



## Safety sensor 171

The most common version on the market: magnetically actuated safety sensors in M30 housing. The large number of variants available from elobau provide solutions for almost all applications.

### Technical specifications

- Protection class IP6K9K ideal for wash down applications
- Available connection types: cable outlet and M12 housing connector
- Simple diagnosis through optional LED and control contact

### Technical drawing

IMAGE 1/3

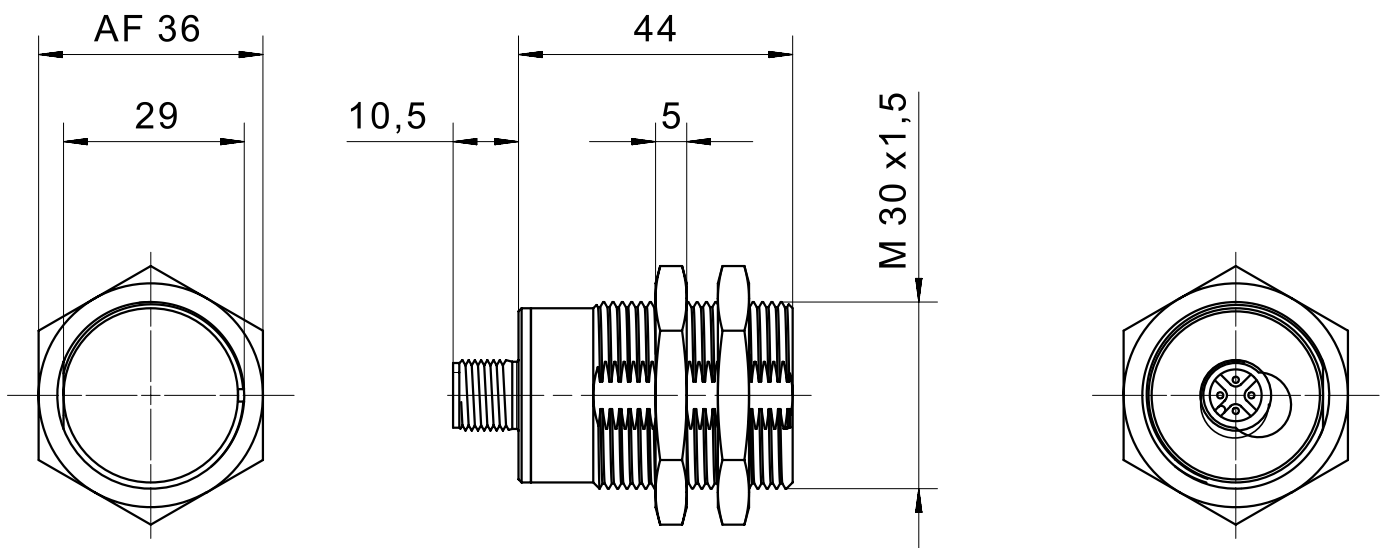
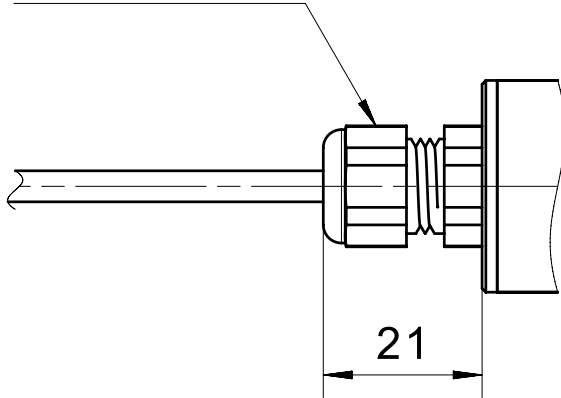
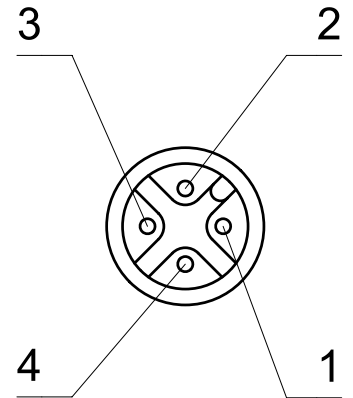


