



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

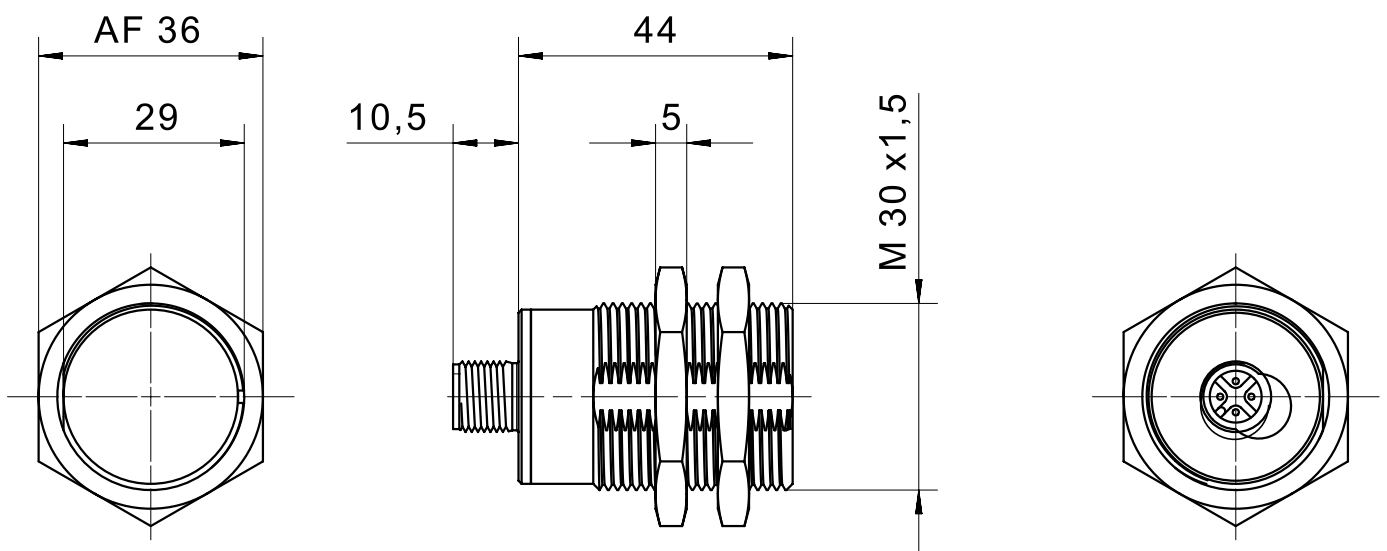
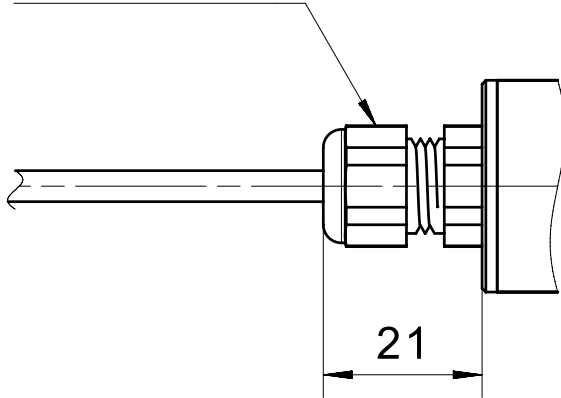
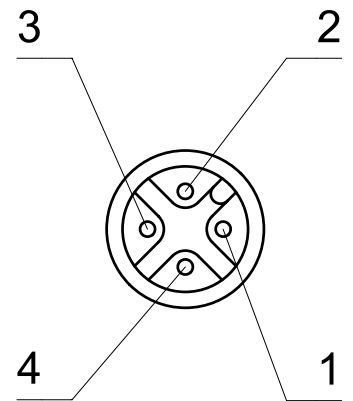


IMAGE 2/3

cable gland
plastic



male M12



cable gland
stainless steel

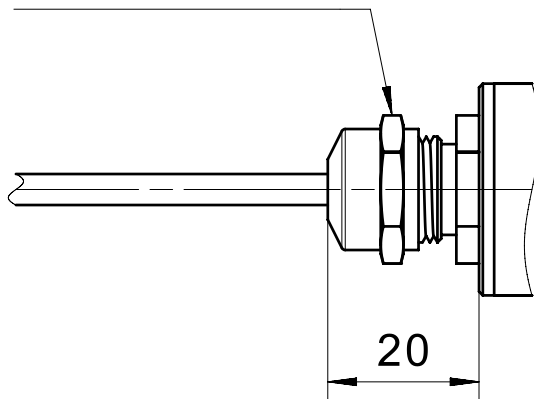
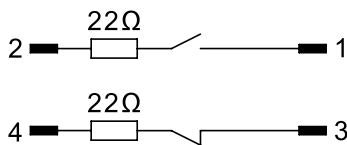
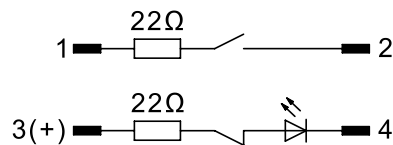


IMAGE 3/3

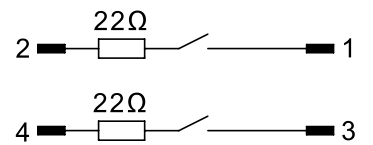
171271VY..



