

Contact elements for emergency stop buttons

Matching contact element for every emergency-stop application: The various functions are combined into the contact elements. The functions can be assigned to the corresponding module which is identifiable by its colour.

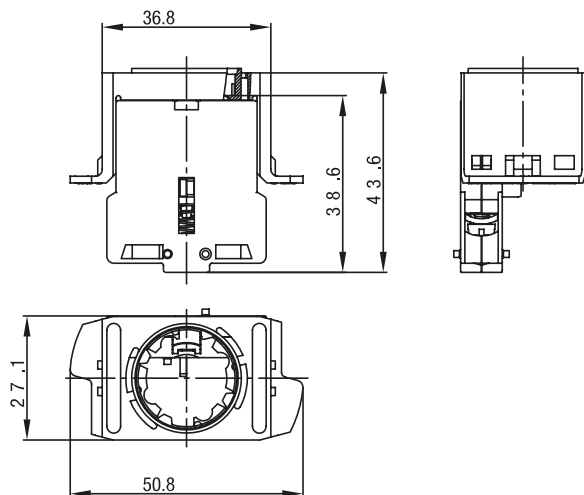
Technical specification

- Preassembled contact elements
- Positively driven safety contacts for switching the emergency-stop function
- Signal contact (N.O. contact) for external diagnosis, e.g. display on the machine control unit
- Failure protection module checks permanent connection of push button and contact element
- Illumination module for push buttons, with LED illumination integrated in the anti-obstruction protective collar

Technical drawing

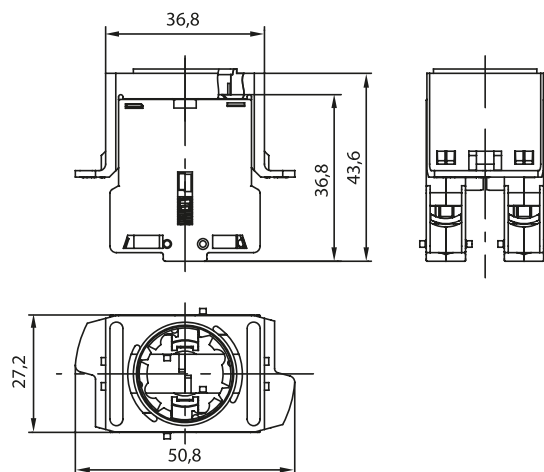
IMAGE 1/3

KE contact element with 1 N.C. contact



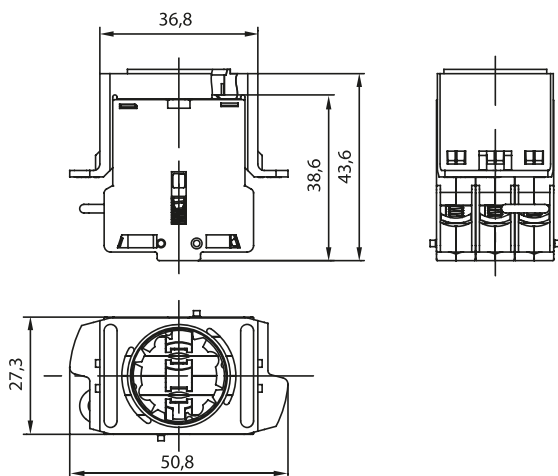
1 x 879901

KE contact element with 2 N.C. contacts



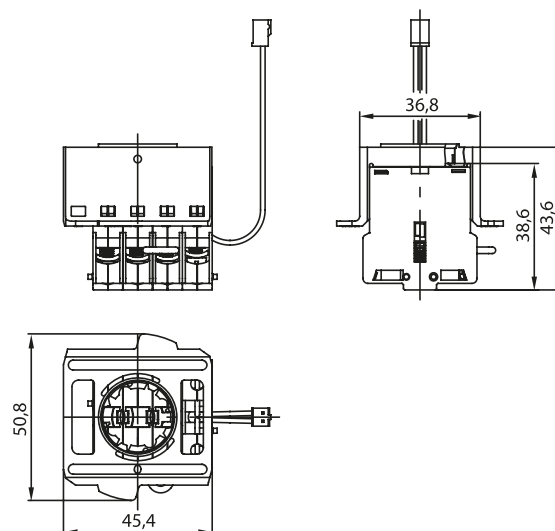
2 x 879901

KE contact element with 2 N.C. contacts / failure protection



2 x 879901
1 x 879902

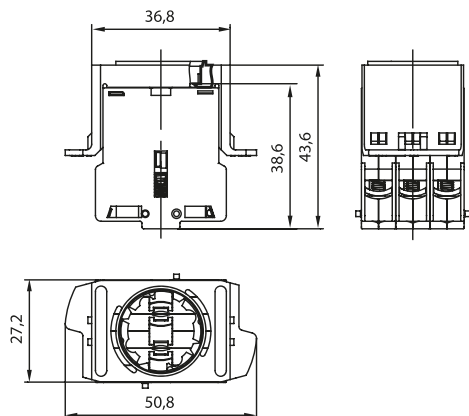
KE contact element with 2 N.C. contacts / failure protection / illumination



