

412900


412901


412904



412916




Technical charcateristics see e-catalogue


Changeover switches
Conform to IEC 60669-1
Nominal rating 32 A
Compatible with fluorescent lamps (20 AX)
Two-way-250 V
Connection

Double two-way - $400 \mathrm{~V} \sim$


Two way with centre point - $250 \mathrm{~V} \sim$


Double two way with centre point - 250 V ~


Switch NO + NC - $250 \mathrm{~V} \sim$
412904
$\underset{1}{1-7}$

Momentary contact push-buttons
Conform to IEC 60669-1
Nominal rating $20 \mathrm{~A}-250 \mathrm{~V} \sim$
Compatible with fluorescent lamps (20 AX)
Accept prong-type supply busbars
Single function push-buttons
1 NO
1 NC


## Dual functions push-buttons without indicator

412916
1 NO (green push-button) $[-15$

1
+1 NC (red push-button)
Dual functions push-buttons with indicator
412918
$1 \mathrm{NO}+$ green LED indicator 12/48 V~/=
412919
1 NC + red LED indicator $12 / 48 \mathrm{~V} \sim /=$
1 NO + green LED indicator 100/400 V~
412940
1 NC + red LED indicator
 100/400 V~

$\mathrm{CX}^{3}$ changeover switches, push-buttons, control switches and LED indicators technical characteristics

## Dimensions

Changeover switches


| Cat.Nos | B |
| :---: | :---: |
| $412900 / 02 / 04$ | 17,7 |
| $412901 / 03$ | 35,6 |

Push-buttons and control switches


LED indicators


## Technical characteristics

## Changeover switches

Power dissipation per pole : 1.5 W
Overvoltage category: $4 \mathrm{kV} \sim$
Dielectric withstand : $2 \mathrm{kV} \sim$
Degree of pollution : 2

## Push-buttons and control switches

Electrical endurance : 30000 cycles AC12
( $\cos \phi=0,9$ ) IEC 60947-5-1
Electrical endurance under fluorescent loads : 30000 cycles according to IEC 60669-1

## LED indicators

Equipped with non replaceable LED lamps
LED life : 100000 h .
LED consumption :

- 0.17 W under $230 \mathrm{~V} \sim$
- 0.11 W under $24 \mathrm{~V} \sim$


## CX ${ }^{3}$ Two-way changeover switches

Catalogue number(s): 412900-412901-412902-412903-412904

CONTENTS
Page

1. Description - Use $\qquad$
$\qquad$
2. Overall dimensions . . . . . . . . . . . . . . . . . . . . . . 1
3. Preparation - Connection ........................ 1
4. General characteristics.
.
5. Compliance and approvals . . . . . . . . . . . . . . . 3
. Equipment and accessorie .3

## 1. DESCRIPTION - USE

Changeover switch used to switch one or several circuits.

## 2. RANGE

4129 00: Two-way switch, 250 V~ - 1 mod
32 A


412901 : Double two-way switch, 400 V~ - 2 mod

32 A


4129 02: Two-way switch with centre-point, 250 V~ - 1 mod


4129 03: Double two-way switch with centre-point, $400 \mathrm{~V} \sim-2$ mod


4129 04: NO + NC switch, 250 V~ - 1 mod
32 A


## 3. OVERALL DIMENSIONS



|  | B |
| :---: | :---: |
| $412900 / 02 / 04$ | 17.7 |
| $412901 / 03$ | 35.6 |

## 4. PREPARATION - CONNECTION

## Mounting

On EN 60715 or DIN 35 symmetrical rail
With $\varnothing 3$ screws on plate using ends of released claws

## Operating positions

. Vertical Horizontal Upside down On the side


## Power supply

4129 00/01/02: via the top
4129 03: via the top (possibly via the bottom in specific cases)
4129 04: via either the top or bottom

## Module maintenance

A changeover switch with $1 / 2$ module per pole can be replaced in the middle of a row of supply busbars without disconnecting the other products. This method is valid for single-pole and double-pole switches.
. 4 129 00/01/02/03:
Terminal alignment and spacing allows connection via a busbar with other products in the range.

