DIN-Rail
- Front panel shielded by see-through cover

Authorizations

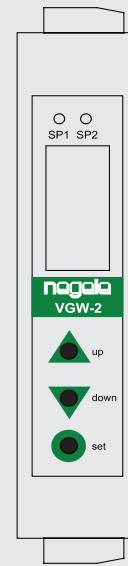
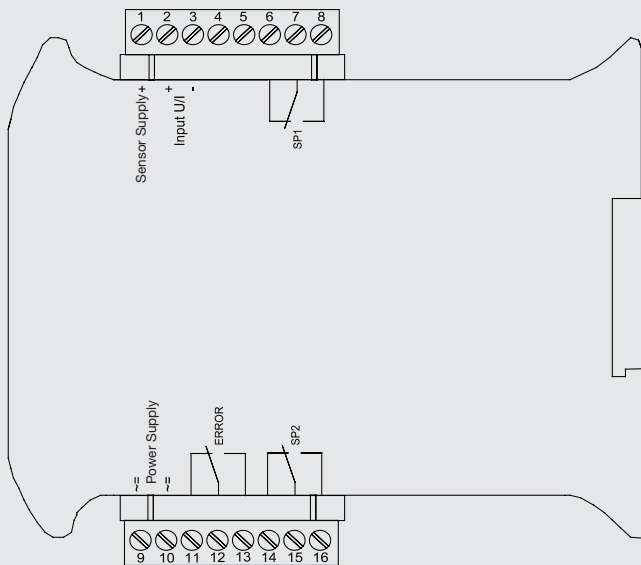


Dual Limit Switch VGW-2



Specification		
Housing	acc. to DIN norm dimensions (W x H x D)	made of ABS for rail mounting acc. to EN 50022 22,5 x 111 x 120 mm
Protection class		IP 20
Ambient	operation temperature storage temperature humidity	0...+55 °C -10...+55 °C 0...95 % no condensation
Electrical connection		2,5 mm ² screw-type terminals pluggable
Input	switchable	Current 0/4...20 mA (R _i = 50 Ω) Voltage 0...10 V (R _i = 50 kΩ)
Output	2 relays for limit values 1 relay for failure indication	changeover contacts ,max. 250 V / 3 A AC
Delay Hysteresis Switching point	adjustable adjustable	0,1...5 s (step size 0,1 s) 1...50 % (step size 1 %) 1...100 % (step size 1 %)
Switching function		normal, invert
Error message	current input voltage input	< 3,8 mA > 20,5 mA < -0,2 V > 10,2 V
Level logic	option	ON: SP 1, OFF: SP2; relay 1 and 2 switch synchronous
Sensor supply		20...24 V DC / max. 25 mA
Accuracy	typical	≤ ±0,2 % of end value, linearity 0,1 %
Temperature drift	typical	≤ 0,01 %/K
Power supply	AC / DC	24...255 V, 48...62 Hz / 20...255 V
Power consumption		2,5 W / 4,5 VA
Weight		162 g

Drawing electrical connection | Front view



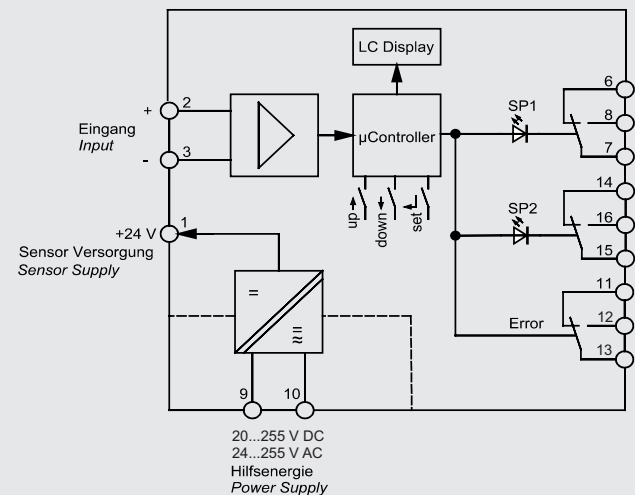
Functionality test

1. Connect the setpoint generator or other signal source to input (KL 2/3).
2. Connect the auxiliary power supply (KL 9/10).
3. Set unit parameters (e.g. setpoint SP1 to 50 %) as described above via the menu.
4. Check the switching function by slowly increasing or decreasing the input signal until the setpoint is reached.
5. Check the required hysteresis and operating delay by altering the input signal.

Adjustment

1. Actuate the "set" button for at least 5 s. The text "press set 5 s for setup" appears. The unit then switches to "SET" mode.
2. Use the "up" and "down" buttons to select the desired parameter.
3. Actuate the "set" button. The unit switches into the setup mode for the selected parameter.
4. Use the "up" and "down" buttons to select the desired value.
5. If the desired value is set, confirm it using the "set" button. The unit switches back to the main menu.
6. Repeat points 2 to 5 with all other parameters (see menu listing in data sheet which is supplied enclosed with device).
7. Select the menu point "Save and Exit" and confirm using the "set" button. The parameters set will be permanently saved. The unit automatically returns to operation mode.

