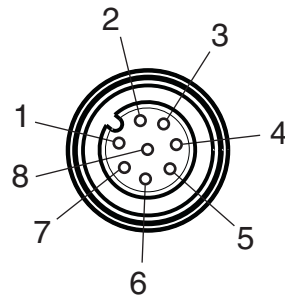


## PSEN Cable M12 8p

### Connector pin assignment

#### Colour coding

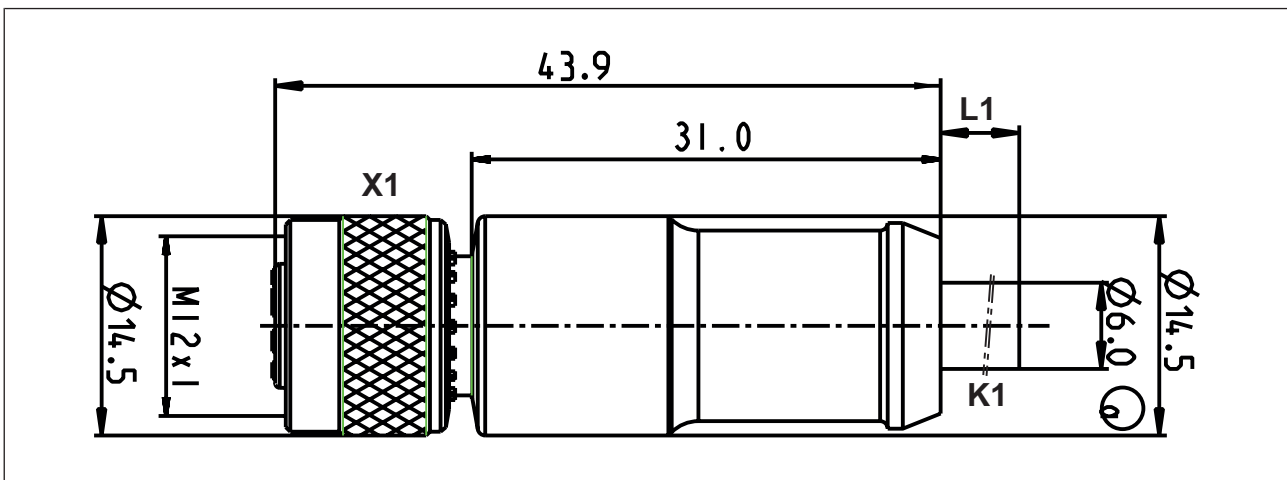
|   |        |
|---|--------|
| 1 | white  |
| 2 | brown  |
| 3 | green  |
| 4 | yellow |
| 5 | grey   |
| 6 | pink   |
| 7 | blue   |
| 8 | red    |



