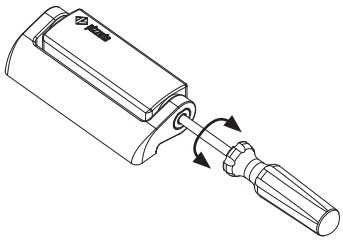
HP-HC series safety hinge switches

Description

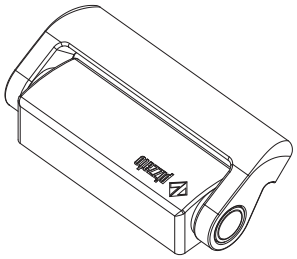
The HP - HC series hinge switches from Pizzato Elettrica combine safety and style in a single product. The electric switch is fully integrated into the mechanical hinge so that it is virtually invisible to an inexpert eye. This, asides from being an aesthetic advantage, guarantees greater safety as a switch which is difficult to identify is consequently even more difficult to tamper with. The rear mounting without screws in sight and the very precise line mean the switch can be perfectly integrated even with guards of machinery with a very precise design. Complementary hinges with purely mechanical functions are also available to ensure perfect alignment with the rest of the machine.

Adjustment of the switching point



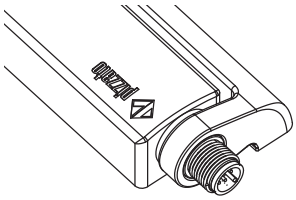
The switching point of the switches can be set with a screwdriver.
Adjusting the switching point allows for any calibration for large size guards. After calibrating the switch, it is always necessary to close the hole using the safety cap supplied.

Basic activation angle variants



On request, versions with a switch activation angle of 15° multiples (e.g. 45° or 90°) are available.
The different activation angle does not exclude the possibility of adjustment of the switching point by means of the adjustment screw in the switch. Any change in the operating angle clearly does not alter the maximum mechanical switch travel.

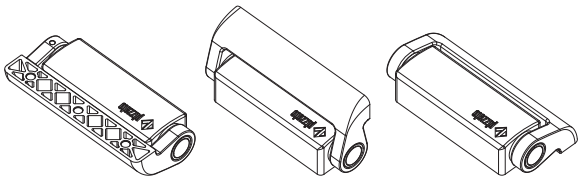
Integrated M12 connector



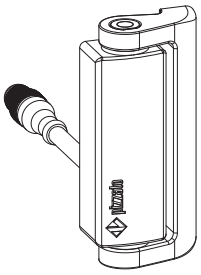
Versions with connection from the top or the bottom are available with integrated M12 connector.
The use of versions with connectors permits faster wiring if guards need to be moved from the test location to the installation site.

Opening angle up to 180°

The mechanical design of the switch also allows use on guards with an opening angle of up to 180°.

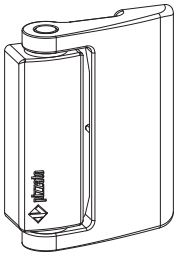


Cable with connector at the back



The version with a rear cable and M12 connector is the best combination between aesthetics and connection ease.
If machines need to assembled at the customer's site, this solution allows the wiring to be hidden. At the same time, it facilitates the connection and disconnection of the wiring from inside the machinery.

Versions for glass or polycarbonate doors



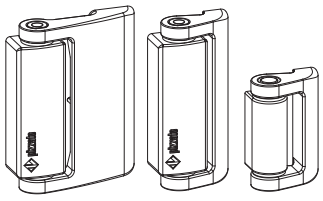
A version of the switch developed exclusively for glass and polycarbonate doors without frame is available.
Installation is facilitated by the larger supporting arm and the spaced fixing points; these also prevent the formation of cracks caused by holes located too close to the edge of the guard.
It is necessary to verify that the switch is not used as a mechanical stop for the door.

Protection degrees IP67 and IP69K

IP69K
IP67

These devices are designed to be used under the toughest environmental conditions, and they pass the IP67 immersion test acc. to EN 60529. They can therefore be used in all environments where the maximum degree of protection is required for the housing. Due to their special design, these devices are suitable for use in equipment subjected to cleaning with high pressure hot water jets. These devices meet the IP69K test requirements according to ISO 20653 (water jets with 100 bar and 80°C).

Additional hinges

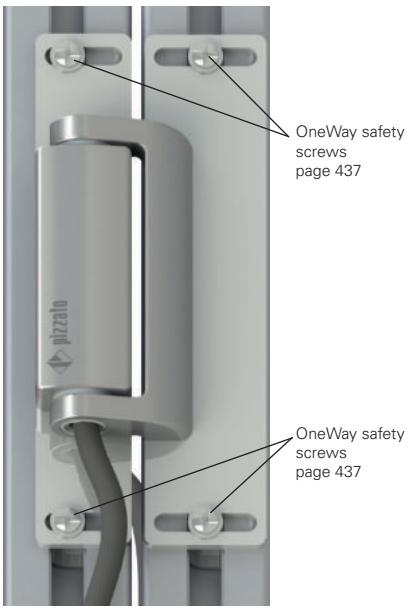


To complete the installation, various types of additional hinges are available to be used in a variable number depending on the weight of the guard.
These hinges have the same aesthetic but cost less as they contain no electrical parts.

Application examples

- Switch without mounting plate.
- Rear fixing.
- Cable output at the back.