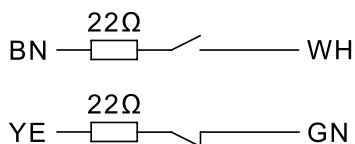
171271VZ



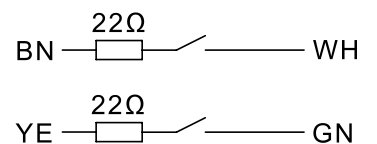
171V62VY..



171271V, 171271W

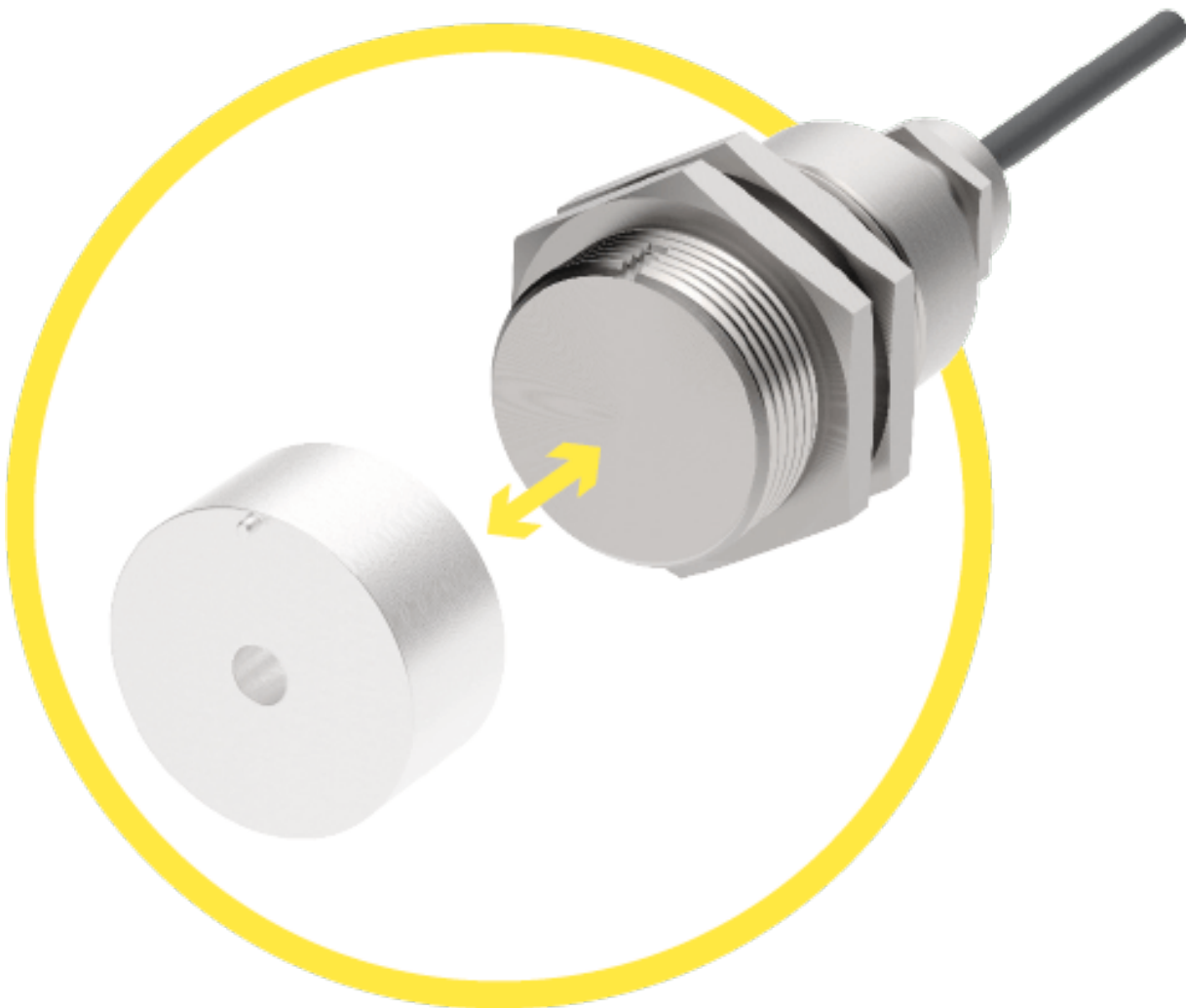


171V62V, 171V62W



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

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

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

IMAGE 3/3

MATCHING ACTUATORS

| Actuators | Actuation direction | 171V62VY.. | | | 171262V.. | | | 171271V.. 171271W.. | | | 171271VY02 | | | 171271V05 | | |
|-------------------------------|---------------------|--------------------|-----------------|-----------------|--------------------|-----------------|-----------------|------------------------|-----------------|-----------------|--------------------|-----------------|-----------------|--------------------|-----------------|-----------------|
| | | S _{0 min} | S _{ao} | S _{ar} | S _{0 min} | S _{ao} | S _{ar} | S _{0 min} | S _{ao} | S _{ar} | S _{0 min} | S _{ao} | S _{ar} | S _{0 min} | S _{ao} | S _{ar} |
| 304 200 00/..V/..H | front | 0,5 | 4 | 16 | 0,5 | 3 | 16 | 0,5 | 4 | 16 | 0,5 | 4 | 12 | 0,5 | 4 | 16 |
| 304 200 00 S/..VS/..SH | | 3 | 7 | 20 | 3 | 7 | 20 | 3 | 7 | 23 | 3 | 6 | 20 | 3 | 7 | 23 |

S_{0 min} = minimum switching distance (mm), S_{ao} = operating distance (mm), S_{ar} = 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 | | | | | |
| Minimum installation distance (between two sensors) | 50 mm | | | | - | 50 mm |

| Attribute | 171V62VY | 171V62VY01 | 171V62W | 171271V | 171271VY01 | 171271VY03 ▶ |
|---|------------------------------|----------------------|--|---|----------------------|----------------------|
| cannot be mounted flush | yes | | | | | |
| Detent present | no | | | | | |
| Housing material | Edelstahl | | Edelstahl , Kabelverschraubung Edelstahl | Edelstahl , Kabelverschraubung 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 | | - | |
| Wire cross section | - | | 0.25 mm² | | - | |
| Cable type | - | | LiYY 4x0,25 | | - | |
| Cable colour | - | | grau | | - | |

| Attribute | 171V62VY | 171V62VY01 | 171V62W | 171271V | 171271VY01 | 171271VY03 ▶ |
|------------------------------|----------|------------|---------|---------|------------|--------------|
