

Accessories for Ex9B



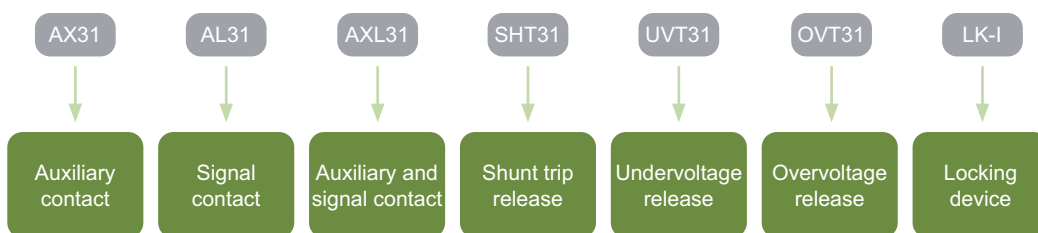
- Accessories for installation devices Ex9B (Ex9BH, Ex9BN, Ex9B125, Ex9BL)
- Auxiliary contacts synchronous with main contacts of the device
- Signal contacts active on electrical tripping of the circuit breaker
- Shunt trip releases
- Locking devices
- Undervoltage releases
- Overvoltage release
- According to IEC/EN 60947-1 and IEC/EN 60947-5-1

Accessories are designed in the way to be possible to combine different types with one installation device. It can be used up to two releases plus up to three units of auxiliary or signal contacts (two units in case of AX3122 with two pairs of contacts) plus one unit of RCD-block (only for Ex9B MCBs).

Release units are mounted from the left to the installation device.

Auxiliary and signal contact units must be mounted from the left to the device or to the release unit(s) when installed. Contact units are equipped with changeover (CO) combination(s) of contacts.

Type Key



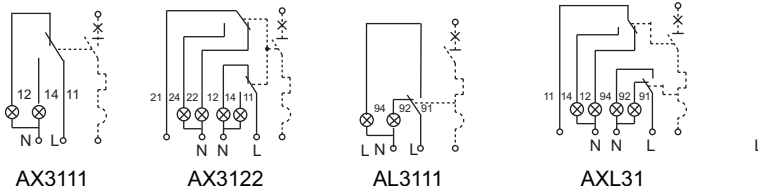
Accessories for Ex9B

Auxiliary and signal contact units



| Function | Contacts | Article No. | Type | Packing |
|--------------------|-------------|-------------|--------|---------|
| Auxiliary | 1 CO | 100540 | AX3111 | 1/96 |
| Auxiliary | 2 CO | 100542 | AX3122 | 1/96 |
| Signal | 1 CO | 100541 | AL3111 | 1/96 |
| Auxiliary + signal | 1 CO + 1 CO | 100543 | AXL31 | 1/96 |

Wiring diagrams

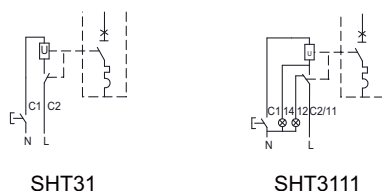


Shunt trip releases



| Aux. cont. | AC Op. Volt. | DC Op. Volt. | Article No. | Type | Packing |
|------------|--------------|--------------|-------------|-----------------------------------|---------|
| - | 110 — 415 | 110 — 130 | 850054 | SHT31 110V-415V AC/110V-130V DC | 1/96 |
| - | 48 | 48 | 850055 | SHT31 48V AC/DC | 1/96 |
| - | 12 — 24 | 12 — 24 | 100546 | SHT31 12-24V AC/DC | 1/96 |
| 1 CO | 110 — 415 | 110 — 130 | 100547 | SHT3111 110V-415V AC/110V-130V DC | 1/96 |
| 1 CO | 48 | 48 | 850057 | SHT3111 48V AC/DC | 1/96 |
| 1 CO | 12 — 24 | 12 — 24 | 850058 | SHT3111 12-24V AC/DC | 1/96 |