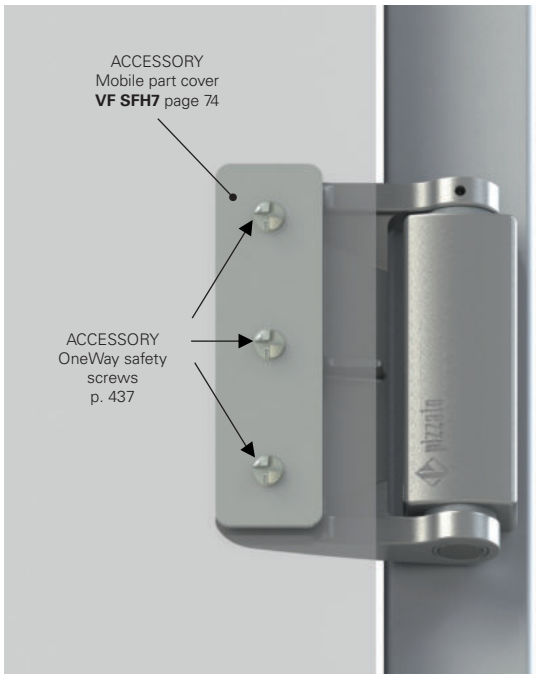
- Switch with angular mounting plate for slotted profile.
- Fixing with internal screws.
- Output with M12 connector at the bottom.



- Switch with straight mounting plate for front slotted profile.
- Fixing with screws at the back.
- Cable output at the bottom.

Closed door

Open door



- Direct fixing to the polycarbonate plate.
- Switch without mounting plate.
- Fixing with internal screws.
- Output with connector at the back.

Selection diagram

DESIGNS

A
100x45 mm movable part, metal

B
100x75 mm movable part, metal

CABLES AND CONNECTORS

S
Cable output, bottom (standard)

A
Cable output, top

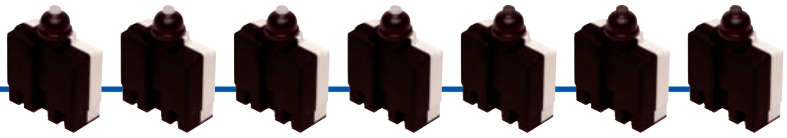
P
Cable output, back

KSM
M12 connector, bottom

KAM
M12 connector, top

0.2PM
Cable, length: 0.2 m, with M12 connector, at back

CONTACT BLOCKS



52C
1NO+1NC slow action

52D
2NC slow action

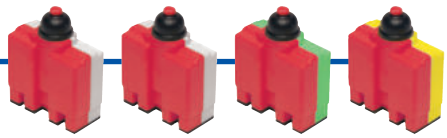
52F
1NO+2NC slow action

52M
2NO+2NC slow action

53C
1NO+1NC slow action, make before break

53F
1NO+2NC slow action, make before break

53M
2NO+2NC slow action, make before break



50C
1NO+1NC snap action

50D
2NC snap action

50F
1NO+2NC snap action

50M
2NO+2NC snap action

ADDITIONAL HINGES

HC LL

HC AA

HC AB

product option

Code structure

Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

article: HP AA052C-2SN — options: GH15T6

Movable part

A	100x45 mm movable part, metal
B	100x75 mm movable part, metal

Ambient temperature

	-25°C … +80°C
T6	-40°C … +80°C

Contact block

52C	1NO+1NC, slow action
52D	2NC, slow action
52F	1NO+2NC, slow action
52M	2NO+2NC, slow action
53C	1NO+1NC, slow action, make before break
53F	1NO+2NC, slow action, make before break
53M	2NO+2NC, slow action, make before break
50C	1NO+1NC, snap action
50D	2NC, snap action
50F	1NO+2NC, snap action
50M	2NO+2NC, snap action

The versions with snap-action contact blocks are recommended for doors having a radius not greater than 600 mm.

Activation angle

	0° activation angle (standard)
H15	15° activation angle
H30	30° activation angle
H45	45° activation angle
H60	60° activation angle
H75	75° activation angle
H90	90° activation angle
H105	105° activation angle
H120	120° activation angle
H135	135° activation angle
H345	345° activation angle

Contact type

	silver contacts (standard)
G	silver contacts with 1 µm gold coating

Connection type

0.2	cable, length: 0.2 m with M12 connector (available for 0.2 PM versions only)
0.5	cable, length: 0.5 m
...	…
2	cable, length: 2 m (standard)
...	…
10	cable, length: 10 m
K	integrated M12 connector

Cable or connector type

N	PVC cable, IEC 60332-1-2 oil-resistant (standard)
E	PVC cable, IEC 60332-1-2 (with 2 contacts only)
H	PUR cable, halogen free
R	cable for railway applications (EN 50306-4)
M	M12 connector

Output direction, connections

S	movable part at the right and bottom output
P	movable part at the right and output at the back
A	movable part at the right and output at top
Q	movable part at the left and output at the back

Code structure for additional hinges

article: HC AA — options: V46

Movable part

HC AA	100x45 mm
HC AB	100x75 mm
HC LL	65x45 mm

Ground connection

	with no ground connection between the fixed par and the moving part (standard)
V46	with ground connection between the fixed part and the moving part

HP-HC series safety hinge switches

Main features

- Metal housing, cable output at top, bottom or back
- 4 types of integrated cable available
- Versions with M12 connector
- Protection degrees IP67 and IP69K
- 11 contact blocks with positive opening ⊕
- Additional hinges without contacts

Quality marks:

IMQ approval:	CA02.03746
UL approval:	E131787
CCC approval:	2021000305000108
EAC approval:	RU C-IT.УТ03.B.00035/19

