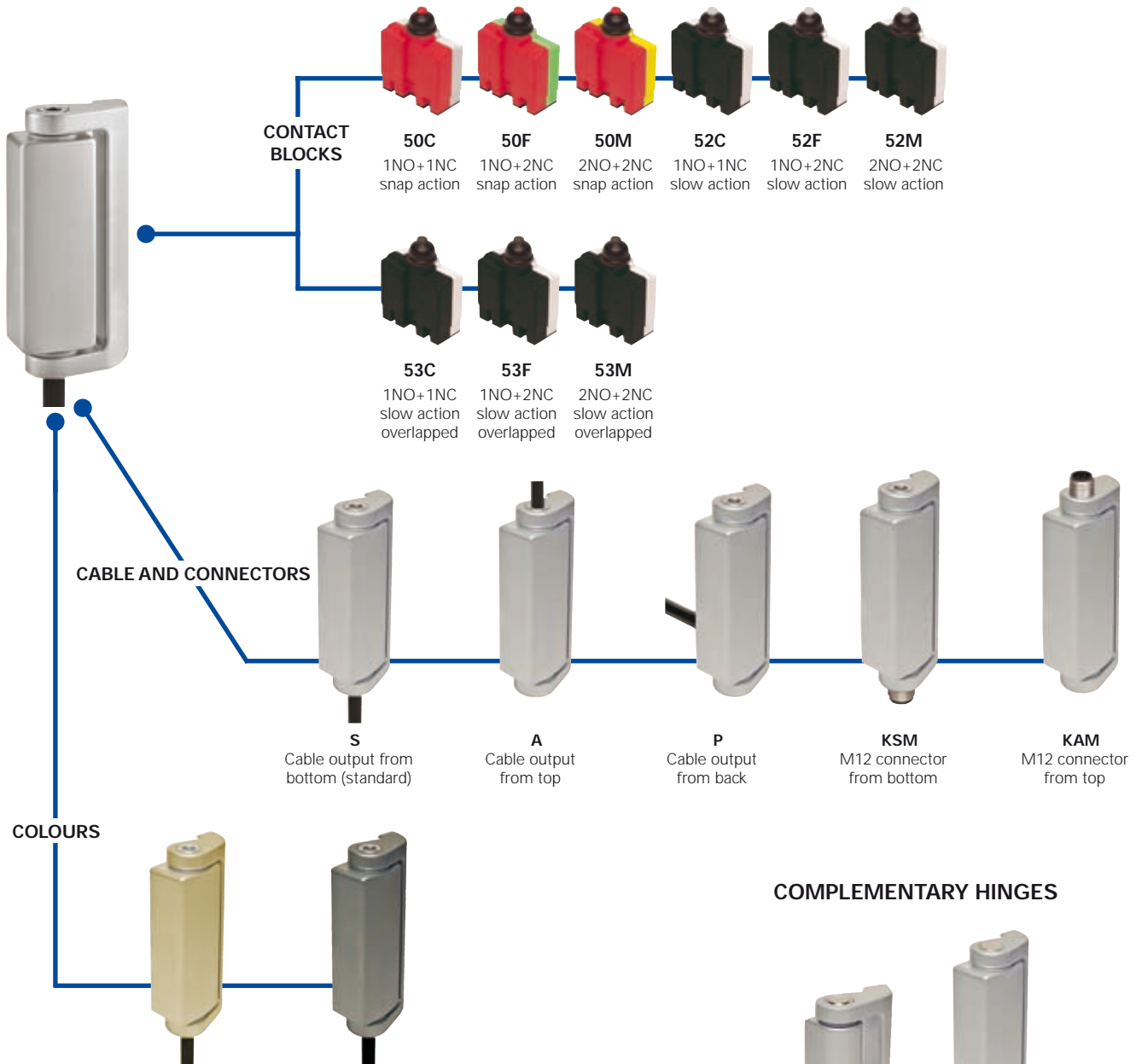
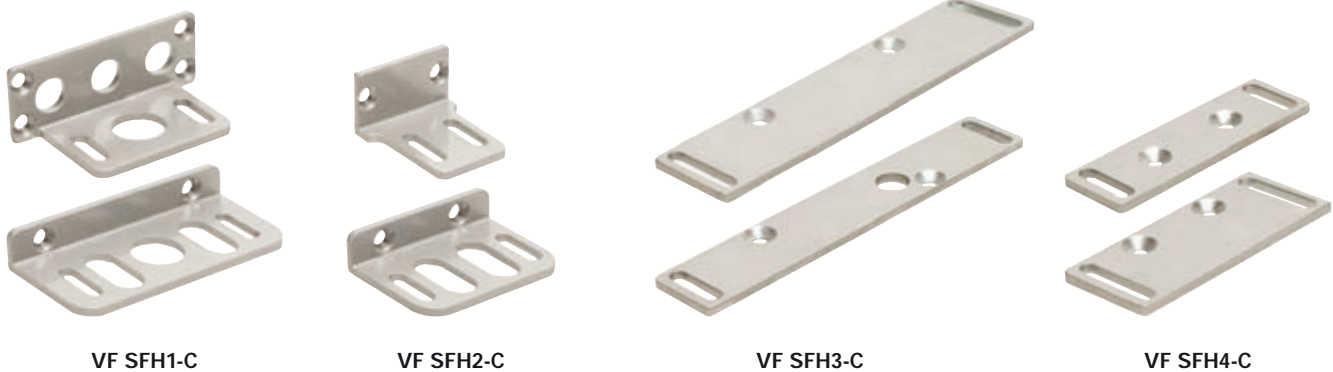