2 x 879901
1 x 879902
1 x 879903

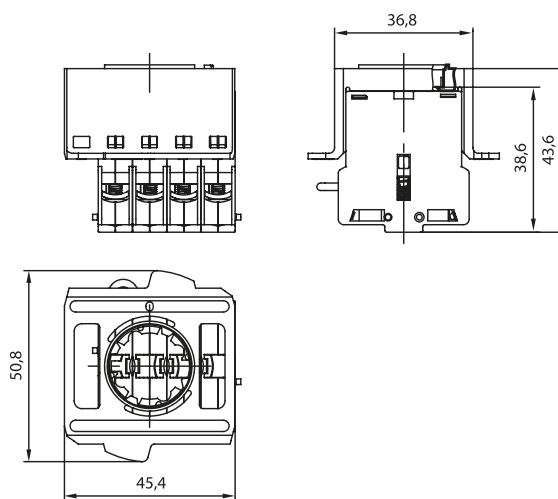
IMAGE 2/3

**KE contact element with 2 N.C. con-
tacts / 1 N.O. contact**



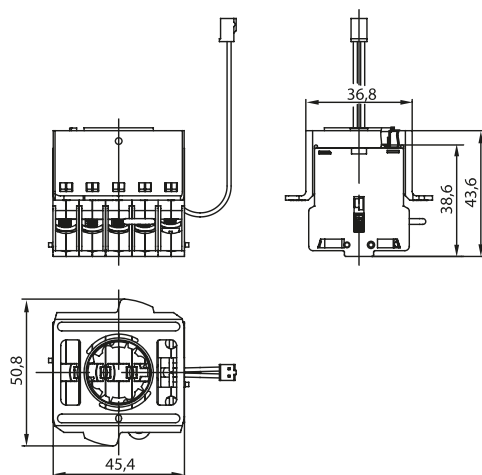
1 x 879900
2 x 879901

**KE contact element with 2 N.C. contacts /
1 N.O. contact / failure protection**



1 x 879900
2 x 879901
1 x 879902

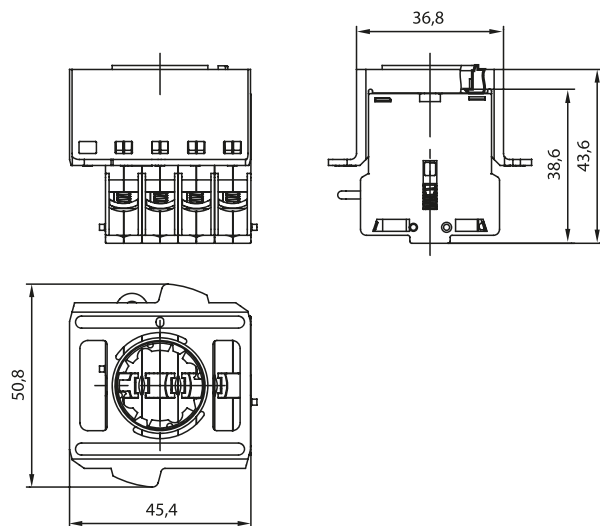
KE contact element with 2 N.C. contacts / 1 N.O. contact / failure protection / illumination



