

Set Point Transmitter vsg-3/e/p, vsg-6/e/p

General Function

With set point transmitter series **vsg-3/6** it is possible to indicate potentiometer adjustments as standard signals (0-10V, 0/4-20mA). The output signal varies depending on the potentiometer's position. By means of a sliding switch all standard signals can be selected.

With set point transmitter **vsg-3** and **vsg-6** 3 resp. 6 set points adjusted by spindle trimmers can be selected. With **vsg-3e** and **vsg-6e** a standard signal (0-10V, 0/4-20mA) can additionally be looped through. The output of the device **vsg-3p** and **vsg-6p** is controlled by an external potentiometer if no set point channel is being triggered.

Features

- Drive by PLC
- Summer function output= $E1+E2+\dots+E6$
- Connection of an external potentiometer with **vsg-3p** and **vsg-6p**
- Looping through of an external standard signal with **vsg-3e** and **vsg-6e**
- Connection by means of plug-in terminal blocks
- Output switchable to all standard signals
- **CE**-mark



vsg-3



vsg-3e

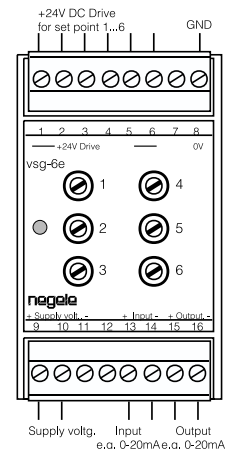


vsg-6p

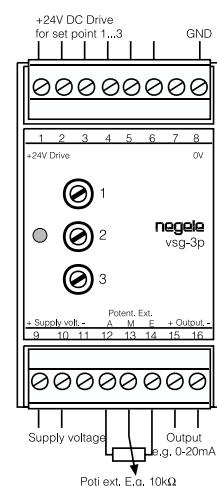
Specification

Case	DIN-Case	ABS for mount. rail acc. to EN50022
	Dimensions	45x75x105mm (WidthxHeightxDepth)
Type of protection		IP20, terminals guarded
Ambient	Working temp.	-10...+55°C
	Storing temp.	-20...+70°C
	Humidity	0...95%
Resistance to jamming		according to IEC 801 class 2, CE -mark
Input	vsg-3, vsg-6	3 resp. 6x 24V DC (PLC-drive)
	vsg-3e, vsg-6e	ext. standard signal: 0-10V or 0/4-20mA
	vsg-3p, vsg-6p	external potentiometer 0-0,2...0-100kΩ
		3-wire connection
Setting	vsg-3, vsg-6	3x resp. 6x intern
	vsg-3e, vsg-6e	3x resp. 6x intern + ext. standard signal
	vsg-3p, vsg-6p	3x resp. 6x intern + ext. potentiometer
Output	Summer	$A=E1+E2+\dots+E6$
	Voltage or	0...10V working resistance >1kΩ
	Current reversible	0/4...20mA burden ≤500Ω
Accuracy		±0,2% of full scale, Linearity 0,1%
	Temperature drift	0,01% /K
Supply voltage	AC	24, 42, 115, 230V AC, 47...63Hz, 5VA,
	DC	24V DC 80mA max., ±20%

Connection vsg-6e



Connection vsg-3p



Product Type and Designation

No. of set points	ext. input	24V AC	115V AC	230V AC	24V DC
3 set points	-	vsg-3 24V AC	vsg-3 115V AC	vsg-3 230V AC	vsg-3 24V DC
3 set points	potentiometer	vsg-3p 24V AC	vsg-3p 115V AC	vsg-3p 230V AC	vsg-3p 24V DC
3 set points	analog input	vsg-3e 24V AC	vsg-3e 115V AC	vsg-3e 230V AC	vsg-3e 24V DC
6 set points	-	vsg-6 24V AC	vsg-6 115V AC	vsg-6 230V AC	vsg-6 24V DC
6 set points	potentiometer	vsg-6p 24V AC	vsg-6p 115V AC	vsg-6p 230V AC	vsg-6p 24V DC
6 set points	analog input	vsg-6e 24V AC	vsg-6e 115V AC	vsg-6e 230V AC	vsg-6e 24V DC

Trimmers and selector switches

Name	Function	Setting
P1	Zero point (N)	0...10%
P2	Gain (V)	92...100%
S1	Switch output type (I/U)	current(I) / volt.(U)
S2	Switch output (Aus 0/4)	0-20mA / 4-20mA

Set-up and initial operation

1. Set-up with S1 and S2 to desired output.
2. Looping through of current measuring instrument (range 20mA DC) in the current output conduction resp. connection of voltmeter (range 10V DC) parallel to output (KI15/16).
3. Connect external potentiometer (with **vsg-3p/6p**) resp. external analog signal (with **vsg-3e/6e**) (KI 12/13/14).
4. Feed supply voltage (KI 9/10).
5. Feed +24V DC control voltage at terminal 1/8 and adjust desired set-point 1 at the front.
6. The same procedure applies to set-points 2...6.

with vsg-3p and vsg-6p:

7. Disconnect control voltage +24V again. The output signal varies proportionally to the position of the external connected potentiometer (KI 12/13/14).

with vsg-3e and vsg-6e:

7. Disconnect control voltage +24V again. The analog input signal at terminal 13/14 is transmitted to output (KI.15/16) in an unaltered way.

Application as summer (digital-to-analog converter)

- If several inputs are triggered at the same time, the device works as summer, which means the output accepts the value of the sum of all triggered set-points.

Example: Set-point 1=1mA, set-point 2=2mA, set-point 3=4mA

- Drive E1, E2 and E3: Output 1mA+2mA+4mA=7mA
- Drive E1 and E3: Output 1mA+4mA=5mA
- Drive E1 and E2: Output 1mA+2mA=3mA

With adequate adjustment (see example) it is possible to realize a simple digital-to-analog converter.

View vsg-... (lid open)