Wiring diagrams



Locking devices

- Possibility of locking installation devices in ON or OFF position
- Suitable for devices - Ex9BH, Ex9BN, Ex9BD, Ex9BP, Ex9BL, Ex9BI, Ex9PN, Ex9IP, Ex9I125, Ex9I40, Ex9BT, SHT31, UVT31, OVT31
- Padlock is not included



| Function | Article No. | Type | Packing |
|--------------------|-------------|------|----------|
| Locking by padlock | 110193 | LK-I | 1/16/240 |

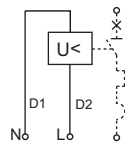
Accessories for Ex9B

Undervoltage releases

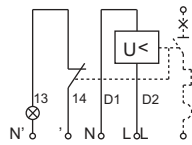


| Aux. cont. | AC Op. Volt. | DC Op. Volt. | Article No. | Type | Packing |
|------------|--------------|--------------|-------------|---------------------|---------|
| - | 220 — 240 | - | 100550 | UVT31 220-240V AC | 1/96 |
| - | 48 | 48 | 100551 | UVT31 48V AC/DC | 1/96 |
| 1 NC | 220 — 240 | - | 100552 | UVT3101 220-240V AC | 1/96 |
| 1 NC | 48 | 48 | 100553 | UVT3101 48V AC/DC | 1/96 |
| 1 NO | 220 — 240 | - | 100554 | UVT3110 220-240V AC | 1/96 |
| 1 NO | 48 | 48 | 100555 | UVT3110 48V AC/DC | 1/96 |

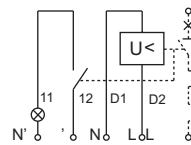
Wiring diagrams



UVT31



UVT3101



UVT3110

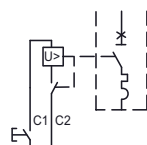
Overvoltage releases

- Overvoltage release is not a protection against transient overvoltage and does not supersede surge protection devices



| Aux. cont. | AC Op. Volt. | DC Op. Volt. | Article No. | Type | Packing |
|------------|--------------|--------------|-------------|------------------|---------|
| - | 280V AC±5% | - | 100556 | OVT31 280V AC±5% | 1/96 |

Wiring diagram



OVT31

Modular DIN Rail Products Busbars

Busbars for simple and reliable interconnection of installation devices. Shortened versions for 12 modules are equipped with end caps.



| Part no. | Description |
|----------|-------------------|
| 101447 | BBU 1L 16 M12(54) |
| 101451 | BBU 3L 16 M12 |

Technical Data Accessories

Accessories for Ex9B

Auxiliary and signal contact units AX31, AL31, AXL31

General parameters

| |
|--------------------------------------------------------------------------------------------------------------------------|
| With one device, there can be used up to three contact units with single CO contact or up to two contact units with 2 CO |
| Contact units can be combined in an arbitrary way |
| Contact units are mounted to the device from the left |
| In case of installed release unit(s), contact modules are mounted left to the release(s) |
| Auxiliary contacts synchronous with main contacts of the device |
| Signal contacts active on electrical tripping of the circuit breaker (tripping signal contacts) |

