

|         |               |       |
|---------|---------------|-------|
| design  | 0.3m          |       |
|         | 0.6m          |       |
|         | 1.0m          |       |
|         | 1.5m          |       |
|         | 2.0m          |       |
|         | 3.0m          |       |
|         | 5.0m          |       |
| version | M8 / M8       | 3-pin |
|         | M12 / M8      | 3-pin |
|         | M12 / M8      | 4-pin |
|         | M8 / M12      | 3-pin |
|         | M12 / M12     | 4-pin |
|         | M12 / M8 (2x) | 3-pin |

- ✓ suitable for trailing chain
- ✓ black PUR cable, halogen- and silicone-free
- ✓ straight or angular cable sockets
- ✓ straight cable connectors
- ✓ IP67 system of protection when screwed down
- ✓ contact-no. / wire color to EURONORM
- ✓ LED-display for signal and operation



**ipf-SENSORFLEX®**  
ready-made connection cables



#### description

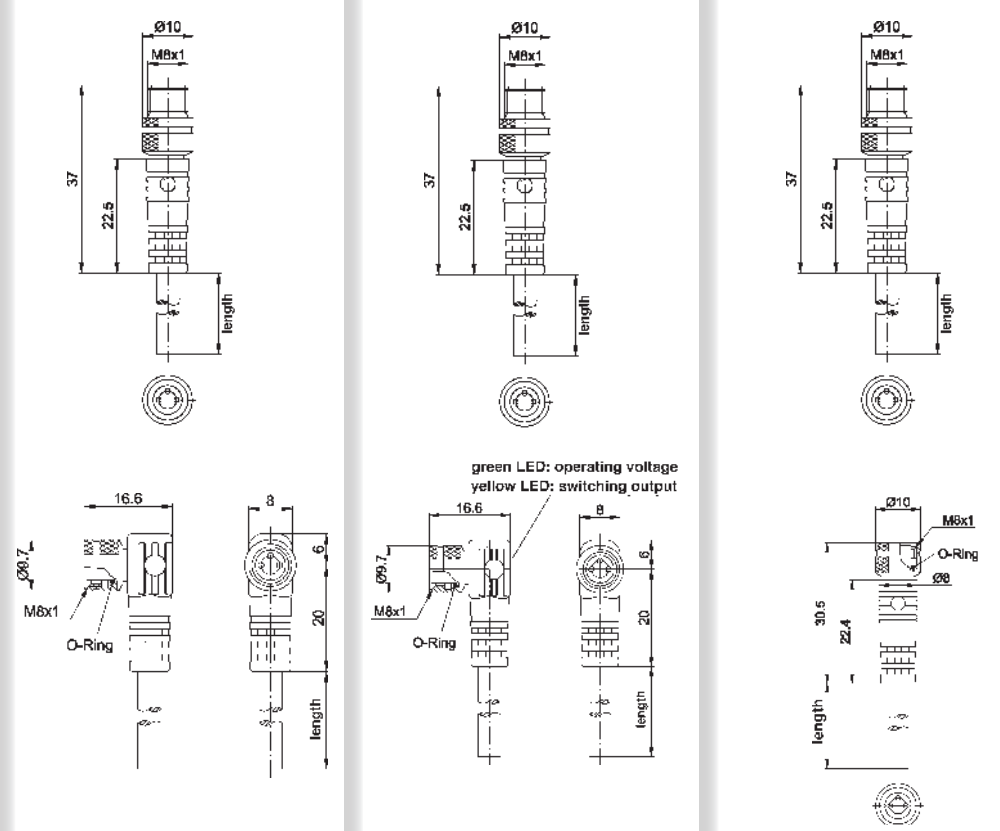
Today, actuator and sensor cables are some of the most important components in the field of connection technology. They are used as connections between sensors/actuators and distribution terminals and/or field bus modules. Extruded onto one side of the **ipf-SENSORFLEX®** lead is a coupling (socket) and on the other side, a connector. Depending on the embodiment, these come with an M8x1 or an M12x1 thread. The extrusion mould offers particularly good protection against the infiltration of moisture and dirt. All leads fulfill system of protection IP67 as a minimum standard.

