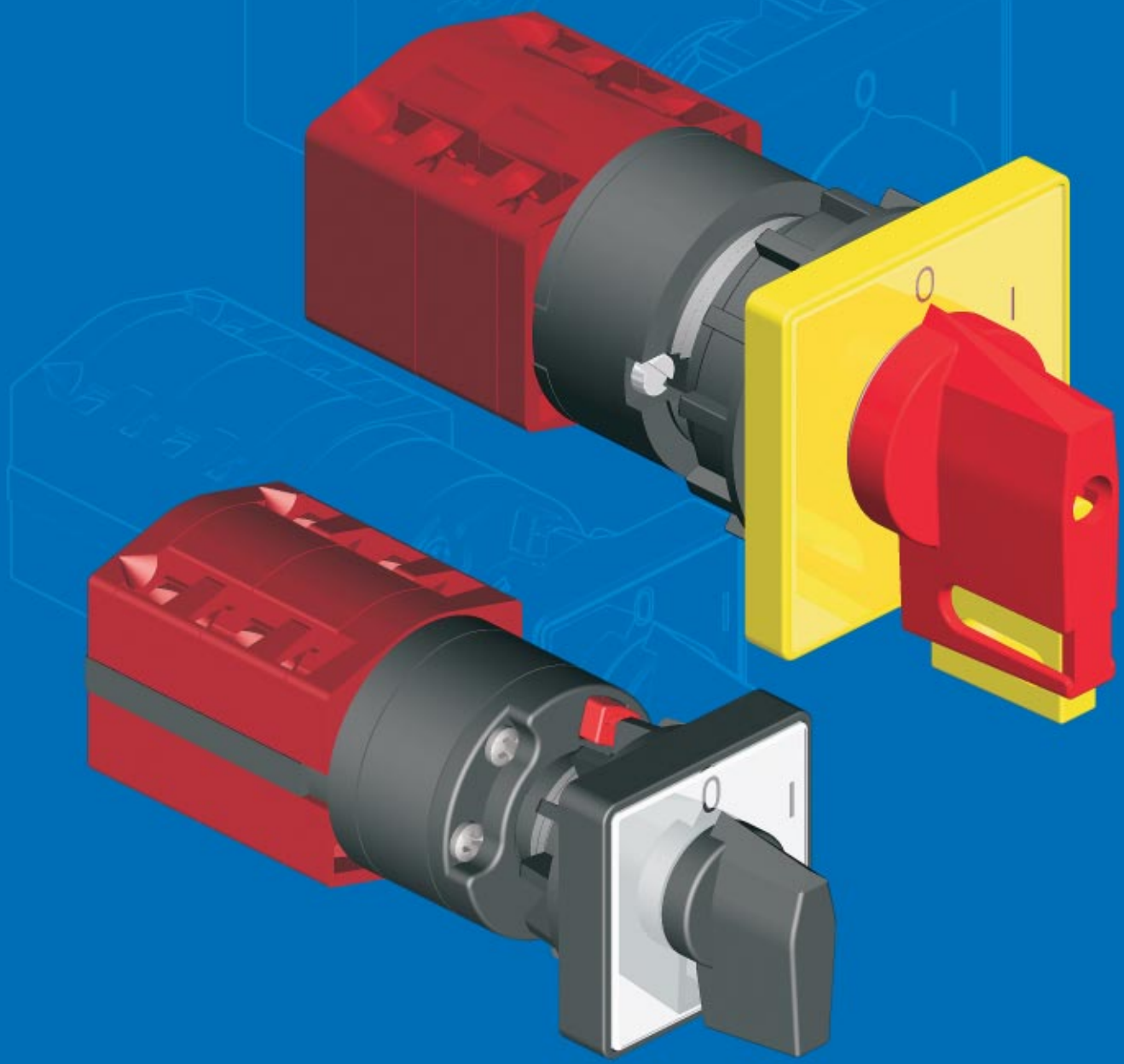
Crompton TECHNOLOGY

ROTARY CAM SWITCHES

F SERIES



QUALITY SYSTEM
öqs
IQNet
ISO 9001

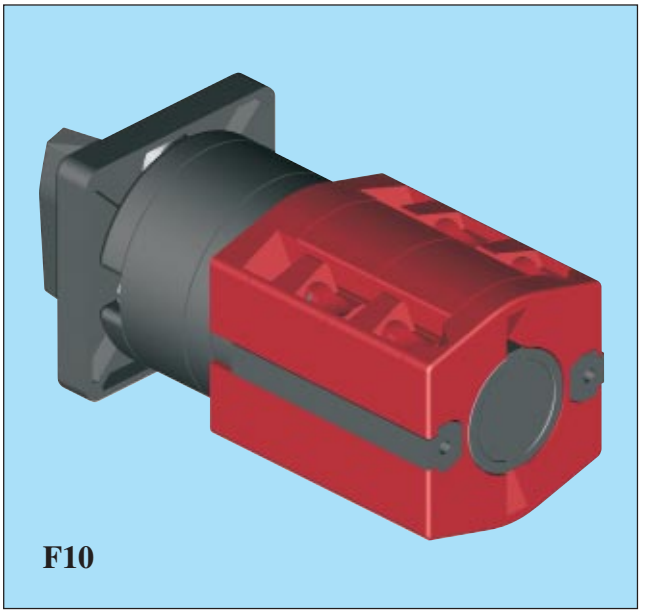
Crompton Technology Inc,7538 Bath Rd, Mississauga, ON, L4T 1L2, T:905-671-2304, F:905-671-3661, info@cromptoncanada.com, www.cromptoncanada.com

ROTARY CAM SWITCHES series F is the new series of rotary cam switches protected from inadvertent touch (all connections and possible short circuiting devices) - VDE 0106 part 100. They have been designed on modern principles taking into consideration the latest achievements in the field of switching devices and using the best insulation and contact materials. They are distinguished for their high breaking capacity, electrical and mechanical durability and small dimensions.