Technical data

Housing

Metal housing, powder-coated
Versions with integrated cable, length 2 m, other lengths from 0.5 … 10 m on request
Versions with integrated M12 connector
Versions with M12 connector and 0.2 m cable, other lengths from 0.1 … 3 m on request

Protection degree:	IP67 acc. to EN 60529 IP69K acc. to ISO 20653 (Protect the cables from direct high-pressure and high-temperature jets)
Corrosion resistance in saline mist:	≥ 300 hours in NSS acc. to ISO 9227

General data

SIL (SIL CL) up to:	SIL 3 acc. to EN 62061*
Performance Level (PL) up to:	PL e acc. to EN ISO 13849-1*
Mechanical interlock, not coded:	type 1 acc. to EN ISO 14119
Safety parameters:	
B_{10D}:	5,000,000 for NC contacts
Mission time	20 years
Ambient temperature for hinges without cable:	-25°C … +80°C (standard) -40°C … +80°C (T6 option)
Ambient temperature for hinges with cable:	See table on page 70
Max. actuation frequency:	1200 operating cycles/hour
Mechanical endurance:	1 million operating cycles
Max. actuation speed:	90°/s
Min. actuation speed:	2°/s
Mounting position:	any
Tightening torque, M5 screws:	3 … 5 Nm

Electrical data

Rated impulse withstand voltage U_{imp}:	4 kV
Conditional short circuit current:	1000 A acc. to EN 60947-5-1
Pollution degree:	3

In compliance with standards:
IEC 60947-5-1, IEC 60947-1, IEC 60204-1, EN ISO 14119, EN ISO 12100, IEC 60529, EN IEC 63000, ISO 20653, UL 508, CSA C22.2 No. 14.

Approvals:
EN 60947-5-1, UL 508, CSA C22.2 No. 14, GB/T14048.5

Compliance with the requirements of:
Machinery Directive 2006/42/EC, EMC Directive 2014/30/EU, RoHS Directive 2011/65/EU.

Positive contact opening in conformity with standards:
IEC 60947-5-1, EN 60947-5-1.

⚠ If not expressly indicated in this chapter, for correct installation and utilization of all articles see the instructions given on pages 439 to 454.

⚠ Important: Switch off the circuit voltage before disconnecting the connector from the switch. The connector is not suitable for separation of electrical loads. According to EN 60204-1, versions with 8-pole M12 (2NO+2NC) connector can be used only in SELV circuits.

Features approved by IMQ

Rated insulation voltage (U_i):	250 Vac
Conventional free air thermal current (Ith):	10 A (1-2 contacts) / 6 A (2-3 contacts) / 4 A (4 contacts or 5-pole M12 connector)
Protection against short circuits (fuse):	10 A (1-2 contacts) / 6 A (2-3 contacts) / 4 A (4 contacts or 5-pole M12 connector) type gG
Rated impulse withstand voltage (U_{imp}):	4 kV
Protection degree of the housing:	IP67
MA terminals (crimped terminals) Pollution degree:	3
Utilization category:	AC15 / DC13 (with connector)
Operating voltage (U_e):	250 Vac (50 Hz) / 24 Vdc (with connector)
Operating current (I_e):	3 A / 2 A (with connector)

Forms of the contact element: X, Y, Zb, X+X, Y+Y, Y+Y+X, X+X+Y, X+X+Y+Y
Positive opening contacts on contact blocks 50A, 50C, 50D, 50F, 50G, 50M, 51A, 51C, 51D, 51F, 51G, 51M, 52A, 52C, 52D, 52F, 52G, 52M, 53A, 53C, 53D, 53F, 53G, 53M

In compliance with standards: EN 60947-1, EN 60947-5-1, fundamental requirements of the Low Voltage Directive 2014/35/EU.

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

Features approved by UL

Electrical Ratings:	R300 pilot duty (28 VA, 125-250 Vdc) B300 pilot duty (360 VA, 120-240 Vac) (1-2-3 cont.) C300 pilot duty (180 VA, 120-240 Vac) (4 cont.) 24 Vac, Class 2, 2 A pilot duty (M12 connector) 24 Vdc, Class 2, 0.22 A pilot duty (M12 connector)
Environmental Ratings:	Type 1

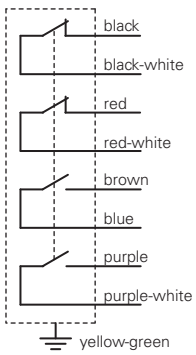
Please contact our technical department for the list of approved products.

