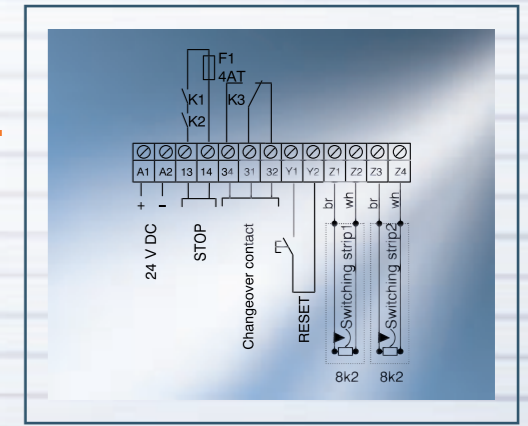


## SWITCHGEAR (EVALUATORS)

### / Switchgear overview

### / Switchgear in housing types A, B, C and D



### / Switchgear – full monitoring

The switching devices monitor the switching strip connected in regard to actuation and interruption. They provide a potential-isolated safety relay contact for “Stop”.

Switching strips with a length of up to 100 m can be connected to the switchgear. Monitoring is performed on the closed circuit current principle with an 8.2 kΩ resistor as the electrical termination. The switchgears possess three LEDs (green, yellow, red), which are used to indicate different states:

- **Green:** switching strip connected, system ready for operation, safety contacts closed
- **Yellow:** error message “Open sensor circuit”, safety contacts opened
- **Red:** switching strip actuated, safety contacts opened

If, in the case of fail-safe (redundant) devices (Safety Category 3), the channels indicate a differing status; this signals a system malfunction and the safety contacts will be opened.

When the switching strip is actuated, the relay will drop out and the safety contacts will be opened.



Housing type A



Housing type B

### / Housing type A

The housing for installing the switchgear in a control cabinet is used for evaluators of Safety Categories 1 and 3. It is chosen when there is sufficient space in the control cabinet. The housing's overall dimensions are 45 x 75 x 120 mm (W x H x D).

### / Housing type B

The housing for surface installation is used for evaluators of Safety Categories 1 and 3.

### / Housing type C

The housing for control cabinet installation is used for evaluators of Safety Category 3. Since the housing has a width of only 22.5 mm, it is chosen when there is not sufficient space in the control cabinet. The housing's overall dimensions are 22.5 x 100 x 110 mm (W x H x D).

### / Housing type D

The housing for control cabinet installation is used for evaluators of Safety Category 1. Thanks to its small width of 22.5 mm, this housing is also chosen in control cabinets with a restricted amount of space available. The housing's overall dimensions are 22.5 x 75 x 111 mm (W x H x D).