Selection diagram



FIXING PLATES



—●— product option

## Application examples



- Switch without supports
- Rear fixing
- Cable output from back

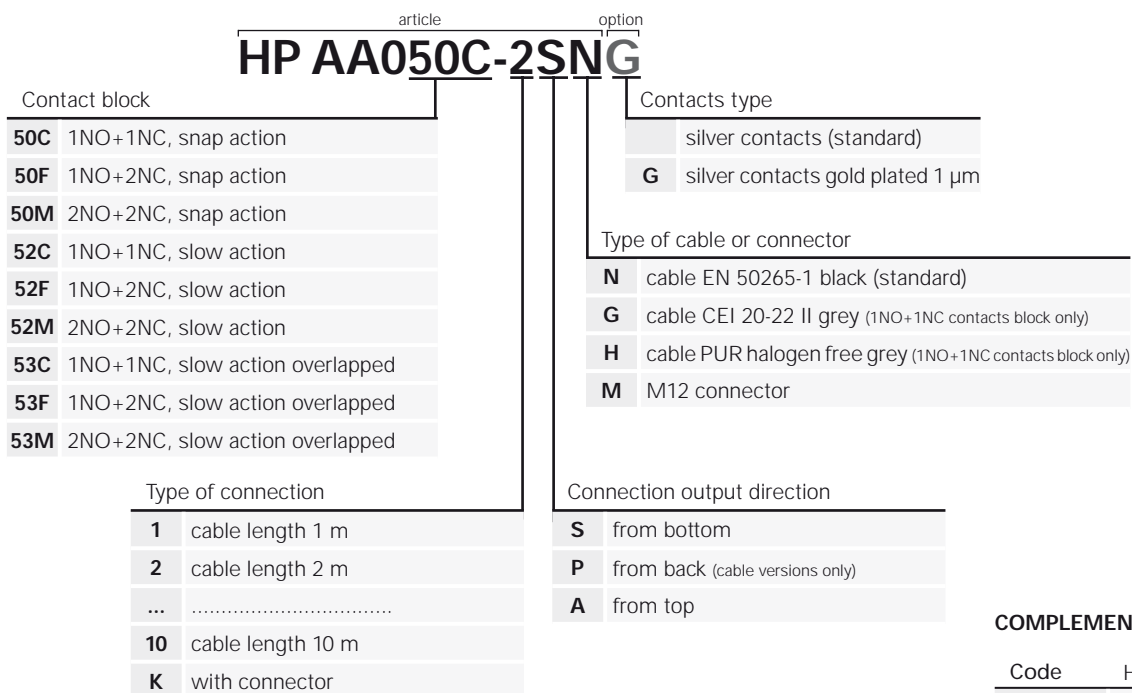


- Switch with angular supports for profiles with slots
- Fixing through internal screws
- Connector output from bottom



