

Change-Over Switches Ex9BT



- Modular Change-Over Switches
- Meet requirements of EN 60669-1
- Rated current 16 and 32 A
- Rated operating voltage 230/400 V AC
- Versions with and without independent LED signal lamp
- LED rated voltage 48 or 230 V AC/DC
- 1 up to 4-pole versions
- Various contact combinations

Installation switches and change-over switches Ex9BT are designed and intended for switching of auxiliary, control, measuring and other circuits.

They are available in variants with NO, NC and CO contacts. Basic versions with only NO contacts are equipped with toggle in green colour. Types with only NC contacts are delivered with red toggles. All other variants are designed with neutral black toggle.

Besides versions with switch function only and three position (I-0-II) switches, there are available also variants where combined switch and signal lamp in one devices. The signal lamps have separate circuit independent on the contact ones. The colour of used LED is white.

Type Key

Ex9	BT	2	10	16A	LED	230V	AC/DC
↓	↓	↓	↓	↓	↓	↓	↓
Product family	Product	Contact ways	Contacts	Rated current	LED included	LED voltage	LED current char.
Ex9	BT: Change-over switches	2: I-0 3: I-0-II	10, 20, 30, 40 01, 02, 03, 04 11, 22, 13, 31 1CO, 2CO	16A 32A	_ : no LED: yes	230V 48V	AC/DC

Certification marks



Change-Over Switches Ex9BT

2-way change-over switches without LED signal lamp



Rated current	Contacts	Toggle color	Article No.	Type	Packing
16 A	1 NO	green	102656	Ex9BT2 10 16A	1/12/144
16 A	2 NO	green	102657	Ex9BT2 20 16A	1/12/144
16 A	3 NO	green	102658	Ex9BT2 30 16A	1/12/144
16 A	4 NO	green	102659	Ex9BT2 40 16A	1/12/144
16 A	1 NC	red	102660	Ex9BT2 01 16A	1/12/144
16 A	2 NC	red	102661	Ex9BT2 02 16A	1/12/144
16 A	3 NC	red	102662	Ex9BT2 03 16A	1/12/144
16 A	4 NC	red	102663	Ex9BT2 04 16A	1/12/144
16 A	1 NO+1 NC	black	102664	Ex9BT2 11 16A	1/12/144
16 A	2 NO+2 NC	black	102665	Ex9BT2 22 16A	1/12/144
16 A	1 NO+3 NC	black	102666	Ex9BT2 13 16A	1/12/144
16 A	3 NO+1 NC	black	102667	Ex9BT2 31 16A	1/12/144
16 A	1 CO	black	102668	Ex9BT2 1CO 16A	1/12/144
16 A	2 CO	black	102669	Ex9BT2 2CO 16A	1/12/144
32 A	2 NO	green	102670	Ex9BT2 20 32A	1/12/144
32 A	4 NO	green	102671	Ex9BT2 40 32A	1/12/144
32 A	2 NC	red	102672	Ex9BT2 02 32A	1/12/144
32 A	4 NC	red	102673	Ex9BT2 04 32A	1/12/144

2-way change-over switches with LED signal lamp, rated current 16 A

- White LED colour



Contacts	LED voltage	Toggle color	Article No.	Type	Packing
2 NO	230 V AC/DC	green	102674	Ex9BT2 20 16A LED230VAC/DC	1/12/144
2 NO	48 V AC/DC	green	102675	Ex9BT2 20 16A LED48VAC/DC	1/12/144
2 NC	230 V AC/DC	red	102676	Ex9BT2 02 16A LED230VAC/DC	1/12/144
2 NC	48 V AC/DC	red	102677	Ex9BT2 02 16A LED48VAC/DC	1/12/144
1 CO	230 V AC/DC	black	102678	Ex9BT2 1CO 16A LED230VAC/DC	1/12/144
1 CO	48 V AC/DC	black	102679	Ex9BT2 1CO 16A LED48VAC/DC	1/12/144

3-way (I-0-II) change-over switches without LED signal lamp



Rated current	Contacts	Toggle color	Article No.	Type	Packing
16 A	1 CO (I-0-II)	black	102680	Ex9BT3 1CO 16A	1/12/144
16 A	2 CO (I-0-II)	black	102682	Ex9BT3 2CO 16A	1/12/144
32 A	1 CO (I-0-II)	black	102681	Ex9BT3 1CO 32A	1/12/144
32 A	2 CO (I-0-II)	black	102683	Ex9BT3 2CO 32A	1/12/144

New product

Technical Data Ex9BT

Change-Over Switches

General parameters

Modular change-over switches for switching of auxiliary, control, measuring and other circuits
Also versions in combination with independent signal lamp
Various contact combinations
Suitable for household as well as industrial applications

Electrical parameters

Tested according to	EN 60669-1
Rated op. voltage	230 / 400 V AC
Rated frequency	50 Hz
Rated current I _e	16, 32 A
Number of contacts	1, 2, 3, 4
LED voltage	12-48 V AC/DC 115-230 V AC/DC
LED power loss	290 mW
Rated insulation voltage U _i	690 V
Maximum back-up fuse	125 A gG
Mechanical service life	20 000 operation cycles
Electrical service life	4 000 operation cycles

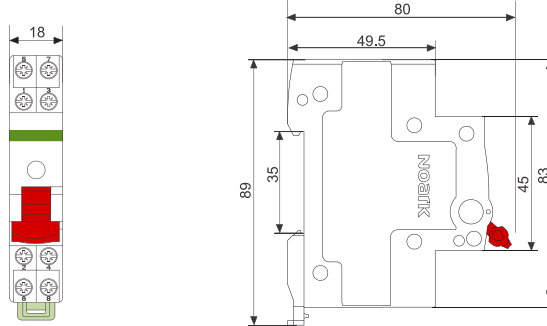
Mechanical parameters

Device width	18 mm
Device height	83 mm (89 mm including rail clip)
Frame size	45 mm
Mounting	easy fastening onto 35 mm device rail (DIN)
Degree of protection	IP20
LED Color	white
Toggle color	green - NO contacts only red - NC contacts only black - CO only or contact combination
Terminals	lift
Terminal capacity	1 — 10 mm ²
Fastening torque of terminals	2 — 3,5 Nm
Ambient temperature	-30 — +70 °C
Altitude	≤ 2000 m
Relative humidity	≤ 95 %
Resistance to humidity and heat	class 2
Pollution degree	2
Installation class	III
Weight	0.09 kg

Technical Data Ex9BT

Change-Over Switches

Dimensions



Wiring diagrams