Plan view plug-in connector X1

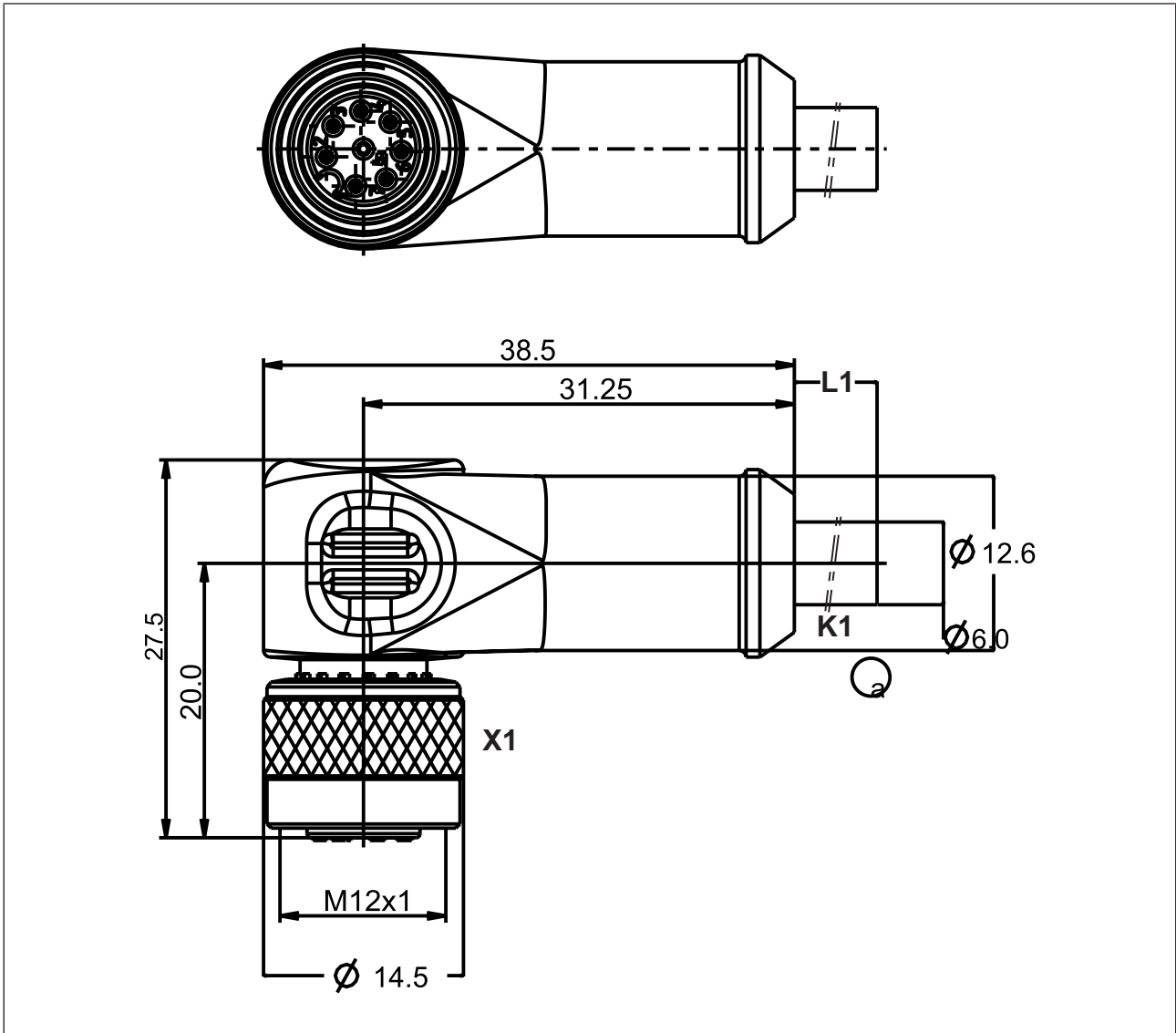
### Dimensions

- ▶ M12 female connector, straight:



PSEN Cable M12 8p

- ▶ M12 female connector, angled:



## PSEN Cable M12 8p

## Technical details Order no. 540319 - 540321

| General                           | 540319                      | 540320                      | 540321                      |
|-----------------------------------|-----------------------------|-----------------------------|-----------------------------|
| Approvals                         | cULus Listed                | cULus Listed                | cULus Listed                |
| <b>Electrical data</b>            | <b>540319</b>               | <b>540320</b>               | <b>540321</b>               |
| Rated voltage                     |                             |                             |                             |
| Voltage UB                        | 30 V                        | 30 V                        | 30 V                        |
| Rated current                     | 2 A                         | 2 A                         | 2 A                         |
| Test voltage                      | 3.000 V                     | 3.000 V                     | 3.000 V                     |
| Typ. conductor resistance K1      | 79 Ohm/km                   | 79 Ohm/km                   | 79 Ohm/km                   |
| Insulation resistance             | 100 MOhm                    | 100 MOhm                    | 100 MOhm                    |
| Volume resistance                 | 3 mOhm                      | 3 mOhm                      | 3 mOhm                      |
| Specific volume resistance K1     | $\geq 7E+15$ Ohm*cm         | $\geq 7E+15$ Ohm*cm         | $\geq 7E+15$ Ohm*cm         |
| Specific cable capacitance K1     | 64,6pF/m                    | 64,6pF/m                    | 64,6pF/m                    |
| <b>Environmental data</b>         | <b>540319</b>               | <b>540320</b>               | <b>540321</b>               |
| Ambient temperature               |                             |                             |                             |
| Temperature range                 | -25 - 80 °C                 | -25 - 80 °C                 | -25 - 80 °C                 |
| Airgap creepage                   |                             |                             |                             |
| Overvoltage category              | II                          | II                          | II                          |
| Pollution degree                  | 3                           | 3                           | 3                           |
| Protection type                   |                             |                             |                             |
| X1 when inserted                  | IP68                        | IP68                        | IP68                        |
| Housing                           | IP68                        | IP68                        | IP68                        |
| <b>Mechanical data</b>            | <b>540319</b>               | <b>540320</b>               | <b>540321</b>               |
| Plug-in connector X1              | M12, 8-pin female connector | M12, 8-pin female connector | M12, 8-pin female connector |
| In accordance with the standard   | EN 61076-2-101              | EN 61076-2-101              | EN 61076-2-101              |
| Form, plug-in connector X1        | Straight                    | Straight                    | Straight                    |
| Material of ring nut X1           | CuZn nickel-plated          | CuZn nickel-plated          | CuZn nickel-plated          |
| Housing material X1               | PUR                         | PUR                         | PUR                         |
| Material of contact surface X1    | Au                          | Au                          | Au                          |
| Material of socket                | CuSn                        | CuSn                        | CuSn                        |
| Conductor material K1             | Cu                          | Cu                          | Cu                          |
| Insulating cover for conductor K1 | PP (9Y)                     | PP (9Y)                     | PP (9Y)                     |
| Mating cycles X1                  | 100                         | 100                         | 100                         |
| Cable type K1                     | LiF9Y11Y                    | LiF9Y11Y                    | LiF9Y11Y                    |