Ambient temperatures for hinges with cable and electrical data

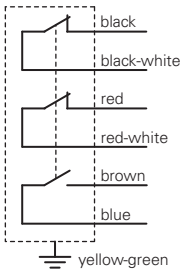
	Connection type	Output with cable								Output with M12 connector	
	Contact blocks	2 contacts				3 contacts		4 contacts		2 contacts	3 or 4 contacts
	Cable or connector type	E	N	H	R	N	H	N	R	M12 connector, 5-pole	M12 connector, 8-pole
Cable features	Conductors	5x0.75 mm²	5x0.75 mm²	5x0.75 mm²	5x0.5mm²	7x0.5 mm²	7x0.5 mm²	9x0.34 mm²	9x0.5 mm²	5x0.25 mm²	8x0.25 mm²
	Application field	General	General	General, mobile installation	Rail	General	General, mobile installation	General	Rail	General	General
	In compliance with standards	H05VV-F	05VV5-F	05EQ-H	EN50306-4 1E-300V 5G0.5 mm² MM-90 EN 50306-4 EN 45545	03VV-F	03E7Q-H	03VV-F	EN50306-4 1P-300V- 9G0.5 mm² MM-90 EN 50306-4 EN 45545	03VV-H	03VV-H
	Sheath	PVC	PVC OIL RESISTANT	PUR HALOGEN FREE	/	PVC OIL RESISTANT	PUR HALOGEN FREE	PVC OIL RESISTANT	/	PVC OIL RESISTANT	PVC OIL RESISTANT
	Self-extinguishing	IEC 60332-1-2	IEC 60332-1-2 UL 758:FT1 CEI 20-22 II	IEC 60332-1-2 UL 758:FT1	IEC 60332-1 EN 50305 EN 50306-1	IEC 60332-1-2 UL 758:FT1 CEI 20-22 II	IEC 60332-1-2 UL 758:FT1	IEC 60332-1-2 UL 758:FT1 CEI 20-22 II	IEC 60332-1 EN 50305 EN 50306-1	IEC 60332-1-2 CEI 20-22 II UL 758:FT1	IEC 60332-1-2 CEI 20-22 II UL 758:FT1
	Oil resistant	/	UL 758 CSA 22.2 N°210	UL 758 CSA 22.2 N°210	/	UL 758 CSA 22.2 N°210	UL 758	UL 758 CSA 22.2 N°210	/	UL 758 CSA 22.2 N°210	UL 758 CSA 22.2 N°210
	Max. speed	/	/	300 m/min	/	/	300 m/min	/	/	50 m/min	50m/min
	Max. acceleration	/	/	30 m/s²	/	/	30 m/s²	/	/	5 m/s²	5m/s²
	Minimum bending radius	80 mm	80 mm	80 mm	60 mm	108 mm	80 mm	108 mm	65 mm	75 mm	90 mm
	Outer diameter	8 mm	8 mm	8 mm	6 mm	7 mm	7 mm	7 mm	6.5 mm	6 mm	6 mm
	End stripped	80 mm	80 mm	80 mm	80 mm	80 mm	80 mm	80 mm	80 mm	/	/
	Copper conductors IEC 60228	Class 5	Class 5	Class 6	Class 5	Class 5	Class 6	Class 5	Class 5	Class 6	Class 6
	Engraving	Standard	6268	6280	Standard	6274	6282	6278	Standard	6267	6275
Ambient temperature with cable standard	Cable, fixed installation	-15°C +60°C	-25°C +80°C	-25°C +80°C	-25°C +80°C	-25°C +80°C	-25°C +80°C	-25°C +80°C	-25°C +80°C	-25°C +80°C	-25°C +80°C
	Cable, flexible installation	+5°C +60°C	-5°C +80°C	-25°C +80°C	-25°C +80°C	-5°C +80°C	-25°C +80°C	-5°C +80°C	-25°C +80°C	-15°C +80°C	-15°C +80°C
	Cable, mobile installation	/	/	-25°C +80°C	/	/	-25°C +80°C	/	/	-15°C +80°C	-15°C +80°C
Ambient temperature with cable extended (T6)	Cable, fixed installation	/	/	-40°C +80°C	-40°C +80°C	/	-40°C +80°C	/	-40°C +80°C	/	/
	Cable, flexible installation	/	/	-40°C +80°C	-40°C +80°C	/	-40°C +80°C	/	-40°C +80°C	/	/
	Cable, mobile installation	/	/	-40°C +80°C	/	/	-40°C +80°C	/	/	/	/
Electrical data	Thermal current Ith	10 A	10 A	10 A	6 A	6 A	6 A	3 A	4 A	4 A	2 A
	Rated insulation voltage Ui	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac	250 Vac 300 Vdc	30 Vac 36 Vdc
	Protection against short circuits (fuse)	10 A 500 V type gG	10 A 500 V type gG	10 A 500 V type gG	6 A 500 V type gG	6 A 500 V type gG	6 A 500 V type gG	3 A 500 V type gG	4 A 500 V type gG	4 A 500 V type gG	2 A 500V type gG
	Utilization category DC13 — 24 V	2 A	2 A	2 A	2 A	2 A	2 A	2 A	2 A	2 A	2 A
	Utilization category DC13 — 125 V	0.4 A	0.4 A	0.4 A	0.4 A	0.4 A	0.4 A	0.4 A	0.4 A	0.4 A	/
	Utilization category DC13 — 250 V	0.3 A	0.3 A	0.3 A	0.3 A	0.3 A	0.3 A	0.3 A	0.3 A	0.3 A	/
	Utilization category AC15 — 24 V	4 A	4 A	4 A	4 A	4 A	4 A	3 A	4 A	4 A	2 A
	Utilization category AC15 — 120 V	4 A	4 A	4 A	4 A	4 A	4 A	3 A	4 A	4 A	/
	Utilization category AC15 — 250 V	4 A	4 A	4 A	4 A	4 A	4 A	3 A	4 A	4 A	/
	Approvals	CE cULus IMQ EAC CCC	CE cULus IMQ EAC CCC	CE cULus IMQ EAC CCC	CE IMQ EAC CCC	CE cULus IMQ EAC CCC	CE cULus IMQ EAC CCC	CE cULus IMQ EAC CCC	CE IMQ EAC CCC	CE cULus IMQ EAC CCC	CE cULus EAC