They are used in main and auxiliary circuits such as: motor switch (switching, control and starting of three-phase and single-phase motors) in the utilization categories AC3 and AC23; load break switch (for switching of non-inductive or sligtly inductive loads) in the utilization category AC15. Rotary cam switches can have maximum 12 control positions, with turning angles of 30°, 45°,60° and 90°.

F10 and F20 can be supplied with gold-plated contacts.

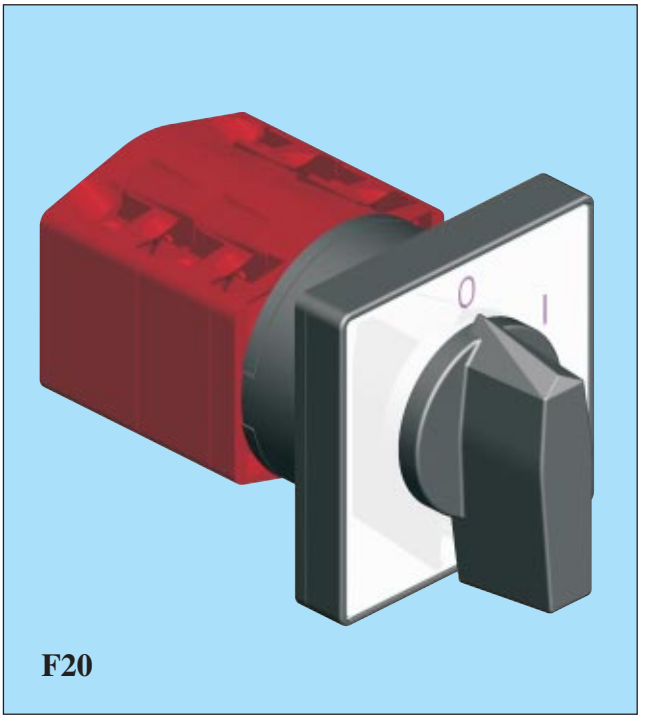
Rotary cam switches series F comply with many international and national standards such as: **IEC 60947, IEC 60204, DIN EN 61058, UL 508, C22.2 No. 14 and many others.**