IMAGE 2/3

cable gland  
plastic



male M12



cable gland  
stainless steel

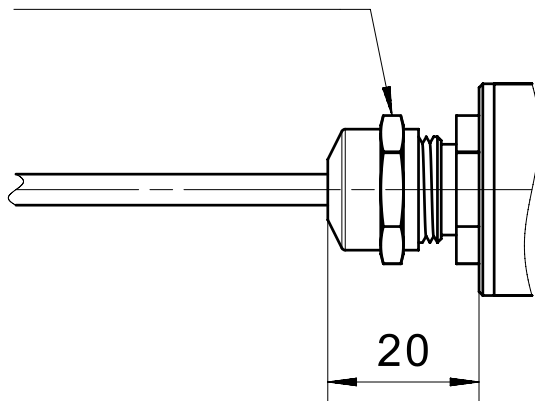
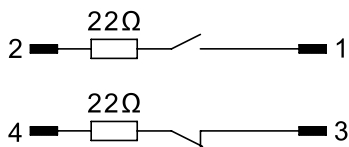
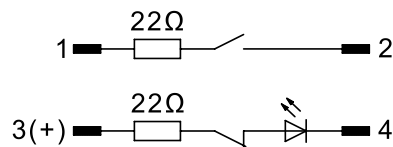


IMAGE 3/3

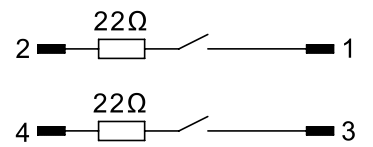
171271VY..



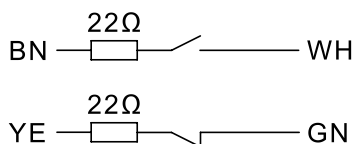
171271VZ



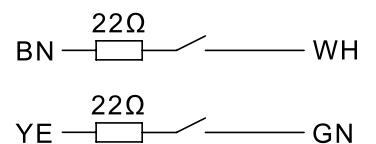
171V62VY..