1 x 879900
2 x 879901
1 x 879902
1 x 879903

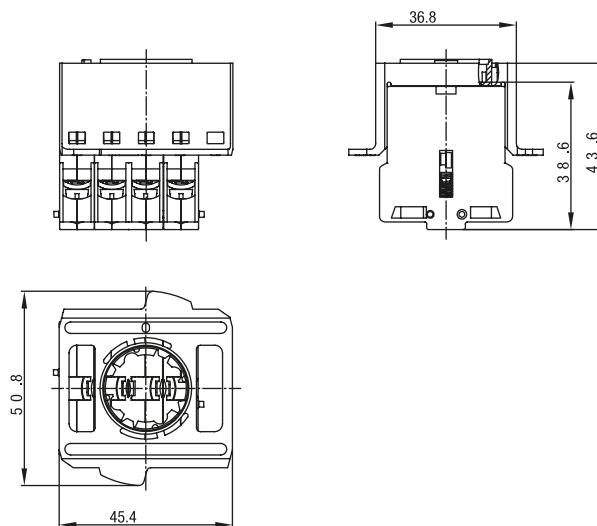
IMAGE 3/3

**KE contact element with 3 N.C. contacts /
failure protection**



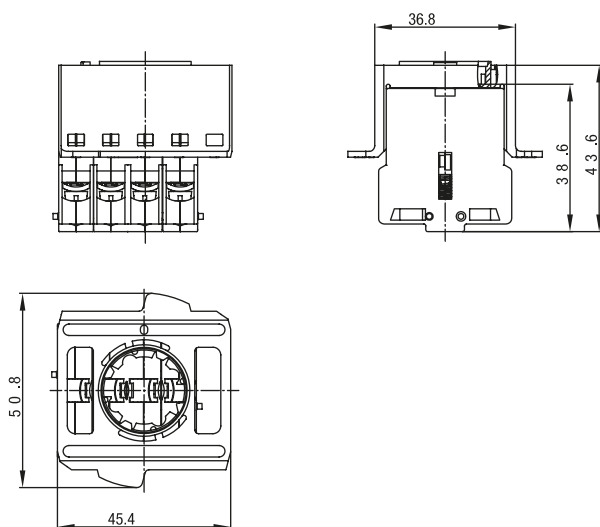
3 x 879901
1 x 879902

**KE contact element with 3 N.C. contacts /
1 N.O. contact**



1 x 879900
3 x 879901

KE contact element with 4 N.C. contacts



4 x 879901

Product options

IMAGE 1/1

ORDERING KEY

| KE | | | Contact element with frame |
|----|----|-----|---|
| | | | Number and type of contact elements |
| | 10 | | 1 N.C. |
| | 20 | | 2 N.C. |
| | 20 | SF | 2 N.C. / failure protection |
| | 20 | SFB | 2 N.C. / failure protection / illumination |
| | 21 | | 2 N.C. / 1 N.O. |
| | 21 | SF | 2 N.C. / 1 N.O. / failure protection |
| | 21 | SFB | 2 N.C. / 1 N.O. / failure protection / illumination |
| | 30 | SF | 3 N.C. / failure protection |
| | 31 | | 3 N.C. / 1 N.O. |
| | 40 | | 4 N.C. |
| | | | |
| | | | Other contact elements on request |

Article characteristics

| Attribute | KE10 | KE20 | KE20SF | KE20SFB | KE21 | KE21SF ▶ |
|---|---|------|--------|--|--------|----------|
| Min. switching voltage | 5 V DC | | | 12 V DC | 5 V DC | |
| Min. switching voltage | 5 V AC | | | 12 V AC | 5 V AC | |
| Min. switching current | 0.01 A | | | | | |
| Conv. thermal continuous current Ith | 16 A | | | | | |
| Bounce time | 10 ms | | | | | |
| Utilization category | AC15 A600 / DC13 Q600 | | | | | |
| Rated operating current (Ie) | 3000 / 1600 ; 120 / 200 / 400 / 2000 mA | | | | | |
| Rated operating voltage (Ue) | 240 / 440 ; 440 / 250 / 125 / 60 / 24 V | | | | | |
| Rated insulation voltage (Ui) | 600 V | | | | | |
| Rated voltage Ue | 250 VAC / 440 VAC | | | | | |
| Rated current Ie (ohmic load) | 16 A / 10 A | | | | | |
| Rated current Ie (inductive load) | 10 A / 6 A | | | | | |
| Protection class | II | | | | | |
| Operating voltage max. | - | | | 30 V DC | - | |
| Operating voltage max. | - | | | 30 V AC | - | |
| LED service life | - | | | 100000 (T=25°C, I=20mA) 70000 (T=55°C, I=20mA) h | - | |
| Service life, electrical at nominal load (Cycles) | 1000000 | | | | | |
| Illumination | No | | | Yes | No | |
| Number of safety contacts (positively opening) | 1 | 2 | | | | |
| Number of signalling contacts (N.O.) | 0 | | | | 1 | |
| Failure protection | no | | yes | | no | yes |
| Actuation path | 6 mm | | | | | |
| Max. switching current | - | | | 0.04 A | - | |
| Max. contact resistance | 0.02 Ohm | | | | | |
| Operating voltage min. | - | | | 12 V DC | - | |
| Operating voltage min. | - | | | 12 V AC | - | |

