

Description

The E-T-A power distribution system SVS02 is designed to accommodate the electronic circuit breaker series ESS20-003. It distributes the current supplied by a switch mode power supply up to 40 A to 4, 8, 12 or 16 channels. Input connections are via screw terminals. The individual circuit breakers can be plugged in. Loads are connected via spring-loaded screwless terminals. The power distribution includes integral wiring of the signalisation of the individual channels which can be combined to a group signal. The SVS02 can be snapped onto a DIN symmetrical rail.

Typical applications:

Production lines, machine tools powered by switch-mode power supplies with DC 24 V output



SVS02-08-...

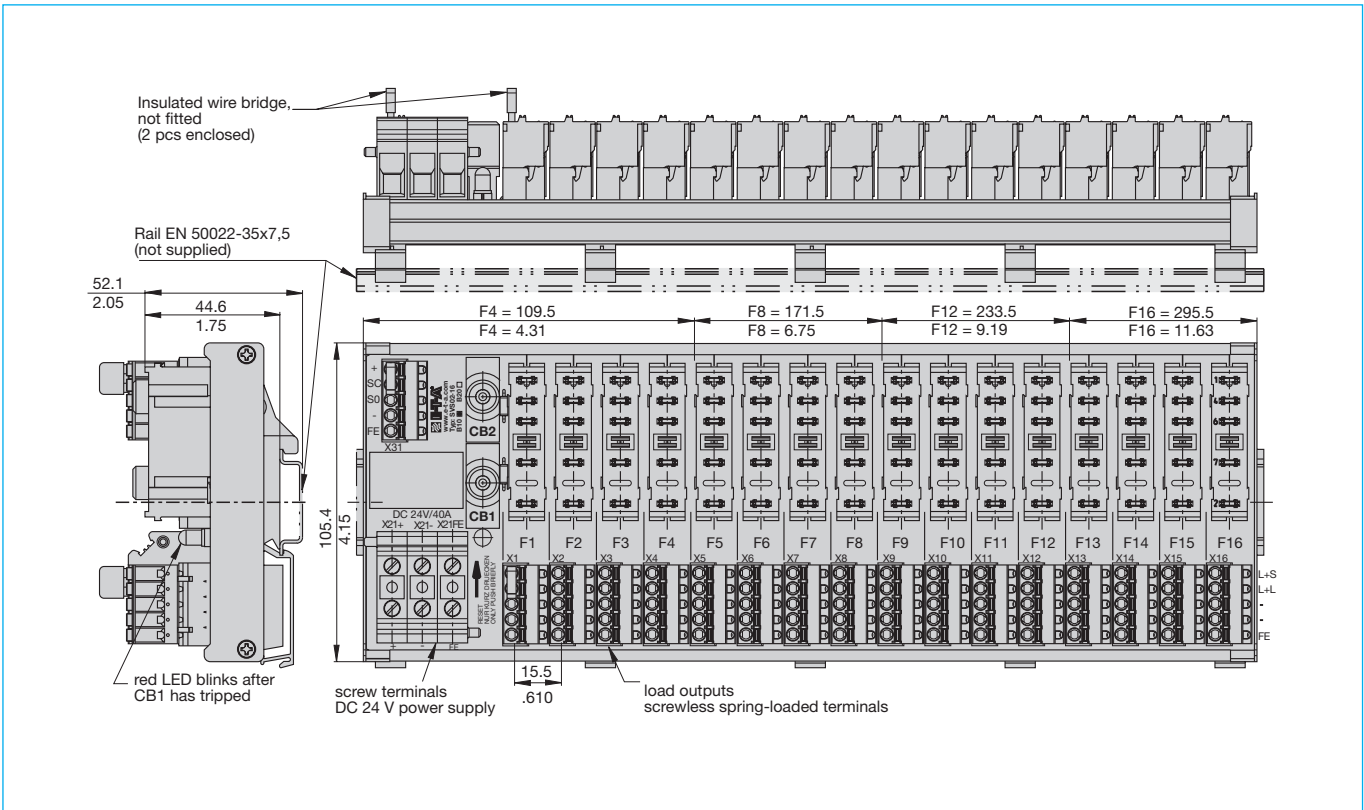
Ordering information

Type	
SVS02	Power distribution system for ESS20-003 2 insulated wire bridges Y 303 881 08 included
Version, max. number of ESS20-003 or SVS02	
04	4 channels (F1...F4)
08	8 channels (F1...F8)
12	12 channels (F1...F12)
16	16 channels (F1...F16)
Screw terminals for power supply DC 24 V	
P310	3 loop-through terminals (X 21) max. 10 mm ² for DC 24 V (+) / DC 24 V (-) / FE functional earth
Load outputs per channel (F1 .. Fn, n = 04, 08, 12, 16)	
L50	5 load outputs per channel, max. 8 A each
Signal outputs	
S15	1 signal terminal (X31) for group signal, 5-pole, complete with plug-in terminal, wiring 5 x max. 2.5 mm ² / without connector sleeve, max. 0.5 A
Control input	
E00	without control input
Fitting variants	
B10	complete with Combicon screwless connectors (cage clamp), (max. 2.5 mm ² , without connector sleeve) (standard)
B20	complete with plug-in screw terminals (max. 2.5 mm ² , without connector sleeve)
SVS02 - 16-P310 - L50 - S15 - E00 - B10	

