

Indoor use only contact blocks



Technical data

Housing

Made of polymer glass-reinforced, self-extinguishing, shock proof thermo-plastic resin
 Protection degree: IP20 (terminals), IP40 (contacts)

General data

Ambient temperature: from -20°C to +85°C
 Max. operating frequency: 3600 operations cycles¹/hour
 Mechanical endurance: 20 million operations cycles¹
 Maximum actuation speed: 0,5 m/s
 Minimum actuation speed : 1 mm/s (slow action)
 0,01 mm/s (snap action)

(1) One operation cycle means two movements, one to close and one to open contacts, as foreseen by IEC 947-5-1 standard.

Electrical data

Thermal current (I_{th}): 10 A
 Rated insulation voltage (U_i): 500 VAC 600 VDC
 Protection against short circuits: fuse 10 A 500 V type aM
 Pollution degree: 3

Cross section of the conductors (flexible lead wire)

Contact blocks 5, 6, 7, 9, 10, 11, 14, 15, 18: min. 1 x 0,5 mm² (1 x AWG 20)
 max. 2 x 2,5 mm² (2 x AWG 14)

Conforms to the standards:

IEC 947-5-1, IEC 337-1, EN 60947-5-1, CEI EN 60947-5-1, CEI 17-45, EN 50047, CEI 17-33, IEC 204-1, EN 60204-1, CEI 44-5, EN 1088, EN 292, IEC 529, EN 60529, CEI 70-1, NFC 63-140, VDE 0660-200, VDE 0113, CENELEC EN 50013.

Complying with the requirements requested by:

Low Voltage Directive 73/23/EEC and subsequent modifications and completions, Machinery Directive 98/37/EEC, Electromagnetic Compatibility 89/336/EEC and subsequent modifications and completions.

Positive contact opening complying with the standards:

IEC 947-5-1, EN 60947-5-1, CEI EN 60947-5-1, VDE 0660-206.

Utilization categories

Alternate current: AC15 (50÷60 Hz)

U _e (V)	250	400	500
I _e (A)	6	4	1

Direct current: DC13

U _e (V)	24	125	250
I _e (A)	6	1,1	0,4

Markings:



Installation for safety applications:

Use only switches with the symbol ⊖ on their sides. Safety circuit must always be connected with the **NC contacts** (normally closed contacts: 11-12, 21-22 or 31-32) as stated in the **standard CEI EN 60947-5-1, encl. K, par. 2**.

The switch must be actuated with the minimum positive opening travel shown in the travels diagrams.

The switch must be actuated with the minimum positive opening force, shown in brackets, underneath each article, near the value of the min. force. For a correct installation of these articles see examples on chapter 19.

Dimensional drawings (all measure are in mm)

		with polymer push button	with metal push button
Contact block			
5	snap action	VF B501 1NO+1NC 	VF B502 1NO+1NC
6	slow action	VF B601 1NO+1NC 	VF B602 1NO+1NC
7	slow action	VF B701 1NO+1NC Overlapped Contacts 	VF B702 1NO+1NC Overlapped Contacts
9	slow action	VF B901 2NC 	VF B902 2NC
10	slow action	VF B1001 2NO 	VF B1002 2NO
11	snap action	VF B1101 2NC 	VF B1102 2NC
14	slow action	VF B1401 2NC Shifted Contacts 	VF B1402 2NC Shifted Contacts
15	slow action	VF B1501 2NO Shifted Contacts 	VF B1502 2NO Shifted Contacts
18	slow action	VF B1801 1NO+1NC 	VF B1802 1NO+1NC
Min. force		8 N (20 N)	8 N (20 N)

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How to order

Contact block		VF B501-G		Type of contacts	
5	1NO+1NC snap action				silver contacts (standard)
6	1NO+1NC slow action			G	silver contacts gold plated (1 μm) (only contact block 5, 6, 7, 18)
7	1NO+1NC slow action (Overlapped Contacts)				
9	2NC slow action				
10	2NO slow action				
11	2NC snap action				
14	2NC slow action (Shifted Contacts)				
15	2NO slow action (Shifted Contacts)				
18	1NO+1NC slow action				
		Actuator			
		01	with plastic push button		
		02	with metal push button		