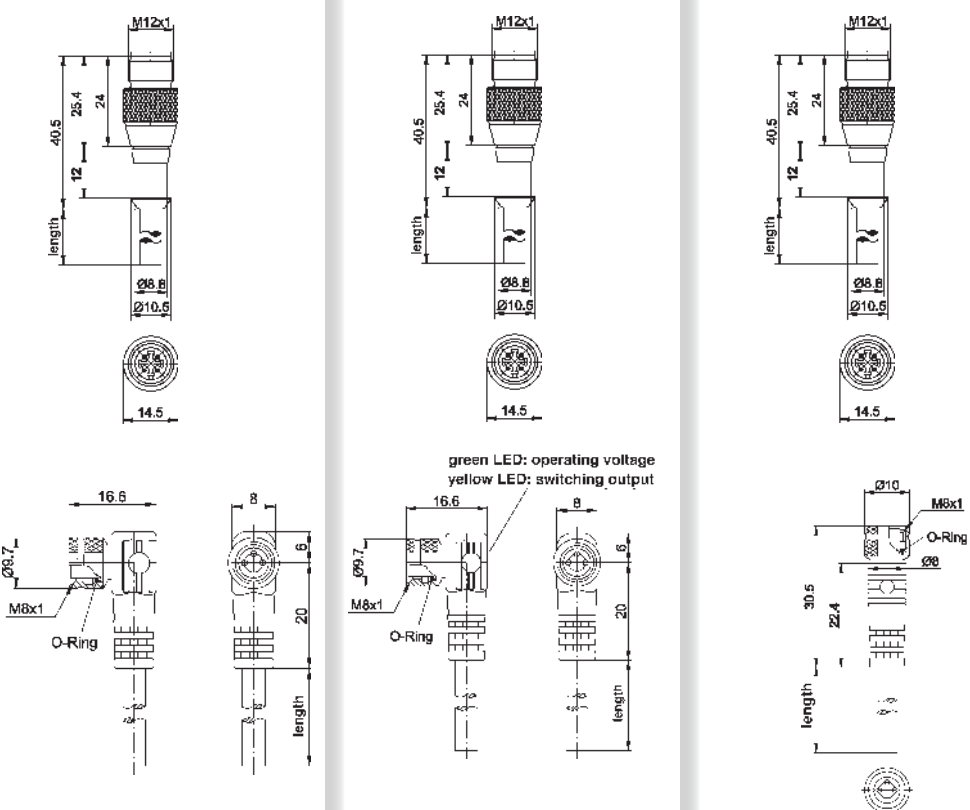
Available are versions with LED-display for "operation" and

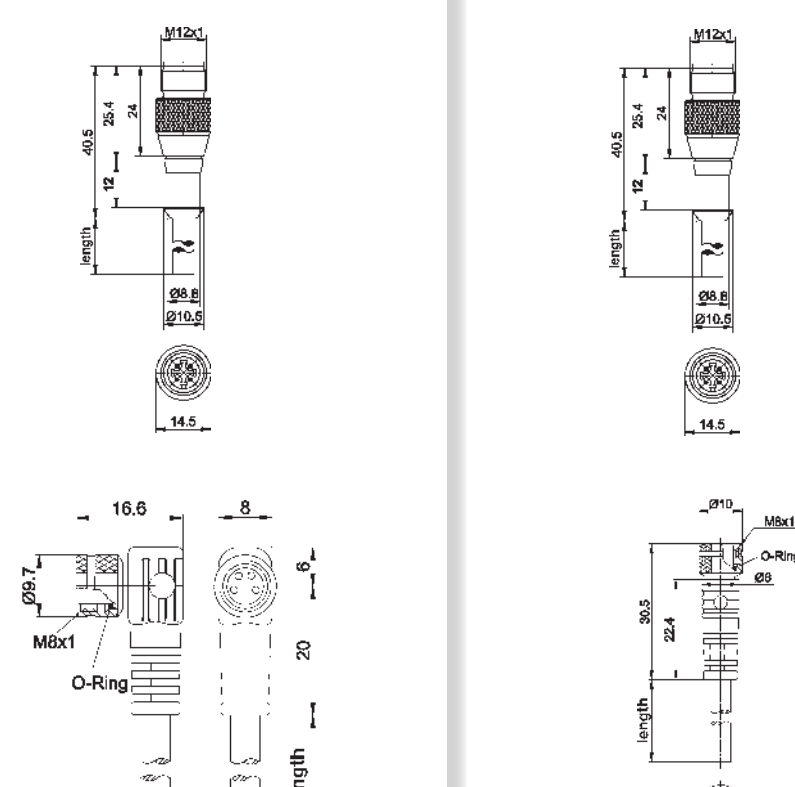
"signal". Please keep in mind that cables with "signal"-LED are not used when connecting sensors with analog outputs. The connection cables can be used in cable drag chains without problems.