171271V, 171271W

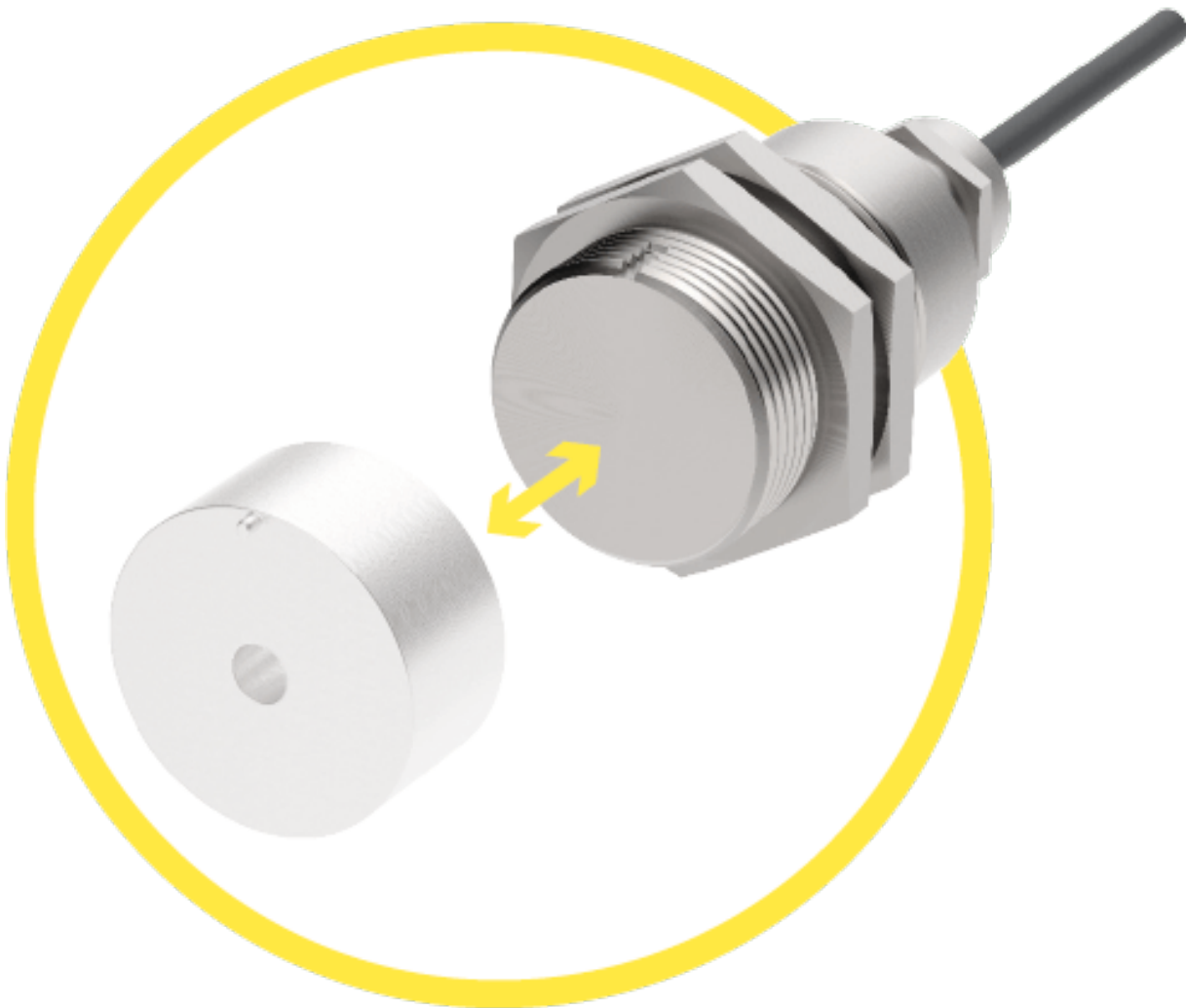


171V62V, 171V62W



## Product options

IMAGE 1/3



Suitable for front actuation. Offset with magnet system (coded) 304 200 00: max. 2 mm. Assured switching distance (Sao) of 4 mm with standard actuators, 7 mm with extended-range actuators. Assured switch-off distance (Sar) of 17 mm with standard actuators, of 23 mm with extended-range actuators.

IMAGE 2/3

## ORDERING KEY

|  | 171V62V | 171V62VY | 171V62VY01 | 171V62W | 171271V |
|--|---------|----------|------------|---------|---------|
| <b>Stainless steel housing M30</b>                 | X       | X        | X          | X       | X       |
| <b>Plastic cable gland</b>                         | X       | -        | -          | -       | X       |
| <b>Nickel-plated brass cable gland</b>             | -       | -        | -          | -       | -       |
| <b>Stainless steel cable gland</b>                 | -       | -        | -          | X       | -       |
| <b>M12x1 connector, 4-pin, plastic</b>             | -       | -        | -          | -       | -       |
| <b>M12x1 connector, 4-pin, nickel-plated brass</b> | -       | X        | -          | -       | -       |
| <b>M12x1 connector, 4-pin, stainless steel</b>     | -       | -        | X          | -       | -       |
| <b>Connection cable 1m*</b>                        | X       | -        | -          | X       | X       |
| <b>N.O./N.O. contacts</b>                          | X       | X        | X          | X       | -       |
| <b>N.O./N.C. contacts</b>                          | -       | -        | -          | -       | X       |
| <b>LED in series to N.C.</b>                       | -       | -        | -          | -       | -       |
| <b>Coded</b>                                       | X       | X        | X          | X       | X       |
| <b>Uncoded</b>                                     | -       | -        | -          | -       | -       |

|  | 171271VY01 | 171271VY03 | 171271VZ | 171271W |  |
|--|------------|------------|----------|---------|--|
| <b>Stainless steel housing M30</b>                 | X          | X          | X        | X       |  |
| <b>Plastic cable gland</b>                         | -          | -          | -        | -       |  |
| <b>Nickel-plated brass cable gland</b>             | -          | -          | -        | -       |  |
| <b>Stainless steel cable gland</b>                 | -          | -          | -        | X       |  |
| <b>M12x1 connector, 4-pin, plastic</b>             | -          | -          | X        | -       |  |
| <b>M12x1 connector, 4-pin, nickel-plated brass</b> | X          | -          | -        | -       |  |
| <b>M12x1 connector, 4-pin, stainless steel</b>     | -          | X          | -        | -       |  |
| <b>Connection cable 1m*</b>                        | -          | -          | -        | X       |  |
| <b>N.O./N.O. contacts</b>                          | -          | -          | -        | -       |  |
| <b>N.O./N.C. contacts</b>                          | X          | X          | X        | X       |  |
| <b>LED in series to N.C.</b>                       | -          | -          | X        | -       |  |
| <b>Coded</b>                                       | X          | X          | X        | X       |  |
| <b>Uncoded</b>                                     | -          | -          | -        | -       |  |

