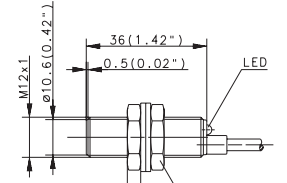
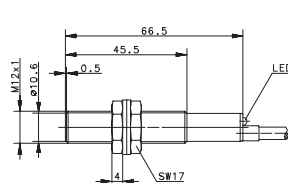
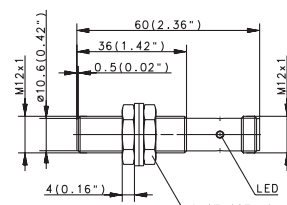
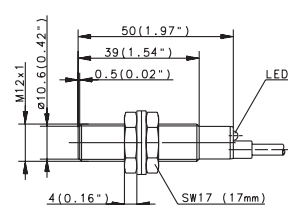
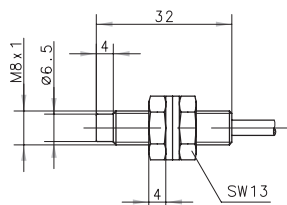


## Inductive Sensors (Type M8, M12)

| Type                     | M8        | M12       | M12       | M12           |
|--------------------------|-----------|-----------|-----------|---------------|
| Type of installation     | Non-flush | Flush     | Flush     | Flush         |
| Nominal sensing distance | 2 mm      | 2 mm      | 2 mm      | 2 mm          |
| Type of connection       | Cable 2 m | Cable 2 m | Cable 2 m | Connector M12 |
| Special feature          | NAMUR     |           |           |               |



|          |    |                                                              |                                 |                                                                        |                                                                      |
|----------|----|--------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------|
| PNP      | DC | NO contact<br>Type<br>NC contact<br>Type<br>Antivalent NO/NC | 6932903001<br>KIB-M12PS/002-KL2 | 6932943001<br>KIB-M12PS/002-KLS12<br>6602743112<br>KIB-M12PÖ/002-KLS12 | 6502903016<br>KIB-M12PS/002-KL2V<br>6502703005<br>KIB-M12PÖ/002-KL2V |
| NPN      | DC | NO contact<br>Type<br>NC contact<br>Type<br>Antivalent NO/NC | 6932303001<br>KIB-M12NS/002-KL2 | 6932343001<br>KIB-M12NS/002-KLS12                                      | 6502103003<br>KIB-M12NÖ/002-KL2V                                     |
| PNP/NPN  | DC | NO/NC prog.<br>push-pull operation                           |                                 |                                                                        |                                                                      |
| NAMUR    | DC | Type                                                         | 6501601005<br>KIN-M08EA/002-2   |                                                                        |                                                                      |
| Analogue | DC |                                                              |                                 |                                                                        |                                                                      |
| 2-wire   | DC | NO contact<br>NC contact                                     |                                 | 6503503001<br>KIB-M12AS/002-L2                                         |                                                                      |
|          | AC | NO contact<br>Type<br>NC contact<br>Changeover contact       |                                 |                                                                        |                                                                      |

### Technical data

|                                      |       |          |           |             |           |           |
|--------------------------------------|-------|----------|-----------|-------------|-----------|-----------|
| Rated operating voltage              | $U_B$ | 5–25 VDC | 10–36 VDC | 76–250 V AC | 10–36 VDC | 10–36 VDC |
| Rated operating current              | $I_B$ | –        | 200 mA    | 200 mA      | 200 mA    | 200 mA    |
| Switching frequency (max)            | F     | 1 kHz    | 800 Hz    | 10 Hz       | 800 Hz    | 800 Hz    |
| Short circuit-protection             |       | –        | Cyclic    | –           | Cyclic    | Cyclic    |
| Function/operating voltage indicator |       | –/–      | LED/–     | LED/–       | LED/–     | LED/–     |
| Sensing distance, adjustable         |       |          |           |             |           |           |

