

Connection Technology

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The idea behind our Connection Technology System



Connection Technology from Kübler = System Safety!

All the products in the Connection Technology section have been tested and approved with the relevant compatible Kübler sensors.

They ensure the full functionality and high signal quality of our sensors.

Your benefit:

- Elimination of connection errors
– no laborious fault finding
- Optimal shielding
– avoids EMC problems
- Shorter installation times
– saves time, cuts costs
- No time-consuming search for the right connector or cable
– saves time, eliminates errors

Connection Technology

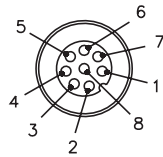
M12 Connection Technology Incremental, SSI, Analogue

Connectors, self-assembly, 8-pin

Coupling



straight, IP67, metal housing



screw connections,
for cable \varnothing 6 ... 8 mm

suitable for our incremental and SSI series:

| | |
|-------------|---------------|
| 3610 / 3620 | F3653 / F3673 |
| 5000 / 5020 | 5006 |
| 5814 / 5834 | 5821 |
| 5853 / 5873 | 5863 / 5883 |
| 5876 | A020 / A02H |

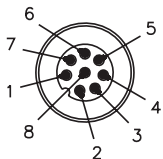
Order No.

05.CMB 8181-0

Connector



straight, IP67, metal housing



screw connections,
for cable \varnothing 6 ... 8 mm

suitable for:

versions with cable outlet

Order No.

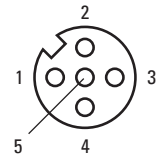
05.CMBS 8181-0

Connectors, self-assembly, 5-pin

Coupling



straight, IP67, metal housing



screw connections,
for cable \varnothing 6 ... 8 mm

suitable for our analogue series:

| |
|-----------------------|
| A50, B80, C120, D135, |
| IS40, IS60 |
| 3651 / 3671 |

Order No.

8.0000.5116.0000

Accessories (Working temperature range -25°C ... +90°C)

Securing clip for M12 connectors EX zone 2/22



plastic housing

Suitable for use in areas with combustible dust acc. to EN 50281-1-1

Order No.


8.0000.5000.0000.Ex

Connection Technology

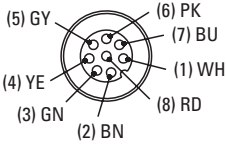
M12 Connection Technology Incremental, SSI, Analogue

Cordsets, pre-assembled, 8-pin (Working temperature range -30°C ... +80°C)

Coupling, PVC cable




straight, IP67, single-ended, plug housing metal / plastic

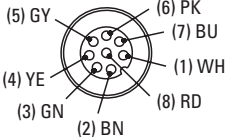


| suitable for our incremental and SSI series: | | cable length | Order No. |
|--|---------------|--------------|------------------------|
| 3610 / 3620 | F3653 / F3673 | 2 m | 05.WAKS8-2/P00 |
| 5000 / 5020 | 5006 | 5 m | 05.WAKS8-5/P00 |
| 5814 / 5834 | 5821 | 10 m | 05.WAKS8-10/P00 |
| 5853 / 5873 | 5863 / 5883 | 15 m | 05.WAKS8-15/P00 |
| 5876 | A020 / A02H | | |

Coupling, PVC cable




right-angle, IP67, single-ended, plug housing metal / plastic

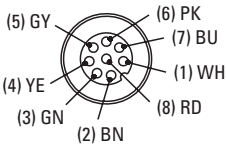


| suitable for our incremental and SSI series: | | cable length | Order No. |
|--|---------------|--------------|-------------------------|
| 3610 / 3620 | F3653 / F3673 | 2 m | 05.WWAKS8-2/P00 |
| 5000 / 5020 | 5006 | 5 m | 05.WWAKS8-5/P00 |
| 5814 / 5834 | 5821 | 10 m | 05.WWAKS8-10/P00 |
| 5853 / 5873 | 5863 / 5883 | 15 m | 05.WWAKS8-15/P00 |
| 5876 | A020 / A02H | | |