Internal cable wiring

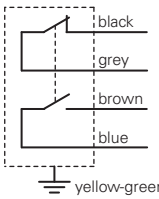
2NO+2NC



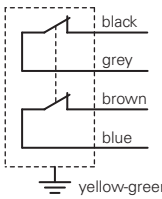
1NO+2NC



1NO+1NC



2NC



Connector pin assignment

2NO+2NC

1-2 NC
3-4 NC
5-6 NO
7-8 NO

1NO+2NC

3-4 NC
5-6 NC
7-8 NO
1 ⏚

1NO+1NC

1-2 NC
3-4 NO
5 ⏚

2NC

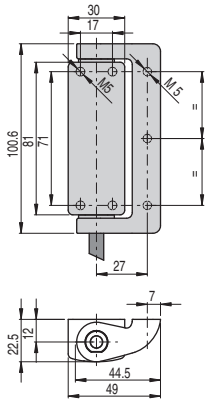
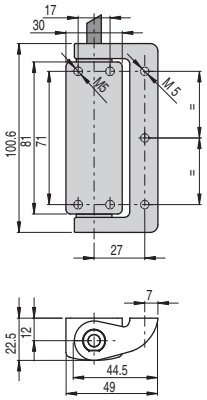
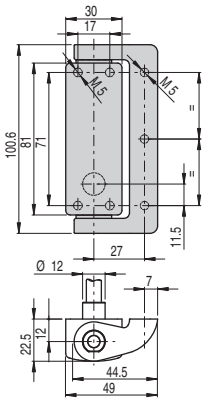
1-2 NC
3-4 NC
5 ⏚

Female connectors See page 419

Contact type

L = slow action

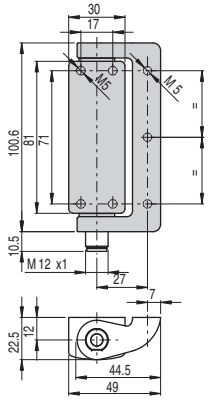
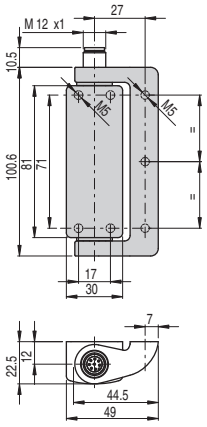
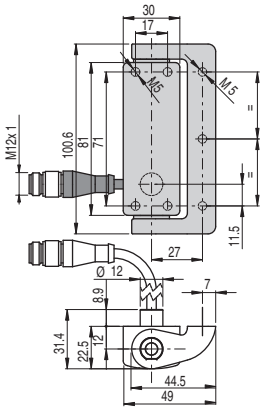
LO = slow action, make before break

Contact block		2 m cable, bottom		2 m cable, top		2 m cable, back	
							
52C	L	HP AA052C-2SN	1NO+1NC	HP AA052C-2AN	1NO+1NC	HP AA052C-2PN	1NO+1NC
52D	L	HP AA052D-2SN	2NC	HP AA052D-2AN	2NC	HP AA052D-2PN	2NC
52F	L	HP AA052F-2SN	1NO+2NC	HP AA052F-2AN	1NO+2NC	HP AA052F-2PN	1NO+2NC
52M	L	HP AA052M-2SN	2NO+2NC	HP AA052M-2AN	2NO+2NC	HP AA052M-2PN	2NO+2NC
53C	LO	HP AA053C-2SN	1NO+1NC	HP AA053C-2AN	1NO+1NC	HP AA053C-2PN	1NO+1NC
53F	LO	HP AA053F-2SN	1NO+2NC	HP AA053F-2AN	1NO+2NC	HP AA053F-2PN	1NO+2NC
53M	LO	HP AA053M-2SN	2NO+2NC	HP AA053M-2AN	2NO+2NC	HP AA053M-2PN	2NO+2NC
Actuating force		0.3 Nm (0.65 Nm →)		0.3 Nm (0.65 Nm →)		0.3 Nm (0.65 Nm →)	
Travel diagrams		page 74 - group 1		page 74 - group 1		page 74 - group 1	

Contact type

L = slow action

LO = slow action, make before break

Contact block		M12 connector, bottom		M12 connector, top		cable (0.2 m) with M12 connector, back	
							
52C	L	HP AA052C-KSM	1NO+1NC	HP AA052C-KAM	1NO+1NC	HP AA052C-0.2PM	1NO+1NC
52D	L	HP AA052D-KSM	2NC	HP AA052D-KAM	2NC	HP AA052D-0.2PM	2NC
52F	L	HP AA052F-KSM	1NO+2NC	HP AA052F-KAM	1NO+2NC	HP AA052F-0.2PM	1NO+2NC
52M	L	HP AA052M-KSM	2NO+2NC	HP AA052M-KAM	2NO+2NC	HP AA052M-0.2PM	2NO+2NC
53C	LO	HP AA053C-KSM	1NO+1NC	HP AA053C-KAM	1NO+1NC	HP AA053C-0.2PM	1NO+1NC
53F	LO	HP AA053F-KSM	1NO+2NC	HP AA053F-KAM	1NO+2NC	HP AA053F-0.2PM	1NO+2NC
53M	LO	HP AA053M-KSM	2NO+2NC	HP AA053M-KAM	2NO+2NC	HP AA053M-0.2PM	2NO+2NC
Actuating force		0.3 Nm (0.65 Nm →)		0.3 Nm (0.65 Nm →)		0.3 Nm (0.65 Nm →)	
Travel diagrams		page 74 - group 1		page 74 - group 1		page 74 - group 1	