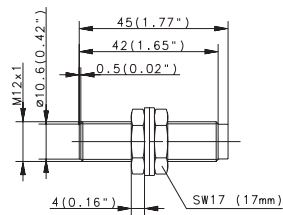
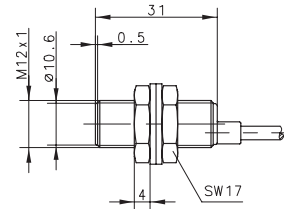
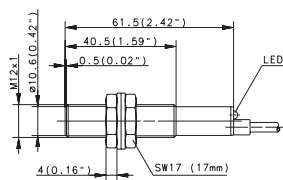
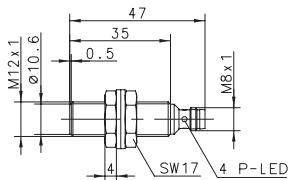
### Mechanical data

|                                                       |                          |                          |                          |             |                          |
|-------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------|--------------------------|
| Ambient temperature (min/max)                         | –25°C/+70°C              | –25°C/+70°C              | –25°C/+70°C              | –25°C/+70°C | –25°C/+70°C              |
| Protection class in accordance with IEC 529, EN 60529 | IP67                     | IP67                     | IP67                     | IP67        | IP67                     |
| Enclosure material                                    | Stainless steel 1.4305   | CuZn39Pb3                | CuZn39Pb3                | CuZn39Pb3   | CuZn39Pb3                |
| Connection                                            | 2 x 0.25 mm <sup>2</sup> | 3 x 0.14 mm <sup>2</sup> | 2 x 0.14 mm <sup>2</sup> | M12 x 1     | 3 x 0.14 mm <sup>2</sup> |

Please refer to Accessories for cable couplers, mounting brackets and sensor tester.



|              |               |           |           |
|--------------|---------------|-----------|-----------|
| M12          | M12           | M12       |           |
| Flush        | Flush         | Flush     | Flush     |
| 2 mm         | 2 mm          | 2 mm      | 2 mm      |
| Connector M8 | Connector M12 | Cable 2 m | Cable 2 m |
|              |               | 4000 Hz   | NAMUR     |



|                                    |                                                                        |                                  |  |                               |  |  |
|------------------------------------|------------------------------------------------------------------------|----------------------------------|--|-------------------------------|--|--|
| 6502943008<br>KIB-M12PS/002-KLSM8V | 6502943006<br>KIB-M12PS/002-KS12V<br>6502743005<br>KIB-M12PÖ/002-KS12V | 6502903012<br>KIB-M12PS/002-KL2F |  |                               |  |  |
|                                    |                                                                        |                                  |  |                               |  |  |
|                                    |                                                                        |                                  |  |                               |  |  |
|                                    |                                                                        |                                  |  |                               |  |  |
|                                    |                                                                        |                                  |  | 6501624760<br>KIB-M12EA/002-2 |  |  |
|                                    |                                                                        |                                  |  |                               |  |  |
|                                    |                                                                        |                                  |  |                               |  |  |

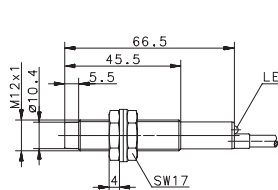
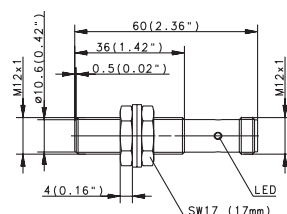
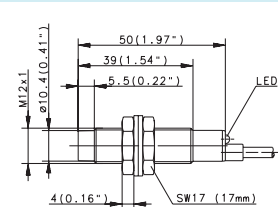
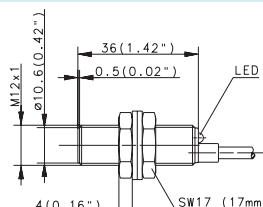
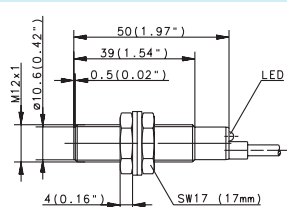
|           |           |           |          |  |
|-----------|-----------|-----------|----------|--|
| 10-30 VDC | 10-36 VDC | 10-60 VDC | 5-25 VDC |  |
| 200 mA    | 200 mA    | 200 mA    | -        |  |
| 800 Hz    | 800 Hz    | 4000 Hz   | 800 Hz   |  |
| Cyclic    | Cyclic    | Cyclic    | -        |  |
| LED/-     | -/-       | LED/-     | -/-      |  |

|             |             |              |              |  |
|-------------|-------------|--------------|--------------|--|
| -25°C/+70°C | -25°C/+70°C | -25°C/+70°C  | -25°C/+70°C  |  |
| IP67        | IP67        | IP67         | IP67         |  |
| CuZn39Pb3   | CuZn39Pb3   | CuZn39Pb3    | CuZn39Pb3    |  |
| M8 x 1      | M12 x 1     | 3 x 0.14 mm² | 2 x 0.25 mm² |  |



