

## Technical data

### Compliance with standards

IEC 947.5.1 - VDE 0660 - NFC 63140  
CEI EN 60947.5.1 - UTE - BSI - NEMA  
CENELEC EN 50007

### Approvals

UL (U.S.A.) - CSA (Canada) - RINA - Lloyd's Register of Shipping

### Climatic protections

The standard versions are suitable for use in the following climates:

Temperate climate	cat. 23/50 (DIN 50014)
Wet climate	cat. 23/83 (DIN 50015)
Hot wet climate	cat. 40/92 (DIN 50015)
Variable wet climate	FW24 (DIN 50016)

### Temperature ranges

Operation	-25 °C to + 70 °C
Storage	-40 °C to + 70 °C

### Protection degree of the operators

IP65 according to IEC 529 when they are mounted into enclosures with the same or a higher degree of protection.  
IP66 with appropriate protective caps.

### Protection degree of the terminals

IP2x according to IEC 529.  
Fully integrated on signalling units, illuminated push-buttons and illuminated selector switches. With accessory on contact blocks for control units.

### Rated insulation voltage

690V according to EN 60947.1

### Impulse withstand voltage

4 kV according to EN 60947.1

### Insulation class

Group C according to VDE 0110

### Electric shocks protection

Class I according to IEC 536

### Short-circuit protection

With fuses type gI of 10A according to IEC 947.5.1

### Connection terminals

Connection terminals  
Screw type with retractable clamp.  
Clamping capacity of rigid and/or flexible conductors:  
- minimum 22 AWG (0.32 mm<sup>2</sup>)  
- maximum 12 AWG (3.3 mm<sup>2</sup>)

## Performances of the contacts

- Slow acting
- Self-cleaning
- NC forced breaking
- Double break

## Electrical performances

Rated thermal current I<sub>th</sub> = 10 A

### Performances according IEC 947.5.1

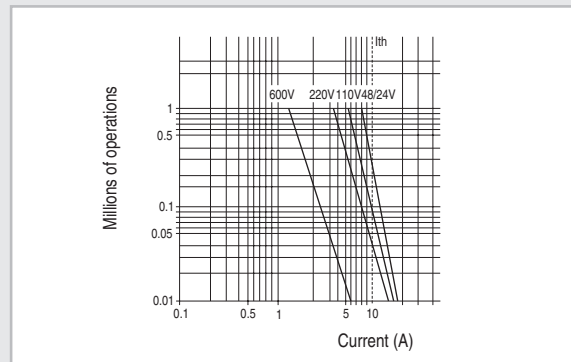
Categorie AC 15 (A600)		24	48	60	110	220	380	500	600
Voltage	U <sub>e</sub> (V)	24	48	60	110	220	380	500	600
Current	I <sub>e</sub> (A)	10	10	10	6	3	2	1.5	1.2
Categorie DC 13 (P600)		24	48	60	110	220	300	500	600
Voltage	U <sub>e</sub> (V)	24	48	60	110	220	300	500	600
Current	I <sub>e</sub> (A)	5	2.7	2	1.1	0.55	0.3	0.22	0.2
Categorie DC 13 (Q300) for illuminated push-buttons and illuminated selector switch		24	48	60	110	220	300	500	600
Voltage	U <sub>e</sub> (V)	24	48	60	110	220	300	500	600
Current	I <sub>e</sub> (A)	2.5	1.1	1	0.55	0.27	0.2	0.2	0.2

### Performances according to CSA and UL

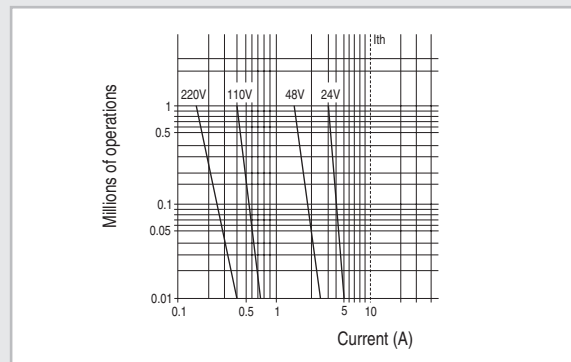
AC Heavy Duty (A600)	
DC Standard Duty (Q300)	
(Q300)	for illuminated push-buttons and illuminated selector switch

## Electrical endurance

Alternative current 50/60 Hz cat. AC 15



Direct current cat. DC 13



## Mechanical endurance

Joysticks	0.5 x 10 <sup>6</sup> op.
Key push-buttons	
Locking emergency	
Knob selector switches	1 x 10 <sup>6</sup> op.
Lever selector switches	
Key selector switches	
Illuminated selector switches	
Selector push-buttons	
Timed push-buttons	
Illuminated push-buttons	3 x 10 <sup>6</sup> op.
Momentary std push-buttons	
Momentary mush. push-buttons	

## Number of contact blocks

Momentary standard push-buttons	4 double pole
Momentary mush. push-buttons	(8 single pole)
Key push-buttons	4 double pole
Locking emergency	(4 single pole)
Selector switches	6 double pole
(4 pos. types excl)	(6 single pole)
4 pos. selector switches	2 double pole
Selector push-buttons	6 double pole
	(6 single pole)
Joysticks 2 and	4 double pole
4 positions	(4 single pole)
Illuminated push-buttons	For different contacts configuration, contact our sales office
Illuminated selector switches	

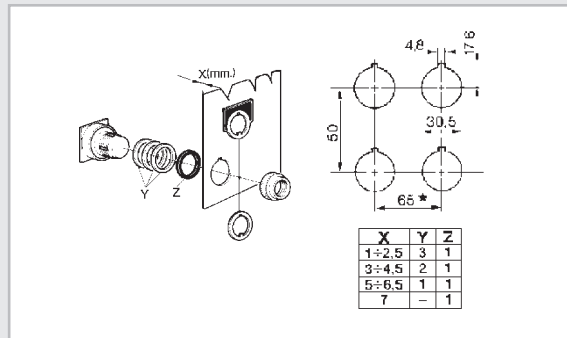
## Fitting of units

The units of Series 077 are designed for fitting onto panels with a thickness between 1 and 7 mm., with holes of 30.5 mm. diameter, according to rules established by EN 60947.5.1.

A special metal ring supplied with each unit or one of the name plates included among the fittings, enables the unit to be exactly positioned.

All equipment is supplied with a set of spacing rings to adjust variations in the thickness of the panel thus ensuring a uniform front protrusion.

For a correct fitting, it needs to observe the diagram below and tables indications.



## Remark

The codes of the units shown on this catalogue, identify complete units.

On request we can supply the operator only (for push-buttons, selector pushbuttons, selector switches, joysticks).

In this case make code replacing the suffix 077 with 0770 omitting the identification numbers of the contact block.

e.g. 077SCD1109 becomes 0770SCD09.

## Series 077

## Push-buttons

## Standard/Momentary



## Description

## Contacts

## Cat. no.

## Ref. no.

NC+NO

**077P11**

180019

NC

**077P01**

180039

NO

**077P10**

180029

Standard/Time delayed <sup>(1)</sup>

Contacts delayed at the release of the push button.  
Accuracy ± 5%  
Setting range: 0,1 - 30 sec.  
10 - 180 sec.