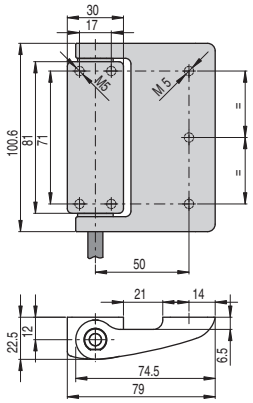
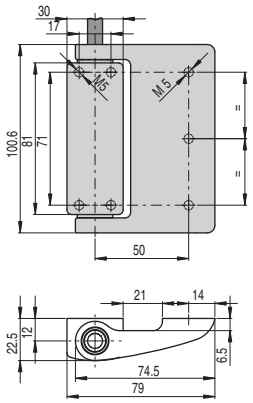
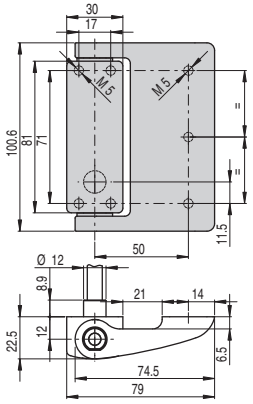
Attention! The safety hinge switch can be combined together exclusively with one or more Pizzato Elettrica hinges (HP or HC series). The use of whichever other hinge does not guarantee the correct operation of the safety device.

All values in the drawings are in mm

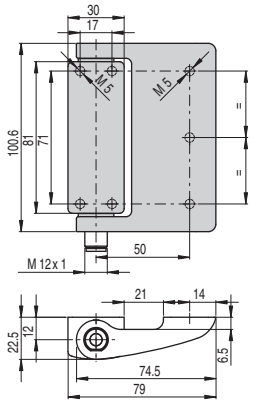
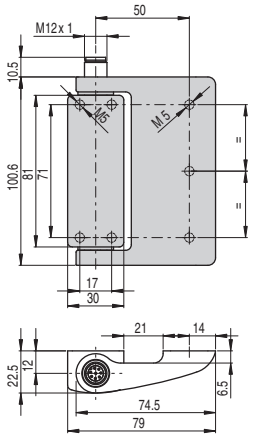
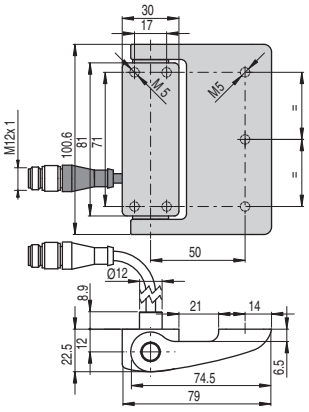
Accessories See page 419

→ The 2D and 3D files are available at **www.pizzato.com**

Contact type
L = slow action
LO = slow action, make before break

Contact block		2 m cable, bottom		2 m cable, top		2 m cable, back	
							
52C	L	HP AB052C-2SN	1NO+1NC	HP AB052C-2AN	1NO+1NC	HP AB052C-2PN	1NO+1NC
52D	L	HP AB052D-2SN	2NC	HP AB052D-2AN	2NC	HP AB052D-2PN	2NC
52F	L	HP AB052F-2SN	1NO+2NC	HP AB052F-2AN	1NO+2NC	HP AB052F-2PN	1NO+2NC
52M	L	HP AB052M-2SN	2NO+2NC	HP AB052M-2AN	2NO+2NC	HP AB052M-2PN	2NO+2NC
53C	LO	HP AB053C-2SN	1NO+1NC	HP AB053C-2AN	1NO+1NC	HP AB053C-2PN	1NO+1NC
53F	LO	HP AB053F-2SN	1NO+2NC	HP AB053F-2AN	1NO+2NC	HP AB053F-2PN	1NO+2NC
53M	LO	HP AB053M-2SN	2NO+2NC	HP AB053M-2AN	2NO+2NC	HP AB053M-2PN	2NO+2NC
Actuating force		0.3 Nm (0.65 Nm →)		0.3 Nm (0.65 Nm →)		0.3 Nm (0.65 Nm →)	
Travel diagrams		page 74 - group 1		page 74 - group 1		page 74 - group 1	

Contact type
L = slow action
LO = slow action, make before break

Contact block		M12 connector, bottom		M12 connector, top		cable (0.2 m) with M12 connector, back	
							
52C	L	HP AB052C-KSM	1NO+1NC	HP AB052C-KAM	1NO+1NC	HP AB052C-0.2PM	1NO+1NC
52D	L	HP AB052D-KSM	2NC	HP AB052D-KAM	2NC	HP AB052D-0.2PM	2NC
52F	L	HP AB052F-KSM	1NO+2NC	HP AB052F-KAM	1NO+2NC	HP AB052F-0.2PM	1NO+2NC
52M	L	HP AB052M-KSM	2NO+2NC	HP AB052M-KAM	2NO+2NC	HP AB052M-0.2PM	2NO+2NC
53C	LO	HP AB053C-KSM	1NO+1NC	HP AB053C-KAM	1NO+1NC	HP AB053C-0.2PM	1NO+1NC
53F	LO	HP AB053F-KSM	1NO+2NC	HP AB053F-KAM	1NO+2NC	HP AB053F-0.2PM	1NO+2NC
53M	LO	HP AB053M-KSM	2NO+2NC	HP AB053M-KAM	2NO+2NC	HP AB053M-0.2PM	2NO+2NC
Actuating force		0.3 Nm (0.65 Nm →)		0.3 Nm (0.65 Nm →)		0.3 Nm (0.65 Nm →)	
Travel diagrams		page 74 - group 1		page 74 - group 1		page 74 - group 1	

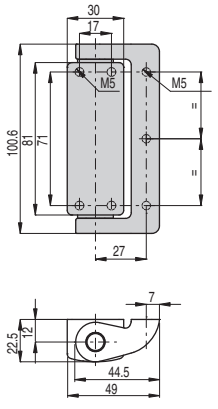
Attention! The safety hinge switch can be combined together exclusively with one or more Pizzato Elettrica hinges (HP or HC series). The use of whichever other hinge does not guarantee the correct operation of the safety device.