\* Other cable lengths, cable materials and connector types on request

IMAGE 3/3

## MATCHING ACTUATORS

|                               |       | S <sub>0 min</sub> | S <sub>ao</sub> | S <sub>ar</sub> | S <sub>0 min</sub> | S <sub>ao</sub> | S <sub>ar</sub> | S <sub>0 min</sub> | S <sub>ao</sub> | S <sub>ar</sub> | S <sub>0 min</sub> | S <sub>ao</sub> | S <sub>ar</sub> | S <sub>0 min</sub> | S <sub>ao</sub> | S <sub>ar</sub> |
|-------------------------------|-------|--------------------|-----------------|-----------------|--------------------|-----------------|-----------------|--------------------|-----------------|-----------------|--------------------|-----------------|-----------------|--------------------|-----------------|-----------------|
| <b>304 200 00/..V/..H</b>     | front | 0,5                | 4               | 16              | 0,5                | 3               | 16              | 0,5                | 4               | 16              | 0,5                | 4               | 12              | 0,5                | 4               | 16              |
| <b>304 200 00 S/..VS/..SH</b> |       | 3                  | 7               | 20              | 3                  | 7               | 20              | 3                  | 7               | 23              | 3                  | 6               | 20              | 3                  | 7               | 23              |

S<sub>0 min</sub> = minimum switching distance (mm), S<sub>ao</sub> = operating distance (mm), S<sub>ar</sub> = assured switch-off distance (mm)

## Article characteristics

| Attribute                           | 171V62VY    | 171V62VY01 | 171V62W | 171271V | 171271VY01 | 171271VY03 ▶ |
|-------------------------------------|-------------|------------|---------|---------|------------|--------------|
| Min. switching voltage              | 19.2 V DC   |            |         |         |            |              |
| Max. switching voltage              | 28.8 V DC   |            |         |         |            |              |
| Max. switching current              | 0.1 A       |            |         |         |            |              |
| Max. switching current with LED     | -           |            |         |         |            |              |
| Max. switching power                | 3 W         |            |         |         |            |              |
| Switching frequency                 | 5 Hz        |            |         |         |            |              |
| Assured switching distance (Sao)    | 3.5 mm      |            |         | 4 mm    |            |              |
| Assured switch-off distance (Sar)   | 16 mm       |            |         |         |            |              |
| Minimum switching distance (S0 min) | 0.5 mm      |            |         |         |            |              |
| LED display                         | No          |            |         |         |            |              |
| Actuation                           | front       |            |         |         |            |              |
| Switching principle                 | magnetic    |            |         |         |            |              |
| Series resistor                     | 22 Ohm      |            |         |         |            |              |
| Technology                          | Reed        |            |         |         |            |              |
| Contact form                        | NO/NO       |            |         | NO/NC   |            |              |
| Pollution degree                    | 3           |            |         |         |            |              |
| Protection class                    | III         |            |         |         |            |              |
| Min. switching voltage with LED     | -           |            |         |         |            |              |
| Max. switching voltage with LED     | -           |            |         |         |            |              |
| Coding acc. to EN ISO 14119         | Low         |            |         |         |            |              |
| B10d acc. to EN ISO 13849-1         | 20000000    |            |         |         |            |              |
| Type acc. to EN ISO 14119           | 4           |            |         |         |            |              |
| Mission time in years               | 20 a        |            |         |         |            |              |
| Structure acc. to EN ISO 13849-1    | Two-channel |            |         |         |            |              |
| Housing design                      | cylindrical |            |         |         |            |              |
| Dimensions                          | M30 x 44 mm |            |         |         |            |              |

