GIOVENZANA INTERNATIONAL B.V.

FFH
Position limit switch

NEW

Position limit switch with reduced overall dimensions

The **FFH position limit switch** is used to control several handling systems:

- **Bridge cranes**: the limit switch controls the operating system, for example a PLC, and allows the bridge crane to slow down or stop.
- **Hoists**: the limit switch is used to stop the hoist whenever it reaches a limit position.

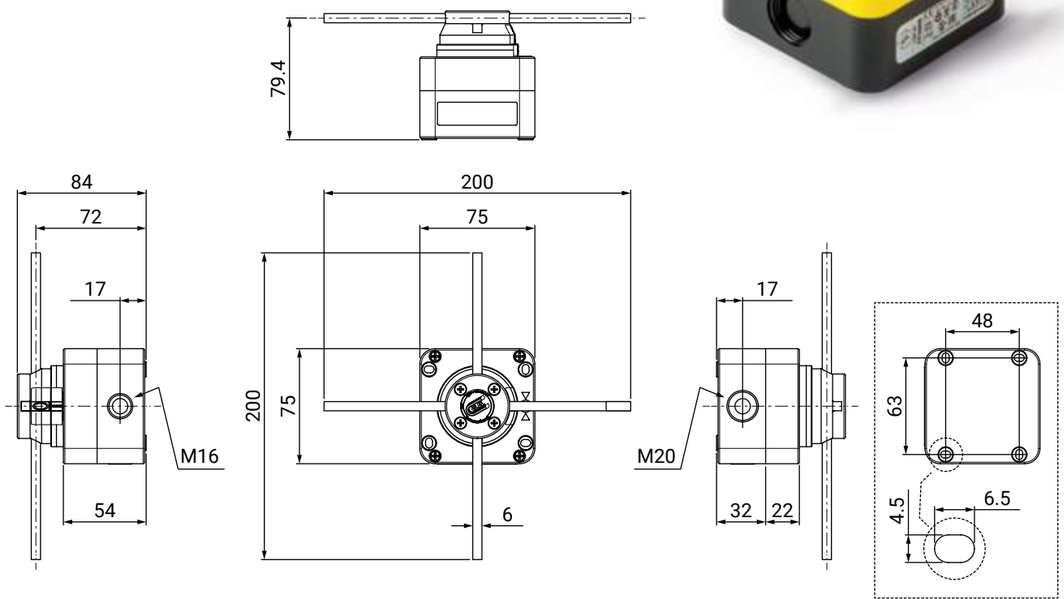
Features

- Designed to ensure excellent performances in the most challenging operating conditions.
- Compact design to be adapted in any application need.
- Reduced overall dimensions compared to the historical FCR series.
- Arranged with 4 fixing holes.
- Positive opening NC contacts for safety functions.
- IP65 Protection degree.
- Aluminium rods with 6x6 mm section and enclosure in thermoplastic material.
- Cross rods with 4 maintained positions every 90°.
- Arranged with 2 outputs for cable clamps to reduce installation time and make wiring easier.
- Available different versions, also customizable on request.

Compliance and certifications

- 2014/35/UE - 2011/65/UE - 2015/863/UE
- EN 60947-1 (2007/A1 : 2011/A2 : 2014)
- EN 60947-3 (2009/A1 : 2012/A2 : 2015)
- EN 60204-1 (2006/A1 : 2009)
- EN 60529 (1991/A1 : 2000/A2 : 2013)
- EN 50581 (2012)
- IEC 63000 (2016)