Technical data

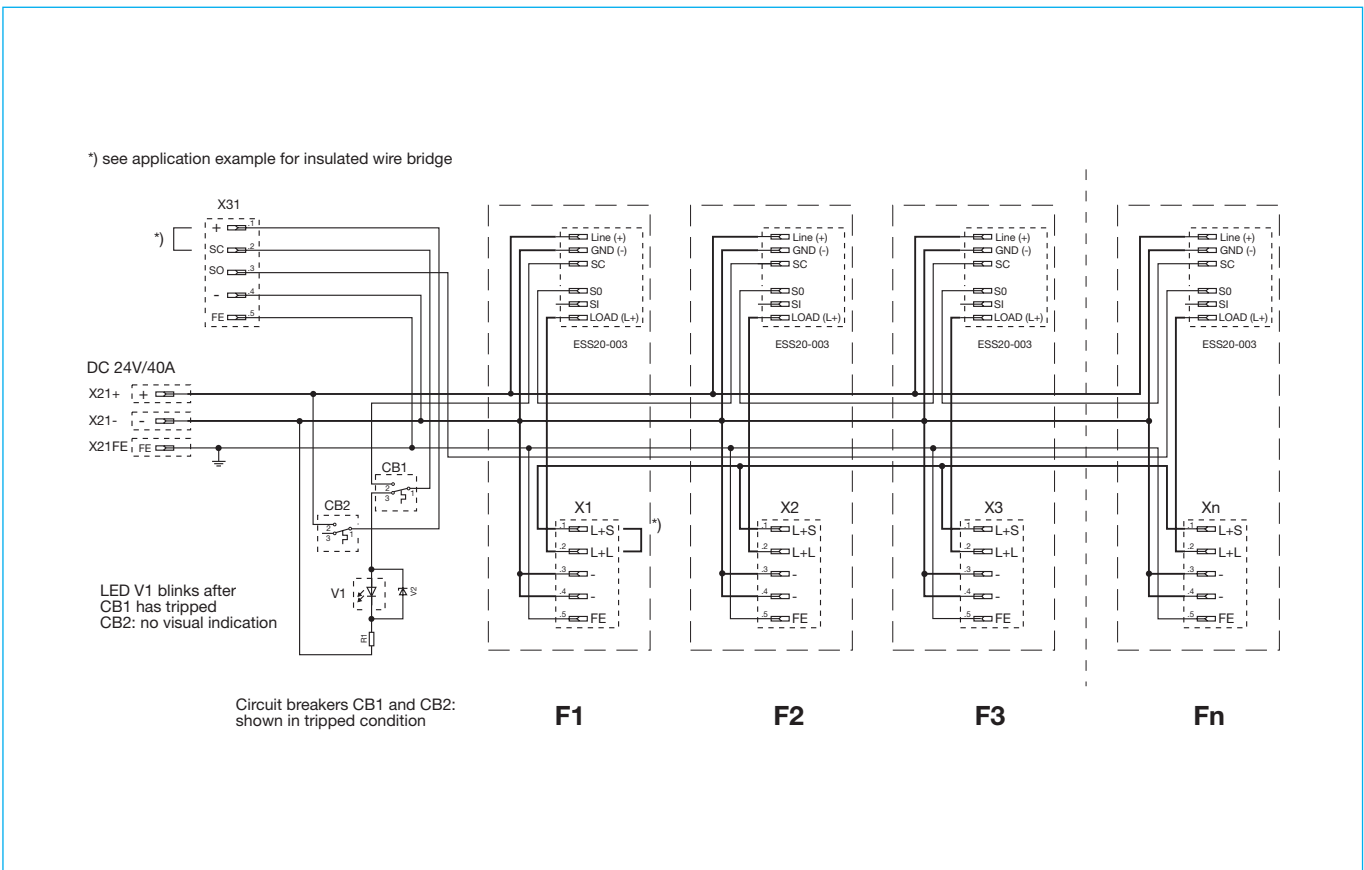
- Modular Power distribution system for short-circuit limited DC 24 V applications up to max. 40 A continuous load, max. voltage DC 32 V.
- Three screw terminals (max. 10 mm²/AWG 8) for:
 - DC 24 V (+) = X 21 +
 - DC 24 V (-) = X 21 -
 - FE (functional earth) = X 21 FE
 for connecting the DC 24 V power supply max. 40 A
- Modular design ESS20-positions F1...F4 (..F8, ...F12 or ...F16):
 - SVS02-04 / 4 channels / F1...F4 = Kl. X1...X4
 - SVS02-08 / 8 channels / F1...F8 = Kl. X1...X8
 - SVS02-12 / 12 channels / F1...F12 = Kl. X1...X12
 - SVS02-16 / 16 channels / F1...F16 = Kl. X1...X16
- 5 load outputs per channel complete with Combicon screwless connectors, wiring 5 x max. 2.5 mm² (AWG 14)/ without connector sleeve max. 8 A:
 - (L+S) group output (+), internally bridged across all channels
 - (L+L) load output (+), per channel
 - (-) DC 24 V (-)
 - (-) DC 24 V (-)
 - (FE) functional earth
- Selective overcurrent protection CB1 and CB2 for group signalisation of the power distribution system, red LED blinks after CB1 has tripped (see schematic diagram).
Reset of circuit breakers: momentarily press red actuator button
- Signal terminal (X31) for group signal complete with Combicon screwless connectors, wiring 5 x max. 2.5 mm² (AWG 14)/ without connector sleeve, max. 0.5 A (signal contact ESS20):
 - (+) internal +DC 24 V supply for signalisation of terminal X 21 + via insulated jumper from (+) to (SC), protected by CB2
 - (SC) external supply possible +DC 24 V for signalisation, protected by CB1
 - (S0) signal output group signalisation
 - (-) additional output DC 24 V (-)
 - (FE) additional functional earth
- Protection class to: IP20
- Insulation co-ordination to IEC 60934: 0.5 kV / pollution degree 2
- Dielectric strength AC 500 V
- Temperature range: 0...50 °C (without condensation)
- for DIN symmetrical rail mounting EN 50022 - 35 x 7.5
- Dimensions: see dimensional drawing