Coupling, PUR cable




straight, IP67, single-ended, plug housing metal / plastic

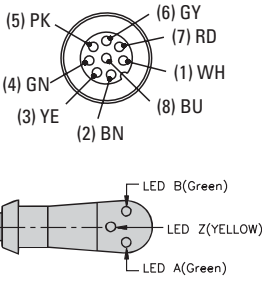


| suitable for our incremental and SSI series: | | cable length | Order No. |
|--|---------------|--------------|-------------------------|
| 3610 / 3620 | F3653 / F3673 | 2 m | 05.WAKS8-2/S366 |
| 5000 / 5020 | 5006 | 5 m | 05.WAKS8-5/S366 |
| 5814 / 5834 | 5821 | 10 m | 05.WAKS8-10/S366 |
| 5853 / 5873 | 5863 / 5883 | 15 m | 05.WAKS8-15/S366 |
| 5876 | A020 / A02H | | |

Connector, with integrated control LEDs, PVC cable




right-angle, IP67, single-ended



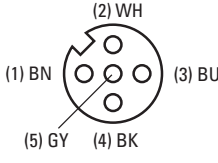
| suitable for our incremental and SSI series: | | cable length | Order No. |
|--|------|--------------|---------------------------------|
| 3610 / 3620 | 5006 | 2 m | 05.E-WKC 8T-PX3-930-0002 |
| 5000 / 5020 | 5821 | 4 m | 05.E-WKC 8T-PX3-930-0004 |
| A020 | A02H | 6 m | 05.E-WKC 8T-PX3-930-0006 |
| | | 7 m | 05.E-WKC 8T-PX3-930-0008 |
| | | 10 m | 05.E-WKC 8T-PX3-930-0010 |

Cordsets, pre-assembled, 5-pin (Working temperature range -30°C ... +80°C)

Coupling, PVC cable



straight, IP67, single-ended, plug housing metal / plastic



| suitable for our analogue series: | | cable length | Order No. |
|-----------------------------------|------|--------------|--------------------------|
| A50 | B80 | 2 m | 05.WAKS4.5-2/P00 |
| C120 | D135 | 5 m | 05.WAKS4.5-5/P00 |
| IS40 | IS60 | 10 m | 05.WAKS4.5-10/P00 |
| | | 15 m | 05.WAKS4.5-15/P00 |

Connection Technology

M12 Connection Technology

Profibus-DP

Connectors, self-assembly, 5-pin

Coupling, Bus in



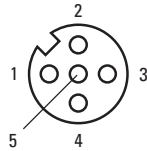
straight, IP67, metal housing

suitable for our series:

5858 / 5878
5868 / 5888
9080

Order No.

05.BMWS 8151-8.5



screw connections,
for cable \varnothing 4 ... 9 mm

Connector, Bus out



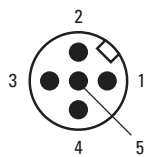
straight, IP67, metal housing

suitable for our series:

5858 / 5878
5868 / 5888
9080

Order No.

05.BMSWS 8151-8.5



screw connections,
for cable \varnothing 4 ... 9 mm

Coupling, Bus in



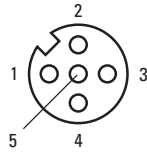
right-angle, IP67,
metal / plastic housing

suitable for our series:

5858 / 5878
5868 / 5888
9080

Order No.

05.BMWS 8251-8.5



screw connections,
for cable \varnothing 4 ... 9 mm

Connector, Bus out



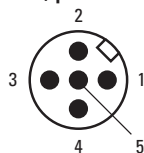
right-angle, IP67,
metal / plastic housing

suitable for our series:

5858 / 5878
5868 / 5888
9080

Order No.

05.BMSWS 8251-8.5



screw connections,
for cable \varnothing 4 ... 9 mm

Accessories

Terminating resistor



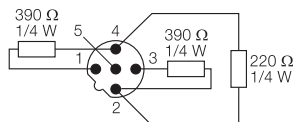
straight, IP67,
metal / plastic housing

suitable for our series:

5858 / 5878
5868 / 5888
9080

Order No.

05.RSS4.5-PDP-TR



M12 lead-through



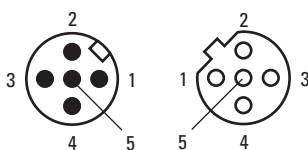
straight, IP67, metal housing

suitable for our series:

5858 / 5878
5868 / 5888
9080

Order No.