- Switch with plane supports for profiles with slots
- Fixing through front screws
- Cable output from bottom

## Code structure



### COMPLEMENTARY HINGES

Code	Hinge length
<b>HC LL</b>	65 mm
<b>HC AA</b>	100,6 mm



New product 2007

#### Main data

- Metal housing, cable output from top, bottom or back
- 4 integrated cable types available
- Versions with M12 connector
- Protection degree IP67
- 9 contact blocks with positive opening ⊕
- Complementary hinges without contacts

#### Markings and quality marks:



#### Technical data

##### Housing

Metal housing, coated with baked epoxy powder

Version with cable integrated with 5 x 0,75 mm<sup>2</sup>, 7 x 0,5 mm<sup>2</sup> o 9 x 0,34 mm<sup>2</sup> wires length 2 m, other lengths on request.

Versions with M12 5 or 8 poles integrated connector

Protection degree: IP67

M5 screws max driving torque: 3 ... 5 Nm

##### General data

Ambient temperature: See table on page 4/21

Max operating frequency: 720 operations cycles<sup>1</sup>/hour

Mechanical endurance: 1 million operations cycles<sup>1</sup>

Max actuating speed: 90°/s

Min. actuating speed: 2°/s

Assembling position: any

Max axial charge: 1500 N (preliminary data)

Max radial charge: 1000 N (preliminary data)

(1) One operation cycle means two movements, one to close and one to open contacts, as foreseen by IEC 60947-5-1 standard.

##### 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 529, EN 60529.

##### 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.

⚠ 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 6/8.

#### Utilization temperatures

	Ambient temperature:		Thermal current I <sub>th</sub>	Rated insulation voltage (U <sub>i</sub> ):	Protection against short circuits (fuse)	Utilization category AC15				Utilization category DC13		
	min.	max.				24 V	120 V	250 V	400 V	24 V	125 V	250 V
Version with 2 contacts, fixed laying cable (N, G, U cable)	-25°C	+70°C	10 A	400 VAC	10 A 500 V type gG	4 A	4 A	4 A	3 A	2 A	0,4 A	0,3 A
Version with 2 contacts, dynamic laying cable (H cable)	-40°C	+80°C	10 A	400 VAC	10 A 500 V type gG	4 A	4 A	4 A	3 A	2 A	0,4 A	0,3 A
Version with 3 contacts, fixed laying cable (N cable)	-25°C	+80°C	6 A	400 VAC	6 A 500 V type gG	4 A	4 A	4 A	3 A	2 A	0,4 A	0,3 A
Version with 4 contacts, fixed laying cable (N cable)	-25°C	+80°C	4 A	400 VAC	4 A 500 V type gG	4 A	4 A	4 A	3 A	2 A	0,4 A	0,3 A
Version with 2 contacts, 5 poles M12 connector	-40°C	+80°C	4 A	250 VAC 300 VDC	4 A 500 V type gG	4 A	4 A	4 A	/	2 A	0,4 A	0,3 A
Version with 3 or 4 contacts, 8 poles M12 connector	-40°C	+80°C	2 A	30 VAC 36 VDC	2 A 500V type gG	2 A	/	/	/	2 A	/	/

**Application field**

Pizzato Elettrica widens the own range of products making a new series of safety switches hinge-shaped named Palladio, where safety and style are melted in one single product. The switch is completely integrated in the mechanical hinge, to result practically invisible to an inexperienced eye. This guarantees a higher safety because a switch hard to identify is consequently also more difficult to defeat. The assembly without visible screws and the pleasant line, make the switch perfectly integrated also with guards of modern design machinery. In order to complete the offer complementary hinges with purely mechanics functions are available.



**Operating point regulation**



The switches operating point can be regulated through a simple Phillips screwdriver. The operating point regulation allows the setting possibility (up to 4°) for large guards. After the setting, it's always necessary to close the hole through the suitable supplied safety seal plug.