# Inductive Sensors (Type M12)

| Type                     | M12           |               | M12           | M12       |           |
|--------------------------|---------------|---------------|---------------|-----------|-----------|
| Type of installation     | Flush         | Flush         | Flush         | Non-flush | Non-flush |
| Nominal sensing distance | 4 mm          | 4 mm          | 4 mm          | 4 mm      | 4 mm      |
| Type of connection       | Cable 2 m     | Connector M12 | Cable 2 m     | Cable 2 m | Cable 2 m |
| Special feature          | Sensing dist. | Sensing dist. | Sensing dist. |           |           |



|          |    |                                                                |                                  |                                    |                                   |                                                                    |
|----------|----|----------------------------------------------------------------|----------------------------------|------------------------------------|-----------------------------------|--------------------------------------------------------------------|
| PNP      | DC | NO contact<br>Type<br>NC contact<br>Type<br>Antivalent NO/NC   | 6502903025<br>KIB-M12PS/004-KL2E | 6502943015<br>KIB-M12PS/004-KLS12E | 6502903023<br>KIB-M12PS/004-KL2VE | 6932904001<br>KIN-M12PS/004-KL2<br>6932704001<br>KIN-M12PÖ/004-KL2 |
| NPN      | DC | NO contact<br>Type<br>NC contact<br>Type<br>Antivalent NO/NC   |                                  |                                    |                                   | 6932304001<br>KIN-M12NS/004-KL2<br>6932104001<br>KIN-M12NÖ/004-KL2 |
| PNP/NPN  | DC | NO/NC prog.<br>push-pull operation                             |                                  |                                    |                                   |                                                                    |
| NAMUR    | DC |                                                                |                                  |                                    |                                   |                                                                    |
| Analogue | DC |                                                                |                                  |                                    |                                   |                                                                    |
| 2-wire   | DC | NO contact<br>NC contact                                       |                                  |                                    |                                   | 6503504001<br>KIN-M12AS/004-L2<br>6503404001<br>KIN-M12ÄÖ/004-L2   |
|          | AC | NO contact<br>Type<br>NC contact<br>Type<br>Changeover contact |                                  |                                    |                                   |                                                                    |

## Technical data

|                                      |       |           |           |           |           |             |
|--------------------------------------|-------|-----------|-----------|-----------|-----------|-------------|
| Rated operating voltage              | $U_B$ | 10–30 VDC | 10–36 VDC | 10–36 VDC | 10–36 VDC | 76–250 V AC |
| Rated operating current              | $I_B$ | 200 mA    | 200 mA    | 200 mA    | 200 mA    | 200 mA      |
| Switching frequency (max)            | F     | 800 Hz    | 800 Hz    | 800 Hz    | 400 Hz    | 10 Hz       |
| Short circuit-protection             |       | Cyclic    | Cyclic    | Cyclic    | Cyclic    | –           |
| Function/operating voltage indicator |       | LED/–     | LED/–     | LED/–     | LED/–     | LED/–       |
| Sensing distance, adjustable         |       |           |           |           |           |             |

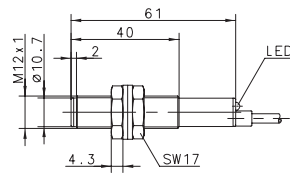
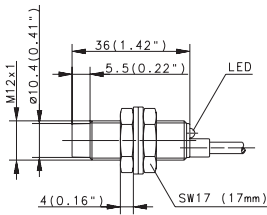
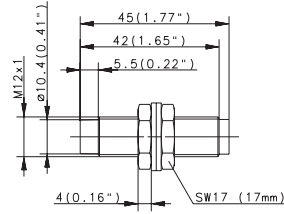
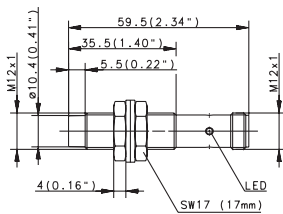
## Mechanical data

