



COMPLIANCE WITH STANDARDS

IEC 947-5-1. EN 60947 - 5 - 1. VDE 0660 PART 200. ASE 0119. ASE 1003. BS 4794. CSA C22-2 N° 14. UL 508. NEMA. CENELEC EN 50007

APPROVALS

RINA. CSA. UL

CLIMATIC PROTECTION

In normal functioning, T.C. all climates.

TEMPERATURE LIMITS

Functioning $\geq -35^{\circ}\text{C} \div \leq +70^{\circ}\text{C}$ - Storage $\geq -40^{\circ}\text{C} \div \leq +75^{\circ}\text{C}$

OPERATING POSITIONS

All positions $\leftrightarrow \rightarrow \uparrow \downarrow$

SHOCK RESISTANCE

11 ms duration with 50g, form 1/2 sinusoid in compliance with IEC 68 - 2 - 27

VIBRATION RESISTANCE

16 g. $40 \geq \div 500 \leq \text{Hz}$ in conformity with IEC 68 - 2 - 64

ALTITUDE OF USE

$\leq 3,000 \text{ mt.}$

PROTECTION DEGREE

Normal, illuminated, lamp, selector switches IP 66 - rubber cap buttons and joysticks IP 68 according to IEC EN 60529 - IP69K according to DIN 40050

ELECTRICAL PROTECTION

Class II double insulation in conformity with IEC 536.

TIGHTENING TORQUE

Operator fixing ring $3 \div 3,5 \text{ Nm}$ - Terminal screws $1 \div 1,2 \text{ Nm}$.

TERMINAL SCREWS

Combined Phillips head Ph2 steel zinc plated screws / stainless steel screws (E10AU / E01AU) versions

ACTIVATING FORCE

Switch with contact NO 5 N - Additional contacts: NO 1,0 N - NC 1,5 N

MECHANICAL DURABILITY

Push buttons normal, illuminated 3 milion operations - Selector switches, joysticks 1 milion operations - Emergency stop. Pb, illuminated selector sw., Push - push Pb 500.000 operations.

POLLUTION DEGREE

Class 3 according to DIN VDE 0110

OPERATING FREQUENCY

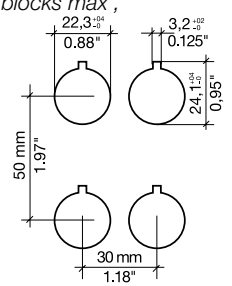
1000 operation cycles/hour.

FIXING DIMENSIONS

Panel with thickness $1 \div 6 \text{ mm}$ - Holes in conformity with CEI EN 60947 - 5 - 1

CONTACT BLOCKS CONFIGURATION

Push buttons, Selector sw. n° 8 blocks max - Emergency stop Pb, joysticks n° 4 blocks max, Illuminated selector sw. n° 2 blocks max.



RATED INSULATION VOLTAGE

690 V CA/CC

INSULATION CLASS

C Group in conformity with VDE 0110

SHORT CIRCUIT PROTECTION

Fuses DIAZED 10A operating class gL/gG shape D II second IEC 269-3-1

RATED THERMAL CURRENT (ITH)

10A open space 25°C - 6A closed space 60°C .

ELECTRICAL PERFORMANCES

In conformity with IEC 947-5-1

cat AC15

cat DC13

Tension Ue	V	24*	48	60	110*	220	380	400*	500	600	Tension Ue	V	24	48	60	110	220
Current Ie	A	10	8	6	6	3	2	1,5	1,5	1,2	Current Ie	A	5	2,7	2	1,1	0,55

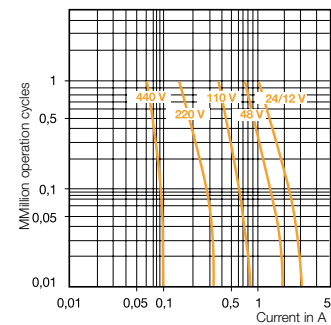
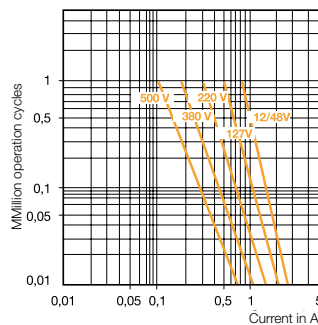
ELECTRICAL CATEGORY

In conformity with UL - CSA: A600 - P300

ELECTRICAL DURABILITY

Alternated current $50 \div 60\text{Hz}$ cat AC15

Direct Current cat DC 13



CONTACT RESISTANCE

$\leq 25\text{m}\Omega$ In conformity with IEC 255.7 category 3

TERMINALS PROTECTION

IP2X in conformity with IEC EN 60529

TERMINALS

Screw type terminal with retained clamp. Prepared (open). Combined head screw DIN 7962 - Z2

Closing capacity: $\geq 1 \times 0,5 \text{ mm}^2$, $\leq 2 \times 2,5 \text{ mm}^2$ - Faston tongue 6,5 mm - Solder foot $0,8 \times 0,8 \text{ mm}$

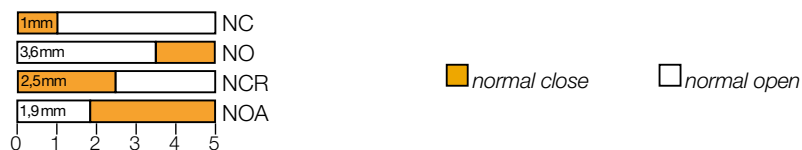
In conformity with DIN EN 50013 - 1ST number, assembling order of connection flange.

2ND number, element contact function, 1 - 2 NC, 3 - 4 NO

TERMINALS IDENTIFICATION

Slow action, sliding autocleaning, positive action, NC \rightarrow

CONTACT PERFORMANCES



CONTACTS TRAVEL AND SWITCHING POINTS

POSITIVE TRIPPING FORCE

15N normal push button. 40N mushroom push button

OPERATING SPEED

max 20 mm/s min 10mm/s

BULB SOCKET

BA9s base for; incandescence, neon, multiled.

Recommended power: indicator light 2.6W - bulbs illuminated pushbuttons, selector 1.2W.

BULB DURABILITY

Incandescence $\leq 1,000 \text{ h}$ - Neon $\leq 3,000 \text{ h}$ - Multiled $\geq 50,000 \text{ h}$