## PSEN Cable M12 8p

| <b>Mechanical data</b>                     | <b>540319</b>   | <b>540320</b>   | <b>540321</b>   |
|--|---|---|---|
| Cable length L1                            | <b>3 m</b>  | <b>5 m</b>  | <b>10 m</b>   |
| Colour of external cable insulation K1     | <b>Yellow, similar to RAL1003</b>                         | <b>Yellow, similar to RAL1003</b>                         | <b>Yellow, similar to RAL1003</b>                         |
| Colour of housing                          | <b>black</b>  | <b>black</b>  | <b>black</b>  |
| Min. bending radius (fixed permanently) K1 | <b>5 x Ø</b>  | <b>5 x Ø</b>  | <b>5 x Ø</b>  |
| Min. bending radius (moving) K1            | <b>10 x Ø</b>   | <b>10 x Ø</b>   | <b>10 x Ø</b>   |
| Cable insulation material K1               | <b>PUR, TPU / TPE-U</b>                                   | <b>PUR, TPU / TPE-U</b>                                   | <b>PUR, TPU / TPE-U</b>                                   |
| Drag chain suitable K1                     | <b>yes</b>  | <b>yes</b>  | <b>yes</b>  |
| Cable diameter K1                          | <b>6 mm</b>   | <b>6 mm</b>   | <b>6 mm</b>   |
| Max. cable diameter K1                     | <b>6,1 mm</b>   | <b>6,1 mm</b>   | <b>6,1 mm</b>   |
| Conductor cross section K1                 | <b>0,25 mm<sup>2</sup></b>                                | <b>0,25 mm<sup>2</sup></b>                                | <b>0,25 mm<sup>2</sup></b>                                |
| Conductor cross section AWG K1             | <b>24</b>   | <b>24</b>   | <b>24</b>   |
| Wire colour K1                             | <b>White, brown, green, yellow, grey, pink, blue, red</b> | <b>White, brown, green, yellow, grey, pink, blue, red</b> | <b>White, brown, green, yellow, grey, pink, blue, red</b> |
| Stranding K1                               | <b>8 cores around plastic filler</b>                      | <b>8 cores around plastic filler</b>                      | <b>8 cores around plastic filler</b>                      |
| Shielding K1                               | <b>No</b>   | <b>No</b>   | <b>No</b>   |
| Wire layer separation K1                   | <b>No</b>   | <b>No</b>   | <b>No</b>   |
| No. of wires K1                            | <b>8</b>  | <b>8</b>  | <b>8</b>  |
| Approval cable K1                          | <b>UL AWM-Style 20233, UL/CSA</b>                         | <b>UL AWM-Style 20233, UL/CSA</b>                         | <b>UL AWM-Style 20233, UL/CSA</b>                         |
| Approval of plug-in connector X1           | <b>UL94 V-0</b>   | <b>UL94 V-0</b>   | <b>UL94 V-0</b>   |
| Halogen-free                               | <b>yes</b>  | <b>yes</b>  | <b>yes</b>  |
| Silicone-free                              | <b>yes</b>  | <b>yes</b>  | <b>yes</b>  |
| Oil resistance                             | <b>Resistant</b>  | <b>Resistant</b>  | <b>Resistant</b>  |
| Non-flammability                           | <b>UL VW1, FT1</b>  | <b>UL VW1, FT1</b>  | <b>UL VW1, FT1</b>  |
| Material                                   |   |   |   |
| Housing                                    | <b>PUR</b>  | <b>PUR</b>  | <b>PUR</b>  |
| Weight                                     | <b>153 g</b>  | <b>250 g</b>  | <b>490 g</b>  |

