



Control
signalling
devices and
accessories

General characteristics

Our control and signalling units are designed to ensure accuracy, reliability, high mechanical and electrical life. All pushbuttons are certified IP65 (IP66 with optional dustproof cover), while foot switches are IP54. The contact blocks are equipped with maximum 4 contacts with rating up to 10 A each. The NC contacts are made to guarantee positive opening for safety function. The terminal screws with self-raising plate are supplied in open position for an easier and quicker wiring operation.



Technical data

Rated insulation voltage	Ui	IEC947-5-1	V	600	
Rated thermal current	Ithe	IEC947-5-1	A	10	
Rated operational current		IEC947-5-1/EN60947-5-1			
	Category AC15	Ie	230 V	A	6
			400 V	A	4
			500 V	A	3
	Category DC13	Ie	24 V	A	6
			250 V	A	0,4
Insulation resistance			500 V DC	MΩ	100
Contact resistance		IEC255-7 cat. 3	Initial value	mΩ	25
Dielectric insulation			50/60 Hz for 1' *	Vca	2500
Short circuit protective devices		IEC269 (IEC947-5-1)			
		Gl or gG fuse		A	10
Conditional short circuit current		IEC947-5-1		A	100
Pollution degree		IEC947-5-1			3
Command protection degree (EN 60529)		Non-illuminated/illuminated			IP65
		Dual pushbuttons			IP40
		Joystick			IP65
Vibration resistance		IEC68-2-6		mm	0,35 ± 15% (10÷55 Hz ± 1 Hz)
Shock resistance		IEC68-2-27	11 ms	g	30
Mechanical life		Mushroom and coupling pushbuttons and controllers		cycles	500000
		Selector switches		cycles	1000000
		Illuminated pushbuttons		cycles	3000000
Electrical life		at 250 V AC 6 A with resistance load cosφ=1		min cycles	500000
		a 250 V AC 6 A with inductive load cosφ=0,4		min cycles	500000
Distance between contacts		Slow action models		mm	2x2
Terminals		Type			Screw with combined notch and removable plate
		Screw			M3,5
		Protection degree			IP20
		Material			Steel class 8.8 / 6-8 micron
		Max screw tightening Torque		cNm (kg cm)	120 (12,24)
		Max connection rigid cable		mm ²	2x1,5
		flexible cable		mm ²	2x1,5
		With prod terminal		mm ²	1x1,5
		Terminal numbering			In accordance with EN50013
		Terminal colouring			Red for NC contacts, green for NO contacts
Air ambient temperature		operationals		°C	-25 ÷ +70
Relative humidity		operationals			95% max
Weather resistance			temperate in accordance with DIN 50014:		23/50
			damp in accordance with DIN 50015:		23/83
			hot humid in accordance with DIN 50015:		40-92
			variable humid in accordance with DIN 50016:		FW24

* between terminals of the same polarity; between terminals of different polarity; between live metal parts and ground; between live and unpowered metal parts.

Certifications and Approvals



IEC EN 60947

IPFB	•	+
PFB	•	+
C01B-C10B	•	+
C02-C20-C11	•	+

- UL approval file E72861
- CSA approval file 026716-0-000
- Approved
- + Conforms to requirements



Double insulation enclosures

Code	Description		Pack	Weight (kg)
SD1	Thermoplastic enclosure for base mounting units, 1 hole, grey cover		1	0,122
SD1G	Thermoplastic enclosure for base mounting units, 1 hole, yellow cover		1	0,122
SD2	Thermoplastic enclosure for base mounting units, 2 holes, grey cover		1	0,152
SD3	Thermoplastic enclosure for base mounting units, 3 holes, grey cover		1	0,172
SD4	Thermoplastic enclosure for base mounting units, 4 holes, grey cover		1	0,218

standard article

50 mm version for base mounting electrical units

(includes contact blocks and lamp holders fixing plate)

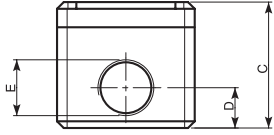
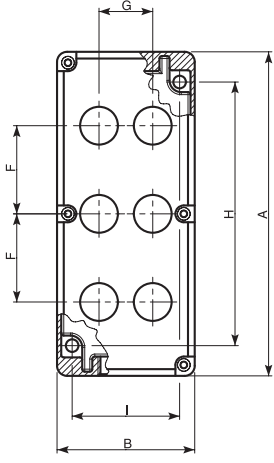
Code	Cover color
SD1	<input type="checkbox"/>
SD1G	<input checked="" type="checkbox"/>
SD2	<input type="checkbox"/>
SD3	<input type="checkbox"/>
SD4	<input type="checkbox"/>

Color grey RAL 7031 - color yellow RAL 1012

Dimensions			Drilling template		no. of $\varnothing 22$ holes
A	B	C	D	E	
73	80	50	61	55	1
73	80	50	61	55	1
106	80	50	94	55	2
139	80	50	127	55	3
172	80	50	160	55	4








Aluminium enclosures

Code	Description		Pack	Weight (kg)
SM1V	Aluminium enclosure, 1 hole, length 82 mm		1	0,431
SM2V	Aluminium enclosure, 2 vertical holes, length 141 mm		1	0,555
SM3V	Aluminium enclosure, 3 vertical holes, length 193 mm		1	0,795
SM4O	Aluminium enclosure, 4 horizontal holes, length 141 mm		1	0,561
SM6O	Aluminium enclosure, 6 horizontal holes, length 193 mm		1	0,786
SV1SF	Aluminium enclosure w/o holes length 82 mm		1	0,434
SV2SF	Aluminium enclosure w/o holes length 141 mm		1	0,572
SV3SF	Aluminium enclosure w/o holes length 193 mm	1	0,811	

 standard article

Cover with Ø22 mm holes




Code	Color	No. of holes	Dimensions							Drilling template		No. of holes	
			A	B	C	D	E	F	G	H	I	O	V
SM 1 V		1	82	82	75	24	1" GAS	-	-	49	67	-	1
SM 2 V		2	141	82	75	24	1" GAS	52,5	-	108	67	-	2
SM 3 V		3	193	82	75	24	1" GAS	52,5	-	157	64	-	3
SM 4 O		4	141	82	75	24	1" GAS	52,5	32	108	67	2	2
SM 6 O		6	193	82	75	24	1" GAS	52,5	32	157	64	2	3

Color grey RAL 7031

O = Number of holes for horizontal line

V = Number of holes for vertical line

Cover without holes

Code	Color	Dimensions					Drilling template	
		A	B	C	D	E	H	I
SV 1 SF		82	82	75	24	1" GAS	49	67
SV 2 SF		141	82	75	24	1" GAS	108	67
SV 3 SF		193	82	75	24	1" GAS	157	64

Color grey RAL 7031