| Certified in accordance with | CE | | | ETL | - | CE |
| CE label | yes | | | | | |
| Possible actuators | 30420000 | | | | | |

| 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 | | | | | |

| Attribute | 171271VZ | 171271W | 171V62V | BA_171V62VY | BA_171V62VY01 | 171..._Vorlage ▶ |
|---|----------------------|--|---|------------------------------|----------------------|----------------------|
| Detent present | no | | | | | |
| Housing material | Edelstahl | Edelstahl , Kabelverschraubung Edelstahl | Edelstahl , Kabelverschraubung 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 | | | | - |

| Attribute | 171271VZ | 171271W | 171V62V | BA_171V62VY | BA_171V62VY01 | 171..._Vorlage ▶ |
|--------------------|----------|---------|---------|-------------|---------------|------------------|
| CE label | yes | | | | | |
| Possible actuators | 30420000 | | | | | |

| Attribute | EDBA_171V62VY | EDBA_171V62VY01 | ED171..._Vorlage | ED171V62V | ED171V62VY | ED171V62VY01 ▶ |
|---|---------------|-----------------|------------------|-----------|------------|----------------|
| Min. switching voltage | | | | - | | |
| Max. switching voltage | | | | - | | |
| Max. switching current | | | | - | | |
| Max. switching current with LED | | | | - | | |
| Max. switching power | | | | - | | |
| Switching frequency | | | | - | | |
| Assured switching distance (Sao) | | | | - | | |
| Assured switch-off distance (Sar) | | | | - | | |
| Minimum switching distance (SO min) | | | | - | | |
| LED display | | | | - | | |
| Actuation | | | | - | | |
| Switching principle | | | | - | | |
| Series resistor | | | | - | | |
| Technology | | | | - | | |
| Contact form | | | | - | | |
| Pollution degree | | | | - | | |
| Protection class | | | | - | | |
| Min. switching voltage with LED | | | | - | | |
| Max. switching voltage with LED | | | | - | | |
| Coding acc. to EN ISO 14119 | | | | - | | |
| B10d acc. to EN ISO 13849-1 | | | | - | | |
| Type acc. to EN ISO 14119 | | | | - | | |
| Mission time in years | | | | - | | |
| Structure acc. to EN ISO 13849-1 | | | | - | | |
| Housing design | | | | - | | |
| Dimensions | | | | - | | |
| Minimum installation distance (between two sensors) | | | | - | | |
| cannot be mounted flush | | | | - | | |