NC+NO

**077P11T30**

180120

NC+NO

**077P11T180**

180121

## To complete by



## Fixing kits

With 4 coloured caps:  
black, red, green, yellow

## Ring type

with guard

**077GGBCN**

180020

without guard

**077GSBCN**

180010

extended guard

**077GBCN**

180030

With 4 coloured caps:  
brown, orange, blue, white

## Ring type

with guard

**077GGBCS**

180050

without guard

**077GSBCS**

180040

extended guard

**077GBCS**

180060



With 1 clear and 4 marking etched  
on both sides

## Ring type

with guard

**077GGBCF**

180137

without guard

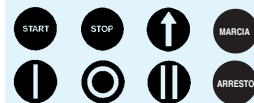
**077GSBCF**

180136

extended guard

**077GBCF**

180138



## Standard/Momentary (complete types)

E



## Ring type

with guard

NC+NO

**077P●11G**

see bottom

without guard

NC+NO

**077P●11S**





see bottom

(1) Not approved by RINA and  
Lloyd's Register

The catalogue numbers in **bold** are available from stock.

Colours	black	red	green	white
●	N	R	V	B

For reference numbers,  
see chapter X pg. X.12

Push-buttons								
<b>Mushroom head/Momentary</b>								
	Description	Contacts	Cat. no.	Ref. no.				
			NC+NO	<b>077E11</b>	180049			
			NC	<b>077E01</b>	180069			
			NO	<b>077E10</b>	180059			
<b>Mushroom head/ Emergency with latch</b>								
	Push-twist to release	Contacts	Cat. no.	Ref. no.				
			NC+NO	<b>077RE11</b>	<b>180079</b>			
			NC	<b>077RE01</b>	<b>180099</b>			
			NO	<b>077RE10</b>	180089			
<b>With keylock <sup>(3)</sup></b>								
	Key withdrawable in positions I & II	Lockable in position: normal depressed normal & depressed depressed with pre-setting(1) depressed without pre-setting(2)	Contacts	Cat. no.	Ref. no.			
				NC+NO	<b>077PC11E</b>	180101		
				NC+NO	<b>077PC11F</b>	180102		
				NC+NO	<b>077PC11C</b>	180100		
				NC+NO	<b>077PC11D</b>	180103		
				NC+NO	<b>077PC11G</b>	180104		
			Key withdrawable in positions II	Lockable in position: normal depressed normal & depressed depressed with pre-setting(1)	Contacts	Cat. no.	Ref. no.	
						NC+NO	<b>077PC11EH</b>	200255
						NC+NO	<b>077PC11FH</b>	215248
						NC+NO	<b>077PC11CH</b>	212677
	NC+NO	<b>077PC11DH</b>			200254			
<b>To complete by</b>								
	Description	Diameter			Cat. no.	Ref. no.		
		Mushroom head caps						
		For momentary push-button			Ø 35 mm	<b>077E●</b>	<i>see bottom</i>	
					Ø 60 mm	<b>077RR●</b>		
		For push-twist to release push-button	Red Ø 35 mm	<b>077RER</b>	180090			
		For keylock push-button	Red Ø 60 mm	<b>077ECR</b>	181602			

Colours	black	red	green	yellow
●	<b>N</b>	<b>R</b>	<b>V</b>	<b>G</b>

- (1) Pre-setting operation: turn the key in position II and remove it.
- (2) Combined with mushroom head 077ECR makes an emergency with latch push-key to release.
- (3) Supplied with two standard keys 3095. To order a device with different keys add the number for the type of the key to the catalogue numbers.

### Keys

Standard version	01	02	03	04	05	10	16	19	53
FIAT version number	F033	F034	F037	F038	F040				
Colour	yellow	black	red	bleu	orange				














The catalogue numbers **in bold** are available from stock.

For reference numbers,  
see chapter X pg. X.12



# Series 077

## Selector switches with knob

2 positions		Function (1)	Contacts	Cat. no.	Ref. no. see bottom
	Fixed		D	NC+NO	<b>077SD●11</b>
			I	NC+NO	077SI●11
	With spring return		H	NC+NO	077SH●11
			I	NC+NO	077SI●11DC
			H	NC+NO	077SH●11SC
3 positions					
	Fixed		B	NC+NO	<b>077SB●11</b>
			E	NC+NO	077SE●11
			L	NC+NO	077SL●11
			U	2NC+2NO	<b>077SU●22</b>
			Z	2NC+2NO	<b>077SZ●22</b>
	With spring return		B	NC+NO	077SB●11SC
			E	NC+NO	077SE●11SC
			L	NC+NO	077SL●11SC
			U	2NC+2NO	077SU●22SC
			Z	2NC+2NO	077SZ●22SC
	With spring return		B	NC+NO	077SB●11DC
			E	NC+NO	077SE●11DC
			L	NC+NO	077SL●11DC
			U	2NC+2NO	077SU●22DC
			Z	2NC+2NO	077SZ●22DC
With spring return		B	NC+NO	<b>077SB●11RC</b>	
		E	NC+NO	077SE●11RC	
		L	NC+NO	077SL●11RC	
		U	2NC+2NO	077SU●22RC	
		Z	2NC+2NO	<b>077SZ●22RC</b>	
4 positions					
	Fixed		X	2NC+2NO	<b>077SX●22</b>

(1) Electrical diagrams, see E.69

The catalogue numbers in **bold** are available from stock.

Colours	black	red	green	yellow	blue
●	N	R	V	G	BL

For reference numbers, see chapter X pg. X.12

**Selector switches with lever**



2 positions

Fixed



Function (1)

Contacts

Cat. no.

Ref. no.

Cat. no.

Ref. no.

Metal

Plastic

D

NC+NO

**077SLD11**

180601

077SLD11

180575

I

NC+NO

077SLI11

180604

077SLI11

180578

H

NC+NO

077SLH11

180602

077SLH11

180576

With spring return



I

NC+NO

077SLI11DC

180605

077SLI11DC

180579



H

NC+NO

077SLH11SC

180603

077SLH11SC

180577

3 positions

Fixed



B

NC+NO

**077SLB11**

180607

077SLBN11

180581

E

NC+NO

077SLE11

180611

077SLEN11

180585

L

NC+NO

077SLL11

180615

077SLLN11

180589

U

2NC+2NO

**077SLU22**

180619

077SLUN22

180593

Z

2NC+2NO

077SLZ22

180623

077SLZN22

180597

With spring return



B

NC+NO

**077SLB11SC**

180608

077SLBN11SC

180582

E

NC+NO

077SLE11SC

180612

077SLEN11SC

180586

L

NC+NO

077SLL11SC

180616

077SLLN11SC

180590

U

2NC+2NO

077SLU22SC

180620

077SLUN22SC

180594

Z

2NC+2NO

077SLZ22SC

180624

077SLZN22SC

180598



B

NC+NO

**077SLB11DC**

180609

077SLBN11DC

180583

E

NC+NO

077SLE11DC

180613

077SLEN11DC

180587

L

NC+NO

077SLL11DC

180617

077SLLN11DC

180591

U

2NC+2NO

077SLU22DC

180621

077SLUN22DC

180595

Z

2NC+2NO

077SLZ22DC

180625

077SLZN22DC

180599



B

NC+NO

**077SLB11RC**

180610

077SLBN11RC

180584

E

NC+NO

077SLE11RC

180614

077SLEN11RC

180588

L

NC+NO

077SLL11RC

180618

077SLLN11RC

180592

U

2NC+2NO

077SLU22RC

180622

077SLUN22RC

180596

Z

2NC+2NO

**077SLZ22RC**

180626

077SLZN22RC

180600

4 positions

Fixed



X

2NC+2NO

**077SLX22**

180606

077SLXN22






180580

(1) Electrical diagrams, see E.69

The catalogue numbers **in bold** are available from stock.



