

LIMIT SWITCH
& WOBBLE STICK

VG

95.038 143.xxx



APPLICATION

The Kiepe position switches type VG are used as limit switches in systems with harsh operating conditions, e.g. in loading, mixing and transport systems for bulk materials; metallurgical plants, steelworks and foundries; construction and woodworking machines; sewage treatment plants.

The wobble stick version can also be used, for example, as a knee switch when no hand is free.

The Kiepe position switch type VG is compliant with the Low Voltage Directive 2014/35/EU and UKCA conformity is available. It has a robust aluminum housing and can be equipped with up to 2 positively actuated NC and NO contacts with snap-action function. It has fixed switching points.

Note: The position switches may only be used in control circuits.

FUNCTION

The limit switch type VG switches when the actuating roller is approached and deflected by the machine part in the direction of rotation of the roller lever.

The VG xxx/4 with wobble stick switches when its spring rod is actuated either laterally in any direction or under pressure.

The switching angles are fixed. A pre-warning can be realized with two switching contacts. When the machine part is reset, the lever returns automatically.

TECHNICAL DATA

Designation	Limit Switch Type VG		
Type of actuation	Bidirectional (double-acting) via roller lever		
Complies with	DIN EN 60947-5-1		
Suited for	Control units in accordance with DIN EN 60204-1		
Mechanics			
Enclosure	Aluminum		
Coating	PU 2K-paint yellow, RAL 1004		
Actuating lever	see drawing p. 4		
Mounting	2 x M6		
Deflection of roller lever (max.)	+/-90°		
Weight	Turning lever-variant:	0.8 kg	
	Wobble stick-variant:	0.5 kg	
Electrical system			
Switching system (max.)	2 SPDT (snap action), positive opening, Za		
Switching range	+/- 12°, fix		
Cable entry (included in scope of delivery)	3x M20 x1,5 with red transport lock 1x PA cable gland: sealing area Ø 6mm to Ø12 mm; 2x dummy screw		
Utilization category	AC-15: 250 V; 0.75 A		
	DC-13: 125 V; 0.22 A		
	DC-13: 24 V; 2 A		
	C300 R300		
Connection cross section (max.)	2 mm²		
Protective conductor connection	Protection Class I / protective earthing		
Rated insulation voltage U _i	500 V		
Rated impulse withstand voltage U _{imp}	4 kV, Overvoltage category III, degree of pollution 2		
Conventional thermal current I _{th}	2.5 A		
Ambient conditions according to DIN EN 60947-5-5			
Permissible ambient temperature	- 25°C... +70°C		
Protection rating (according to EN 60529)	Turning lever-variant:	IP65 / IP66 / IP67	
	Wobble stick-variant:	IP65	
Reliability			
Contact reliability	100.000 actuations at:	AC 400V / 2 A;cos phi 0,8 DC 30 V / 2 A: L/R=5ms	

SELECTION TABLE

Turning Lever Variant			Contacts		Pressure equalization	Ordering Code
Type	Actuating lever	Latching	NC	NO		
VG 03/1	Plastic roller		1	1		95.038 143.101
VG 033/1	Plastic roller		2	2		95.038 143.111
VG 03/2	Ball bearing roller		1	1		95.038 143.201
VG 033/2	Ball bearing roller		2	2		95.038 143.211
VG 033/21	Ball bearing roller	15°	2	2	x	95.038 143.262
VG 03/3	Spring rod		1	1		95.038 143.301
VG 033/3	Spring rod		2	2		95.038 143.311
VG 03/9	adjustable, ball bearing roller		1	1		95.038 143.401
VG 033/9	adjustable, ball bearing roller		2	2		95.038 143.411

Wobble Stick Variants			Contacts		Pressure equalization	Ordering Code
Type	Actuating lever	Switching points	NC	NO		
VG 03/4	wobble stick, elastic	5°-12°, 2-4mm	1	1		95.038 418.501
VG 033/4	wobble stick, elastic	5°-12°, 2-4mm	2	2		95.038 418.511

Spare parts and accessories:

	Ordering Code
Screwed cable gland, PA, M20 x 1,5 (sealing area Ø 6 mm to Ø 12 mm)	113.51.00.15.10
Screwed cable gland with ventilation membrane, PA, M20 x 1,5 (sealing area Ø 6 mm to Ø 12 mm)	113.14.07.15.01
Screw plug M20 x 1,5	113.43.87.15.01
Pressure equilization element M20 x 1,5	94.059 002.002
Switching Element, Ag, (1 NC + 1 NO)	215.15.14.10.01
Drive	98.038 430.001
Drive with latching, 15°	98.038 430.002
Drive wobble stick	98.038 514.005

Lever	for Type	Ø [mm]	Roller width	Total length	Ordering Code
Aluminium lever, plastic roller	VG xxx/1	38	16.5	54	94.037 954.001
Aluminium lever, ball bearing roller	VG xxx/2x	26	8	54	94.038 379.001
Spring rod	VG xxx/3		10	226 (total)	94.038 510.001
Lever, ball bearing roller (adjustable)	VG xxx/9	26	8	60-110	94.038 429.001
Lever, ball bearing roller (only length adjustable)	VG	26	8	60-110	94.038 429.002

MOUNTING

VG (xxx/1/2/3/9) with turning lever

The VG limit switch with turning lever is attached to the substructure with 2 M6 screws. In the installation position, they are approached by moving machine parts. The approach angle of the switching geometry must not exceed 45°.

The roller lever is interchangeable and can be freely fixed in the directions of rotation on the switch axis. The head with the roller lever can also be mounted in 90° steps for type VG. This provides more positioning options.

The electrical connection is made when the device is open via the cable gland included in the scope of delivery directly to the connection glands of the switching elements.

Note: The red transport locks must be completely removed and replaced with the supplied cable glands.

VG (xxx/4) with wobble stick

The position switch VG xxx/4 with wobble stick is attached to the substructure with 2 M6 screws. It can be triggered by any actuation in the axis directions.

The wobble stick is spring-loaded, so care must be taken to ensure that the spring is not damaged during operation. The wobble stick can only be replaced with the VG head.

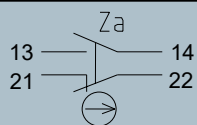
The electrical connection is made when the device is open via the cable gland included in the scope of delivery directly to the connection glands of the switching elements.

Note: The red transport locks must be completely removed and replaced with the supplied cable glands.

CONNECTION DRAWING

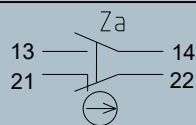
Turning lever variant

Lever position

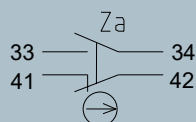


1NC / 1NO

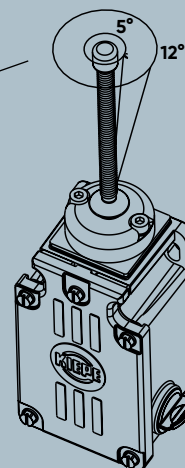
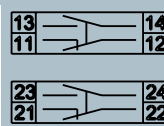
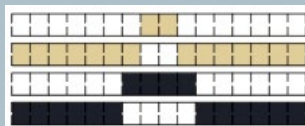
Lever position



2NC / 2NO



Wobble stick variant



DIMENSIONS