Dimensions SVS02-16

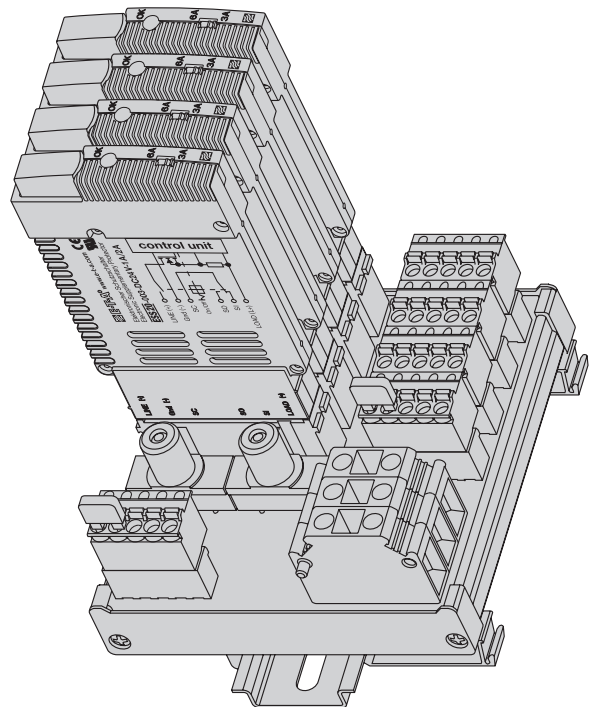
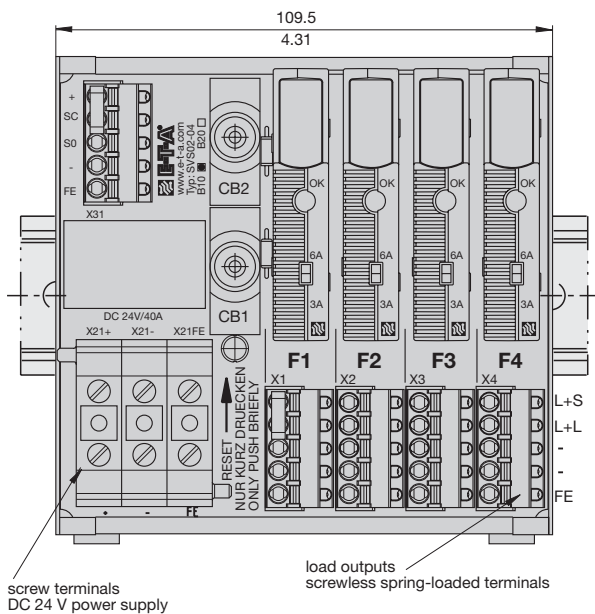
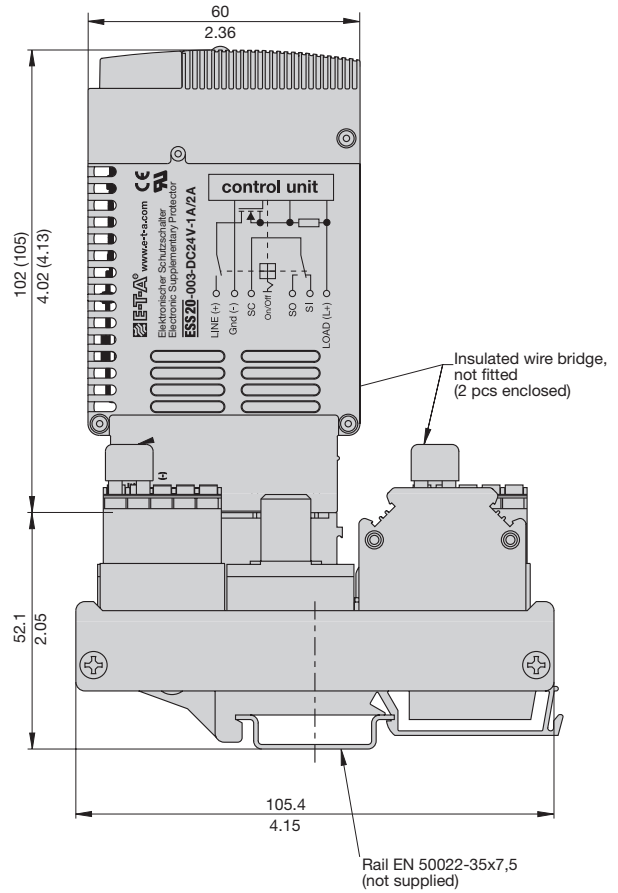
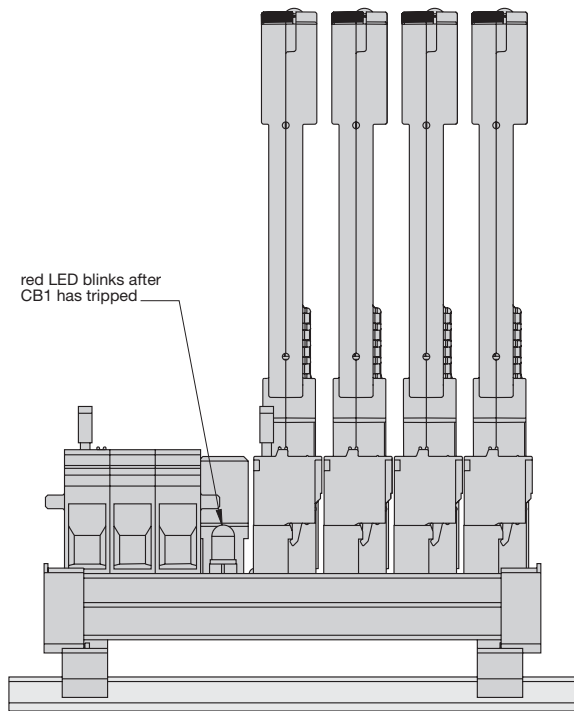