|                                                       |                          |             |                          |                          |                          |
|-------------------------------------------------------|--------------------------|-------------|--------------------------|--------------------------|--------------------------|
| Ambient temperature (min/max)                         | –25°C/+70°C              | –25°C/+70°C | –25°C/+70°C              | –25°C/+70°C              | –25°C/+70°C              |
| Protection class in accordance with IEC 529, EN 60529 | IP67                     | IP67        | IP67                     | IP67                     | IP67                     |
| Enclosure material                                    | CuZn39Pb3                | CuZn39Pb3   | CuZn39Pb3                | CuZn39Pb3                | CuZn39Pb3                |
| Connection                                            | 3 x 0.14 mm <sup>2</sup> | M12 x 1     | 3 x 0.14 mm <sup>2</sup> | 3 x 0.14 mm <sup>2</sup> | 2 x 0.14 mm <sup>2</sup> |

Please refer to Accessories for cable couplers, mounting brackets and sensor tester.



| M12               |                   | M12               |                      |  |  |
|-------------------|-------------------|-------------------|----------------------|--|--|
| Non-flush<br>4 mm | Non-flush<br>4 mm | Non-flush<br>4 mm | Non-flush<br>4 mm    |  |  |
| Connector M12     | Cable 2 m         | Connector M12     | Cable 2 m<br>Plastic |  |  |



|                                   |                                  |                                   |                                 |  |  |  |  |
|-----------------------------------|----------------------------------|-----------------------------------|---------------------------------|--|--|--|--|
| 6932944001<br>KIN-M12PS/004-KLS12 | 6502904014<br>KIN-M12PS/004-KL2V | 6502944006<br>KIN-M12PS/004-KS12V | 6502919001<br>KIN-T12PS/004-KL2 |  |  |  |  |
| 6502744003<br>KIN-M12PÖ/004-KLS12 |                                  |                                   |                                 |  |  |  |  |
| 6932344001<br>KIN-M12NS/004-KLS12 |                                  |                                   |                                 |  |  |  |  |
|                                   |                                  |                                   |                                 |  |  |  |  |
|                                   |                                  |                                   |                                 |  |  |  |  |
|                                   |                                  |                                   |                                 |  |  |  |  |

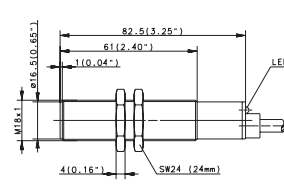
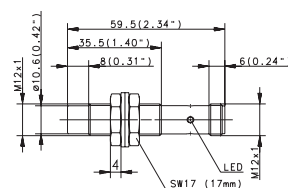
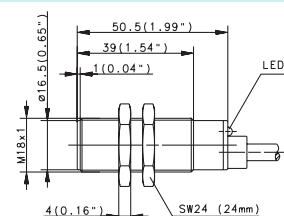
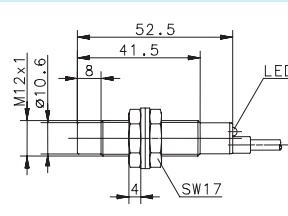
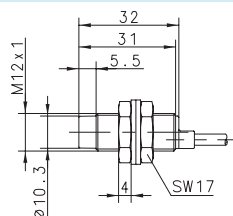
|           |           |           |           |  |  |
|-----------|-----------|-----------|-----------|--|--|
| 10-36 VDC | 10-36 VDC | 10-36 VDC | 10-30 VDC |  |  |
| 200 mA    | 200 mA    | 200 mA    | 200 mA    |  |  |
| 400 Hz    | 400 Hz    | 400 Hz    | 400 Hz    |  |  |
| Cyclic    | Cyclic    | Cyclic    | Cyclic    |  |  |
| LED/-     | LED/-     | -/-       | LED/-     |  |  |

|             |              |             |              |  |  |
|-------------|--------------|-------------|--------------|--|--|
| -25°C/+70°C | -25°C/+70°C  | -25°C/+70°C | -25°C/+70°C  |  |  |
| IP67        | IP67         | IP67        | IP67         |  |  |
| CuZn39Pb3   | CuZn39Pb3    | CuZn39Pb3   | PA, red      |  |  |
| M12 x 1     | 3 x 0.14 mm² | M12 x 1     | 3 x 0.14 mm² |  |  |