F10

TYPE	Max number of elements	Mount. form		Mounting size	Main data Ith, Ui~
F10	8	Front mount. -	**U**	A00 (□30 mm)	10A, 480V
F20	12	Front mount. - Rear mount. -	**U** **O**	A0 (□48 mm)	20A, 480V
F10H	8	Front mount. -	**U**	A0 (□48 mm)	10A, 480V
F20H	12	Front mount. - Rear mount. -	**U** **O**	A1 (□65 mm)	20A, 480V
F20R	5	Front mount. -	**U**	A00 (□30 mm)	20A, 480V

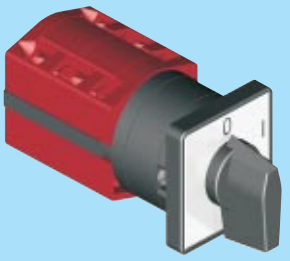
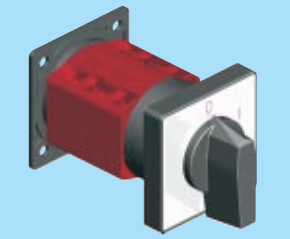
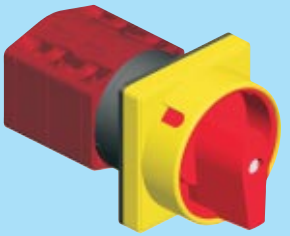
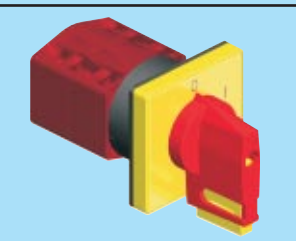
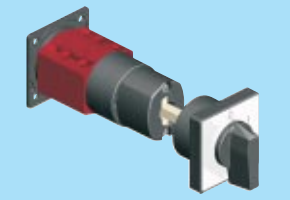
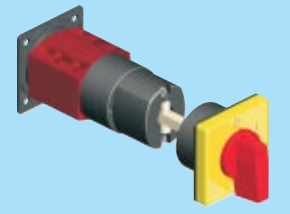
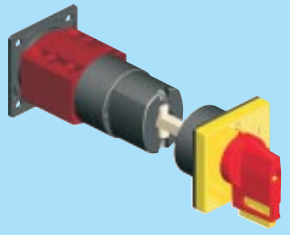
H - bigger front part then standard
R - smaller front part for F20 (A00)



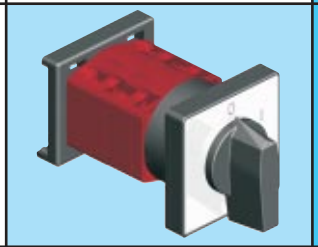
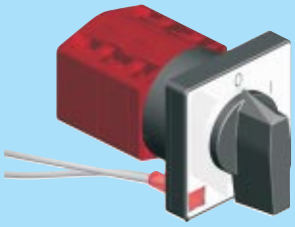
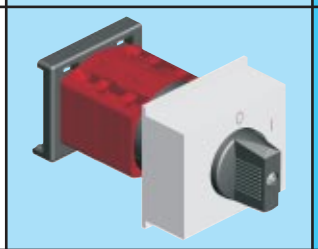
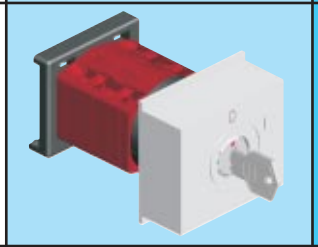
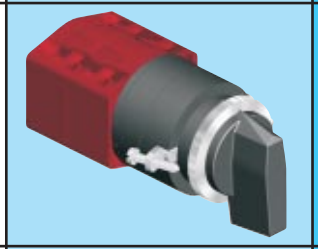
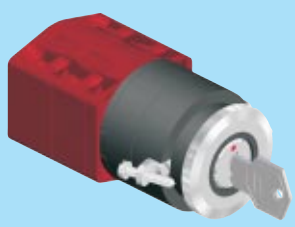
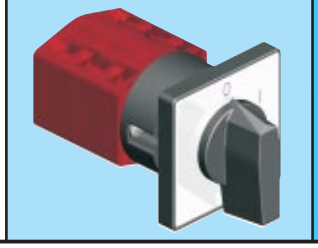
F20