#### The outstanding features of the connection cable are:

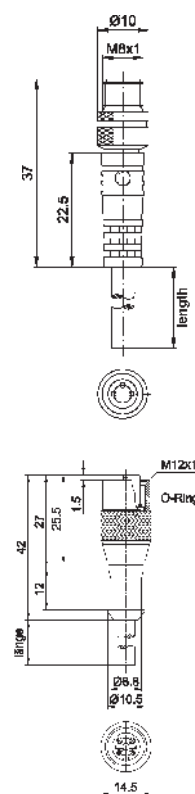
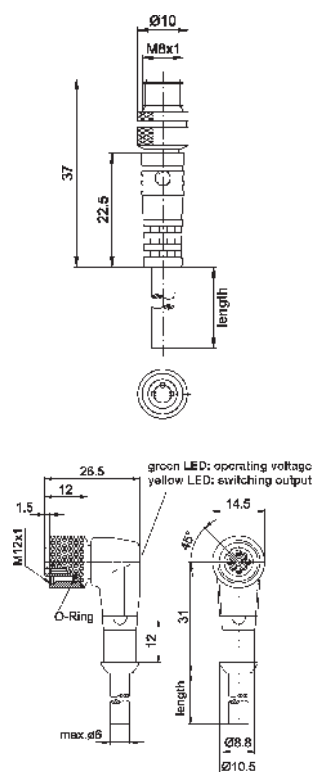
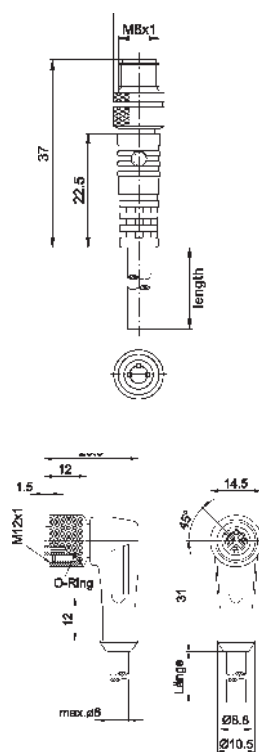
- ▶ high mechanical-dynamic resilience
- ▶ halogen-free, silicon-free and PVC-free
- ▶ suitable for trailing chain
- ▶ resistant to coolants and lubricants
- ▶ good impermeability and vibration resistance

| connector<br>socket                                                                 | M8, straight               | M8, straight                | M8, straight               |
|-------------------------------------------------------------------------------------|----------------------------|-----------------------------|----------------------------|
| number of pins                                                                      | M8, angular<br>3-pin       | M8, angular, 2 LED<br>3-pin | M8, straight<br>3-pin      |
| article-no.                                                                         | VK030F70                   | VK030F72                    | VK030F74                   |
| length                                                                              | 0.3m                       | 0.3m                        | 0.3m                       |
| article-no.                                                                         | VK060F70                   | VK060F72                    | VK060F74                   |
| length                                                                              | 0.6m                       | 0.6m                        | 0.6m                       |
| article-no.                                                                         | VK100F70                   | VK100F72                    | VK100F74                   |
| length                                                                              | 1.0m                       | 1.0m                        | 1.0m                       |
| article-no.                                                                         | VK150F70                   | VK150F72                    | VK150F74                   |
| length                                                                              | 1.5m                       | 1.5m                        | 1.5m                       |
| article-no.                                                                         | VK200F70                   | VK200F72                    | VK200F74                   |
| length                                                                              | 2.0m                       | 2.0m                        | 2.0m                       |
| article-no.                                                                         | VK300F70                   | VK300F72                    | VK300F74                   |
| length                                                                              | 3.0m                       | 3.0m                        | 3.0m                       |
| article-no.                                                                         | VK500F70                   | VK500F72                    | VK500F74                   |
| length                                                                              | 5.0m                       | 5.0m                        | 5.0m                       |
|  |                            |                             |                            |
| TECHNICAL DATA                                                                      |                            |                             |                            |
| operating voltage                                                                   | 60V DC / AC <sub>eff</sub> | 10 ... 30V DC               | 60V DC / AC <sub>eff</sub> |
| display (operation)                                                                 | -                          | green LED (contact 1)       | -                          |
| display (signal)                                                                    | -                          | yellow LED (contact 4)      | -                          |
| wire assembly                                                                       | 43 x 0.1mm                 | 43 x 0.1mm                  | 43 x 0.1mm                 |
| wire diameter                                                                       | 0.34 mm <sup>2</sup>       | 0.34 mm <sup>2</sup>        | 0.34 mm <sup>2</sup>       |
| outer jacket material material                                                      | PUR                        | PUR                         | PUR                        |
| operating temperature                                                               | -25 ... +80°C              | -25 ... +80°C               | -25 ... +80°C              |
| system of protection (EN 60529)                                                     | IP67                       | IP67                        | IP67                       |
| contact-no. / wire color                                                            | 1/brown 3/blue 4/black     | 1/brown 3/blue 4/black      | 1/brown 3/blue 4/black     |