## PSEN Cable M12 8p

### Technical details Order no. 540322 - 540324

| General                           | 540322                      | 540323                      | 540324                      |
|-----------------------------------|-----------------------------|-----------------------------|-----------------------------|
| Approvals                         | cULus Listed                | cULus Listed                | cULus Listed                |
| Electrical data                   | 540322                      | 540323                      | 540324                      |
| Rated voltage                     |                             |                             |                             |
| Voltage UB                        | 30 V                        | 30 V                        | 30 V                        |
| Rated current                     | 2 A                         | 2 A                         | 2 A                         |
| Test voltage                      | 3.000 V                     | 3.000 V                     | 3.000 V                     |
| Typ. conductor resistance K1      | 79 Ohm/km                   | 79 Ohm/km                   | 79 Ohm/km                   |
| Insulation resistance             | 100 MOhm                    | 100 MOhm                    | 100 MOhm                    |
| Volume resistance                 | 3 mOhm                      | 3 mOhm                      | 3 mOhm                      |
| Specific volume resistance K1     | $\geq 7E+15$ Ohm*cm         | $\geq 7E+15$ Ohm*cm         | $\geq 7E+15$ Ohm*cm         |
| Specific cable capacitance K1     | 64,6pF/m                    | 64,6pF/m                    | 64,6pF/m                    |
| Environmental data                | 540322                      | 540323                      | 540324                      |
| Ambient temperature               |                             |                             |                             |
| Temperature range                 | -25 - 80 °C                 | -25 - 80 °C                 | -25 - 80 °C                 |
| Airgap creepage                   |                             |                             |                             |
| Overvoltage category              | II                          | II                          | II                          |
| Pollution degree                  | 3                           | 3                           | 3                           |
| Protection type                   |                             |                             |                             |
| X1 when inserted                  | IP68                        | IP68                        | IP68                        |
| Housing                           | IP68                        | IP68                        | IP68                        |
| Mechanical data                   | 540322                      | 540323                      | 540324                      |
| Plug-in connector X1              | M12, 8-pin female connector | M12, 8-pin female connector | M12, 8-pin female connector |
| In accordance with the standard   | EN 61076-2-101              | EN 61076-2-101              | EN 61076-2-101              |
| Form, plug-in connector X1        | Angled                      | Angled                      | Angled                      |
| Material of ring nut X1           | CuZn nickel-plated          | CuZn nickel-plated          | CuZn nickel-plated          |
| Housing material X1               | PUR                         | PUR                         | PUR                         |
| Material of contact surface X1    | Au                          | Au                          | Au                          |
| Material of socket                | CuSn                        | CuSn                        | CuSn                        |
| Conductor material K1             | Cu                          | Cu                          | Cu                          |
| Insulating cover for conductor K1 | PP (9Y)                     | PP (9Y)                     | PP (9Y)                     |
| Mating cycles X1                  | 100                         | 100                         | 100                         |
| Cable type K1                     | LiF9Y11Y                    | LiF9Y11Y                    | LiF9Y11Y                    |