4. PREPARATION - CONNECTION (continued)


Connection
. Terminals protected against direct finger contact IP20, with device wired
Cage terminals with quick release captive screws
Terminals fitted with flaps preventing a cable being placed under the terminal, with the terminal partly open or closed
Terminal alignment and spacing allows connection via prong-type supply busbars with other products in the range except for Cat. No. 412904.

Terminal depth: 14 mm
Screw head: combined Pozidriv
. Tightening torques:

| Min. | 0.8 Nm |
| :---: | :--- |
| Max. | 1.8 Nm |
| Recommended | 1.2 Nm |

Type of conductor

| Flexible with cable <br> ends | 1.5 to $6 \mathrm{~mm}^{2}$ |
| :---: | :---: |
| Rigid | 1.5 to $6 \mathrm{~mm}^{2}$ |

## Recommended tools

| Flat screwdriver | $\emptyset 4 \mathrm{~mm}$ |
| :---: | :---: |
| Pozidriv screwdriver | PZ 1 |

## Manual actuation of the device

. 4129 00/01/04:
. Via 2-position handle: I- II
. 4129 02/03:
. Via 3-position handle: I-0-II

## 4. PREPARATION - CONNECTION (continued)

## Contact status display

. By marking on the handle

## Padlocking

. Possible for preventing switching
. Not possible for safety maintenance

## Labelling

. Circuit identification by way of a label inserted in the label holder situated on the front of the product


## 5. GENERAL CHARACTERISTICS

## Marking on the front

. By permanent pad printing


Marking on the top
. By permanent pad printing


## Rated current

32 A: with resistive load
20 AX: with fluorescent load

## Operating voltage

Single pole: $\mathrm{Ue}=250 \mathrm{~V} \sim$
Double pole: $\mathrm{Ue}=400 \mathrm{~V} \sim$

## Overvoltage category

$4 \mathrm{kV} \sim$

## Rated frequency

. $50 / 60 \mathrm{~Hz}$ with standard tolerances

## Short-circuit characteristics

According to IEC/EN 60947-3:
. Icw = 384 A

## Dielectric strength

. $\mathrm{Ui}=2 \mathrm{kV} \sim$

## Utilisation category

AC22: mixed loads
. A: frequent operations

## CX³ Two-way changeover switches

Catalogue number(s): 4 12900-4 129 01-4 129 02-412903-412904

## 5. GENERAL CHARACTERISTICS (continued)

Pollution degree
. 2

## Dissipated power per pole

1.5 W

## Protection index or class

. Terminals protected against direct contact, protection index against solid objects and liquids (wired device): IP20 in accordance with standards IEC 529 - EN 60529 and NF 20-010
Class II in relation to metal conductive parts
Protection index against mechanical impacts IK04 in accordance with standard EN 62262

## Plastic materials

PC
Zero-halogen plastic materials

## Enclosure resistance to heat and fire

. Resistance to incandescent wire tests at $960^{\circ} \mathrm{C}$, in accordance with standard IEC 60695-2-10 and 60695-2-11

## Ambient temperatures

Operation from $-5^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
Storage from $-10^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$
The following climatic conditions can affect device performance: hot and dry; cold and dry; hot and humid; salt spray

## Volume when packed

Single pole:
. packaging: by 10
. volume: $1.6 \mathrm{dm}^{3}$
Double pole:
. packaging: by 5
. volume: $1.6 \mathrm{dm}^{3}$

## Average unit weight

1 module: 65 g
2 modules: 130 g

Distance between contacts Cat. No. 412903
. The distance between the contacts allows two different power supplies to be used.

## 6. COMPLIANCE AND APPROVALS

## Compliance with standards

IEC/EN 60669-1

Respect for the environment - Compliance with European Union Directives
Compliance with Directive 22002/95/EC of 27/01/03 known as
"RoHS" which provides for a restriction on the use of hazardous substances such as lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) brominated flame retardants from 1st July 2006
. Compliance with Directive 91/338/EC of 18/06/91 and decree 94-647 of 27/07/04

## Packaging

Design and manufacture of packaging compliant with decree 98-638 of 20/07/98 and Directive 94/62/EC

## Approvals obtained

See list of available approvals

## 7. EQUIPMENT AND ACCESSORIES <br> Wiring accessories

supply busbars
incoming terminals

Installation software
XL PRO ${ }^{3}$