Selector switches with key <sup>(1)</sup>

2 positions		Function (2)	Contacts	Key removal	Cat. no.	Ref. no.
	Fixed		D	NC+NO NC+NO NC+NO	I II I-II	<b>077SCD1101</b> 180630 077SCD1105 180631 <b>077SCD1109</b> 180632
			I	NC+NO NC+NO NC+NO	0 I 0-I	077SCI1103 180637 077SCI1105 180638 077SCI1114 180639
			H	NC+NO NC+NO NC+NO	I 0 I-0	077SCH1101 180633 077SCH1103 180634 077SCH1107 180635
	With spring return		I	NC+NO	0	<b>077SCI11DC03</b> 180640
			H	NC+NO	0	077SCH11SC03 180636
3 positions						
	Fixed		B	NC+NO	I	077SCB1101 180840
				NC+NO	0	077SCB1103 180841
				NC+NO	II	077SCB1105 180842
				NC+NO	I-0	077SCB1107 180843
				NC+NO	I-II	077SCB1109 180844
				NC+NO	0-II	077SCB1114 180845
				NC+NO	I-0-II	<b>077SCB1120</b> 180843
			E	NC+NO	I	077SCE1101 180854
				NC+NO	0	077SCE1103 180855
				NC+NO	II	077SCE1105 180856
				NC+NO	I-0	077SCE1107 180857
				NC+NO	I-II	077SCE1109 180858
				NC+NO	0-II	077SCE1114 180859
			L	NC+NO	I	077SCL1101 180868
				NC+NO	0	077SCL1103 180869
				NC+NO	II	077SCL1105 180870
				NC+NO	I-0	077SCL1107 180871
				NC+NO	I-II	077SCL1109 180872
				NC+NO	0-II	077SCL1114 180873
			U	NC+NO	I-0-II	077SCL1120 180874
2NC+2NO	I	077SCU2201 180882				
2NC+2NO	0	077SCU2203 180883				
2NC+2NO	II	077SCU2205 180884				
2NC+2NO	I-0	077SCU2207 180885				
2NC+2NO	I-II	077SCU2209 180886				
2NC+2NO	0-II	077SCU2214 180887				
2NC+2NO	I-0-II	<b>077SCU2220</b> 180888				
Z	2NC+2NO	I	077SCZ2201 180896			
	2NC+2NO	0	077SCZ2203 180897			
	2NC+2NO	II	077SCZ2205 180898			
	2NC+2NO	I-0	077SCZ2207 180899			
	2NC+2NO	I-II	077SCZ2209 180900			
	2NC+2NO	0-II	077SCZ2214 180901			
	2NC+2NO	I-0-II	077SCZ2220 180902			

## Keys



Standard version	01	02	03	04	05	10	16	19	53
FIAT version number	F033	F034	F037	F038	F040				
Colour	yellow	black	red	bleu	orange				

The catalogue numbers in **bold** are available from stock.

(1) Supplied with two standard keys 3095. To order a device with different keys add the number for the type of the key to the catalogue number.

(2) Electrical diagrams, see E.69

### Selector switches with key <sup>(1)</sup>

3 positions

With spring return



Function (2)	Contacts	Key removal	Cat. no.	Ref. no.
B	NC+NO	0	077SCB11SC03	180848
	NC+NO	II	077SCB11SC05	180847
	NC+NO	0-II	077SCB11SC14	180849
E	NC+NO	0	077SCE11SC03	180862
	NC+NO	II	077SCE11SC05	180861
	NC+NO	0-II	077SCE11SC14	180863
L	NC+NO	0	077SCL11SC03	180876
	NC+NO	II	077SCL11SC05	180875
	NC+NO	0-II	077SCL11SC14	180877
U	2NC+2NO	0	077SCU22SC03	180890
	2NC+2NO	II	077SCU22SC05	180889
	2NC+2NO	0-II	077SCU22SC14	180891
Z	2NC+2NO	0	077SCZ22SC03	180904
	2NC+2NO	II	077SCZ22SC05	180903
	2NC+2NO	0-II	077SCZ22SC14	180905
B	NC+NO	I	077SCB11DC01	180850
	NC+NO	0	077SCB11DC03	180851
	NC+NO	I-0	<b>077SCB11DC07</b>	180852
E	NC+NO	I	077SCE11DC01	180864
	NC+NO	0	077SCE11DC03	180865
	NC+NO	I-0	077SCE11DC07	180866
L	NC+NO	I	077SCL11DC01	180878
	NC+NO	0	077SCL11DC03	180879
	NC+NO	I-0	077SCL11DC07	180880
U	2NC+2NO	I	077SCU22DC01	180892
	2NC+2NO	0	077SCU22DC03	180893
	2NC+2NO	I-0	077SCU22DC07	180894
Z	2NC+2NO	I	077SCZ22DC01	180906
	2NC+2NO	0	077SCZ22DC03	180907
	2NC+2NO	I-0	077SCZ22DC07	180908
B	NC+NO	0	<b>077SCB11RC03</b>	180853
E	NC+NO	0	077SCE11RC03	180867
L	NC+NO	0	077SCL11RC03	180881
U	2NC+2NO	0	077SCU22RC03	180895
Z	2NC+2NO	0	077SCZ22RC03	180909

4 positions

Fixed



Function (2)	Contacts	Key removal	Cat. no.	Ref. no.
X	2NC+2NO	I	077SCX2201	180650
	2NC+2NO	II	077SCX2202	180651
	2NC+2NO	III	077SCX2204	180652
	2NC+2NO	IV	077SCX2205	180653
	2NC+2NO	I-II	077SCX2206	180654
	2NC+2NO	I-III	077SCX2208	180655
	2NC+2NO	I-IV	077SCX2209	180656
	2NC+2NO	II-III	077SCX2211	180657
	2NC+2NO	II-IV	077SCX2212	180660
	2NC+2NO	III-IV	077SCX2215	180661
	2NC+2NO	I-II-III	077SCX2217	180662
	2NC+2NO	I-II-IV	077SCX2218	180663
	2NC+2NO	I-III-IV	077SCX2221	180664
	2NC+2NO	II-III-IV	077SCX2224	180665
	2NC+2NO	I-II-III-IV	077SCX2228	180666

### Keys

Standard version	01	02	03	04	05	10	16	19	53
FIAT version number	F033	F034	F037	F038	F040				
Colour	yellow	black	red	bleu	orange				



The catalogue numbers in **bold** are available from stock.

- (1) Supplied with two standard keys 3095. To order a device with different keys add the number for the type of the key to the catalogue number.
- (2) Electrical diagrams, see E.69





## Selector push-buttons

2 positions



Fixed



Function (1)

Contacts

Cat. no.

Ref. no.  
see bottom

201	2NC+2NO	077PS●201		
202	2NC+2NO	077PS●202		
203	NC+NO	077PS●203		
204	NC+NO	077PS●204		
205	2NC+2NO	077PS●205		
206	2NC+2NO	077PS●206		
213	2NC+2NO	077PS●213		
221	2NC+2NO	077PS●221		
222	2NC+2NO	077PS●222		
231	2NC+2NO	<b>077PS●231</b>		
235	2NC+2NO	077PS●235		
236	2NC+2NO	077PS●236		

3 positions



Fixed



301	2NC+2NO	077PS●301		
302	2NC+2NO	077PS●302		
311	NC+NO	077PS●311		
323	2NC+2NO	077PS●323		
325	2NC+2NO	077PS●325		

(1) Electrical diagrams, see E.70

The catalogue numbers **in bold** are available from stock.