## Article characteristics

| Attribute   | 171V62VY                  | 171V62VY01                                     | 171V62W                                  | 171271V   | 171271VY01        | 171271VY03 ▶      |
|---|---------------------------|--|--|---|-------------------|-------------------|
| Minimum installation distance (between two sensors) | 50 mm                     |  |  |   | -                 | 50 mm             |
| cannot be mounted flush                             | yes                       |  |  |   |                   |                   |
| Detent present                                      | no                        |  |  |   |                   |                   |
| Housing material                                    | Edelstahl                 | Edelstahl ,<br>Kabelverschraubung<br>Edelstahl |  | Edelstahl ,<br>Kabelverschraubung<br>Kunststoff | Edelstahl         |                   |
| Cable material                                      | -                         |  | PVC                                      |   | -                 |                   |
| Nut material  | Edelstahl                 |  |  |   |                   |                   |
| Housing colour                                      | silber                    |  |  |   |                   |                   |
| Protection class                                    | IP67 DIN EN 60529         | IP68 DIN EN 60529                              | IP69K DIN 40050 - IP68 5bar DIN EN 60529 |   | IP67 DIN EN 60529 | IP68 DIN EN 60529 |
| Protection class, connector                         | IP67 / IP69K DIN EN 60529 | IP68 DIN EN 60529                              | -  |   | IP67 DIN EN 60529 | IP68 DIN EN 60529 |
| Operating temperature min.                          | -25 °C                    |  |  |   |                   |                   |
| Max. operating temperature                          | 75 °C                     |  |  |   |                   |                   |
| Min. cable temperature range, moving                | -                         |  | -5 °C                                    |   | -                 |                   |
| Max. cable temperature range, moving                | -                         |  | 70 °C                                    |   | -                 |                   |
| Min. cable temperature range, fixed installation    | -                         |  | -25 °C                                   |   | -                 |                   |
| Max. cable temperature range, fixed installation    | -                         |  | 70 °C                                    |   | -                 |                   |
| Shock resistance (Norm)                             | 30g / 11ms                |  |  |   |                   |                   |
| Vibration resistance (Norm)                         | 10 - 55Hz                 |  |  |   |                   |                   |
| Min. storage temperature                            | -25 °C                    |  |  |   |                   |                   |
| Max. storage temperature                            | 75 °C                     |  |  |   |                   |                   |
| Mounting type                                       | Fastening nut             |  |  |   |                   |                   |
| Thread  | M30                       |  |  |   |                   |                   |
| Torque for nuts                                     | 50 N m                    |  |  |   |                   |                   |
| Installation  | arbitrary                 |  |  |   |                   |                   |
| Connector type                                      | M12x1 - 4 polig           |  | -  |   | M12x1 - 4 polig   |                   |
| Cable length  | -                         |  | 1 m                                      |   | -                 |                   |
| Number of strands                                   | -                         |  | 4  |   | -                 |                   |

#### Article characteristics

| Attribute                    | 171V62VY | 171V62VY01 | 171V62W     | 171271V | 171271VY01 | 171271VY03 ▶ |
|------------------------------|----------|------------|-------------|---------|------------|--------------|
| Wire cross section           | -        |            | 0.25 mm²    |         | -          |              |
| Cable type                   | -        |            | LiYY 4x0,25 |         | -          |              |
| Cable colour                 | -        |            | grau        |         | -          |              |
| Certified in accordance with | CE       |            |             | ETL     | -          | CE           |
| CE label                     | yes      |            |             |         |            |              |
| Possible actuators           | 30420000 |            |             |         |            |              |

## Article characteristics

| Attribute   | 171271VZ        | 171271W   | 171V62V | BA_171V62VY | BA_171V62VY01 | 171..._Vorlage  |
|---|-----------------|-----------|---------|-------------|---------------|-----------------|
| Min. switching voltage                              | -               | 19.2 V DC |         |             |               |                 |
| Max. switching voltage                              | -               | 28.8 V DC |         |             |               |                 |
| Max. switching current                              | -               | 0.1 A     |         |             |               |                 |
| Max. switching current with LED                     | 0.02 A          | -         |         |             |               | 0.02 A          |
| Max. switching power                                | 3 W             |           |         |             |               |                 |
| Switching frequency                                 | 5 Hz            |           |         |             |               |                 |
| Assured switching distance (Sao)                    | 4 mm            |           |         |             |               |                 |
| Assured switch-off distance (Sar)                   | 17 mm           | 16 mm     |         |             |               |                 |
| Minimum switching distance (S0 min)                 | 0.5 mm          |           |         |             |               |                 |
| LED display   | single-coloured | No        |         |             |               | single-coloured |
| Actuation   | front           |           |         |             |               |                 |
| Switching principle                                 | magnetic        |           |         |             |               |                 |
| Series resistor                                     | 22 Ohm          |           |         |             |               |                 |
| Technology  | Reed            |           |         |             |               |                 |
| Contact form  | NO/NC           |           | NO/NO   |             |               | NO/NC           |
| Pollution degree                                    | 3               |           |         |             |               |                 |
| Protection class                                    | III             |           |         |             |               |                 |
| Min. switching voltage with LED                     | 2.7 V DC        | -         |         |             |               |                 |
| Max. switching voltage with LED                     | 28.8 V DC       | -         |         |             |               |                 |
| Coding acc. to EN ISO 14119                         | Low             |           |         |             |               |                 |
| B10d acc. to EN ISO 13849-1                         | 20000000        |           |         |             |               | 4000000         |
| Type acc. to EN ISO 14119                           | 4               |           |         |             |               |                 |
| Mission time in years                               | 20 a            |           |         |             |               |                 |
| Structure acc. to EN ISO 13849-1                    | Two-channel     |           |         |             |               |                 |
| Housing design                                      | cylindrical     |           |         |             |               |                 |
| Dimensions  | M30 x 44 mm     |           |         |             |               |                 |
| Minimum installation distance (between two sensors) | -               | 50 mm     |         |             |               | -               |
| cannot be mounted flush                             | yes             |           |         |             |               |                 |