Electrical parameters

| | AX3111 | AX3122 | AL3111 | AXL31 |
|----------------------------------------------------------------|-------------------------------------|-------------------|-------------------|--------------------|
| Contacts | 1 changeover (CO) | 2 changeover (CO) | 1 changeover (CO) | 1 CO + 1 CO |
| Contact function | auxiliary | auxiliary | signal | auxiliary + signal |
| Tested according to | IEC/EN 60947-1, IEC/EN 60947-5-1 | | | |
| Rated op. voltage | 240/415 V AC, 24/48/130 V DC | | | |
| Min. op. voltage per contact U_{min} | 24 V AC/DC | | | |
| Rated frequency | 50/60 Hz | | | |
| Rated op. current I_e AC | 6 A (240 V), 3 A (415 V) | | | |
| Rated op. current I_e DC | 6 A (24 V), 2 A (48 V), 1 A (130 V) | | | |
| Rated thermal current I_{th} | 6 A | | | |
| Rated op. current I_e , ut. cat. AC-12 | 6 A (240 V), 3 A (415 V) | | | |
| Rated op. current I_e , ut. cat. DC-12 | 6 A (24 V), 2 A (48 V), 1 A (130 V) | | | |
| Rated impulse withstand voltage U_{imp} | 4 kV (1.2/50 μ s) | | | |
| Rated insulation voltage U_i | 500 V | | | |
| Max. back-up fuse | 10 A gG | | | |
| Conditional short circuit current I_k with max. back-up fuse | 1 kA | | | |

Mechanical parameters

| | AX3111 | AX3122 | AL3111 | AXL31 |
|-------------------------------|---------------------------------------------|--------------|--------------|--------------|
| Tripping indicator | ON-OFF-RESET | ON-OFF-RESET | ON-OFF-RESET | ON-OFF-RESET |
| Device width | 9 mm | | | |
| Device height | 89 mm | | | |
| Frame size | 45 mm | | | |
| Mounting | easy fastening onto 35 mm device rail (DIN) | | | |
| Degree of protection | IP20 | | | |
| Terminals | lift | | | |
| Terminal capacity | 1 — 6 mm ² | | | |
| Fastening torque of terminals | 0.8 — 1 Nm | | | |

Technical Data Accessories

Accessories for Ex9B

Auxiliary and signal contact units AX31, AL31, AXL31

General parameters

| |
|--------------------------------------------------------------------------------------------------------------------------|
| With one device, there can be used up to three contact units with single CO contact or up to two contact units with 2 CO |
| Contact units can be combined in an arbitrary way |
| Contact units are mounted to the device from the left |
| In case of installed release unit(s), contact modules are mounted left to the release(s) |
| Auxiliary contacts synchronous with main contacts of the device |
| Signal contacts active on electrical tripping of the circuit breaker (tripping signal contacts) |

Electrical parameters

| | AX3111 | AX3122 | AL3111 | AXL31 |
|----------------------------------------------------------------|-------------------------------------|-------------------|-------------------|--------------------|
| Contacts | 1 changeover (CO) | 2 changeover (CO) | 1 changeover (CO) | 1 CO + 1 CO |
| Contact function | auxiliary | auxiliary | signal | auxiliary + signal |
| Tested according to | IEC/EN 60947-1, IEC/EN 60947-5-1 | | | |
| Rated op. voltage | 240/415 V AC, 24/48/130 V DC | | | |
| Min. op. voltage per contact U_{min} | 24 V AC/DC | | | |
| Rated frequency | 50/60 Hz | | | |
| Rated op. current I_e AC | 6 A (240 V), 3 A (415 V) | | | |
| Rated op. current I_e DC | 6 A (24 V), 2 A (48 V), 1 A (130 V) | | | |
| Rated thermal current I_{th} | 6 A | | | |
| Rated op. current I_e , ut. cat. AC-12 | 6 A (240 V), 3 A (415 V) | | | |
| Rated op. current I_e , ut. cat. DC-12 | 6 A (24 V), 2 A (48 V), 1 A (130 V) | | | |
| Rated impulse withstand voltage U_{imp} | 4 kV (1.2/50 μ s) | | | |
| Rated insulation voltage U_i | 500 V | | | |
| Max. back-up fuse | 10 A gG | | | |
| Conditional short circuit current I_k with max. back-up fuse | 1 kA | | | |