Colours	black	red	green	yellow
●	N	R	V	G

## Joysticks

### 2 positions + central zero position



④-①-②

	Function (1)	Contacts	Cat. no.		Ref. no.	
			Without interlock	With interlock		
fixed position	N	2NC+2NO	<b>077MTS2422</b>	180910	077MTS2422B	181000
	R	2NC+2NO	<b>077MTS2422R</b>	180912	077MTS2422RB	181002
transient position	N	2NC+2NO	<b>077MT24S22</b>	180911	<b>077MT24S22B</b>	181001
	R	2NC+2NO	<b>077MT24S22R</b>	180913	077MT24S22RB	181003

### 4 positions + central zero position



①  
④-①-②  
③

fixed positions transient positions 1 fixed-2,3,4 transient 1,2,3 transient-4 fixed	N	2NC+2NO	<b>077MTS123422</b>	180914	077MTS123422B	181004
		2NC+2NO	<b>077MT1234S22</b>	180915	<b>077MT1234S22B</b>	181005
		2NC+2NO	<b>077MT234S122</b>	180917	077MT234S122B	181007
		2NC+2NO	<b>077MT123S422</b>	180916	077MT123S422B	181006

### 2+2 positions + central zero position <sup>(2)</sup>



⑧-⑦-①-③-④

fixed positions transient positions 4,8 fixed -3,7 transient 4,8 transient -3,7 fixed	X	4NC+4NO	<b>077M2S2SX44</b>	180918	077M2S2SX44B	181008
		4NC+4NO	<b>077M2T2TX44</b>	180919	077M2T2TX44B	181009
		4NC+4NO	<b>077M2T2SX44</b>	180920	077M2T2SX44B	181010
		4NC+4NO	<b>077M2S2TX44</b>	180921	077M2S2TX44B	181011
fixed positions transient positions 4,8 fixed -3,7 transient 4,8 transient -3,7 fixed	Y	4NC+4NO	<b>077M2S2SY44</b>	180922	077M2S2SY44B	181012
		4NC+4NO	<b>077M2T2TY44</b>	180923	077M2T2TY44B	181013
		4NC+4NO	<b>077M2T2SY44</b>	180924	077M2T2SY44B	181014
		4NC+4NO	<b>077M2S2TY44</b>	180925	077M2S2TY44B	181015

### 4+4 positions + central zero position <sup>(2)</sup>



②  
①  
⑧-⑦-①-③-④  
⑤  
⑥

fixed positions transient positions 2,4,6,8 fixed - 1,3,5,7 transient 2,4,6,8 transient -1,3,5,7 fixed	X	8NC+8NO	<b>077M4S4SX88</b>	180926	077M4S4SX88B	181016
		8NC+8NO	<b>077M4T4TX88</b>	180927	077M4T4TX88B	181017
		8NC+8NO	<b>077M4T4SX88</b>	180928	077M4T4SX88B	181018
		8NC+8NO	<b>077M4S4TX88</b>	180929	077M4S4TX88B	181019
fixed positions transient positions 2,4,6,8 fixed - 1,3,5,7 transient 2,4,6,8 transient - 1,3,5,7 fixed	Y	8NC+8NO	<b>077M4S4SY88</b>	180930	077M4S4SY88B	181020
		8NC+8NO	<b>077M4T4TY88</b>	180931	077M4T4TY88B	181021
		8NC+8NO	<b>077M4T4SY88</b>	180932	077M4T4SY88B	181022
		8NC+8NO	<b>077M4S4TY88</b>	180933	077M4S4TY88B	181023

The catalogue numbers **in bold** are available from stock.

(1) Electrical diagrams, see E.71

(2) Not approved by RINA and Lloyd's Register.

**Illuminated push-buttons**

Momentary



Description	Contacts	Cat. no.	Ref. no.
Full voltage $\sim / \equiv$ BA9s max 380V - 2 W not included	NC+NO	<b>077PLM11D0</b>	181040
	NO+NO	077PLM20D0	181041
	NC+NC	077PLM02D0	181042
	NO	<b>077PLM10D0</b>	181043
	NC	077PLM01D0	181044
With resistor 110-120V $\sim / \equiv$ BA9s60V-1.2W included	NO	077PLM10RJ	181045
	NC	077PLM01RJ	181046
With resistor 220-240V $\sim / \equiv$ BA9s130V-2W included	NO	077PLM10RN	181047
	NC	077PLM01RN	181048
With transformer 50/60Hz BA9s6V-1.5W included	NC+NO	<b>077PLM11T♦</b>	

To complete by:



<b>Lenses</b>			
Standard		<b>077GPL●</b>	see bottom
Mushroom head Ø 35 mm (to use with the fixing ring 077GG03)		<b>077GEL●</b>	see bottom
<b>Locking rings</b>			
Without guard		<b>077GG03</b>	180980
With metal guard		<b>077GGM</b>	180981
With transparent guard		<b>077GGT</b>	180982

The catalogue numbers in **bold** are available from stock.

Suffix	110-120V	220-250V	380V	415-440V	480-500V
♦	<b>J</b>	<b>N</b>	U	W	Y

Colours	red	green	yellow	orange	blue	white	clear
Standard lenses	<b>R</b>	<b>V</b>	<b>G</b>	A	<b>BL</b>	<b>B</b>	I
Mushroom heads	<b>R</b>	V	G	A	BL	B	I

For reference numbers,  
see chapter X, pg. X.12

### Illuminated selector switches

2 positions

**Fixed**



	Function (1)	Contacts	Cat. no.	Ref. no.	
<p>Full voltage <math>\sim / \equiv</math> BA9s max. 380V-2W not included</p>	D	NC+NO	<b>077ISD11D0</b>	181060	
		NO+NO	077ISD20D0	181061	
		NC+NC	077ISD02D0	181062	
		NO	077ISD10D0	181063	
		NC	077ISD01D0	181064	
	<p>With resistor 110-120V <math>\sim / \equiv</math> BA9s60v-1.2w included</p>	D	NO	077ISD10RJ	181065
			NC	077ISD01RJ	181066
		<p>With resistor 220-240V <math>\sim / \equiv</math> BA9s130V-2w included</p>	D	NO	077ISD10RN
	NC	077ISD01RN		181068	
	<p>With transformer 50/60Hz BA9s6V-1.5W included</p>	D	NC+NO	<b>077ISD11T♦</b>	
	<p>Full voltage <math>\sim / \equiv</math> BA9s max. 380V-2W not included</p>	H	NC+NO	077ISH11D0	181090
			NO+NO	077ISH20D0	181091
NC+NC			077ISH02D0	181092	
NO			077ISH10D0	181093	
NC			077ISH01D0	181094	
<p>With resistor 110-120V <math>\sim / \equiv</math> BA9s60v-1.2w included</p>		H	NO	077ISH10RJ	181095
			NC	077ISH01RJ	181096
		<p>With resistor 220-240V <math>\sim / \equiv</math> BA9s130V-2W included</p>	H	NO	077ISH10RN
NC		077ISH01RN		181098	
<p>With transformer 50/60Hz BA9s6V-1.5W included.</p>		H	NC+NO	077ISH11T♦	
<i>To complete by:</i>					
<b>Lenses</b>					
	Knob		<b>077MIS●</b>	<i>see bottom</i>	



(1) Electrical diagrams, see E.69

The catalogue numbers **in bold** are available from stock.

Suffix	110-120V	220-250V	380V	415-440V	480-500V
♦	<b>J</b>	<b>N</b>	U	W	Y

Colours	red	green	yellow	orange	blue	white	clear
●	<b>R</b>	<b>V</b>	<b>G</b>	A	BL	<b>B</b>	I

For reference numbers, see chapter X, pg. X.12



# Series 077

## Illuminated selector switches

3 positions



Fixed



Full voltage  $\sim / \equiv$   
BA9s max. 380V-2W  
not included

Function (1)

Contacts

Cat. no.

Ref. no.

