

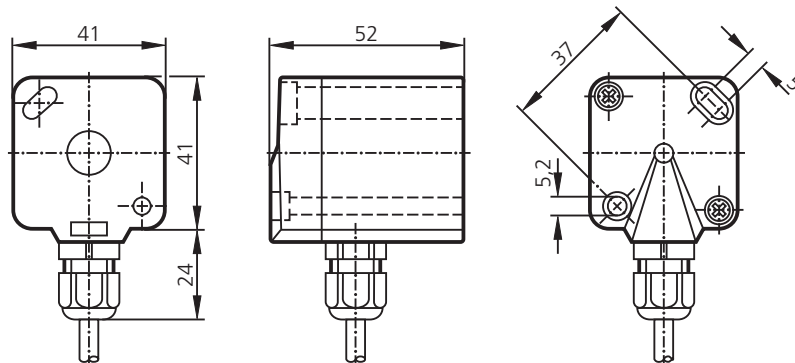
## EC2045

Inclination sensor

$\pm 90^\circ$

8 ... 30 V DC

Output 0.5 ... 4.5 V

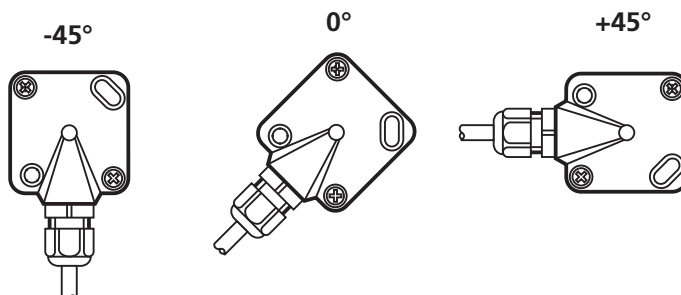


### Application

### detection of the absolute angle of inclination

|                                        |      |
|----------------------------------------|------|
| Operating voltage                      | [V]  |
| Current consumption max.               | [mA] |
| Output                                 | [V]  |
| Output function                        |      |
| Load impedance                         | [kΩ] |
| Short-circuit protection               |      |
| Reverse polarity / overload protection |      |
| Angular range ( $\alpha$ )             | [°]  |
| Zero error                             | [°]  |
| Repeatability                          | [°]  |
| Operating temperature                  | [°C] |
| Protection                             |      |
| Housing material                       |      |
| Connection                             |      |
| Wiring                                 |      |
| Mounting position                      |      |

|                                                                                             |
|---------------------------------------------------------------------------------------------|
| 8 ... 30 DC                                                                                 |
| < 35                                                                                        |
| voltage output 0.5 ... 4.5 DC                                                               |
| $U_a = 2.5 \text{ V} + \sin(\alpha) \times 2 \text{ V}$                                     |
| > 50 to signal ground at the output                                                         |
| to UB and to ground                                                                         |
| •                                                                                           |
| $\pm 90$                                                                                    |
| < $\pm 7$                                                                                   |
| (the zero error can be reduced by $\pm 4^\circ$ by adjustment of the unit)                  |
| 0,1                                                                                         |
| -30 ... +85                                                                                 |
| IP 67  |
| plastic (nyrol, PPE)                                                                        |
| PUR cable, 3.5m/3 x 0.5mm <sup>2</sup>                                                      |
| BK = L+; BN = L-; BU = output                                                               |





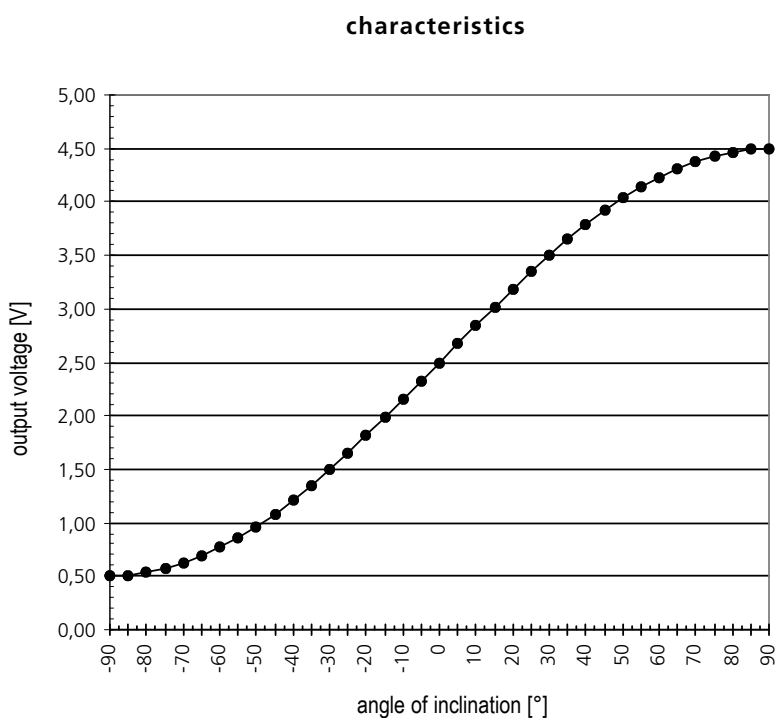
## EC2045

Inclination sensor

$\pm 90^\circ$

8 ... 30 V DC

Output 0.5 ... 4.5 V



| angle of inclination [°] | output voltage [V] |
|--------------------------|--------------------|
| -90                      | 0.50               |
| -85                      | 0.51               |
| -80                      | 0.53               |
| -75                      | 0.57               |
| -70                      | 0.62               |
| -65                      | 0.69               |
| -60                      | 0.77               |
| -55                      | 0.86               |
| -50                      | 0.97               |
| -45                      | 1.09               |
| -40                      | 1.21               |
| -35                      | 1.35               |
| -30                      | 1.50               |
| -25                      | 1.65               |
| -20                      | 1.82               |
| -15                      | 1.98               |
| -10                      | 2.15               |
| -5                       | 2.33               |
| 0                        | 2.50               |
| 5                        | 2.67               |
| 10                       | 2.85               |
| 15                       | 3.02               |
| 20                       | 3.18               |
| 25                       | 3.35               |
| 30                       | 3.50               |
| 35                       | 3.65               |
| 40                       | 3.79               |
| 45                       | 3.91               |
| 50                       | 4.03               |
| 55                       | 4.14               |
| 60                       | 4.23               |
| 65                       | 4.31               |
| 70                       | 4.38               |
| 75                       | 4.43               |
| 80                       | 4.47               |
| 85                       | 4.49               |
| 90                       | 4.50               |