**M12 integrated connector version**



Versions with connection from the top or the bottom are available with M12 integrated connector. The application of versions with connector allows a faster wiring when it's necessary to move guards from test line to final user.

**Opening angle up to 180°**



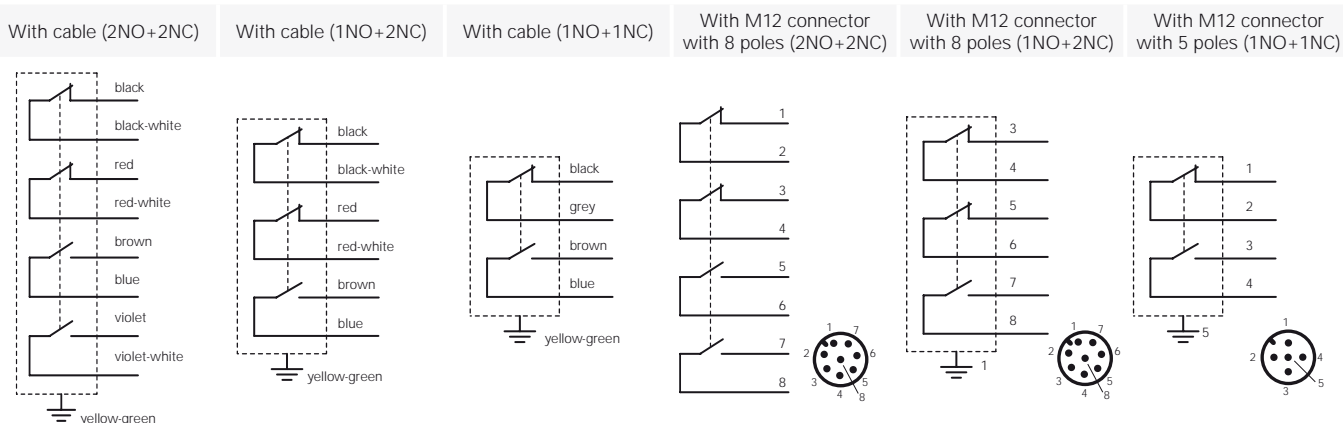
The mechanical design of the switch allows the application also onto protections up to 180° opening angle.

**INNOVATION & DESIGN AWARD 2007**



This product has been presented at the "Innovation & Design award 2007" which selects, among all industrial products, those that stand out for technological innovation and their particular design. The switch has been selected by the jury in category "Innovation" during the fair "Enermotive 2007".

**Internal connections**



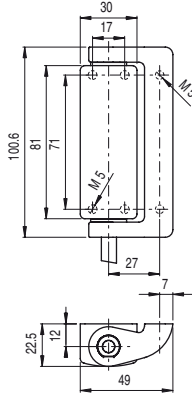
Attention! According to EN 60204-1, versions with 8 poles M12 connector can be used only in circuits PELV.

Dimensional drawings

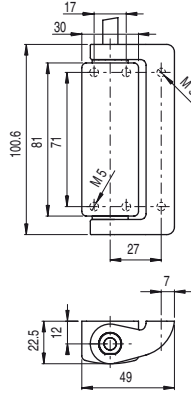
Contacts type:

