



## eloProg relay modules 485EPR

The expansion modules with relay outputs have up to 4 force-guided NO relay contacts. They have been designed to handle 6A and 240V AC. In addition, up to 8 electronic control outputs are available for diagnostics.

### Technical specifications

- Up to 4 safe, redundant relay outputs (NO contacts)
- Diagnostics via up to 4 configurable control outputs and LEDs
- Up to 4 EDM inputs for monitoring of downstream contactors or connection of a start push button
- EDM output for return to base or output module
- Depending on the variant, connection to the base module and other expansion modules with pre-assembled T-connector (proprietary 5-waybus) or wiring via connection terminals

Technical drawing

IMAGE 1/1



## Product options

IMAGE 1/1

### ORDERING KEY

| 485EP | R |    |      | Relay module   |
|-------|---|----|------|--|
|       |   | 02 |      | 2 safe relay outputs                                     |
|       |   | 04 |      | 4 safe relay outputs                                     |
|       |   | 04 | S08B | 4 safe relay outputs / 8 status outputs – bus-compatible |

## Article characteristics

| Attribute   | 485EPR02                           | 485EPR04 | 485EPR04S08B                   |
|---|------------------------------------|----------|--------------------------------|
| Utilization category  | AC-15 / DC-13                      |          | -                              |
| DC  | Depending on the configuration %   |          |                                |
| Connection to output module                                     | -                                  |          | via connection terminals       |
| Min. switching voltage at safety output                         | 10 V DC                            |          |                                |
| Max. switching voltage at safety output                         | 250 V DC                           |          |                                |
| Min. switching voltage at safety output                         | 10 V AC                            |          |                                |
| Max. switching voltage at safety output                         | 400 V AC                           | 230 V AC | 400 V AC                       |
| Min. switching current at safety output                         | 0.02 A                             |          |                                |
| Max. switching current at safety output                         | 6 A                                |          |                                |
| Max. switching current at control output                        | -                                  |          | 0.1 A                          |
| Response time   | 12 ms                              |          |                                |
| Number of relay safety outputs                                  | 2                                  | 4        |                                |
| Number of relay control outputs                                 | -                                  |          | 8                              |
| Feedback circuit  | yes                                |          | Depending on the configuration |
| Operating voltage min.  | 19.2 V DC                          |          |                                |
| Operating voltage max.  | 28.8 V DC                          |          |                                |
| Power consumption   | 3 W                                |          |                                |
| LED display   | single-coloured                    |          | No                             |
| PL acc. to EN ISO 13849-1                                       | e                                  |          |                                |
| SIL acc. to IEC 61508   | 3                                  |          |                                |
| SIL CL acc. to IEC 62061  | 3                                  |          |                                |
| PFHD according to IEC 61508                                     | depending on the configuration 1/h |          | 1,30 x 10 <sup>-9</sup> 1/h    |
| Safe Failure Fraction (SFF) to IEC 61508                        | -                                  |          | 99.7 %                         |
| Operating life  | 20 Tm                              |          |                                |
| Max no operating cycles at 1A switching current AC15 230V(B10d) | 750000                             |          | -                              |

| Attribute   | 485EPR02   | 485EPR04 | 485EPR04S08B                        |
|---|--|----------|-------------------------------------|
| Max no operating cycles at 2A switching current DC13 24V (B10d) | 10000000   |          | -                                   |
| Max no operating cycles at 3A switching current AC15 230V(B10d) | 300000   |          | -                                   |
| Service life, mechanical (Cycles)                               | > 20 x 10 <sup>6</sup>                               |          | > 40 x 10 <sup>6</sup>              |
| Dimensions  | 108 x 22,5 x 114,5 mm (H/B/T)                        |          |                                     |
| Housing material  | PA   |          |                                     |
| Housing colour  | Gehaeuse schwarz Frontplatte gelb                    |          |                                     |
| Protection class, housing                                       | IP20 DIN EN 60529                                    |          | IP54 DIN EN 60529                   |
| Operating temperature min.                                      | -10 °C   |          |                                     |
| Max. operating temperature                                      | 55 °C  |          |                                     |
| Min. storage temperature  | -20 °C   |          |                                     |
| Max. storage temperature  | 85 °C  |          |                                     |
| Relative humidity   | 10...95 %  |          |                                     |
| Mounting type   | Mounting rail  |          |                                     |
| Weight  | 181 g  | 231 g    | 255 g                               |
| Torque for connection terminals                                 | 0.6 N m  |          |                                     |
| Connection to base module                                       | via connection terminals                             |          | proprietary 5-way bus (T-connector) |
| Screw terminals   | yes  |          |                                     |
| Pluggable connection terminals                                  | yes  |          |                                     |
| Min. connection cross section                                   | 0.5 mm <sup>2</sup>                                  |          |                                     |
| Max. connection cross section                                   | 2.5 mm <sup>2</sup>                                  |          |                                     |
| Certified in accordance with                                    | EN ISO 13849-1 IEC 61508 IEC 62061 UL 508 / CSA 22.2 |          | -                                   |
| CE label  | yes  |          |                                     |