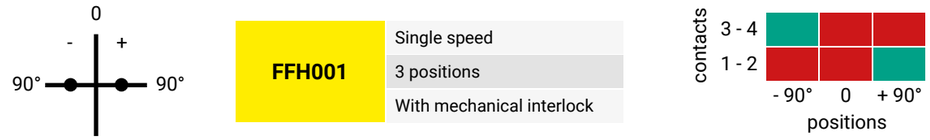
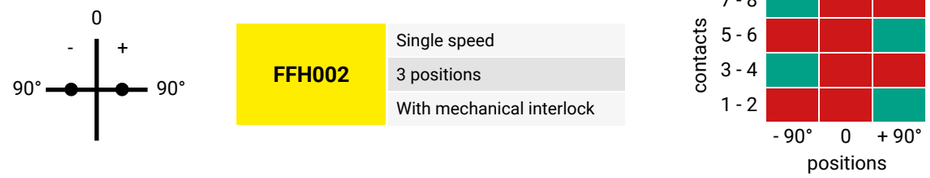
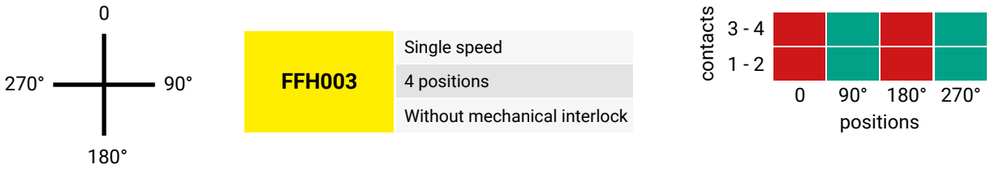
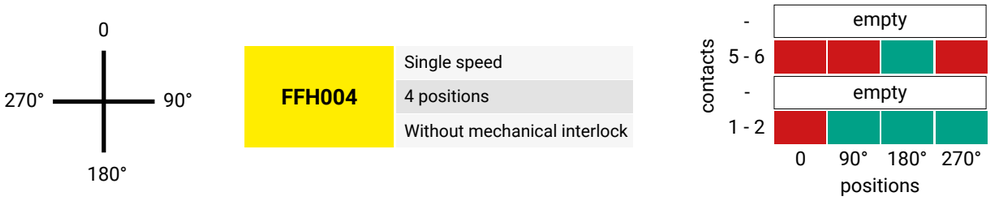
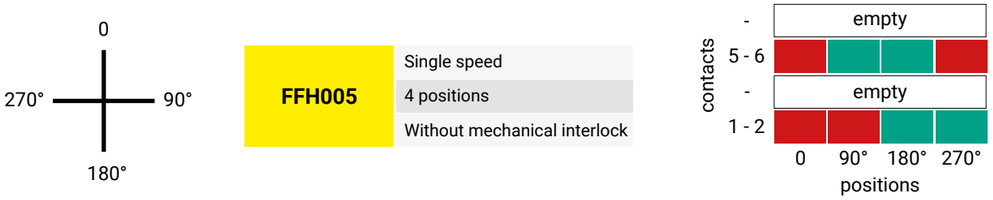
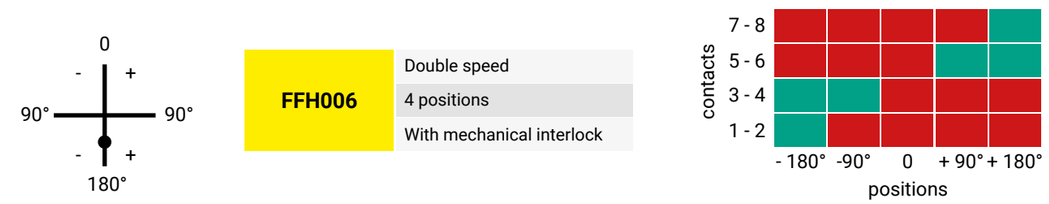
Available codes



FFH
Internal
cam switch
P016 line



contact open contact close

FFH001	Single speed 3 positions With mechanical interlock	
FFH002	Single speed 3 positions With mechanical interlock	
FFH003	Single speed 4 positions Without mechanical interlock	
FFH004	Single speed 4 positions Without mechanical interlock	
FFH005	Single speed 4 positions Without mechanical interlock	
FFH006	Double speed 4 positions With mechanical interlock	