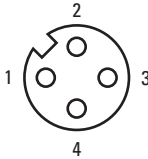
05.FKW-FSW45/M12


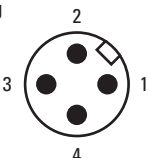



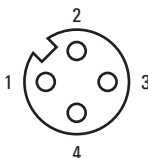
Connection Technology


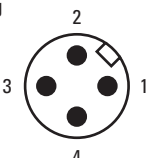
M12 Connection Technology Profibus-DP

Connectors, self-assembly, 4-pin, Profibus-DP power supply


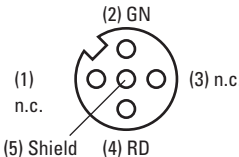

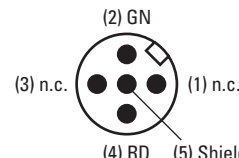

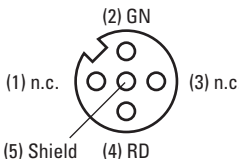

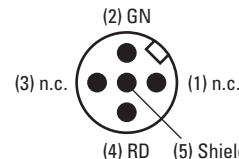

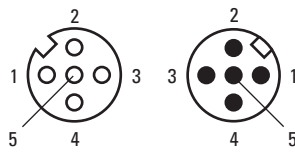

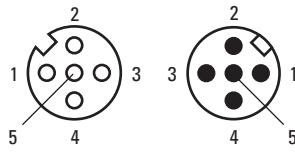
| | | | |
|--|--|---|---|
| <p>Coupling</p>  | <p>straight, IP67, plastic housing</p>  <p>screw connections, for cable ø 4 ... 6 mm</p> | <p><i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080</p> | <p><i>Order No.</i> 05.B8141-0</p> |
|--|--|---|---|

| | | | |
|---|--|--|--|
| <p>Connector</p>  | <p>straight, IP67, metal / plastic housing</p>  <p>screw connections, for cable ø 4 ... 6 mm</p> | <p><i>suitable for:</i> versions with cable outlet</p> | <p><i>Order No.</i> 05.BS8141-0</p> |
|---|--|--|--|

| | | | |
|---|--|---|---|
| <p>Coupling</p>  | <p>right-angle, IP67, plastic housing</p>  <p>screw connections, for cable ø 4 ... 6 mm</p> | <p><i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080</p> | <p><i>Order No.</i> 05.B8241-0</p> |
|---|--|---|---|

| | | | |
|---|---|--|--|
| <p>Connector</p>  | <p>right-angle, IP67, metal / plastic housing</p>  <p>screw connections, for cable ø 4 ... 6 mm</p> | <p><i>suitable for:</i> versions with cable outlet</p> | <p><i>Order No.</i> 05.BS8241-0</p> |
|---|---|--|--|

Connection Technology

| M12 Connection Technology | | Profibus-DP | | |
|---|--|---|---|--|
| Bus cable, pre-assembled, 5-pin (Working temperature range -30°C ... +80°C) | | | | |
| Coupling, PUR cable, Bus in  | straight, single-ended, IP67, metal / plastic housing  | <i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080 | <i>cable length</i> 6 m 10 m 15 m | <i>Order No.</i> 05.RKSW451-6M 05.RKSW451-10M 05.RKSW451-15M |
| Connector, PUR cable, Bus out  | straight, single-ended, IP67, metal / plastic housing  | <i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080 | <i>cable length</i> 6 m 10 m 15 m | <i>Order No.</i> 05.RSSW451-6M 05.RSSW451-10M 05.RSSW451-15M |
| Coupling, PUR cable, Bus in  | right-angle, single-ended, IP67, metal / plastic housing  | <i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080 | <i>cable length</i> 6 m 10 m 15 m | <i>Order No.</i> 05.WKSW451-6M 05.WKSW451-10M 05.WKSW451-15M |
| Connector, PUR cable, Bus out  | right-angle, single-ended, IP67, metal / plastic housing  | <i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080 | <i>cable length</i> 6 m 10 m 15 m | <i>Order No.</i> 05.WSSW451-6M 05.WSSW451-10M 05.WSSW451-15M |
| Coupling + connector, PUR cable, Bus in + Bus out  | straight, IP67, metal / plastic housing  | <i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080 | <i>cable length</i> 2 m 6 m 10 m 15 m | <i>Order No.</i> 05.RSSW-RKSW451-2M 05.RSSW-RKSW451-6M 05.RSSW-RKSW451-10M 05.RSSW-RKSW451-15M |
| Coupling + connector, PUR cable, Bus in + Bus out  | right-angle, IP67, metal / plastic housing  | <i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080 | <i>cable length</i> 2 m 6 m 10 m 15 m | <i>Order No.</i> 05.WSSW-RKSW451-2M 05.WSSW-RKSW451-6M 05.WSSW-RKSW451-10M 05.WSSW-RKSW451-15M |

Connection Technology

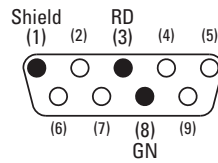
M12 Connection Technology Profibus-DP

Bus cable, pre-assembled, Sub-D-connector (Working temperature range -30°C ... +80°C)

**Sub-D-connector, PUR cable
Profibus Master**



single-ended, with terminating resistor



suitable for our series:
5858 / 5878
5868 / 5888
9080

cable length
0,5 m
2 m

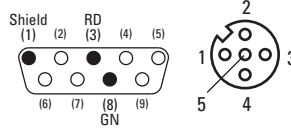
Order No.