B  
L  
Z

NC+NO  
NC+NO  
NC+NO

**077ISB11D0** 181170  
077ISL11D0 181171  
077ISZ11D0 181172

With transformer 50/60Hz  
BA9s6V-1.5W included

B  
L

NC+NO  
NC+NO

**077ISB11T♦**  
077ISL11T♦

With spring return



Full voltage  $\sim / \equiv$   
BA9s max. 380V-2W  
not included

B

NC+NO

077ISB11D0SC 181173

With transformer 50/60Hz  
BA9s6v-1.5w included

B

NC+NO

077ISB11T♦SC



Full voltage  $\sim / \equiv$   
BA9s max. 380V-2W  
not included

B  
L  
Z

NC+NO  
NC+NO  
NC+NO

077ISB11D0RC 181174  
077ISL11D0RC 181175  
077ISZ11D0RC 181176

With transformer 50/60Hz  
BA9s6v-1.5w included

B  
L

NC+NO  
NC+NO

077ISB11T♦RC *see bottom*  
077ISL11T♦RC

To complete by:



Lenses

Knob

**077MIS●** *see bottom*

(1) Electrical diagrams, see E.69

The catalogue numbers in **bold** are available from stock.

Suffix	110-120V	220-250V	380V	415-440V	480-500V
♦	<b>J</b>	<b>N</b>	U	W	Y

Colours	red	green	yellow	orange	blue	white	clear
●	<b>R</b>	<b>V</b>	<b>G</b>	A	BL	<b>B</b>	I

## Pilot lights



Description	Cat. no.	Ref. no.
Full voltage $\sim / \equiv$ BA9s max. 380V-2W not included	<b>077LDNV0</b>	181300
With resistor $\sim / \equiv$ 110-120V, BA9s60V-1.2W included 220-240V, BA9s130V-2W included	<b>077LRNVJ</b>	181301
	<b>077LRNVN</b>	181302
With resistor $\sim / \equiv$ 110-120V, BA9s48V-2W included 125-127V, BA9s48V-2W included	<b>077LREVJ</b>	181303
	<b>077LREVL</b>	181304
With transformer 50/60Hz BA9s6v-1.5w included	<b>077LTNV♦</b>	
Multifunction (1) full voltage 24V $\sim / \equiv$ BA9s24V-2W included	<b>077LDMVD</b>	181305
Multifunction (1) with transformer 50/60 Hz BA9s6V-0.6W included	<b>077LTMV♦</b>	
<b>Lenses</b>		
plastic version	<b>077GL●</b>	see bottom
glass version	<b>077GL●V</b>	see bottom

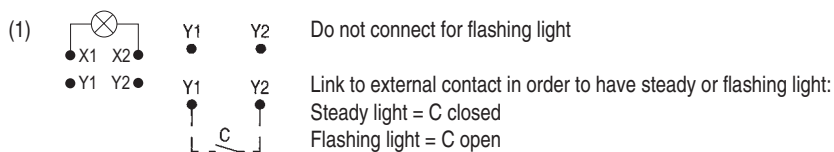
To complete by:



The catalogue numbers in **bold** are available from stock.

Suffix	110-120V	220-250V	380V	415-440V	480-500V
♦	<b>J</b>	<b>N</b>	<b>U</b>	<b>W</b>	<b>Y</b>

Colours	red	green	yellow	orange	blue	white	clear
●	<b>R</b>	<b>V</b>	<b>G</b>	<b>A</b>	<b>BL</b>	<b>B</b>	<b>I</b>



For reference numbers, see chapter X, pg. X.12



# Series 077



## Pilot lights

Description	Cat. no.	Ref. no.
Full voltage ~ / =		
For bulb E14 base max 660V(1)-6W not included	<b>077DLE14</b>	181260
For bulb BA15d base max 660V(1)-6W not included	<b>077DLB15</b>	181290
For bulb E5.5 base max 30V-1.2W not included		
- 2 signals	077L2 <sup>(2)</sup>	181350
- 4 signals	077L4 <sup>(2)</sup>	181351

To complete by:



## Lenses

For pilot lights 077DLE14, 077DLB15		
- plastic version	<b>099GW1●</b>	see bottom
- glass version	<b>077GDLV●</b>	see bottom
For pilot lights 077L2		
- plastic version, white colour	<b>077GL2B</b>	181377
For pilot lights 077L4		
- plastic version, white colour	<b>077GL4B</b>	181387
Coloured filter cap		
- for pilot lights 077L2, 077L4	<b>099CF●</b>	

E

- (1) For Canadian market max. 125 V according to CSA standards.
- (2) Not approved by RINA and Lloyd's Register.

The catalogue numbers **in bold** are available from stock.

Colours ●	red	green	yellow	orange	blue	white	clear
Lenses	<b>R</b>	<b>V</b>	<b>G</b>	<b>A</b>	<b>BL</b>	<b>B</b>	<b>I</b>
Filter caps	<b>R</b>	<b>V</b>	<b>G</b>	-	<b>BL</b>	-	-

For reference numbers, see chapter X, pg. X.12

### Accessories

	Description	Cat. no.	Ref. no.
	<b>Push-on/push-off device</b> <b>For momentary standard push-buttons</b> Converts momentary push-button to push-on/push-off. This device can only be used with 077-01 (NC) and/or 077-10A (NO early make) contact blocks.	<b>077DPP</b>	181550
	<b>Push-pull to release device</b> <b>For momentary mushroom push-buttons</b> Converts momentary mushroom push-button to push to latch/pull to release.	<b>077DAE</b>	181554
	<b>Mechanical latch</b> <b>For momentary standard or dia 35 mm. mushroom push-buttons</b> Makes mechanical latch between two push buttons.	<b>077DAMP</b>	181557
	<b>Mechanical interlock</b> <b>For momentary standard push-buttons</b> Prevents simultaneous operation of two push buttons.	<b>077DIM</b>	181553
	<b>Resetting device</b> <b>For momentary standard push-buttons</b> Converts momentary push-button to resetting push-button.  Fixing kit operator complete with guard-ring, transparent cap, function disk, compensation rings and washer.	<b>077DRR</b>	181555
		(reset) (stop/reset)	<b>077GGBCR</b>
	<b>Handles</b> Knob for selector switches Lever for selector push-buttons	<b>077M●</b> <b>077LPS</b>	<i>see bottom</i> 181604
	<b>Protection</b> Guard-ring for mushroom head push-button dia 35 mm.	<b>077GE35</b>	181620
	<b>Plug</b> For unused mounting hole.	<b>077TPF</b>	181601
	<b>Potentiometer operator</b> Suitable for potentiometers with shaft 50 mm long and 6 mm diameter. Potentiometer not included.	<b>077OPZ</b>	181570
	<b>Rubber protective caps</b> For standard push-buttons – coloured – clear	<b>077CP●</b> <b>077CPT</b>	<i>see bottom</i> 181588
	For illuminated standard push-buttons – clear	<b>077CPLT</b>	181600
	For knob selector switches – black colour with clear knob	<b>077CST</b>	181603
	For lever selector switch – black colour	<b>077CSLN</b>	181605
	For key selector switches – black colour	<b>077CSCN</b>	181606

The catalogue numbers **in bold** are available from stock.