SWITCH TYPE				**F10** F10H	**F20** F20H F20R
Rated insulation voltage	U_i		V	480	480
rated impulse withstand voltage	U_{imp}		kV	4	4
Rated thermal current	I_{th}		A	10	20
Main switch - max. value of rated operational voltage			V	250	480
Rated short-time withstand current	I_{cw} 1sec		A	250	250
Rated operational current	I_e	AC1/AC21A	A	10	20
		AC15 220/240V	A	3	8
		AC15 380/440V	A	2	6
Motor switch in utilization category:	3 phase AC3	220/240V	kW	1,5	3
		380/440V	kW	2,2	5
	3 phase AC23	220/240V	kW	1,8	5
		380/440V	kW	3	7,5
Max. fuse size for short circuit protection	I_n(gG/gL)	3kA	A	16	20
		5kA	A	16	20
		10kA	A	10	20
		25kA	A	-	20
Conductor size r = rigid f =f lexible		max. r/f	2 x mm²/AWG	1,5/1,5 14/14	2,5/2,5 12/12
		min. r/f	2 x mm²/AWG	0,5/0,5 20/20	0,5/0,5 20/20

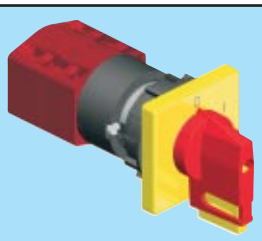
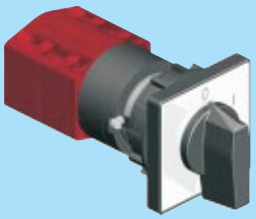
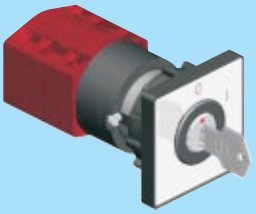
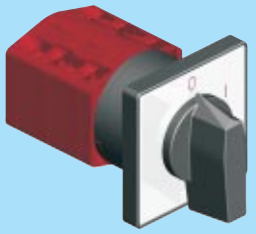
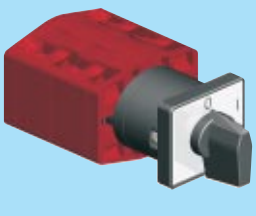
STANDARD DESIGNS AND OPTIONAL EXTRAS

	NAME	FORM	CODE 1	2	3	4	5	DESCRIPTION
STANDARD SWITCHES	**FRONT MOUNTING**		F10 - ... - U				Front assembly ☐30
			F20 - ... - U				Front assembly ☐48
			F10 - ... - U			N	Front assembly ☐30 with title
			F20 - ... - U			N	Front assembly ☐48 with title
			F10H - ... - U				Front assembly ☐48
			F20H - ... - U				Front assembly ☐65
			F20 - ... - U		01		Protection IP54
			F20 - ... - U		28		Interlocking of anticlockwise rotation
			F10 - ... - U		51		Protection IP65
			F20 - ... - U		51		Protection IP65
	REAR MOUNTING		F20 - ... - O				Front assembly ☐48
			F20 - ... - O			N	Front assembly ☐48 with title
			F20H - ... - O				Front assembly ☐65
			F20H - ... - O			N	Front assembly ☐65 with title
			F20 - ... - O		01		Protection IP54
			F20 - ... - O		02		Extended shaft
			F20 - ... - O		28		Interlocking of anticlockwise rotation
			F20 - ... - O		51		Protection IP65
	SWITCH WITH PADLOCK		F10H - ... - U		06		The grey colour of handl and front plate
			F20 - ... - U/O		06		
			F20H - ... - U/O		06		
			F10H - ... - U		23		**Main switch** - black handle and front plate
			F20 - ... - U/O		23		
			F20H - ... - U/O		23		
			F10H - ... - U		25		**Main switch with emergency** - red handle, yellow front plate
			F20 U/O		25		
			F20H - ... - U/O		25		
	SWITCH WITH PADLOCK		F10H - ... - U		56		The same colour of handle and front plate
			F20 - ... - U/O		56		
			F10H - ... - U		73		**Main switch** - black handle and front plate
			F20 - ... - U/O		73		
			F10H - ... - U		75		**Main switch with emergency** red handle, yellow front plate
			F20 - ... - U/O		75		
DOOR COUPLING	**DOOR COUPLING**		F20 - ... - O		57		Door opening in any position
			F20H - ... - O		57		
			F20 - ... - O		58		Door opening in position «O»
			F20H - ... - O		58		
	DOOR COUPLING-EMERGENCY OFF SWITCH		F20 - ... - O		84		Switch with yellow front plate, yellow escutcheon plate and red handle - door opening in position «O»
			F20H - ... - O		84		
	DOOR COUPLING-SWITCH WITH PADLOCK		F20 - ... - O		85		Padlocking (1 - 3) only in «O» - door opening in position «O»