All values in the drawings are in mm

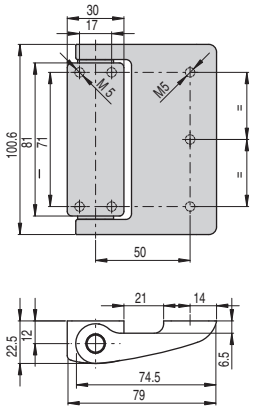
Accessories See page 419

→ The 2D and 3D files are available at **www.pizzato.com**

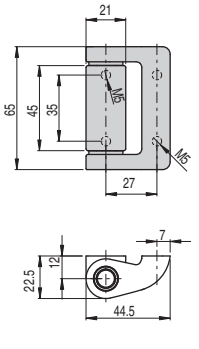
Additional hinges



HC AA



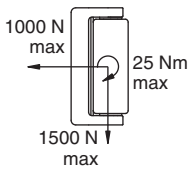
HC AB



HC LL

Maximum forces and loads HP AA••••-•••, HC AA, HC LL

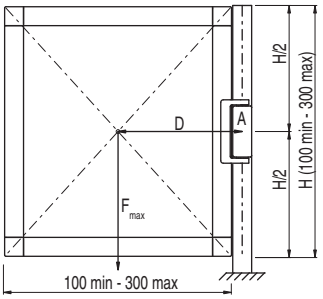
Admitted max. loads, independent of utilization conditions.



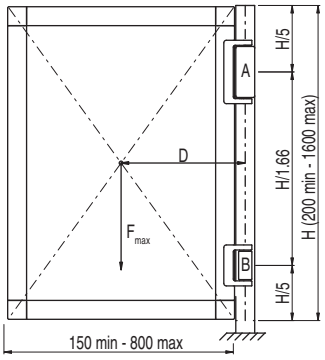
Attention: Never exceed the loads listed above under any circumstances.

The loads have been verified by a fatigue test of one million operating cycles with a 90° opening angle.

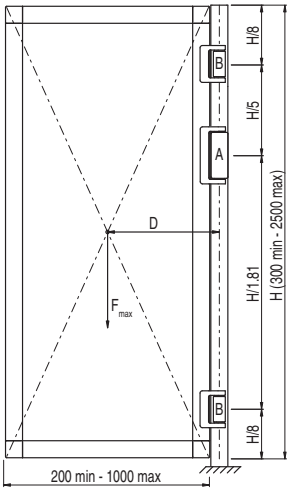
Doors with one safety hinge
F_{max} (N)=25,000/D (mm)



Doors with one safety hinge and one additional hinge
F_{max}(N)=200,000/D (mm)



Doors with one safety hinge and two additional hinges
F_{max} (N)=250,000/D (mm)

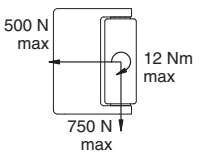


Legend

F_{max}	Force exerted by the weight of the door (N)
D (mm)	Distance from the centre of gravity of the door to the axis of the hinge
A	Safety hinge
B	Additional hinge

Maximum forces and loads HP AB••••-•••, HC AB

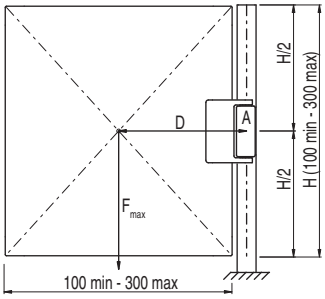
Admitted max. loads, independent of utilization conditions.



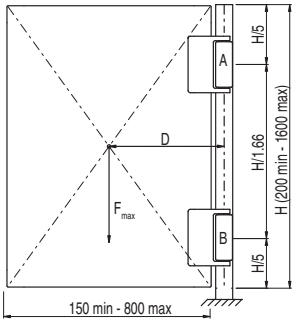
Attention: Never exceed the loads listed above under any circumstances.

The loads have been verified by a fatigue test of one million operating cycles with a 90° opening angle.

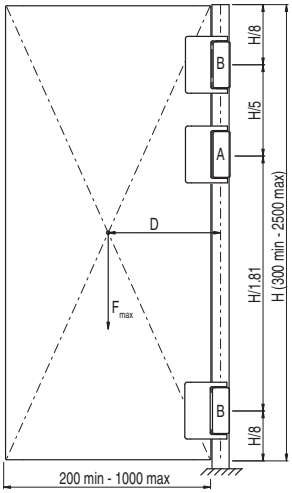
Doors with one safety hinge
F_{max} (N)=12,500/D (mm)



Doors with one safety hinge and one additional hinge
F_{max}(N)=100,000/D (mm)



Doors with one safety hinge and two additional hinges
F_{max} (N)=200,000/D (mm)



Legend

F_{max}	Force exerted by the weight of the door (N)
D (mm)	Distance from the centre of gravity of the door to the axis of the hinge
A	Safety hinge
B	Additional hinge

Accessories

Article	Description
VF AC7032	Protection cap for adjustment screw

The cap is supplied with every hinge and must always be inserted after the adjustment of the switching point.