- R** = snap action
- L** = slow action
- LO** = slow action overlapped

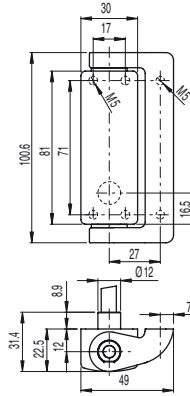
version with 2 m cable from bottom



version with 2 m cable from top



version with 2 m cable from back



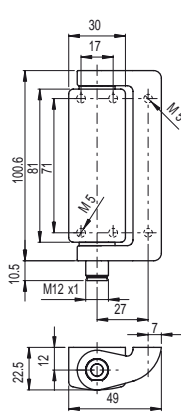
Contact blocks

50C	<b>R</b>	HP AA050C-2SN	↔	1NO+1NC	HP AA050C-2AN	↔	1NO+1NC	HP AA050C-2PN	↔	1NO+1NC
50F	<b>R</b>	HP AA050F-2SN	↔	1NO+2NC	HP AA050F-2AN	↔	1NO+2NC	HP AA050F-2PN	↔	1NO+2NC
50M	<b>R</b>	HP AA050M-2SN	↔	2NO+2NC	HP AA050M-2AN	↔	2NO+2NC	HP AA050M-2PN	↔	2NO+2NC
52C	<b>L</b>	HP AA052C-2SN	↔	1NO+1NC	HP AA052C-2AN	↔	1NO+1NC	HP AA052C-2PN	↔	1NO+1NC
52F	<b>L</b>	HP AA052F-2SN	↔	1NO+2NC	HP AA052F-2AN	↔	1NO+2NC	HP AA052F-2PN	↔	1NO+2NC
52M	<b>L</b>	HP AA052M-2SN	↔	2NO+2NC	HP AA052M-2AN	↔	2NO+2NC	HP AA052M-2PN	↔	2NO+2NC
53C	<b>LO</b>	HP AA053C-2SN	↔	1NO+1NC	HP AA053C-2AN	↔	1NO+1NC	HP AA053C-2PN	↔	1NO+1NC
53F	<b>LO</b>	HP AA053F-2SN	↔	1NO+2NC	HP AA053F-2AN	↔	1NO+2NC	HP AA053F-2PN	↔	1NO+2NC
53M	<b>LO</b>	HP AA053M-2SN	↔	2NO+2NC	HP AA053M-2AN	↔	2NO+2NC	HP AA053M-2PN	↔	2NO+2NC
Min. force		0,3 Nm (0,65 Nm) ↔			0,3 Nm (0,65 Nm) ↔			0,3 Nm (0,65 Nm) ↔		
Travel diagrams		page 4/23 - group 1			page 4/23 - group 1			page 4/23 - group 1		

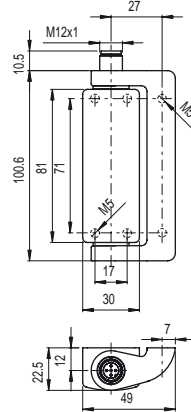
Contacts type:

- R** = snap action
- L** = slow action
- LO** = slow action overlapped

version with M12 connector from bottom



version with M12 connector from top



Contact blocks

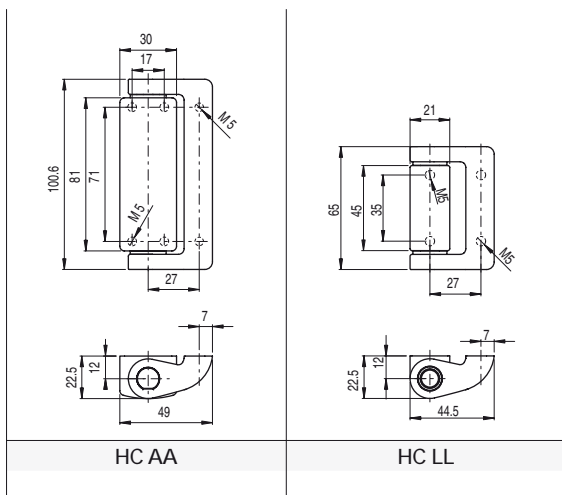
50C	<b>R</b>	HP AA050C-KSM	↔	1NO+1NC	HP AA050C-KAM	↔	1NO+1NC
50F	<b>R</b>	HP AA050F-KSM	↔	1NO+2NC	HP AA050F-KAM	↔	1NO+2NC
50M	<b>R</b>	HP AA050M-KSM	↔	2NO+2NC	HP AA050M-KAM	↔	2NO+2NC
52C	<b>L</b>	HP AA052C-KSM	↔	1NO+1NC	HP AA052C-KAM	↔	1NO+1NC
52F	<b>L</b>	HP AA052F-KSM	↔	1NO+2NC	HP AA052F-KAM	↔	1NO+2NC
52M	<b>L</b>	HP AA052M-KSM	↔	2NO+2NC	HP AA052M-KAM	↔	2NO+2NC
53C	<b>LO</b>	HP AA053C-KSM	↔	1NO+1NC	HP AA053C-KAM	↔	1NO+1NC
53F	<b>LO</b>	HP AA053F-KSM	↔	1NO+2NC	HP AA053F-KAM	↔	1NO+2NC
53M	<b>LO</b>	HP AA053M-KSM	↔	2NO+2NC	HP AA053M-KAM	↔	2NO+2NC
Min. force		0,3 Nm (0,65 Nm) ↔			0,3 Nm (0,65 Nm) ↔		
Travel diagrams		page 4/23 - group 1			page 4/23 - group 1		