OPTIONAL EXTRAS

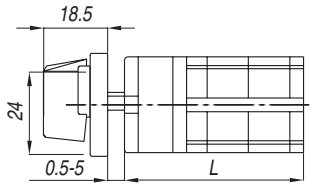
	NAME	FORM	CODE 1	2	3	4	5	DESCRIPTION
	MOUNTING ON THE RAIL		F20 - ... - U/O 18 F20H - ... - U/O 18					Mounting on the rail 35EN 50022
	SIGNAL LAMPS		F10H - ... - U 15 F20 - ... - U/O 15 F20H - ... - U/O 15					In a standard manner, the red lamp (220V) is built in the right boottom corner
	SERVICE COVER		F20 - ... - O 48 F20 - ... - O 48D					Snap on base mounting for the rail 35 EN 50022. Both the service cover (45 mm) and key are adjustable in height(7 mm) Fixed measure
	SERVICE COVER		F20 - ... - O 49					Snap on base mounting for the rail 35 EN 50022. Both the ervice cover (45 mm) and key are adjustable in height (7mm)
CENTRAL MOUNTING	**ROTARY CAM SWITCH WITH HANDLE AND NUT**		F20 - ... - U 09 F20 - ... - U 11					Mounting in Ø30 Mounting in Ø22
	ROTARY CAM SWITCH WITH KEY AND NUT		F20 - ... - U 10 F20 - ... - U 12					Mounting in Ø30 Mounting in Ø22
	ROTARY CAM SWITCH WITH HANDLE AND FRONT PLATE □48		F20 - ... - U 20					Mounting in Ø30 or Ø22

OPTIONAL EXTRAS

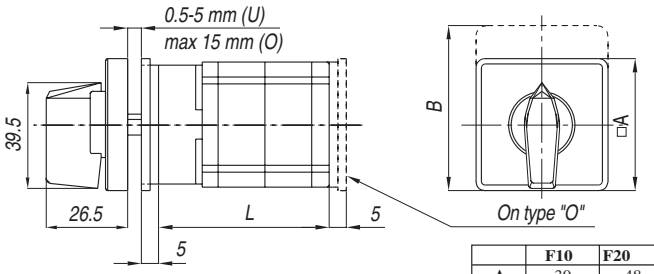
	NAME	FORM	CODE 1	2	3	4	5	DESCRIPTION
CENTRAL MOUNTING	**ROTARY CAM SWITCH WITH LOCKING**		F20 - ... - U 41 F20 - ... - U 42					Quick mounting in Ø22 Quisk mounting in Ø30
	ROTARY CAM SWITCH WITH HANDLE AND FRONT PLATE □30		F10 - ... - U 46 F10 - ... - U 47					Quick mounting in Ø16 Quick mounting in Ø22
	ROTARY CAM SWITCH WITHOUT FRONT PLATE		F10 - ... - U 66 F10 - ... - U 67					Quick mounting in Ø16 Quick mounting in Ø22
	ROTARY CAM SWITCH WITH HANDLE AND FRONT PLATE □48		F20 - ... - U 36 F20 - ... - U 37					Quick mounting in Ø22 Quick mounting in Ø30
	ROTARY CAM SWITCH WITH KEY AND FRONT PLATE □48		F20 - ... - U 29 F20 - ... - U 30					Quick mounting in Ø22 Quick mounting in Ø30
	NON-STANDARD MOUNTING		F20 - ... - U 39 F20 - ... - U 39D					Mounting with two screws (23 mm) Mounting with two screws (28 mm)
	SMALLER FRONT PART		F20R - ... - U F20R - ... - U F20R - ... - U 51				N	Front part size □30 Front part size □30 with title Protetion IP65