Article characteristics

| Attribute | KE10 | KE20 | KE20SF | KE20SFB | KE21 | KE21SF ▶ |
|-----------------------------------|--|------|--------|--|-------------------------------|-------------------------------|
| Max. switching voltage | - | | | 30 V DC | - | |
| Max. switching voltage | - | | | 30 V AC | - | |
| B10d acc. to EN ISO 13849-1 | 180000 | | | | | |
| Service life, mechanical (Cycles) | 1 x 10^6 | | | | | |
| Dimensions | 43,6 x 50,8 x 27,3 mm (H/B/T) | | | 43,6 x 50,8 x 45,4 mm (H/B/T) | 43,6 x 50,8 x 27,3 mm (H/B/T) | 43,6 x 50,8 x 45,4 mm (H/B/T) |
| Positive opening path | 3 mm | | | | | |
| Contact material | AgNi | | | | | |
| Operating temperature min. | -30 °C | | | | | |
| Max. operating temperature | 85 °C | | | 65 °C | 85 °C | |
| Min. storage temperature | -50 °C | | | | | |
| Max. storage temperature | 85 °C | | | | | |
| Mounting type | inserted/latched | | | | | |
| Installation | from below | | | | | |
| Connection type | - | | | 10cm Litze und Stecker für Beleuchtung | - | |
| Screw terminals | yes | | | | | |
| Max. connection cross section | 2.5 mm² | | | | | |
| Wire cross section | - | | | 0.25 mm² | - | |
| Certified in accordance with | EN 60947-5-5 EN 60947-5-1 EN ISO 13850 UL 508 / CSA 22.2 | | | | | |
| CE label | yes | | | | | |

Article characteristics

| Attribute | KE21SFB | KE30SF | KE31 | KE40 |
|---|---|---|------|------|
| Min. switching voltage | 12 V DC | 5 V DC | | |
| Min. switching voltage | 12 V AC | 5 V AC | | |
| Min. switching current | 0.01 A | | | |
| Conv. thermal continuous current Ith | 16 A | | | |
| Bounce time | 10 ms | | | |
| Utilization category | AC15 A600 / DC13 Q600 | | | |
| Rated operating current (Ie) | 3000 / 1600 120 / 200 / 400 / 2000 mA | 3000 / 1600 ; 120 / 200 / 400 / 2000 mA | | |
| Rated operating voltage (Ue) | 240 / 440 440 / 250 / 125 / 60 / 24 V | 240 / 440 ; 440 / 250 / 125 / 60 / 24 V | | |
| Rated insulation voltage (Ui) | 600 V | | | |
| Rated voltage Ue | 250 VAC / 440 VAC | | | |
| Rated current Ie (ohmic load) | 16 A / 10 A | | | |
| Rated current Ie (inductive load) | 10 A / 6 A | | | |
| Protection class | III | II | | |
| Operating voltage max. | 30 V DC | - | | |
| Operating voltage max. | 30 V AC | - | | |
| LED service life | 100000 (T=25°C, I=20mA)70000 (T=55°C, I=20mA) h | - | | |
| Service life, electrical at nominal load (Cycles) | 1000000 | | | |
| Illumination | Yes | No | | |
| Number of safety contacts (positively opening) | 2 | 3 | | 4 |
| Number of signalling contacts (N.O.) | 1 | 0 | 1 | 0 |
| Failure protection | yes | | no | |
| Actuation path | 6 mm | | | |
| Max. switching current | 0.04 A | - | | |
| Max. contact resistance | 0.02 Ohm | | | |
| Operating voltage min. | 12 V DC | - | | |
| Operating voltage min. | 12 V AC | - | | |
| Max. switching voltage | 30 V DC | - | | |

Article characteristics

| Attribute | KE21SFB | KE30SF | KE31 | KE40 |
|-----------------------------------|--|--------|------|------|
| Max. switching voltage | 30 V AC | - | | |
| B10d acc. to EN ISO 13849-1 | 180000 | | | |
| Service life, mechanical (Cycles) | 1 x 10^6 | | | |
| Dimensions | 43,6 x 50,8 x 45,4 mm (H/B/T) | | | |
| Positive opening path | 3 mm | | | |
| Contact material | AgNi | | | |
| Operating temperature min. | -30 °C | | | |
| Max. operating temperature | 65 °C | 85 °C | | |
| Min. storage temperature | -50 °C | | | |
| Max. storage temperature | 85 °C | | | |
| Mounting type | inserted/latched | | | |
| Installation | from below | | | |
| Connection type | 10cm Litze und Stecker für Beleuchtung | - | | |
| Screw terminals | yes | | | |
| Max. connection cross section | 2.5 mm² | | | |
| Wire cross section | 0.25 mm² | - | | |
| Certified in accordance with | EN 60947-5-5 EN 60947-5-1 EN ISO 13850 UL 508 / CSA 22.2 | | | |
| CE label | yes | | | |