Mechanical parameters

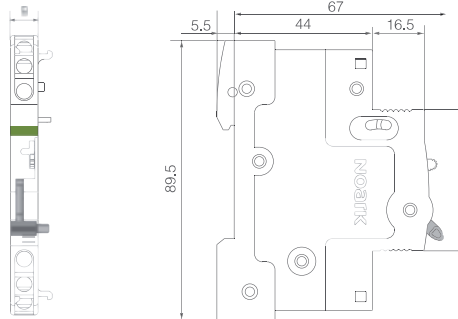
| | AX3111 | AX3122 | AL3111 | AXL31 |
|-------------------------------|---------------------------------------------|--------------|--------------|--------------|
| Tripping indicator | ON-OFF-RESET | ON-OFF-RESET | ON-OFF-RESET | ON-OFF-RESET |
| Device width | 9 mm | | | |
| Device height | 89 mm | | | |
| Frame size | 45 mm | | | |
| Mounting | easy fastening onto 35 mm device rail (DIN) | | | |
| Degree of protection | IP20 | | | |
| Terminals | lift | | | |
| Terminal capacity | 1 — 6 mm ² | | | |
| Fastening torque of terminals | 0.8 — 1 Nm | | | |

Technical Data Accessories

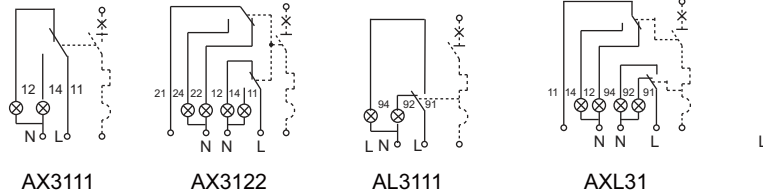
Accessories for Ex9B

Auxiliary and signal contact units AX31, AL31, AXL31

Dimensions



Wiring diagrams



Technical Data Accessories

Accessories for Ex9B

Shunt trip releases SHT31

General parameters

| |
|--------------------------------------------------------------------------------------------------------------------|
| With one device, there can be used up to two units of release (shunt trip, undervoltage, overvoltage) |
| Release units can be combined in an arbitrary way |
| Release units are mounted to the device from the left |
| In case of installed contact module(s), release units are mounted left to the device, right to the contact unit(s) |
| Can be used for remote switch off |

Electrical parameters

| | SHT31 110V-415V AC/110V-130V DC SHT3111 110V-415V AC/110V-130V DC | SHT31 48V AC/DC SHT3111 48V AC/DC | SHT31 12-24V AC/DC SHT3111 12-24V AC/DC |
|----------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------|--------------------------------------------|
| Contacts | - 1 changeover (CO) | - 1 changeover (CO) | - 1 changeover (CO) |
| Contact function | auxiliary | auxiliary | auxiliary |
| Tested according to | IEC/EN 60947-1, IEC/EN 60947-5-1 | | |
| Rated operating voltage | 110-415 V AC, 110-130 V DC | 48 V AC/DC | 12-24 V AC/DC |
| Rated frequency | 50/60 Hz | | |
| Rated impulse withstand voltage U_{imp} | 4 kV (1.2/50 μ s) | | |
| Rated insulation voltage | 500 V | | |
| Tripping time | < 10 ms | < 10 ms | < 10 ms |
| Min. duration of control pulse | 8 ms | 8 ms | 8 ms |
| Max. back-up fuse | 10 A gG | 10 A gG | 10 A gG |
| Min. op. voltage per AX contact U_{min} | 24 V AC/DC | | |
| Rated op. current I_e AC of AX contact | 6 A (240 V), 3 A (415 V) | | |
| Rated op. current I_e DC of AX contact | 6 A (24 V), 2 A (48 V), 1 A (130 V) | | |
| Rated thermal current I_{th} of AX cont. | 6 A | | |
| Rated op. current I_e AC-12 of AX | 6 A (240 V), 3 A (415 V) | | |
| Rated op. current I_e DC-12 of AX | 6 A (24 V), 2 A (48 V), 1 A (130 V) | | |
| Max. back-up fuse of AX | 10 A gG | | |
| Conditional short circuit current I_k with max. back-up fuse of AX | 1 kA | | |