DIMENSIONAL DRAWINGS (mm)

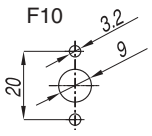
F10 Front mounting (U)

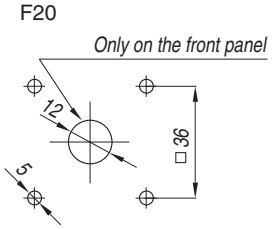


F20 Front mounting (U) Rear mounting (O)



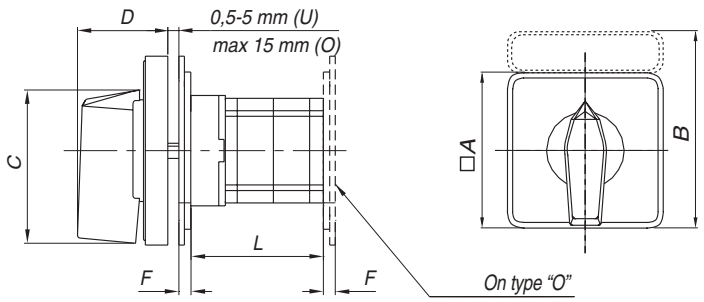
	F10	F20
A	30	48
B	40	60

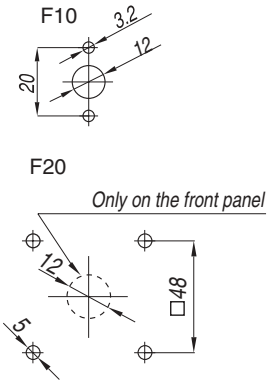




F10H Front mounting (U)

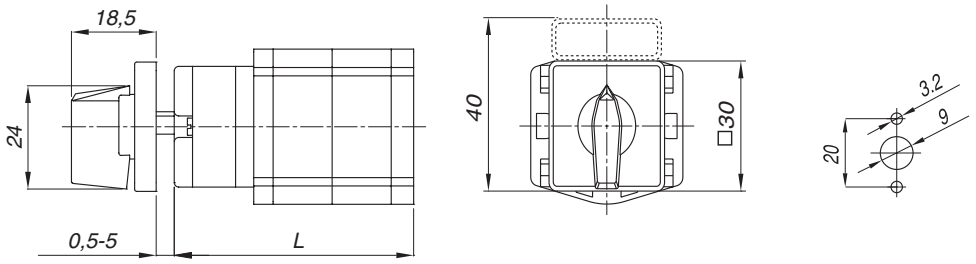
F20H Front mounting (U) Rear mounting (O)



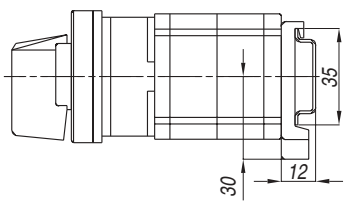


MARKING	TYPE	
	F10H	F20H
□A	48	65
B	60	80
C	39,5	53
D	26,5	34,5
F	-	5,5 5,5
	U	U O
MOUNTING FORM		

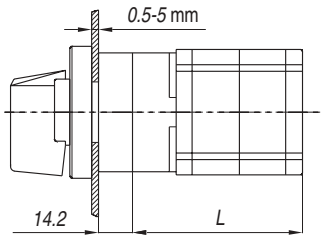
F20R Front mounting (U)