## PSEN Cable M12 8p

| Mechanical data                            | 540322   | 540323   | 540324   |
|--|--|--|--|
| Cable length L1                            | 3 m  | 5 m  | 10 m   |
| Colour of external cable insulation K1     | Yellow, similar to RAL1003                         | Yellow, similar to RAL1003                         | Yellow, similar to RAL1003                         |
| Colour of housing                          | black  | black  | black  |
| Min. bending radius (fixed permanently) K1 | 5 x Ø  | 5 x Ø  | 5 x Ø  |
| Min. bending radius (moving) K1            | 10 x Ø   | 10 x Ø   | 10 x Ø   |
| Cable insulation material K1               | PUR, TPU / TPE-U                                   | PUR, TPU / TPE-U                                   | PUR, TPU / TPE-U                                   |
| Drag chain suitable K1                     | yes  | yes  | yes  |
| Cable diameter K1                          | 6 mm   | 6 mm   | 6 mm   |
| Max. cable diameter K1                     | 6,1 mm   | 6,1 mm   | 6,1 mm   |
| Conductor cross section K1                 | 0,25 mm <sup>2</sup>                               | 0,25 mm <sup>2</sup>                               | 0,25 mm <sup>2</sup>                               |
| Conductor cross section AWG K1             | 24   | 24   | 24   |
| Wire colour K1                             | White, brown, green, yellow, grey, pink, blue, red | White, brown, green, yellow, grey, pink, blue, red | White, brown, green, yellow, grey, pink, blue, red |
| Stranding K1                               | 8 cores around plastic filler                      | 8 cores around plastic filler                      | 8 cores around plastic filler                      |
| Shielding K1                               | No   | No   | No   |
| Wire layer separation K1                   | No   | No   | No   |
| No. of wires K1                            | 8  | 8  | 8  |
| Approval cable K1                          | UL AWM-Style 20233, UL/CSA                         | UL AWM-Style 20233, UL/CSA                         | UL AWM-Style 20233, UL/CSA                         |
| Approval of plug-in connector X1           | UL94 V-0   | UL94 V-0   | UL94 V-0   |
| Halogen-free                               | yes  | yes  | yes  |
| Silicone-free                              | yes  | yes  | yes  |
| Oil resistance                             | Resistant  | Resistant  | Resistant  |
| Non-flammability                           | UL VW1, FT1  | UL VW1, FT1  | UL VW1, FT1  |
| Material                                   |  |  |  |
| Housing                                    | PUR  | PUR  | PUR  |
| Weight                                     | 152 g  | 251 g  | 491 g  |

## PSEN Cable M12 8p

## Technical details Order no. 540325 - 540333

| General                           | 540325                      | 540326                      | 540333                      |
|-----------------------------------|-----------------------------|-----------------------------|-----------------------------|
| Approvals                         | cULus Listed                | cULus Listed                | cULus Listed                |
| Electrical data                   | 540325                      | 540326                      | 540333                      |
| Rated voltage                     |                             |                             |                             |
| Voltage UB                        | 30 V                        | 30 V                        | 30 V                        |
| Rated current                     | 2 A                         | 2 A                         | 2 A                         |
| Test voltage                      | 3.000 V                     | 3.000 V                     | 3.000 V                     |
| Typ. conductor resistance K1      | 79 Ohm/km                   | 79 Ohm/km                   | 79 Ohm/km                   |
| Insulation resistance             | 100 MOhm                    | 100 MOhm                    | 100 MOhm                    |
| Volume resistance                 | 3 mOhm                      | 3 mOhm                      | 3 mOhm                      |
| Specific volume resistance K1     | $\geq 7E+15$ Ohm*cm         | $\geq 7E+15$ Ohm*cm         | $\geq 7E+15$ Ohm*cm         |
| Specific cable capacitance K1     | 64,6pF/m                    | 64,6pF/m                    | 64,6pF/m                    |
| Environmental data                | 540325                      | 540326                      | 540333                      |
| Ambient temperature               |                             |                             |                             |
| Temperature range                 | -25 - 80 °C                 | -25 - 80 °C                 | -25 - 80 °C                 |
| Airgap creepage                   |                             |                             |                             |
| Overvoltage category              | II                          | II                          | II                          |
| Pollution degree                  | 3                           | 3                           | 3                           |
| Protection type                   |                             |                             |                             |
| X1 when inserted                  | IP68                        | IP68                        | IP68                        |
| Housing                           | IP68                        | IP68                        | IP68                        |
| Mechanical data                   | 540325                      | 540326                      | 540333                      |
| Plug-in connector X1              | M12, 8-pin female connector | M12, 8-pin female connector | M12, 8-pin female connector |
| In accordance with the standard   | EN 61076-2-101              | EN 61076-2-101              | EN 61076-2-101              |
| Form, plug-in connector X1        | Angled                      | Straight                    | Straight                    |
| Material of ring nut X1           | CuZn nickel-plated          | CuZn nickel-plated          | CuZn nickel-plated          |
| Housing material X1               | PUR                         | PUR                         | PUR                         |
| Material of contact surface X1    | Au                          | Au                          | Au                          |
| Material of socket                | CuSn                        | CuSn                        | CuSn                        |
| Conductor material K1             | Cu                          | Cu                          | Cu                          |
| Insulating cover for conductor K1 | PP (9Y)                     | PP (9Y)                     | PP (9Y)                     |
| Mating cycles X1                  | 100                         | 100                         | 100                         |
| Cable type K1                     | LiF9Y11Y                    | LiF9Y11Y                    | LiF9Y11Y                    |