Colours ●	black	red	green	yellow	blue
Knobs	N	R	V	G	BL
Protective caps	<b>N</b>	<b>R</b>	<b>V</b>	G	–

For reference numbers, see chapter X, pg. X.12





**Accessories (continued)**

	Description	Cat. no.	Ref. no.		
<b>Fixing rings</b>	Without guard For standard, latched and timed push-buttons	077GS01 (077867-01)	181610		
	Without guard For illuminated selector switch and standard pilot lights	077GS02 (077867-02)	181611		
	Without guard For pilot lights DLE14, DLB15, L2, L4 types	077GS03 (077867-03)	181612		
	With guard For standard, mushroom, key and timed push-buttons	077GG01 (077867-04)	181613		
	With guard For standard selector switch, joystick and potentiometers operator	077GG02 (077867-05)	181614		
	Without guard For illuminated push-buttons	<b>077GG03</b> <b>(077867-06)</b>	181980		
	With metal guard For illuminated push-buttons	<b>077GGM</b> (077867-07)	181981		
	With transparent guard For illuminated push-buttons	<b>077GGT</b> (077867-08)	181962		
	With extended guard For standard and timed push-buttons	077GE01 (077867-09)	181618		
	With extended guard For selector push-buttons	077GE02 (077867-10)	181619		
<b>Locking ring wrench</b>		099CH1	181621		
<b>Spare keys</b>	<b>Standard version</b>	Code			
		3095	<b>077C3095</b>	173095	
		9901	077C9901	179901	
		9902	077C9902	179902	
		9903	077C9903	179903	
		9904	077C9904	179904	
		9905	077C9905	179905	
		9910	077C9910	179910	
		9916	077C9916	179916	
		9919	077C9919	179919	
		3353	077C3353	179353	
	<b>FIAT-version</b>	Colour			
		yellow	73033	077CF73033	173333
		black	73034	077CF73034	173334
		red	73037	077CF73037	173337
	blue	73038	077CF73038	173338	
	orange	73040	077CF73040	181622	



E

The catalogue numbers in **bold** are available from stock.

### Accessories (continued)

Description				Cat. no.	Ref. no.		
<b>Bulbs BA9s</b>	Filament type	Vn	Wn				
			6	0.6	<b>BA9S606</b>	187850	
			6	1.5	<b>BA9S615</b>	187851	
			12	2	<b>BA9S122</b>	187852	
			24	2	<b>BA9S242</b>	187853	
			30	2.1	<b>BA9S30</b>	187854	
			48	2	<b>BA9S48</b>	187855	
			60	1.2	<b>BA9S6012</b>	187856	
		130	2	<b>BA9S130</b>	187857		
	Neon type	110	0.11	<b>BA9SN110</b>	187860		
		220	0.33	<b>BA9SN220</b>	187861		
	Mono LED	Vn AC/DC ± 10%					
			6	<b>BA9S6L●</b>	see bottom		
		12	<b>BA9S12L●</b>	see bottom			
		24	<b>BA9S24L●</b>	see bottom			
		48	<b>BA9S48L●</b>	see bottom			
		110 (DC) 230	<b>BA9S110L●</b> <b>BA9S230L●</b>	see bottom see bottom			
<b>Bulbs BA15d</b>	Filament type	Ve	Vn	Pn			
			24	24	3C	<b>077BA15D24</b>	181630
			30	24/30	4W	<b>077BA15D30</b>	181631
			48	60	3C	<b>077BA15D60</b>	181632
			60	60	3C	<b>077BA15D60</b>	181633
			110	110/130	3C	<b>077BA15D130</b>	181634
			130	140	3W	<b>077BA15D140</b>	181635
			160	220/230	3C	<b>077BA15D220</b>	181636
			220	230	6W	<b>077BA15D230</b>	181637
		<b>Bulbs E14</b>	Filament type	Ve	Vn	Pn	
	24			30	5	<b>099E1430</b>	181730
	30			40	5	<b>099E1440</b>	181731
	48			60	5	<b>099E1460</b>	181732
	110			160	7.5	<b>099E14160</b>	181733
	130			220	10.5	<b>099E14220</b>	181734
	160			250/260	12	<b>099E14250</b>	181735
	220			220/260	6	<b>099E14260R</b>	181736
<b>Bulbs E5.5</b>	Filament type	Vn	Pn				
			6	1.2	<b>099E5,56</b>	181640	
			12	1.2	<b>099E5,512</b>	181641	
			24	1.2	<b>099E5,524</b>	181642	

The catalogue numbers **in bold** are available from stock.

Colours ●	red	green	yellow	blue	white
Mono LED	R	V	G	L	B

For reference numbers, see chapter X, pg. X.12



## Nameplates



For push-button and pilot lights

Description	Cat. no.	Ref. no.	
Without text (black background)	077TNA	181650	
With text in English (black background)	STOP	077TNA40	181840
	START	077TNA41	181841
	POWER ON	077TNA42	181842
	CANCEL	077TNA43	181843
	DOWN	077TNA44	181844
	UP	077TNA45	181845
	CLOSE	077TNA46	181846
	OPEN	077TNA47	181847
	SLOW	077TNA48	181848
	FAST	077TNA49	181849
	INCH	077TNA50	181850
	JOG	077TNA51	on request
	RUN	077TNA52	181851
	ON	077TNA53	181852
	OFF	077TNA54	181853
	FORWARD	077TNA55	181854
	REVERSE	077TNA56	181855
	SLOWER	077TNA57	
	FASTER	077TNA58	
	RAISE	077TNA59	
	LOWER	077TNA60	
PUMP START	077TNA61	181856	



For 2 position selector switch and selector push-button

Without text (black background)	077TNA2	181660	
With text (black background)	ON - OFF	077TNA230	181930
	MAN - AUTO	077TNA231	181931
	UP - DOWN	077TNA232	181932
	TEST - RUN	077TNA233	181933
	JOG - RUN	077TNA234	181934



For 2 position selector switch and selector push-button

Without text (black background)	077TNA3	181670	
With text (black background)	CYCLE		
	MANUAL-O-AUTOMATIC	077TNA301	
	AUTO - OFF - HAND	077TNA310	181960
	FORWARD - OFF - RUN	077TNA311	181961
	OPEN - OFF - CLOSE	077TNA312	181962
UP - OFF - DOWN	077TNA313	181963	



For 4 position selector switches

Without text (black background)	077TNA4	181680
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For joysticks and selector switches

Without text (black background)	077TNC	181700
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For potentiometer operators

Without text (black background)	077TNCS	181710
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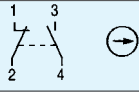




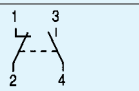


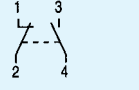

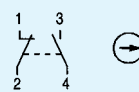


Dia 62 mm for emergency push-buttons

Without text (yellow background)	<b>077TGR</b>	181720
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The catalogue numbers in **bold** are available from stock.

### Selector switches with knob

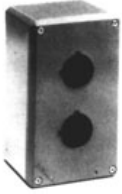
2 positions

		Contacts	Cat. no.	Ref. no.
<b>For all the applications</b> Illuminated push-buttons and illuminated selector switches excluded				
<b>Standard</b>		NC+NO	077-11	180001
		NC	077-01	180003
		NO	077-10	180002
		NC late opening	077-01R	180008
		NO early closing	077-10A	180007
<b>Golded</b>		NC+NO	077-11D	180004
		NC	077-01D	180006
		NO	077-10D	180005
<b>Accessories for contact blocks 077-... IP2X protection</b>		for use with NO	077PTB10	181608
		for use with NC	077PTB01	181609
		for use with	077PTB11	200261
<b>For 2 + 2 and 4 + 4 positions joysticks</b> Snap action			099SPDDB	180009
				
<b>For illuminated push-buttons and illuminated selector switches</b>				
		NC+NO	P9B11VN <sup>(1)</sup>	187000
		NC	P9B01VN <sup>(1)</sup>	187001
		NO	P9B10VN <sup>(1)</sup>	187002

(1) Not approved by RINA and Lloyd's Register.