Travel diagrams table

Contact blocks	Group 1
50C 1NO+1NC	
50F 1NO+2NC	
50M 2NO+2NC	
52C 1NO+1NC	
52F 1NO+2NC	
52M 2NO+2NC	
53C 1NO+1NC	
53F 1NO+2NC	
53M 2NO+2NC	

**Attention!** The hinged safety switch can be combined together exclusively with one or more Pizzato Elettrica hinges (series HP or HC). The use of whichever other hinge does not guarantee the right working of the safety device.

**Complementary hinges**



Article	Description
AC 7032	Protection plug of regulation screw

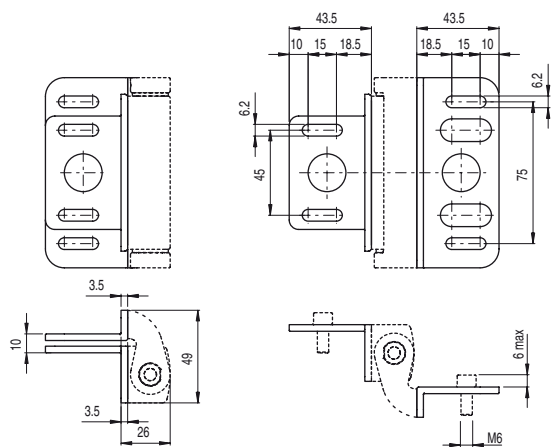


The plug is supplied with every hinge and must always be inserted after the operating point regulation. In case of loss or damage, the plug can be ordered separately.

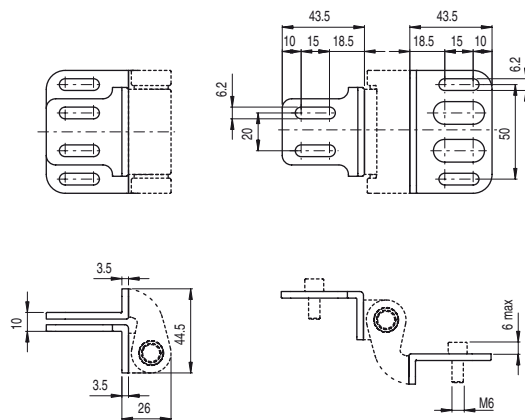
**Fixing plates**

Fixing screw for profile not supplied on issue

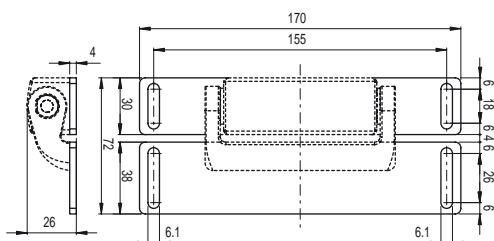
Article	Description
VF SFH1-C	Couple of angular supports for HP AA and HC AA supplied with fixing screws for switch



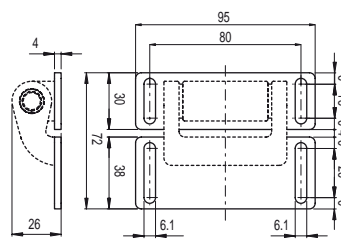
Article	Description
VF SFH2-C	Couple of angular supports for HC LL supplied with fixing screws for switch



Article	Description
VF SFH3-C	Couple of plane supports for HP AA and HC AA supplied with fixing screws for switch



Article	Description
VF SFH4-C	Couple of plane supports for HC LL supplied with fixing screws for switch



Accessories See page 5/1

Items with code on the green background are available in stock