Mechanical parameters

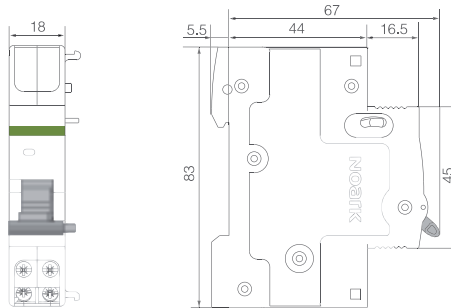
| | SHT31 110V-415V AC/110V-130V DC SHT3111 110V-415V AC/110V-130V DC | SHT31 48V AC/DC SHT3111 48V AC/DC | SHT31 12-24V AC/DC SHT3111 12-24V AC/DC |
|-------------------------------|----------------------------------------------------------------------|--------------------------------------|--------------------------------------------|
| Tripping indicator | red-white | red-white | red-white |
| Device width | 18 mm | | |
| Device height | 83 mm | | |
| Frame size | 45 mm | | |
| Mounting | easy fastening onto 35 mm device rail (DIN) | | |
| Degree of protection | IP20 | | |
| Terminals | lift | | |
| Terminal capacity | 1 — 6 mm ² | | |
| Fastening torque of terminals | 0.8 — 1 Nm | | |

Technical Data Accessories

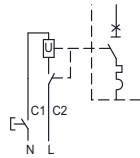
Accessories for Ex9B

Shunt trip releases SHT31

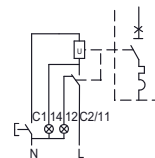
Dimensions



Wiring diagrams



SHT31



SHT3111

Technical Data Accessories

Accessories for Ex9B

Undervoltage releases UVT31

General parameters

| |
|--------------------------------------------------------------------------------------------------------------------|
| With one device, there can be used up to two units of release (shunt trip, undervoltage, overvoltage) |
| Release units can be combined in an arbitrary way |
| Release units are mounted to the device from the left |
| In case of installed contact module(s), release units are mounted left to the device, right to the contact unit(s) |
| To switch connected device off in case of voltage drop |

Electrical parameters

| | UVT31 220-240V AC UVT3101 220-240V AC UVT3110 220-240V AC | UVT31 48V AC/DC UVT3101 48V AC/DC UVT3110 48V AC/DC |
|----------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------|
| Contacts | - 1 normally closed (NC) 1 normally open (NO) | - 1 normally closed (NC) 1 normally open (NO) |
| Contact function | auxiliary | auxiliary |
| Tested according to | IEC/EN 60947-1, IEC/EN 60947-5-1 | |
| Rated operating voltage U_n | 220-240 V AC | 48 V AC/DC |
| Rated frequency | 50/60 Hz | |
| Rated impulse withstand voltage U_{imp} | 4 kV (1.2/50 μ s) | |
| Rated insulation voltage | 500 V | |
| Tripping time | < 10 ms | < 10 ms |
| Making threshold | 85 % U_n | 85 % U_n |
| Tripping threshold | 35 % U_n | 35 % U_n |
| Min. op. voltage per AX contact U_{min} | 24 V AC/DC | |
| Rated op. current I_e AC of AX contact | 6 A (240 V), 3 A (415 V) | |
| Rated op. current I_e DC of AX contact | 6 A (24 V), 2 A (48 V), 1 A (130 V) | |
| Rated thermal current I_{th} of AX cont. | 6 A | |
| Rated op. current I_e AC-12 of AX | 6 A (240 V), 3 A (415 V) | |
| Rated op. current I_e DC-12 of AX | 6 A (24 V), 2 A (48 V), 1 A (130 V) | |
| Max. back-up fuse of AX | 10 A gG/gL | |
| Conditional short circuit current I_k with max. back-up fuse of AX | 1 kA | |