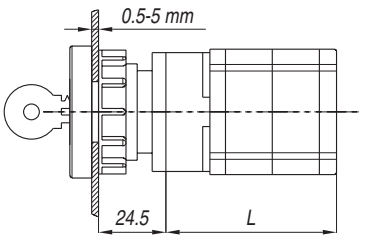
Optional extras



Mounting on the rail ***- 18***



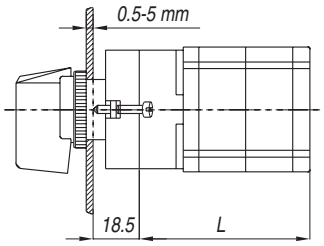
Central mounting ***- 20***



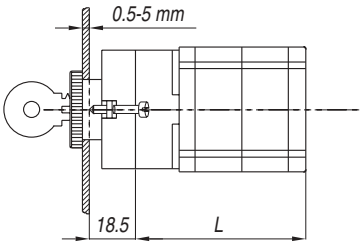
Central mounting ***- 29/30***

DIMENSIONAL DRAWINGS (mm)

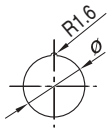
Optional extras



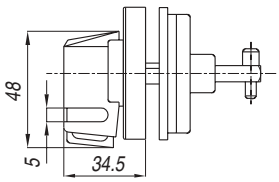
Central mounting **- 09/11**



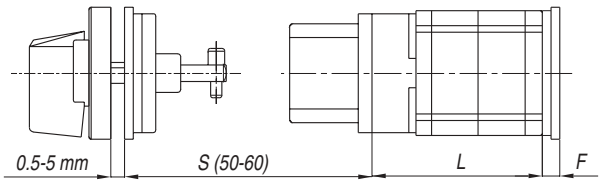
Central mounting **- 10/12**



Type	ø
09, 10, 20, 30	30.5
11, 12, 20, 29	22.5



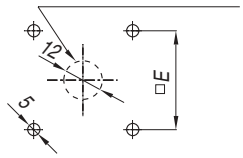
Door coupling - switch with padlock **- 85**



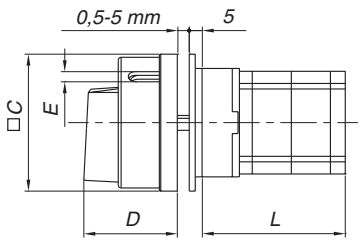
Door coupling **- 57/58**

When required "S" is bigger than offered,
it is necessary to define the depth of the board "S+L+F"

Only on the front panel

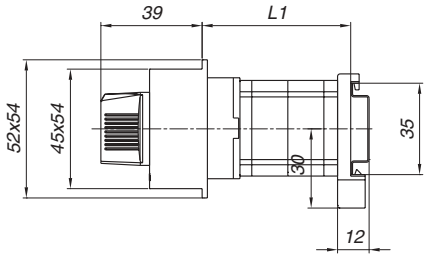


MARKING	F20	F20H
□ E	36	48
F	5	5,5



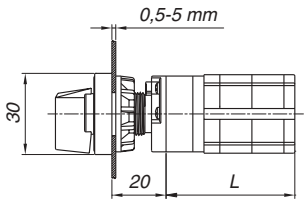
MARKING	F10H F20	F20H
□C	48	65
D	34,2	38
E	5	6

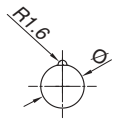
Switch with padlock **- 06/23/25**



		1 elem.	2 elem.	3 elem.
L1	48	49-56	62-69	76-83
	48D	40	53,5	67

Service cover **- 48/48D**





OPTIONAL EXTRA	Ø
46,66	16
47,67	22

Central mounting **- 46/47 and 66/67**

No. of elements		1	2	3	4	5	6	7	8	9	10	11	12
L (mm)	F10	40	52	64	76	88	100	112	124	-	-	-	-
	F20	36	49,5	63	76,5	90	103,5	117	130,5	144	157,5	171	184,5
	F10H	40	52	64	76	88	100	112	124	-	-	-	-
	F20H	36,5	50	63,5	77	90,5	104	117,5	131	144,5	158	171,5	185
	F20R	41,5	53,5	67	80,5	94	-	-	-	-	-	-	-