Housing type C

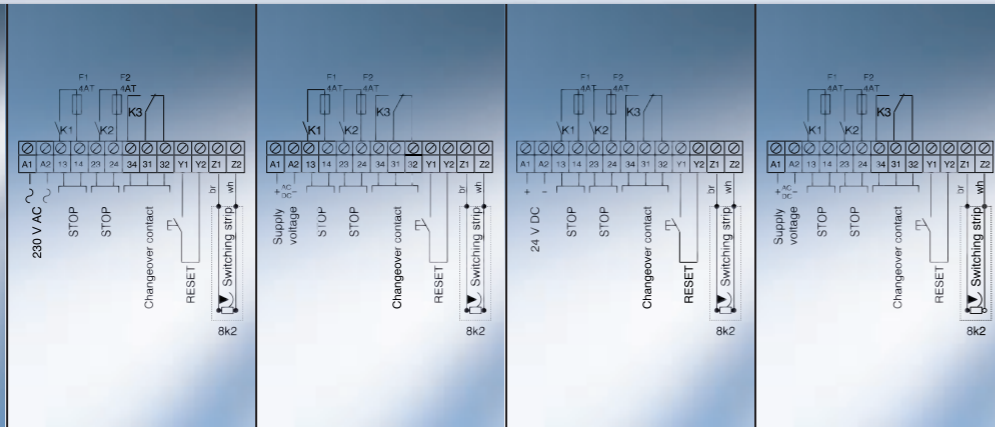


Housing type D

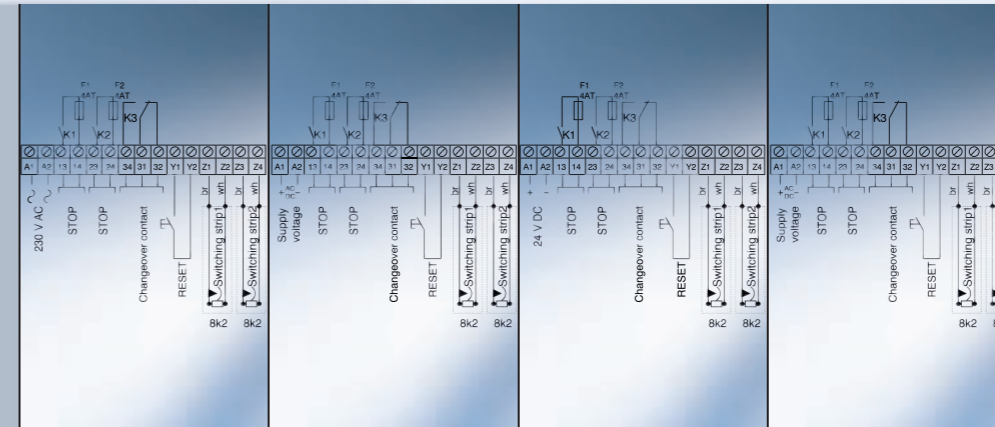
## / Switchgear overview



**Housing type C**



Type	452.40	452.42	452.46	452.49
Article no.	3004.5240	3004.5242	3004.5246	3004.5249
Safety category to EN 954-1	3	3	3	3
Functions				
Input:				
1 switching strip	X	X	X	X
2 switching strips				
Output:				
1 output with 2 relays each with 1 NC contact in series, forced	X	X	X	X
2 outputs with 2 relays each with 1 NC contact in series, forced				
1 output with 2 relays, NC contact available separately, forced				
1 output with 1 relay contact (NC)				
2 outputs each with 1 relay contact (NC)				
Additional functions:				
Changeover contact	X	X	X	X
Changeover contact approx. 0.5 s time delayed				
Reset	X	X	X	X
Slip-door contact				
Supply voltage A1 – A2	230 V AC	24–230 V AC/24–110 V DC	24 V DC	24 – 60 V AC/DC
Rated power	3 VA	4 VA/6 VA	3 VA	4 VA/6 VA
Power pack potential-isolated	X	X	X	X
Relay contacts 13 – 14; 21 – 24				
Max. switching voltage AC/DC	250 V/24 V	250 V/24 V	250 V/24 V	250 V/24 V
Max. switching current AC/DC	4 A/2 A	4 A/2 A	4 A/2 A	4 A/2 A
Perm. operating temperature	-20..+55 °C	-20..+55 °C	-20..+55 °C	-20..+55 °C
Housing:				
Dimensions (W x H x D) in mm	22.5 x 100 x 110	22.5 x 100 x 110	22.5 x 100 x 110	22.5 x 100 x 110
Degree of protection for housing/contacts	IP 20	IP 20	IP 20	IP 20
Weight	250 g	190 g	175 g	190 g
Tests:				
EN 954-1	X	X	X	X
EN 50121-3-2				X
EN 50155				X



Type	462.40	462.42	462.46	462.49
Article no.	3004.6240	3004.6242	3004.6246	3004.6249
Safety category to EN 954-1	3	3	3	3
Functions				
Input:				
1 switching strip	X	X	X	X
2 switching strips				
Output:				
1 output with 2 relays each with 1 NC contact in series, forced	X	X	X	X
2 outputs with 2 relays each with 1 NC contact in series, forced				
1 output with 2 relays, NC contact available separately, forced				
1 output with 1 relay contact (NC)				
2 outputs each with 1 relay contact (NC)				
Additional functions:				
Changeover contact	X	X	X	X
Changeover contact approx. 0.5 s time delayed				
Reset	X	X	X	X
Slip-door contact				
Supply voltage A1 – A2	230 V AC	24–230 V AC/24–110 V DC	24 V DC	24 – 60 V AC/DC
Rated power	3 VA	4 VA/6 VA	3 VA	4 VA/6 VA
Power pack potential-isolated	X	X	X	X
Relay contacts 13 – 14; 21 – 24				
Max. switching voltage AC/DC	250 V/24 V	250 V/24 V	250 V/24 V	250 V/24 V
Max. switching current AC/DC	4 A/2 A	4 A/2 A	4 A/2 A	4 A/2 A
Perm. operating temperature	-20..+55 °C	-20..+55 °C	-20..+55 °C	-20..+55 °C
Housing:				
Dimensions (W x H x D) in mm	22.5 x 100 x 110	22.5 x 100 x 110	22.5 x 100 x 110	22.5 x 100 x 110
Degree of protection for housing/contacts	IP 20	IP 20	IP 20	IP 20
Weight	250 g	190 g	175 g	190 g
Tests:				
EN 954-1	X	X	X	X
EN 50121-3-2				X
EN 50155				X