Mechanical parameters

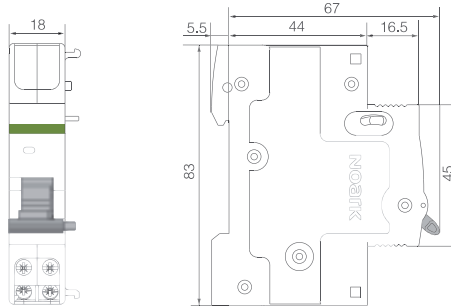
| | UVT31 220-240V AC UVT3101 220-240V AC UVT3110 220-240V AC | UVT31 48V AC/DC UVT3101 48V AC/DC UVT3110 48V AC/DC |
|-------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------|
| Tripping indicator | red-white | red-white |
| Device width | 18 mm | |
| Device height | 83 mm | |
| Frame size | 45 mm | |
| Mounting | easy fastening onto 35 mm device rail (DIN) | |
| Degree of protection | IP20 | |
| Terminals | lift | |
| Terminal capacity | 1 — 6 mm ² | |
| Fastening torque of terminals | 0.8 — 1 Nm | |

Technical Data Accessories

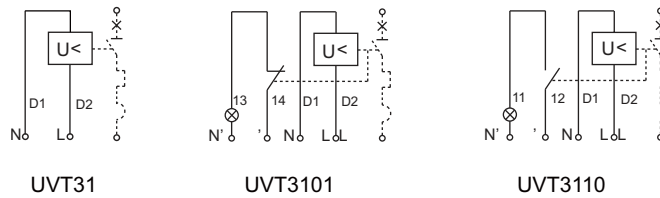
Accessories for Ex9B

Undervoltage releases UVT31

Dimensions



Wiring diagrams



Technical Data Accessories

Accessories for Ex9B

Overvoltage releases OVT31

General parameters

| |
|-----------------------------------------------------------------------------------------------------------------------|
| With one device, there can be used up to two units of release (shunt trip, undervoltage, overvoltage) |
| Release units can be combined in an arbitrary way |
| Release units are mounted to the device from the left |
| In case of installed contact module(s), release units are mounted left to the device, right to the contact unit(s) |
| Overvoltage release is not a protection against transient overvoltage and does not supersede surge protection devices |
| To switch connected device off in case of increased voltage |

Electrical parameters

| | OVT31 280V AC±5% |
|-------------------------------------------|----------------------------------|
| Contacts | - |
| Tested according to | IEC/EN 60947-1, IEC/EN 60947-5-1 |
| Rated operating voltage U_n | 280 V AC ±5 % |
| Rated frequency | 50/60 Hz |
| Rated impulse withstand voltage U_{imp} | 4 kV (1.2/50 µs) |
| Rated insulation voltage | 500 V |
| Tripping time | < 1 s (290 V), < 0,1 s (380 V) |

Mechanical parameters

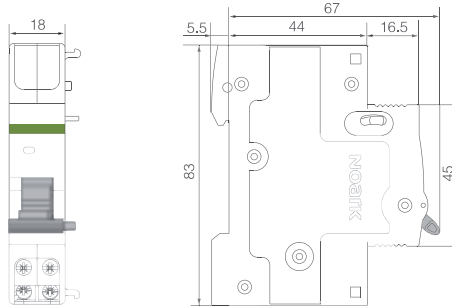
| | OVT31 280V AC±5% |
|-------------------------------|---------------------------------------------|
| Tripping indicator | red-white |
| Device width | 18 mm |
| Device height | 83 mm |
| Frame size | 45 mm |
| Mounting | easy fastening onto 35 mm device rail (DIN) |
| Degree of protection | IP20 |
| Terminals | lift |
| Terminal capacity | 1 — 6 mm ² |
| Fastening torque of terminals | 0.8 — 1 Nm |

Technical Data Accessories

Accessories for Ex9B

Overvoltage releases OVT31

Dimensions



Wiring diagram