## Inductive Sensors (Type M12, M18)

| Type                     | M12       | M12           | M12           | M18       | M18       |
|--------------------------|-----------|---------------|---------------|-----------|-----------|
| Type of installation     | Non-flush | Non-flush     | Non-flush     | Flush     | Flush     |
| Nominal sensing distance | 4 mm      | 8 mm          | 8 mm          | 5 mm      | 5 mm      |
| Type of connection       | Cable 2 m | Cable 2 m     | Connector M12 | Cable 2 m | Cable 2 m |
| Special feature          | NAMUR     | Sensing dist. | Sensing dist. |           |           |



|          |    |                                                                      |                               |                                  |                                    |                                                                    |
|----------|----|----------------------------------------------------------------------|-------------------------------|----------------------------------|------------------------------------|--------------------------------------------------------------------|
| PNP      | DC | NO contact<br>Type<br>NC contact<br>Type<br>Antivalent NO/NC<br>Type |                               | 6502904021<br>KIN-M12PS/008-KL2E | 6502944013<br>KIN-M12PS/008-KLS12E | 6932905001<br>KIB-M18PS/005-KL2<br>6932705001<br>KIB-M18PÖ/005-KL2 |
| NPN      | DC | NO contact<br>Type<br>NC contact<br>Type<br>Antivalent NO/NC<br>Type |                               |                                  | 6602344458<br>KIN-M12NS/008-KLS12E | 6932105001<br>KIB-M18NÖ/005-KL2                                    |
| PNP/NPN  | DC | NO/NC prog.<br>push-pull operation                                   |                               |                                  |                                    |                                                                    |
| NAMUR    | DC | Type                                                                 | 6501625761<br>KIN-M12EA/004-2 |                                  |                                    |                                                                    |
| Analogue | DC |                                                                      |                               |                                  |                                    |                                                                    |
| 2-wire   | DC | NO contact<br>NC contact                                             |                               |                                  |                                    |                                                                    |
|          | AC | NO contact<br>Type<br>NC contact<br>Type<br>Changeover contact       |                               |                                  |                                    | 6503505004<br>KIB-M18AS/005-L2<br>6503405001<br>KIB-M18AÖ/005-L2   |

### Technical data

|                                      |       |          |           |           |           |             |
|--------------------------------------|-------|----------|-----------|-----------|-----------|-------------|
| Rated operating voltage              | $U_B$ | 5–25 VDC | 10–36 VDC | 10–36 VDC | 10–36 VDC | 20–250 V AC |
| Rated operating current              | $I_B$ | –        | 200 mA    | 200 mA    | 200 mA    | 400 mA      |
| Switching frequency (max)            | F     | 400 Hz   | 400 Hz    | 400 Hz    | 500 Hz    | 10 Hz       |
| Short circuit-protection             |       | –        | Cyclic    | Cyclic    | Cyclic    | –           |
| Function/operating voltage indicator |       | –/–      | LED/–     | LED/–     | LED/–     | LED/–       |
| Sensing distance, adjustable         |       |          |           |           |           |             |

### Mechanical data

|                                                       |                          |                          |             |                         |                         |
|-------------------------------------------------------|--------------------------|--------------------------|-------------|-------------------------|-------------------------|
| Ambient temperature (min/max)                         | –25°C/+70°C              | –25°C/+70°C              | –25°C/+70°C | –25°C/+70°C             | –25°C/+70°C             |
| Protection class in accordance with IEC 529, EN 60529 | IP67                     | IP67                     | IP67        | IP67                    | IP67                    |
| Enclosure material                                    | CuZn39Pb3                | CuZn39Pb3                | CuZn39Pb3   | CuZn39Pb3               | CuZn39Pb3               |
| Connection                                            | 2 x 0.25 mm <sup>2</sup> | 3 x 0.14 mm <sup>2</sup> | M12 x 1     | 3 x 0.5 mm <sup>2</sup> | 2 x 0.5 mm <sup>2</sup> |

Please refer to Accessories for cable couplers, mounting brackets and sensor tester.