## Enclosures for push-button stations in aluminium alloy (Grey RAL 7012)

Cover with holes  
with conduit entry

Description		Cat. no.	Ref. no.
No. of holes	Type		
1	1	<b>077SP1</b>	180521
1	1M	<b>077SP1M</b>	180522
2	2	<b>077SP2</b>	180523
2	2M	<b>077SP2M</b>	180524
3	3	<b>077SP3</b>	180525
4	4V	<b>077SP4V</b>	180526
4	4	<b>077SP4</b>	180527
6	6	<b>077SP6</b>	180528
9	9	<b>077SP9</b>	180529
12	12	<b>077SP12</b>	180530
16	16	<b>077SP16</b>	180531
20	20	<b>077SP20</b>	180532
25	25	<b>077SP25</b>	180533
30	30	<b>077SP30</b>	180534
36	36	<b>077SP36</b>	180535

Cover with holes  
without conduit entry

No. of holes	Type		
1	1	<b>077SP1SFE</b>	180536
1	1M	<b>077SP1MSFE</b>	180537
2	2	<b>077SP2SFE</b>	180538
2	2M	<b>077SP2MSFE</b>	180539
3	3	<b>077SP3SFE</b>	180540
4	4V	<b>077SP4VSFE</b>	180541
4	4	<b>077SP4SFE</b>	180542
6	6	<b>077SP6SFE</b>	180543
9	9	<b>077SP9SFE</b>	180544
12	12	<b>077SP12SFE</b>	180545
16	16	<b>077SP16SFE</b>	180546
20	20	<b>077SP20SFE</b>	180547
25	25	<b>077SP25SFE</b>	180548
30	30	<b>077SP30SFE</b>	180549
36	36	<b>077SP36SFE</b>	180550

Cover without holes  
with conduit entry

Type		
1	<b>080SP1SFC</b>	170835
1M	<b>080SP1MSFC</b>	170838
2	<b>080SP2SFC</b>	170841
2M	<b>080SP2MSFC</b>	170844
3	<b>080SP3SFC</b>	170847
4V	<b>077SP4VSFC</b>	180551
4	<b>080SP8SFC</b>	170853
6	<b>080SP12SFC</b>	170856
9	<b>080SP12SFC</b>	170856
12	<b>080SP18SFC</b>	170859
16	<b>080SP18SFC</b>	170859
20	<b>080SP35SFC</b>	170863
25	<b>080SP35SFC</b>	170863
30	<b>077SP36SFC</b>	180552
36	<b>077SP36SFC</b>	180552

Cover without holes  
without conduit entry

Type		
1	<b>080SP1SF</b>	170837
1M	<b>080SP1MSF</b>	170840
2	<b>080SP2SF</b>	170843
2M	<b>080SP2MSF</b>	170846
3	<b>080SP3SF</b>	170849
4V	<b>077SP4VSF</b>	180553
4	<b>080SP8SF</b>	170855
6	<b>080SP12SF</b>	170858
9	<b>080SP12SF</b>	170858
12	<b>080SP18SF</b>	170861
16	<b>080SP18SF</b>	170861
20	<b>080SP35SF</b>	170865
25	<b>080SP35SF</b>	170865
30	<b>077SP36SF</b>	170554
36	<b>077SP36SF</b>	180554

Accessories  
Kit of two hinges for types from  
12 to 36 holes.**080KCSP** 170883The catalogue numbers in **bold** are available from stock.

# Diagrams

## Selector switches

	Func.	Contacts	Diagram
	D	077 11...	
	I	077 11...	
	H	077 11...	
	B	077 11...	
	E	077 11...	
	L	077 11...	
	U	077 11... 077 11...	
	Z	077 11... 077 11...	
	X	077 11... 077 11...	

■ = closed contact

## Illuminated selector switches

	Full voltage type	Func.	Contacts	Diagram
	D	077 10... 077 01...		
	D	077 10... 077 10...		
	D	077 01... 077 01...		
	D	077 10...		
	D	077 01...		
	H	077 10... 077 01...		
	H	077 10... 077 10...		
	H	077 01... 077 01...		
	H	077 10...		
	H	077 01...		
	B	077 10... 077 01...		
	L	077 10... 077 01...		
	Z	077 10... 077 01...		
<b>Resistor type</b>				
	D	077 10...		
	D	077 01...		
	H	077 10...		
	H	077 01...		
<b>Transformer type</b>				
	D	077 11...		
	H	077 11...		
	B	077 11...		
	L	077 11...		



## Diagrams

### Selector push-buttons

Positions	Function	Contacts	Normal	Depressed
120	201	077 11... 077 11...		
	202	077 11... 077 11...		
120	203	077 11... 077 11...		
120	204	077 11... 077 11...		
120	205	077 11... 077 11...		
	206	077 11... 077 11...		
120	213	077 11... 077 11...		
	221	077 11... 077 11...		
120	222	077 11... 077 11...		

■ = closed contact

Positions	Function	Contacts	Normal	Depressed
120	231	077 11... 077 11...		
	235	077 11... 077 11...		
120	236	077 11... 077 11...		
	301	077 11... 077 11...		
60   60	302	077 11... 077 11...		
	311	077 11... 077 11...		
60   60	323	077 11... 077 11...		
	325	077 11... 077 11...		

\* \* \* = can not be depressed.

# Joysticks

Positions	Function	Contacts	Diagram
<p>⑧-⑦-①-③-④</p>	X	077 11... 	<p>4 3 0 7 8</p>
		077 11... 	
		077 11... 	
		077 11... 	
<p>⑧-⑦-①-③-④</p>	Y	077 11... 	<p>4 3 0 7 8</p>
		077 11... 	
		077 11... 	
		077 11... 	
<p>② ① ⑧-⑦-①-③-④ ⑤ ⑥</p>	X	077 11... 	<p>2 1 4 3 0 5 6 7 8</p>
		077 11... 	
		077 11... 	
		077 11... 	
		077 11... 	
		077 11... 	
		077 11... 	
		077 11... 	
<p>② ① ⑧-⑦-①-③-④ ⑤ ⑥</p>	Y	077 11... 	<p>2 1 4 3 0 5 6 7 8</p>
		077 11... 	
		077 11... 	
		077 11... 	
		077 11... 	
		077 11... 	
		077 11... 	
		077 11... 	

Positions	Function	Contacts	Diagram
<p>④-①-②</p>	N	077 11... 	<p>2 0 4</p>
		077 11... 	
	R	077 11... 	<p>2 0 4</p>
		077 11... 	
<p>① ④-①-② ③</p>	N	077 11... 	<p>1 2 0 3 4</p>
		077 11... 	