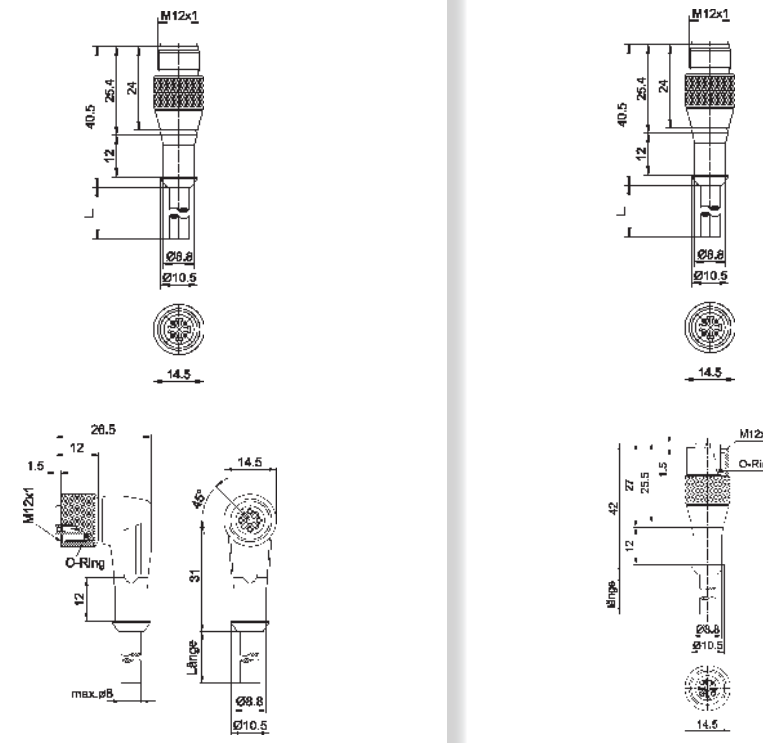
| connector<br>socket                                                                 | M12, straight<br>M8, angular | M12, straight<br>M8, angular, 2 LED | M12, straight<br>M8, straight |
|-------------------------------------------------------------------------------------|------------------------------|-------------------------------------|-------------------------------|
| number of pins                                                                      | 3-pin                        | 3-pin                               | 3-pin                         |
| article-no.                                                                         | VK030F80                     | VK030F82                            | VK030F84                      |
| length                                                                              | 0.3m                         | 0.3m                                | 0.3m                          |
| article-no.                                                                         | VK060F80                     | VK060F82                            | VK060F84                      |
| length                                                                              | 0.6m                         | 0.6m                                | 0.6m                          |
| article-no.                                                                         | VK100F80                     | VK100F82                            | VK100F84                      |
| length                                                                              | 1.0m                         | 1.0m                                | 1.0m                          |
| article-no.                                                                         | VK150F80                     | VK150F82                            | VK150F84                      |
| length                                                                              | 1.5m                         | 1.5m                                | 1.5m                          |
| article-no.                                                                         | VK200F80                     | VK200F82                            | VK200F84                      |
| length                                                                              | 2.0m                         | 2.0m                                | 2.0m                          |
| article-no.                                                                         | VK300F80                     | VK300F82                            | VK300F84                      |
| length                                                                              | 3.0m                         | 3.0m                                | 3.0m                          |
| article-no.                                                                         | VK500F80                     | VK500F82                            | VK500F84                      |
| length                                                                              | 5.0m                         | 5.0m                                | 5.0m                          |
|  |                              |                                     |                               |
| <b>TECHNICAL DATA</b>                                                               |                              |                                     |                               |
| operating voltage                                                                   | 60V DC / AC <sub>eff</sub>   | 10 ... 30V DC                       | 60V DC / AC <sub>eff</sub>    |
| display (operation)                                                                 | -                            | green LED (contact 1)               | -                             |
| display (signal)                                                                    | -                            | yellow LED (contact 4)              | -                             |
| wire assembly                                                                       | 43 x 0.1mm                   | 43 x 0.1mm                          | 43 x 0.1mm                    |
| wire diameter                                                                       | 0.34 mm <sup>2</sup>         | 0.34 mm <sup>2</sup>                | 0.34 mm <sup>2</sup>          |
| outer jacket material                                                               | PUR                          | PUR                                 | PUR                           |
| operating temperature                                                               | -25 ... +80°C                | -25 ... +80°C                       | -25 ... +80°C                 |
| system of protection (EN 60529)                                                     | IP67                         | IP67                                | IP67                          |
| contact-no. / wire color                                                            | 1/brown 3/blue 4/black       | 1/brown 3/blue 4/black              | 1/brown 3/blue 4/black        |

