



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

Technical data

Housing

Made of glass-reinforced polymer, self-extinguishing, shock-proof thermoplastic resin
 Protection degree: IP20 (terminals), IP40 (contacts) according to EN 60529

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)
 Driving torque for installation: see pages 6/1-6/10
 (1) One operation cycle means two movements, one to close and one to open contacts, as foreseen by EN 60947-5-1 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 mm ²	(1 x AWG 20)
	max.	2 x 2,5 mm ²	(2 x AWG 14)

In conformity with standards:

IEC 60947-5-1, EN 60947-5-1, IEC 60204-1, EN 60204-1, EN 1088, EN ISO 12100-1, EN ISO 12100-2, IEC 60529, EN 60529, NFC 63-140, VDE 0660-200, VDE 0113, CENELEC EN 50013.

Approvals:

UL 508

In conformity with requirements requested by:

Low Voltage Directive 2006/95/EC, Machinery Directive 2006/42/EC and Electromagnetic Compatibility 2004/108/EC.

Positive contact opening in conformity with standards:

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

Installation for safety applications:

Use only switches marked with the symbol ⊕. 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 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.

⚠ If not expressly indicated in this chapter, for the right installation and the correct utilization of all articles see requirements indicated from page 6/1 to page 6/10.

Electrical data

Thermal current (I _{th}):	10 A
Rated insulation voltage (U _i):	500 Vac 600 Vdc
Conditional short circuit current:	1000 A according to EN 60947-5-1
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 Vdc)
 Data of the housing type 1, 4X "indoor use only", 12, 13
 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 (0,8 Nm).

In conformity with standard: UL 508

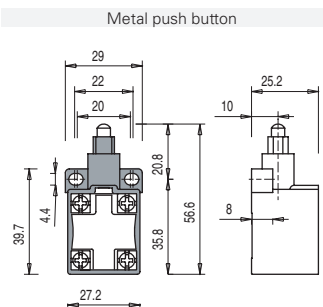
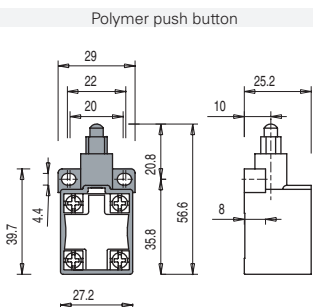
Please contact our technical service for the list of approved products.



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

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

Code structure

article options
VF B501-G

Contact blocks

- 5** 1NO+1NC, snap action
- 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

Contacts type

- silver contacts (standard)
- G** silver contacts gold plated 1 µm

Actuators

- 01** with polymer push button
- 02** with metal push button

Accessories See page 5/1

All measures in the drawings are in mm

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

1
1A
1B
2
2A
2B
2C
2D
2E
3
3A
3B
3C
4
4A
4B
4C
4D
4E
4F
4G
4H
5
6