POSITION LIMIT SWITCHES





	FFH	FCR
GENERAL CHARACTERISTICS		
STANDARDS	IEC /EN 60497/3	IEC /EN 60497/3
CASE	Self extinguishing housing V0 UL94	Self extinguishing housing V0 UL94
PROTECTION CLASS	IP65 - Double insulation (IEC / EN 60529)	IP65 - Double insulation (IEC / EN 60529)
CABLE ENTRY	M16 / M20	Nr 1 Ø 22.5 mm
VERSIONS	Single or double speed motor configuration. 3, 4 or 4 with mechanical stop positions.	Single or double speed motor configuration. 3, 4 or 4 with mechanical stop positions.
NOTES	Fully adjustable aluminium rods ☐ 2x200 mm with “0” indicator. Reinforced mechanical stop.	Fully adjustable aluminium rods ☐ 6x300 mm with “0” indicator. Reinforced mechanical stop.
AMBIENTAL TEMPERATURE	Operating: -25°C ... +55°C Storage: -30°C ... +70°C	Operating: -25°C ... +55°C Storage: -30°C ... +70°C
ELECTRICAL CHARACTERISTICS		
PRODUCT ID	P016 Giovenzana Cam switch line	P016 Giovenzana Cam switch line
STANDARDS	IEC/EN 60947/3 – UL508	IEC/EN 60947/3 – UL508
MARKING	CE, IMQ, RINA, EAC, CCC, cULus, cCSAus	CE, IMQ, RINA, EAC, CCC, cULus, cCSAus
RATED OPERATING VOLTAGE - Ue	690V	690V
RATED INSULATION VOLTAGE - Ui	690V	690V
RATHED IMPULSE WITH-STAND VOLTAGE - Uimp	4kV	4kV
RATHED THERMAL CURRENT - Ith	16A	16A
ENCLOSED THERMAL CURRENT - Ithe	16A	16A
RATHED OPERATING CURRENT AC21A AC22A	16A - 690 V AC	16A - 690 V AC
RATHED OPERATING CURRENT AC23A 3ph 230V	13A - 4 kW	13A - 4 kW
RATHED OPERATING CURRENT AC23A 3ph 400V	13A - 7.5 kW	13A - 7.5 kW
FREQUENCY	50 / 60 Hz	50 / 60 Hz
CONTACTS	Double gap positive opening ⊖	Double gap positive opening ⊖
BLOCK CALIBER	A3 (EN 60947-1)	A3 (EN 60947-1)
TERMINAL SCREW	M3.5	M3.5
TIGHTENING TORQUE	0.8 Nm / 7.2 lbin (EN60947-1) 7.5 lbin / 0.85 Nm (UL508)	0.8 Nm / 7.2 lbin (EN60947-1) 7.5 lbin / 0.85 Nm (UL508)
CON-NECTABLE SECTION Flexible conductors	1 x 0.75 / 4 ... 2 x 0.75 / 2.5 mm^2 10 ... 18 AWG	1 x 0.75 / 4 ... 2 x 0.75 / 2.5 mm^2 10 ... 18 AWG
CON-NECTABLE SECTION Solid conductors	1 x 0.75 / 4 ... 2 x 0.75 / 2.5 mm^2 10 ... 18 AWG	1 x 0.75 / 4 ... 2 x 0.75 / 2.5 mm^2 10 ... 18 AWG





	FFH2C-1	FCP245
GENERAL CHARACTERISTICS		
STANDARDS	IEC /EN 60497/3	IEC /EN 60497/3, EN 81-1
CASE	Self extinguishing housing V0 UL94	Self extinguishing housing V0 UL94
PROTECTION CLASS	IP65 - Double insulation (IEC / EN 60529)	IP65 - Double insulation (IEC / EN 60529)
CABLE ENTRY	1 x M16 + 1 x M20	M20 (max 8)
VERSIONS	Single speed motor configuration. Other configurations on request.	Two pole on-off switch. Other configurations on request.
NOTES	Fully adjustable aluminium rods ☐ 6x120 mm with “0” indicator. Reinforced mechanical stop. Rubber covering wheel.	Reinforced mechanical stop.
AMBIENTAL TEMPERATURE	Operating: -25°C ... +55°C Storage: -30°C ... +70°C	Operating: -25°C ... +55°C Storage: -30°C ... +70°C
ELECTRICAL CHARACTERISTICS		
PRODUCT ID	PX20 Giovenzana Cam switch line	CX40 Giovenzana Cam switch line
STANDARDS	IEC/EN 60947/3 – UL508	IEC/EN 60947/3 – UL508
MARKING	CE, IMQ, RINA, EAC, CCC, cULus, cCSAus	CE, IMQ, RINA, EAC, CCC, cULus, cCSAus
RATED INSULATION VOLTAGE - Ui	690V	690V
RATED INSULATION VOLTAGE - Ui	690V	690V
RATHED IMPULSE WITH-STAND VOLTAGE - Uimp	5kV	10kV
RATHED THERMAL CURRENT - Ith	20A	40A
ENCLOSED THERMAL CURRENT - Ith	20A	40A
RATHED OPERATING CURRENT AC21A AC22A	20A - 690 V AC	40A - 690 V AC
RATHED OPERATING CURRENT AC23A 3ph 230V	16A - 5 kW	35A - 11 kW
RATHED OPERATING CURRENT AC23A 3ph 400V	16A - 9 kW	32A - 18.5 kW
FREQUENCY	50 / 60 Hz	50 / 60 Hz
CONTACTS	Double gap positive opening ⊖	Double gap positive opening ⊖
BLOCK CALIBER	A3 (EN 60947-1)	A5 (EN 60947-1)
TERMINAL SCREW	M3.5	M4
TIGHTENING TORQUE	0.8 Nm / 7.2 lbin (EN60947-1) 7.5 lbin / 0.85 Nm (UL508)	1.2 Nm (EN60947-1) 10.6 lbin (UL508)
CON-NECTABLE SECTION Flexible conductors	1 x 0.75 / 4 ... 2 x 0.75 / 2.5 mm^2 10 ... 18 AWG	2 x 2.5 / 10 mm^2 14 ... 6 AWG
CON-NECTABLE SECTION Solid conductors	1 x 0.75 / 4 ... 2 x 0.75 / 2.5 mm^2 10 ... 18 AWG	2 x 2.5 / 10 mm^2 14 ... 6 AWG