| connector                                                                           | M12, straight                  | M12, straight                  |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|
| socket                                                                              | M8, angular                    | M8, straight                   |
| number of pins                                                                      | 4-pin                          | 4-pin                          |
| article-no.                                                                         | VK030F81                       | VK030F85                       |
| length                                                                              | 0.3m                           | 0.3m                           |
| article-no.                                                                         | VK060F81                       | VK060F85                       |
| length                                                                              | 0.6m                           | 0.6m                           |
| article-no.                                                                         | VK100F81                       | VK100F85                       |
| length                                                                              | 1.0m                           | 1.0m                           |
| article-no.                                                                         | VK150F81                       | VK150F85                       |
| length                                                                              | 1.5m                           | 1.5m                           |
| article-no.                                                                         | VK200F81                       | VK200F85                       |
| length                                                                              | 2.0m                           | 2.0m                           |
| article-no.                                                                         | VK300F81                       | VK300F85                       |
| length                                                                              | 3.0m                           | 3.0m                           |
| article-no.                                                                         | VK500F81                       | VK500F85                       |
| length                                                                              | 5.0m                           | 5.0m                           |
|  |                                |                                |
| TECHNICAL DATA                                                                      |                                |                                |
| operating voltage                                                                   | 60V DC / AC <sub>eff</sub>     | 60V DC / AC <sub>eff</sub>     |
| display (operation)                                                                 | -                              | -                              |
| display (signal)                                                                    | -                              | -                              |
| wire assembly                                                                       | 43 x 0.1mm                     | 43 x 0.1mm                     |
| wire diameter                                                                       | 0.34 mm <sup>2</sup>           | 0.34 mm <sup>2</sup>           |
| outer jacket material                                                               | PUR                            | PUR                            |
| operating temperature                                                               | -25 ... +80°C                  | -25 ... +80°C                  |
| system of protection (EN 60529)                                                     | IP67                           | IP67                           |
| contact-no. / wire color                                                            | 1/brown 2/white 3/blue 4/black | 1/brown 2/white 3/blue 4/black |

| connector      | M8, straight | M8, straight        | M8, straight  |
|----------------|--------------|---------------------|---------------|
| socket         | M12, angular | M12, angular, 2 LED | M12, straight |
| number of pins | 3-pin        | 3-pin               | 3-pin         |
| article-no.    | VK030F60     | VK030F62            | VK030F64      |
| length         | 0.3m         | 0.3m                | 0.3m          |
| article-no.    | VK060F60     | VK060F62            | VK060F64      |
| length         | 0.6m         | 0.6m                | 0.6m          |
| article-no.    | VK100F60     | VK100F62            | VK100F64      |
| length         | 1.0m         | 1.0m                | 1.0m          |
| article-no.    | VK150F60     | VK150F62            | VK150F64      |
| length         | 1.5m         | 1.5m                | 1.5m          |
| article-no.    | VK200F60     | VK200F62            | VK200F64      |
| length         | 2.0m         | 2.0m                | 2.0m          |
| article-no.    | VK300F60     | VK300F62            | VK300F64      |
| length         | 3.0m         | 3.0m                | 3.0m          |
| article-no.    | VK500F60     | VK500F62            | VK500F64      |
| length         | 5.0m         | 5.0m                | 5.0m          |