Block diagram



Advice



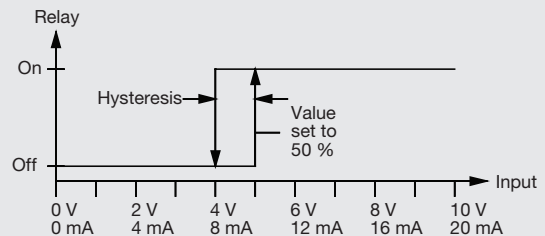
For installation and adjustment please pay attention to additional informations given in the data sheet enclosed with the device.

Parameters			
Name	Function	Adjustment	Factory settings
Value	Switching point, limit value	1...100 %	SP1 = 100 % / SP2 = 50 %
Hyst	Hysteresis	1...50 %	Hyst1 = 2 % / Hyst2 = 2 %
Delay	Switching delay	0,1...5 s	Delay1 = 0,1 s / delay2 = 0,2 s
Logic	Inverting / non inverting switch	direct / invers	Logic1 = direct / Logic2 = direct
Mode	Dual limit switch / level-logic	direct / niveau MIN, MAX	direct
Input	Input signal	0...10 V / 0...20 mA / 4...20 mA	4...20 mA
Save & Exit	Save and exit		
Cancel	Exit without saving		
Reset	Load factory settings		

Switching diagram | e.g. Input 0...20 mA or 0...10 V

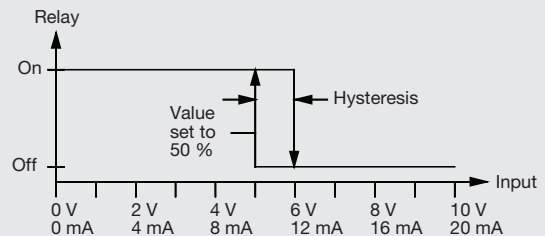
Function maximum limit switch

- Logic: "direct"
- Mode: "direct"
- Value: 50 %
- Hyst: 10 %



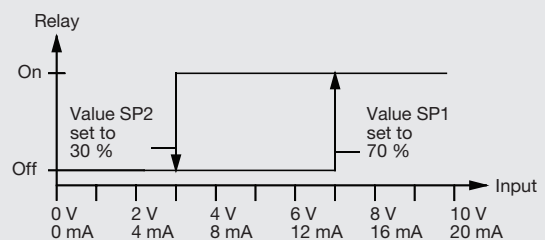
Function minimum limit switch

- Logic: "invers"
- Mode: "direct"
- Value: 50 %
- Hyst: 10 %



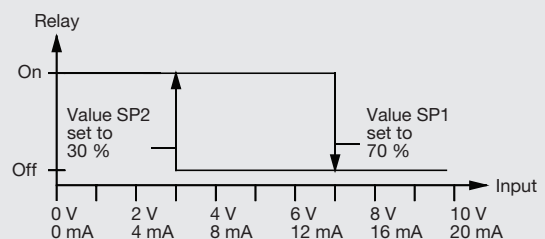
Function level-logic

- Logic: not used
- Mode: "niveau max"
- Value SP1: 70 %
- Value SP2: 30 %
- Hyst: not used
- Both relays switching



Function level-logic inverted

- Logic: not used
- Mode: "niveau min"
- Value SP1: 70 %
- Value SP2: 30 %
- Hyst: not used
- Both relays switching



Installation



- Pay attention to the security guidelines in the enclosed data sheet!

Conventional Usage



- Not suitable for applications in explosive areas.
- Not suitable for applications in security-relevant equipments (SIL).

Transport / Storage



- No outdoor storage
- Dry and dust free
- Not exposed to corrosive media
- Protected against solar radiation
- Avoiding mechanical shock and vibration
- Storage temperature -10...+55 °C
- Relative humidity maximum 95 %

Reshipment



- Use suitable transport packaging only to avoid damage of the equipment!

Standards and Guidelines



- You have to comply with applicable regulations and directives.

Disposal



- This instrument is not subject to the WEEE directive 2002/96/EC and the respective national laws.
- Pass the instrument directly on to a specialised recycling company and do not use the municipal collecting points.

Advice to EMC



- The device agrees to following standards: EMC directive 2004/108/EC.
- You have to guarantee the EMC directives for the entire equipment.

Order Code

VGW-2

↓	↓	↓
	Version	
	X	(without level-logic)
	N	(with level-logic)
		Adjustment
	X	(standard: switch points = 50 % and 100 %, hysteresis = 2 %, switching delays = 0,1 sec and 0,2 sec, direct logic)
	special	(adjustment acc. to customer preference, please specify in plain text)
VGW-2 /	N /	X