■ = closed contact



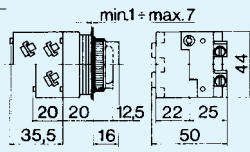


# Series 077

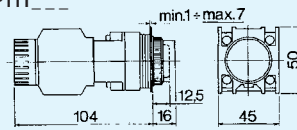
## Dimensional drawings

### Push-buttons

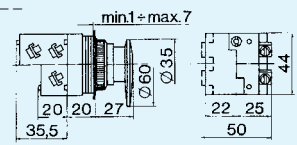
077P



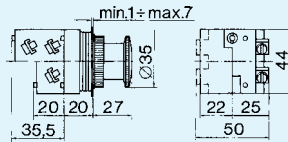
077P11T



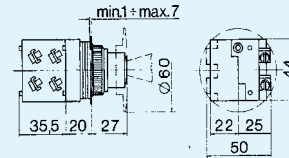
077E



077RE

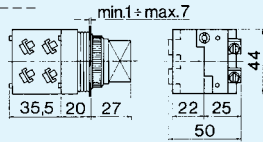


077PC11

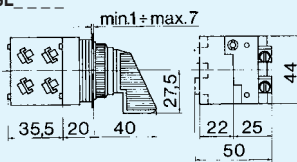


### Selector switches

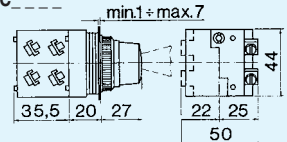
077S



077SL

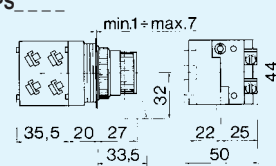


077SC



### Selector push-button

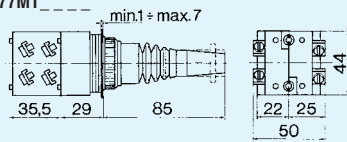
077PS



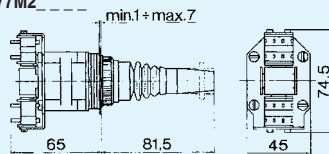
E

### Joysticks

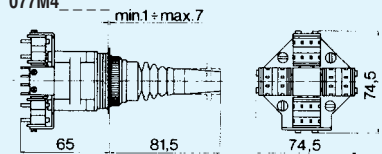
077MT



077M2

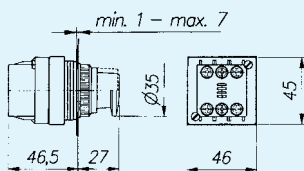


077M4

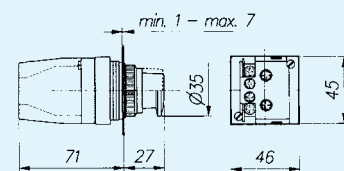


### Illuminated push-buttons

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077PLM\_R

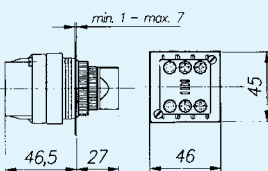


077PLM\_T

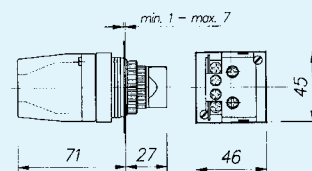


### Illuminated selector switches

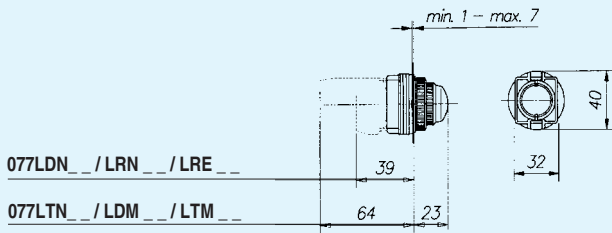
077IS\_D  
077IS\_R



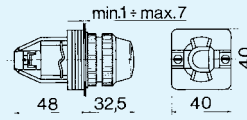
077IS\_T



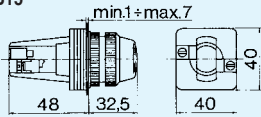
## Pilot lights



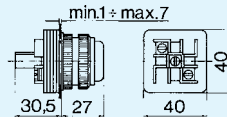
077DLE14



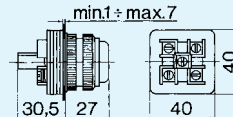
077DLB15



077L2

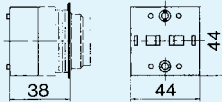


077L4

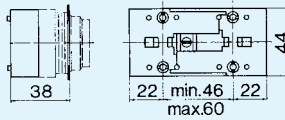


## Kits

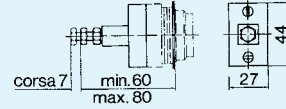
077DPP  
077DAE



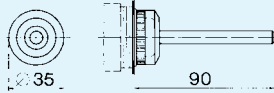
077DAMP  
077DIM



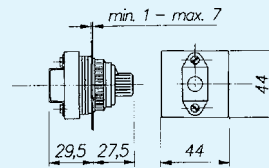
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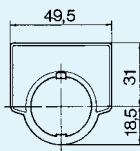
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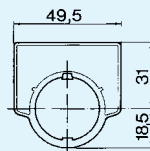
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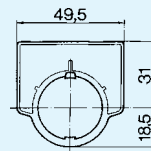
## Nameplates



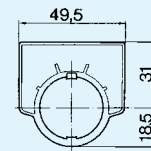
077TNA



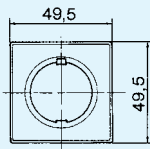
077TNA2



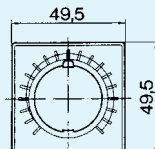
077TNA3



077TNA4

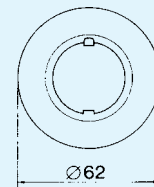


077TNC



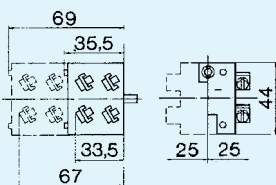
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077TGR

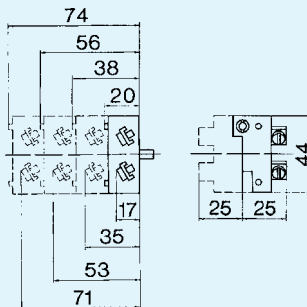


## Contact blocks

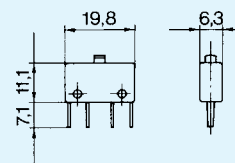
077-11



077-10  
077-01

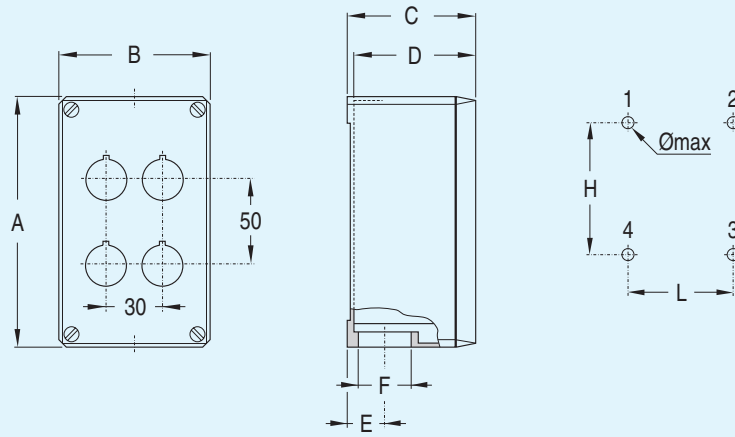


099SPDT-DB



## Dimensional drawings

## Alluminium enclosures



Type	Number of holes Ø 30		Dimensions						Fixing templates	
	Vertic.	Horizont.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	HxLxØmax (mm)	position of the holes
1	-	-	87	87	75	72	21.5	PG 21	74x55x4	1 - 3
1M	-	-	87	87	100	97	21.5	PG 21	68x55x4	1 - 3
2	2	-	145	87	75	72	21.5	PG 21	132x55x4	1 - 3
2M	2	-	145	87	100	97	21.5	PG 21	126x55x4	1 - 3
3	3	-	195	87	100	97	21.5	PG 21	176x55x4	1 - 3
4V	4	-	257	92	86.5	83.5	23	PG 21	224x76x6	1 - 3
4	2	2	152	152	101.5	98.5	27	PG 29	136x119x6	1 - 3
6	2	3	205	230	101.5	98.5	27	PG 29	172x214x6	1-2-3-4
9	3	3	205	230	101.5	98.5	27	PG 29	172x214x6	1-2-3-4
12	3	4	257	300	101.5	98.5	35	PG 36	221x282x6	1-2-3-4
16	4	4	257	300	101.5	98.5	35	PG 36	221x282x6	1-2-3-4
20	5	4	350	350	123.5	106.5	41	PG 36	180x180x10	1-2-3-4
25	5	5	350	350	123.5	106.5	41	PG 36	180x180x10	1-2-3-4
30	6	5	410	410	144.5	127.5	53	PG 48	180x180x10	1-2-3-4
36	6	6	410	410	144.5	127.5	53	PG 48	180x180x10	1-2-3-4