This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

Schematic diagram SVS02-(n) n = 04, 08, 12, 16



Dimensions SVS02-04, fitted with ESS20-003



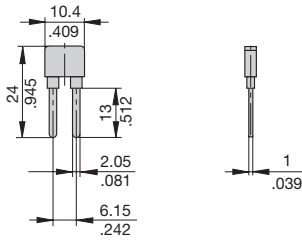
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Accessories

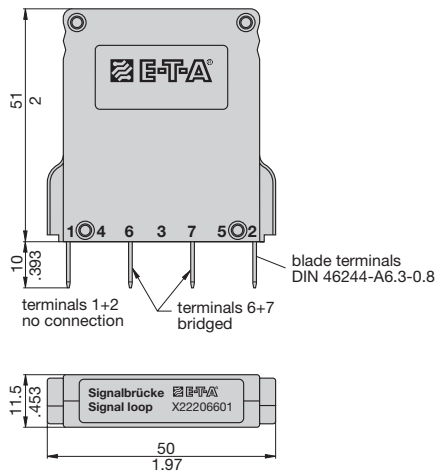
Insulated wire bridge Y 303 881 08

Two insulated wire bridges are supplied with the power distribution system. They may be used for:

- Channel X31: internal +DC 24 V supply for signalisation wire bridge from (+) to (SC)
Signal circuit (+) to (SC) protected by CB2
Signal circuit (SC) to (SO) protected by CB1
- Channel X1: Protected load output (L+L) of CBE position F1 takes over protection of (L+S) terminals of all CBEs F2 up to Fn (n= 04, 08, 12, 16)



Jumper X 222 066 01

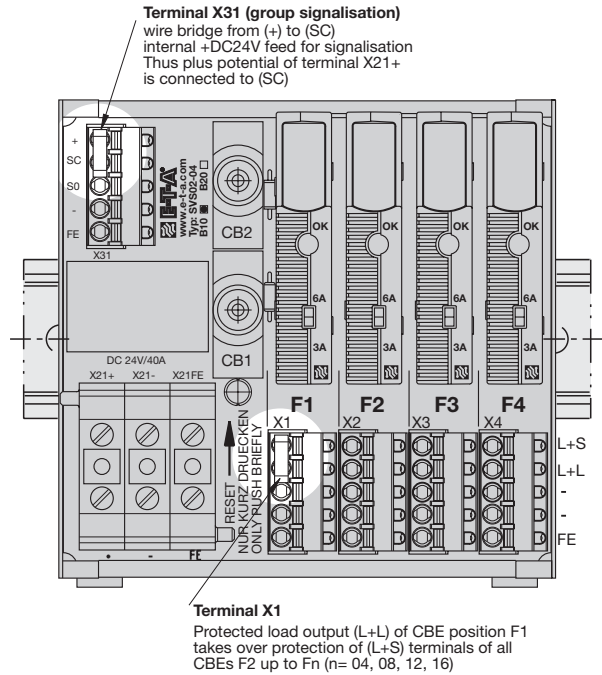


Label: red, white lettering

This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.

Application example for insulated wire bridge



Application example for jumper to replace ESS20-003

The signalling pathway of the group signalisation is as follows:

- feed-in of +DC24V potential in (SC = terminal 31.2)
- via in-built overcurrent protection CB1
- via all signal contacts of the fitted circuit breakers type ESS20-003
- back to signal output of group signalisation (SO = terminal 31.3)

In operating condition (i.e. all circuit breakers plugged in and functional) the signalling pathway (SC) to (SO) is closed.

If the distribution rail is not completely fitted with ESS20-003, the open pathway (SC) to (SO) may be closed by means of a jumper type X 222 066 01.

