



Main data

- Polymer housing
- Protection degree IP20 (terminals), IP40 (contacts)
- 11 contact blocks available
- Actuator with plastic or metal push button
- Suitable for foot switches PA, PX series

Markings and quality marks:



Approval UL: E131787

Installation for safety applications:

Use only switches marked with the symbol \ominus . The 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 **at least up to the positive opening travel** shown in the travels diagrams. The switch must be actuated **at least with the positive opening force**, shown in brackets, underneath each article, near the value of the min. force.

⚠ For the correct installation of all articles, please see "Utilization requirements" chapter, from page 6/1 to page 6/4.

Technical data

Housing

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

General data

Ambient temperature: from -25°C to +80°C
Version for operation in ambient temperature from -40°C to +80°C on request
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.

Cross section of the conductors (flexible copper wire)

Contact blocks 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 18: min. 1 x 0,5 mm² (1 x AWG 20)
max. 2 x 2,5 mm² (2 x AWG 14)

In conformity with standards:

IEC 947-5-1, IEC 337-1, EN 60947-5-1, CEI EN 60947-5-1, CEI 17-45, EC 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.

Approvals:

UL 508

In conformity with 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 in conformity with standards:

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

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

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

Data type approved by UL

Utilization categories Q300 (69 VA, 125-250 VDC)
A600 (720 VA, 120-600 VAC)

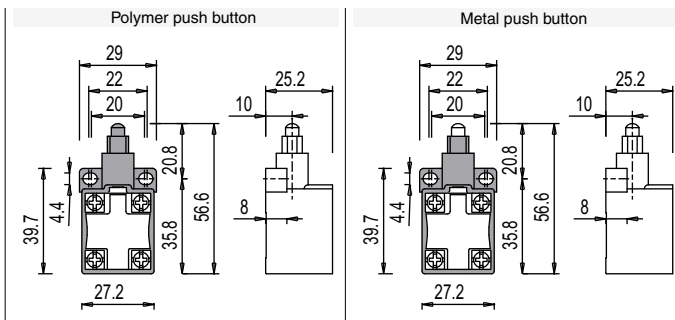
Data of the housing type 1, 4X (indoor use only), 12, 13
In conformity with standard: UL 508

For all contact blocks use 60 or 75 °C copper (Cu) conductor and wire size No. 12-14 AWG. Terminal tightening torque of 7,1 Lb-In.

Please contact our technical service for the list of type approved products.

Dimensional drawings

- Contacts type:
- R** = snap action
 - L** = slow action
 - LO** = slow action overlapped
 - LS** = slow action shifted
 - LV** = slow action shifted and spaced
 - LA** = slow action closer



Contact blocks	Travel diagrams	Polymer push button	Metal push button
5 R		VF B501 \rightarrow 1NO+1NC	VF B502 \rightarrow 1NO+1NC
6 L		VF B601 \rightarrow 1NO+1NC	VF B602 \rightarrow 1NO+1NC
7 LO		VF B701 \rightarrow 1NO+1NC	VF B702 \rightarrow 1NO+1NC
9 L		VF B901 \rightarrow 2NC	VF B902 \rightarrow 2NC
10 L		VF B1001 2NO	VF B1002 2NO
11 R		VF B1101 \rightarrow 2NC	VF B1102 \rightarrow 2NC
12 R		VF B1201 \rightarrow 2NO	VF B1202 \rightarrow 2NO
13 LV		VF B1301 \rightarrow 2NC	VF B1302 \rightarrow 2NC
14 LS		VF B1401 \rightarrow 2NC	VF B1402 \rightarrow 2NC
15 LS		VF B1501 2NO	VF B1502 2NO
18 LA		VF B1801 \rightarrow 1NO+1NC	VF B1802 \rightarrow 1NO+1NC
Max speed		0,5 m/s	0,5 m/s
Min. force		8 N (20 N \rightarrow)	8 N (20 N \rightarrow)

Items with code on the **green** background are available in stock

Code structure

VF B501-G

Contact blocks		Contacts type	
5	1NO+1NC, snap action		silver contacts (standard)
6	1NO+1NC, slow action		
7	1NO+1NC, slow action overlapped		
9	2NC, slow action		
10	2NO, slow action		
11	2NC, snap action		
12	2NO, snap action		
13	2NC, slow action shifted and spaced		
14	2NC, slow action shifted		
15	2NO, slow action shifted		
18	1NO+1NC, slow action closer		
		Actuators	
		01	with polymer push button
		02	with metal push button