

# XL-CP42A24x

Art No: various

## ExpertSystem XL

## Sensor for pressure-sensitive edges

A pressure-sensitive edge according to EN ISO 13856-2 consists of a sensor and a safety switching device and its intended use is for pressure-sensitive protection systems. This datasheet provides technical data about parts and sensors of the ExpertSystem XL family.

### Contact profile data

|                                                             |                             |
|-------------------------------------------------------------|-----------------------------|
| Designation / Art. No.                                      | XL-CP42A / 411870           |
| Dimensions in mm (Tolerances acc. to DIN ISO 3302-1 tl. E2) | H 42 x W 29                 |
| Contact profile material                                    | EPDM, non-conductive, black |
| Hardness                                                    | 70 Shore A (+/- 5)          |
| Switching contact material                                  | EPDM, conductive            |
| Delivery length                                             | Max. 25 m                   |
| Weight per meter                                            | 0.54 kg/m                   |

### Mounting profiles data

|                        |                  |
|------------------------|------------------|
| Designation / Art. No. | XL-AP24 / 412002 |
| Material / Finish      | Al / nature      |
| Weight per meter       | 0.22 kg/m        |
| Delivery length        | Max. 6.1 m       |

### Sensor data, determined with an 8.2 k $\Omega$ terminal resistor

|                                                                                                                                                                                                                                                                                              |                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Designation / Art. No.                                                                                                                                                                                                                                                                       | XL-CP42A24x / various, see brochure                                                             |
| Single sensor, length (min. / max.)                                                                                                                                                                                                                                                          | 0.3 m / 20 m                                                                                    |
| Cable length, max.                                                                                                                                                                                                                                                                           | 40 m                                                                                            |
| Combined single sensors: max. number / sensor length in total / cable length in total                                                                                                                                                                                                        | 4 sensors / 20 m / 40 m                                                                         |
| Mounting orientations                                                                                                                                                                                                                                                                        | All orientations                                                                                |
| Effective sensing surface (Figure A)                                                                                                                                                                                                                                                         | X = 22 mm / Z = 20 mm / $\alpha = 90^\circ$<br>L = L <sub>tot</sub> - 60 mm (30 mm on each end) |
| Actuating distance / Pre-travel (A / 200mm/s)*                                                                                                                                                                                                                                               | < 2.5 mm                                                                                        |
| Actuating force (A / 200mm/s)*                                                                                                                                                                                                                                                               | < 40 N                                                                                          |
| Overtravel at 250 N (B1)*                                                                                                                                                                                                                                                                    | > 15 mm                                                                                         |
| Overtravel at 400 N (B2)*                                                                                                                                                                                                                                                                    | > 16 mm                                                                                         |
| Total travel at 600 N (C)*                                                                                                                                                                                                                                                                   | > 19 mm                                                                                         |
| Operating temperature                                                                                                                                                                                                                                                                        | -20°C to 60°C                                                                                   |
| Switching cycles                                                                                                                                                                                                                                                                             | > 10'000                                                                                        |
| Degree of protection                                                                                                                                                                                                                                                                         | IP67 (EN 60529)                                                                                 |
| Endresistor value / type (see datasheet of XL accessory parts)                                                                                                                                                                                                                               | 8.2 k $\Omega$ / XL-RP8                                                                         |
| Max. voltage                                                                                                                                                                                                                                                                                 | 24 V AC/DC                                                                                      |
| Continuous current load at max. voltage                                                                                                                                                                                                                                                      | 10 mA                                                                                           |
| Actuation resistance (typical / max.)                                                                                                                                                                                                                                                        | 50 - 150 $\Omega$ / 500 $\Omega$                                                                |
| Standards                                                                                                                                                                                                                                                                                    | EN ISO 13856-2 / EN 12978                                                                       |
| No. of EC Type-examination certificate (EC TEC)                                                                                                                                                                                                                                              | E 7256                                                                                          |
| Notified Body: Suva, Bereich Technik, SCESp 0008, No: 1246. The EC TEC is valid for this sensor in conjunction with a safety switching device (control unit and output signal switching device) specified by BBC Bircher AG and subjected to the prescribed conformity assessment procedure. |                                                                                                 |

\* Acc. to EN ISO 13856-2; Test piece  $\varnothing$  80 mm; Test location c3; Test speed (A) 200 mm/s; Temp. 20°C  
The actuating force and the deformation travels depend on the response time of the used safety switching device.