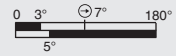
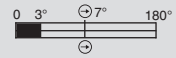
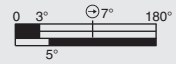
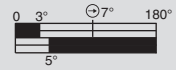
In case of loss or damage, the cap can be ordered separately.

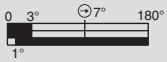
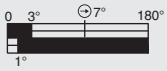
All values in the drawings are in mm

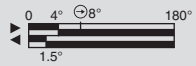
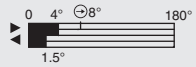
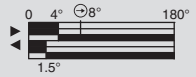
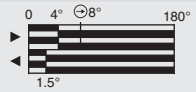
Accessories See page 419

→ The 2D and 3D files are available at **www.pizzato.com**

Travel diagrams

Contact block	Group 1
52C 1NO+1NC	
52D 2NC	
52F 1NO+2NC	
52M 2NO+2NC	

Contact block	Group 1
53C 1NO+1NC	
53F 1NO+2NC	
53M 2NO+2NC	

Contact block	Group 1
50C 1NO+1NC	
50D 2NC	
50F 1NO+2NC	
50M 2NO+2NC	

Legend

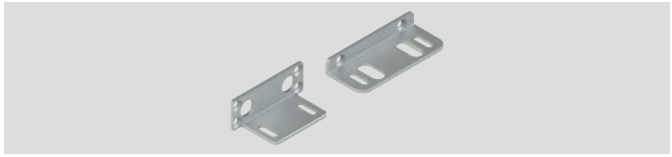
- Closed contact
- Open contact
- Positive opening travel
- Switch pressed / Switch released

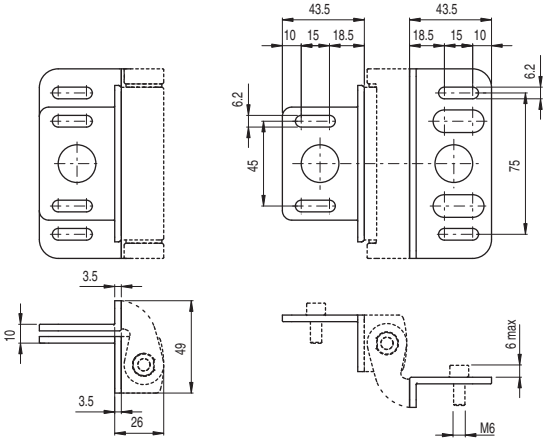
The switching point of the contacts can be adjusted from 0° to +4° compared to that indicated in the travel diagrams. The hinge is supplied without pre-adjustment.

Fixing plates

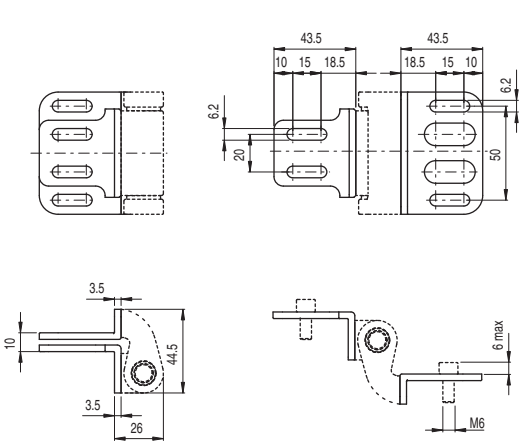
Fastening screws for profile not supplied.

Article	Description
VF SFH1-C	Couple of angular plates for HP AA and HC AA supplied with fastening screws for attachment of the switch

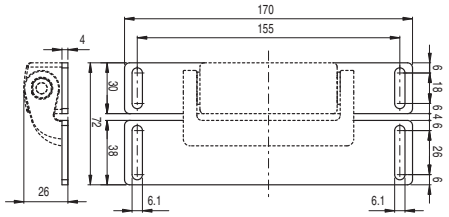




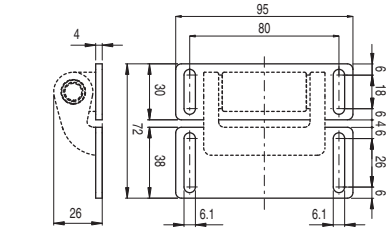
Article	Description
VF SFH2-C	Couple of angular plates for HC LL supplied with fastening screws for attachment of the switch



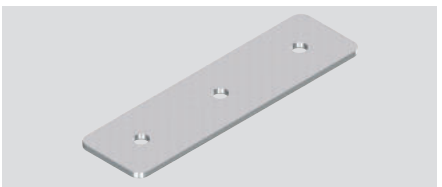
Article	Description
VF SFH3-C	Couple of plane plates for HP AA and HC AA supplied with fastening screws for attachment of the switch

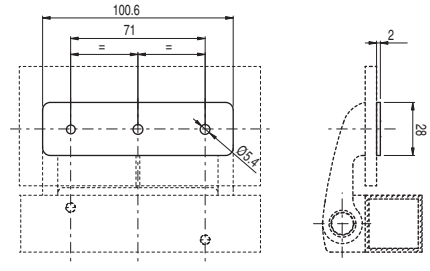


Article	Description
VF SFH4-C	Couple of plane plates for HC LL supplied with fastening screws for attachment of the switch



Article	Description
VF SFH7	HP AB series mobile part cover in stainless steel





All values in the drawings are in mm

Accessories See page 419

➔ The 2D and 3D files are available at **www.pizzato.com**