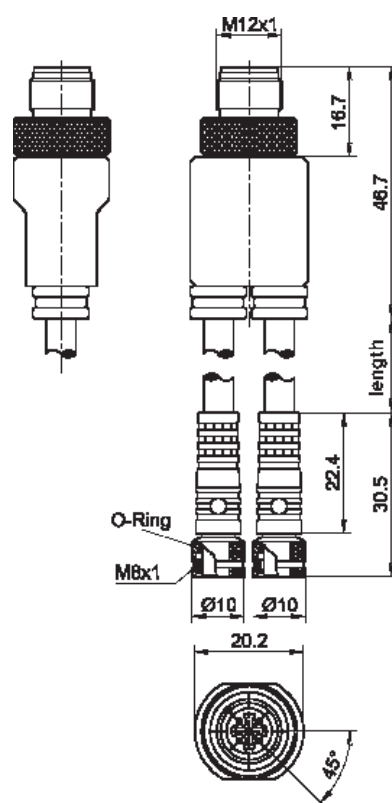
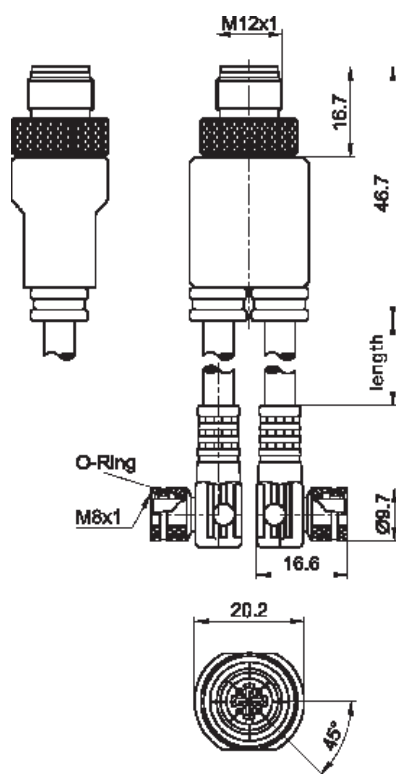

**TECHNICAL DATA**

|                                 |                            |                        |                            |
|---------------------------------|----------------------------|------------------------|----------------------------|
| operating voltage               | 60V DC / AC <sub>eff</sub> | 10 ... 30V DC          | 60V DC / AC <sub>eff</sub> |
| display (operation)             | -                          | green LED (contact 1)  | -                          |
| display (signal)                | -                          | yellow LED (contact 4) | -                          |
| wire assembly                   | 43 x 0.1mm                 | 43 x 0.1mm             | 43 x 0.1mm                 |
| wire diameter                   | 0.34 mm <sup>2</sup>       | 0.34 mm <sup>2</sup>   | 0.34 mm <sup>2</sup>       |
| outer jacket material           | PUR                        | PUR                    | PUR                        |
| operating temperature           | -25 ... +80°C              | -25 ... +80°C          | -25 ... +80°C              |
| system of protection (EN 60529) | IP67                       | IP67                   | IP67                       |
| contact-no. / wire color        | 1/brown 3/blue 4/black     | 1/brown 3/blue 4/black | 1/brown 3/blue 4/black     |

| connector                                                                           | M12, straight                  | M12, straight                  |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|
| socket                                                                              | M12, angular                   | M12, straight                  |
| number of pins                                                                      | 4-pin                          | 4-pin                          |
| article-no.                                                                         | VK030F21                       | VK030F25                       |
| length                                                                              | 0.3m                           | 0.3m                           |
| article-no.                                                                         | VK060F21                       | VK060F25                       |
| length                                                                              | 0.6m                           | 0.6m                           |
| article-no.                                                                         | VK100F21                       | VK100F25                       |
| length                                                                              | 1.0m                           | 1.0m                           |
| article-no.                                                                         | VK150F21                       | VK150F25                       |
| length                                                                              | 1.5m                           | 1.5m                           |
| article-no.                                                                         | VK200F21                       | VK200F25                       |
| length                                                                              | 2.0m                           | 2.0m                           |
| article-no.                                                                         | VK300F21                       | VK300F25                       |
| length                                                                              | 3.0m                           | 3.0m                           |
| article-no.                                                                         | VK500F21                       | VK500F25                       |
| length                                                                              | 5.0m                           | 5.0m                           |
|  |                                |                                |
| TECHNICAL DATA                                                                      |                                |                                |
| operating voltage                                                                   | 240V DC / AC <sub>eff</sub>    | 240V DC / AC <sub>eff</sub>    |
| display (operation)                                                                 | -                              | -                              |
| display (signal)                                                                    | -                              | -                              |
| wire assembly                                                                       | 43 x 0.1mm                     | 43 x 0.1mm                     |
| wire diameter                                                                       | 0.34 mm <sup>2</sup>           | 0.34 mm <sup>2</sup>           |
| outer jacket material                                                               | PUR                            | PUR                            |
| operating temperature                                                               | -25 ... +80°C                  | -25 ... +80°C                  |
| system of protection (EN 60529)                                                     | IP67                           | IP67                           |
| contact-no. / wire color                                                            | 1/brown 2/white 3/blue 4/black | 1/brown 2/white 3/blue 4/black |