## PSEN Cable M12 8p

| Mechanical data                            | 540325   | 540326   | 540333   |
|--|--|--|--|
| Cable length L1                            | 30 m   | 30 m   | 20 m   |
| Colour of external cable insulation K1     | Yellow, similar to RAL1003                         | Yellow, similar to RAL1003                         | Yellow, similar to RAL1003                         |
| Colour of housing                          | black  | black  | black  |
| Min. bending radius (fixed permanently) K1 | 5 x Ø  | 5 x Ø  | 5 x Ø  |
| Min. bending radius (moving) K1            | 10 x Ø   | 10 x Ø   | 10 x Ø   |
| Cable insulation material K1               | PUR, TPU / TPE-U                                   | PUR, TPU / TPE-U                                   | PUR, TPU / TPE-U                                   |
| Drag chain suitable K1                     | yes  | yes  | yes  |
| Cable diameter K1                          | 6 mm   | 6 mm   | 6 mm   |
| Max. cable diameter K1                     | 6,1 mm   | 6,1 mm   | 6,1 mm   |
| Conductor cross section K1                 | 0,25 mm <sup>2</sup>                               | 0,25 mm <sup>2</sup>                               | 0,25 mm <sup>2</sup>                               |
| Conductor cross section AWG K1             | 24   | 24   | 24   |
| Wire colour K1                             | White, brown, green, yellow, grey, pink, blue, red | White, brown, green, yellow, grey, pink, blue, red | White, brown, green, yellow, grey, pink, blue, red |
| Stranding K1                               | 8 cores around plastic filler                      | 8 cores around plastic filler                      | 8 cores around plastic filler                      |
| Shielding K1                               | No   | No   | No   |
| Wire layer separation K1                   | No   | No   | No   |
| No. of wires K1                            | 8  | 8  | 8  |
| Approval cable K1                          | UL AWM-Style 20233, UL/CSA                         | UL AWM-Style 20233, UL/CSA                         | UL AWM-Style 20233, UL/CSA                         |
| Approval of plug-in connector X1           | UL94 V-0   | UL94 V-0   | UL94 V-0   |
| Halogen-free                               | yes  | yes  | yes  |
| Silicone-free                              | yes  | yes  | yes  |
| Oil resistance                             | Resistant  | Resistant  | Resistant  |
| Non-flammability                           | UL VW1, FT1  | UL VW1, FT1  | UL VW1, FT1  |
| Material                                   |  |  |  |
| Housing                                    | PUR  | PUR  | PUR  |
| Weight                                     | 1.340 g  | 1.350 g  | 850 g  |



## PSEN Cable M12 8p

### Order reference

| Product type                    | Features | Connector X1                   | Connector X2 | Order no. |
|---------------------------------|----------|--------------------------------|--------------|-----------|
| PSEN cable axial M12 8-pole 3m  | 3 m      | M12 female connector, straight |              | 540 319   |
| PSEN cable axial M12 8-pole 5m  | 5 m      | M12 female connector, straight |              | 540 320   |
| PSEN cable axial M12 8-pole 10m | 10 m     | M12 female connector, straight |              | 540 321   |
| PSEN cable angle M12 8-pole 3m  | 3 m      | M12 female connector, angled   |              | 540 322   |
| PSEN cable angle M12 8-pole 5m  | 5 m      | M12 female connector, angled   |              | 540 323   |
| PSEN cable angle M12 8-pole 10m | 10 m     | M12 female connector, angled   |              | 540 324   |
| PSEN cable angle M12 8-pole 30m | 30 m     | M12 female connector, angled   |              | 540 325   |
| PSEN cable axial M12 8-pole 30m | 30 m     | M12 female connector, straight |              | 540 326   |
| PSEN cable M12-8sf, 20m         | 20 m     | M12 female connector, straight |              | 540 333   |