## Article characteristics

| Attribute  | 171271VZ          | 171271W  | 171V62V   | BA_171V62VY               | BA_171V62VY01     | 171..._Vorlage    |
|--|-------------------|--|---|---------------------------|-------------------|-------------------|
| Detent present                                   | no                |  |   |                           |                   |                   |
| Housing material                                 | Edelstahl         | Edelstahl ,<br>Kabelverschraubung<br>Edelstahl | Edelstahl ,<br>Kabelverschraubung<br>Kunststoff | Edelstahl                 |                   |                   |
| Cable material                                   | -                 | PVC  |   | -                         |                   |                   |
| Nut material                                     | Edelstahl         |  |   |                           |                   |                   |
| Housing colour                                   | silber            |  |   |                           |                   |                   |
| Protection class                                 | IP67 DIN EN 60529 | IP69K DIN 40050 - IP68 5bar DIN EN 60529       |   | IP67 DIN EN 60529         | IP68 DIN EN 60529 | IP67 DIN EN 60529 |
| Protection class, connector                      | IP67 DIN EN 60529 | -  |   | IP67 / IP69K DIN EN 60529 | IP68 DIN EN 60529 | IP67 DIN EN 60529 |
| Operating temperature min.                       | -25 °C            |  |   |                           |                   |                   |
| Max. operating temperature                       | 75 °C             |  |   |                           |                   |                   |
| Min. cable temperature range, moving             | -                 | -5 °C  |   | -                         |                   |                   |
| Max. cable temperature range, moving             | -                 | 70 °C  |   | -                         |                   |                   |
| Min. cable temperature range, fixed installation | -                 | -25 °C   |   | -                         |                   |                   |
| Max. cable temperature range, fixed installation | -                 | 70 °C  |   | -                         |                   |                   |
| Shock resistance (Norm)                          | 30g / 11ms        |  |   |                           |                   |                   |
| Vibration resistance (Norm)                      | 10 - 55Hz         |  |   |                           |                   |                   |
| Min. storage temperature                         | -25 °C            |  |   |                           |                   |                   |
| Max. storage temperature                         | 75 °C             |  |   |                           |                   |                   |
| Mounting type                                    | Fastening nut     |  |   |                           |                   |                   |
| Thread   | M30               |  |   |                           |                   |                   |
| Torque for nuts                                  | 50 N m            |  |   |                           |                   |                   |
| Installation                                     | arbitrary         |  |   |                           |                   |                   |
| Connector type                                   | M12x1 - 4 polig   | -  |   | M12x1 - 4 polig           |                   |                   |
| Cable length                                     | -                 | 1 m  |   | -                         |                   |                   |
| Number of strands                                | -                 | 4  |   | -                         |                   |                   |
| Wire cross section                               | -                 | 0.25 mm²                                       |   | -                         |                   |                   |
| Cable type                                       | -                 | LiYY 4x0,25                                    |   | -                         |                   |                   |
| Cable colour                                     | -                 | grau   |   | -                         |                   |                   |
| Certified in accordance with                     | -                 | CE   |   |                           |                   | -                 |
| CE label   | yes               |  |   |                           |                   |                   |

#### Article characteristics

| Attribute          | 171271VZ | 171271W | 171V62V | BA_171V62VY | BA_171V62VY01 | 171..._Vorlage |
|--------------------|----------|---------|---------|-------------|---------------|----------------|
| Possible actuators | 30420000 |         |         |             |               |                |