|                                 |                                 |                                |
|---------------------------------|---------------------------------|--------------------------------|
| connector                       | M12, straight                   | M12, straight                  |
| socket                          | M12, angular, 3 LED             | M12, straight, 2 LED           |
| number of pins                  | 4-pin                           | 4-pin                          |
| article-no.                     | VK030F23                        | VK030F26                       |
| length                          | 0.3m                            | 0.3m                           |
| article-no.                     | VK060F23                        | VK060F26                       |
| length                          | 0.6m                            | 0.6m                           |
| article-no.                     | VK100F23                        | VK100F26                       |
| length                          | 1.0m                            | 1.0m                           |
| article-no.                     | VK150F23                        | VK150F26                       |
| length                          | 1.5m                            | 1.5m                           |
| article-no.                     | VK200F23                        | VK200F26                       |
| length                          | 2.0m                            | 2.0m                           |
| article-no.                     | VK300F23                        | VK300F26                       |
| length                          | 3.0m                            | 3.0m                           |
| article-no.                     | VK500F23                        | VK500F26                       |
| length                          | 5.0m                            | 5.0m                           |
|                                 |                                 |                                |
| <b>TECHNICAL DATA</b>           |                                 |                                |
| operating voltage               | 10 ... 30V DC                   | 10 ... 30V DC                  |
| display (operation)             | green LED (contact 1)           | green LED (contact 1)          |
| display (signal)                | 2 yellow LEDs (contact 2 and 4) | yellow LED (contact 4)         |
| wire assembly                   | 43 x 0.1mm                      | 43 x 0.1mm                     |
| wire diameter                   | 0.34 mm <sup>2</sup>            | 0.34 mm <sup>2</sup>           |
| outer jacket material           | PUR                             | PUR                            |
| operating temperature           | -25 ... +80°C                   | -25 ... +80°C                  |
| system of protection (EN 60529) | IP67                            | IP67                           |
| contact-no. / wire color        | 1/brown 2/white 3/blue 4/black  | 1/brown 2/white 3/blue 4/black |

|                |                       |                 |
|----------------|-----------------------|-----------------|
| connector      | M12, straight         | M12, straight   |
| socket         | 2x M8, angular, 2 LED | 2x M8, straight |
| number of pins | 2x 3-pin              | 2x 3-pin        |
| article-no.    | VK030E82              | VK030E84        |
| length         | 0.3m                  | 0.3m            |
| article-no.    | VK100E82              | VK100E84        |
| length         | 1.0m                  | 1.0m            |



### TECHNICAL DATA

|                                 |                        |                            |
|---------------------------------|------------------------|----------------------------|
| operating voltage               | 10 ... 30V DC          | 60V DC / AC <sub>eff</sub> |
| display (operation)             | green LED (contact 1)  | -                          |
| display (signal)                | yellow LED (contact 4) | -                          |
| wire assembly                   | 43 x 0.1mm             | 43 x 0.1mm                 |
| wire diameter                   | 0.34 mm <sup>2</sup>   | 0.34 mm <sup>2</sup>       |
| outer jacket material           | PUR                    | PUR                        |
| operating temperature           | -25 ... +80°C          | -25 ... +80°C              |
| system of protection (EN 60529) | IP67                   | IP67                       |
| contact-no. / wire color        | 1/brown 3/blue 4/black | 1/brown 3/blue 4/black     |