| Attribute | EDBA_171V62VY | EDBA_171V62VY01 | ED171..._Vorlage | ED171V62V | ED171V62VY | ED171V62VY01 ▶ |
|--|---------------|-----------------|------------------|-----------|------------|----------------|
| Detent present | | | | - | | |
| Housing material | | | | - | | |
| Cable material | | | | - | | |
| Nut material | | | | - | | |
| Housing colour | | | | - | | |
| Protection class | | | | - | | |
| Protection class, connector | | | | - | | |
| Operating temperature min. | | | | - | | |
| Max. operating temperature | | | | - | | |
| Min. cable temperature range, moving | | | | - | | |
| Max. cable temperature range, moving | | | | - | | |
| Min. cable temperature range, fixed installation | | | | - | | |
| Max. cable temperature range, fixed installation | | | | - | | |
| Shock resistance (Norm) | | | | - | | |
| Vibration resistance (Norm) | | | | - | | |
| Min. storage temperature | | | | - | | |
| Max. storage temperature | | | | - | | |
| Mounting type | | | | - | | |
| Thread | | | | - | | |
| Torque for nuts | | | | - | | |
| Installation | | | | - | | |
| Connector type | | | | - | | |
| Cable length | | | | - | | |
| Number of strands | | | | - | | |
| Wire cross section | | | | - | | |
| Cable type | | | | - | | |
| Cable colour | | | | - | | |
| Certified in accordance with | | | | - | | |
| CE label | | | | - | | |
| Possible actuators | | | | - | | |

| Attribute | ED171V62W | ED171271V | ED171271VY01 | ED171271VY03 | ED171271VZ | ED171271W |
|---|-----------|-----------|--------------|--------------|------------|-----------|
| Min. switching voltage | | | | - | | |
| Max. switching voltage | | | | - | | |
| Max. switching current | | | | - | | |
| Max. switching current with LED | | | | - | | |
| Max. switching power | | | | - | | |
| Switching frequency | | | | - | | |
| Assured switching distance (Sao) | | | | - | | |
| Assured switch-off distance (Sar) | | | | - | | |
| Minimum switching distance (S0 min) | | | | - | | |
| LED display | | | | - | | |
| Actuation | | | | - | | |
| Switching principle | | | | - | | |
| Series resistor | | | | - | | |
| Technology | | | | - | | |
| Contact form | | | | - | | |
| Pollution degree | | | | - | | |
| Protection class | | | | - | | |
| Min. switching voltage with LED | | | | - | | |
| Max. switching voltage with LED | | | | - | | |
| Coding acc. to EN ISO 14119 | | | | - | | |
| B10d acc. to EN ISO 13849-1 | | | | - | | |
| Type acc. to EN ISO 14119 | | | | - | | |
| Mission time in years | | | | - | | |
| Structure acc. to EN ISO 13849-1 | | | | - | | |
| Housing design | | | | - | | |
| Dimensions | | | | - | | |
| Minimum installation distance (between two sensors) | | | | - | | |
| cannot be mounted flush | | | | - | | |
| Detent present | | | | - | | |

| Attribute | ED171V62W | ED171271V | ED171271VY01 | ED171271VY03 | ED171271VZ | ED171271W |
|--|-----------|-----------|--------------|--------------|------------|-----------|
| Housing material | | | | - | | |
| Cable material | | | | - | | |
| Nut material | | | | - | | |
| Housing colour | | | | - | | |
| Protection class | | | | - | | |
| Protection class, connector | | | | - | | |
| Operating temperature min. | | | | - | | |
| Max. operating temperature | | | | - | | |
| Min. cable temperature range, moving | | | | - | | |
| Max. cable temperature range, moving | | | | - | | |
| Min. cable temperature range, fixed installation | | | | - | | |
| Max. cable temperature range, fixed installation | | | | - | | |
| Shock resistance (Norm) | | | | - | | |
| Vibration resistance (Norm) | | | | - | | |
| Min. storage temperature | | | | - | | |
| Max. storage temperature | | | | - | | |
| Mounting type | | | | - | | |
| Thread | | | | - | | |
| Torque for nuts | | | | - | | |
| Installation | | | | - | | |
| Connector type | | | | - | | |
| Cable length | | | | - | | |
| Number of strands | | | | - | | |
| Wire cross section | | | | - | | |
| Cable type | | | | - | | |
| Cable colour | | | | - | | |
| Certified in accordance with | | | | - | | |
| CE label | | | | - | | |
| Possible actuators | | | | - | | |