**05.D9T-451-0,5M
05.D9T-451-2M**

**Sub-D-connector + M12 coupling, PUR cable,
Profibus Master, Bus in**



with terminating resistor



suitable for our series:
5858 / 5878
5868 / 5888
9080

cable length
0,5 m
2 m

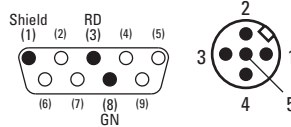
Order No.

**05.RKSW-D9T451-0,5M
05.RKSW-D9T451-2M**

**Sub-D-connector + M12 connector, PUR cable,
Profibus Master, Bus out**



with terminating resistor



suitable for our series:
5858 / 5878
5868 / 5888
9080

cable length
0,5 m
2 m

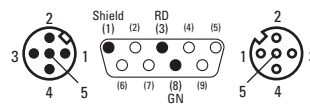
Order No.

**05.RSSW-D9T451-0,5M
05.RSSW-D9T451-2M**

**M12-connector + Sub-D-connector + M12 coupling,
PUR cable, Profibus Master, Bus in / Bus out**



with terminating resistor



suitable for our series:
5858 / 5878
5868 / 5888
9080

cable length
2 x 0,5 m
2 x 2 m


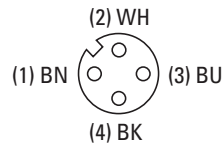
Order No.


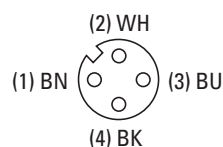
**05.RSSW-D9-RKSW451-0,5M-0,5M
05.RSSW-D9-RKSW451-2M-2M**


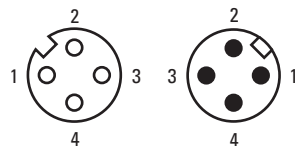
Connection Technology

M12 Connection Technology Profibus-DP

Bus cable, pre-assembled, 4-pin, Profibus-DP power supply (Working temperature range -30°C ... +90°C)

| | | | | |
|---|---|---|---|---|
| Coupling, PUR/PVC cable  | straight, single-ended, IP67, metal / plastic housing  | <i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080 | <i>cable length</i> 2 m 6 m 10 m | <i>Order No.</i> 05.WAK4-2/S90 05.WAK4-6/S90 05.WAK4-10/S90 |
|---|---|---|---|---|


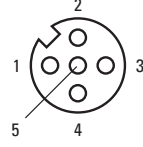
| | | | | |
|---|--|---|---|--|
| Coupling, PUR/PVC cable  | right-angle, single-ended, IP67, metal / plastic housing  | <i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080 | <i>cable length</i> 2 m 6 m 10 m | <i>Order No.</i> 05.WWAK4-2/S90 05.WWAK4-6/S90 05.WWAK4-10/S90 |
|---|--|---|---|--|


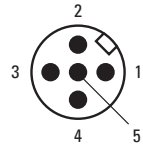
| | | | | |
|--|--|---|---|--|
| M12 connector + M12 coupling, PUR/PVC cable  | straight, IP67, metal / plastic housing  | <i>suitable for our series:</i> 5858 / 5878 5868 / 5888 9080 | <i>cable length</i> 2 m 5 m 10 m | <i>Order No.</i> 05.WAK4-2-WAS4/S90 05.WAK4-5-WAS4/S90 05.WAK4-10-WAS4/S90 |
|--|--|---|---|--|


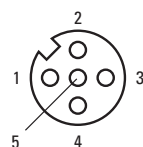
Connection Technology


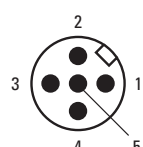
M12 Connection Technology CANopen / DeviceNet


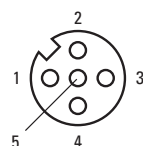
Connectors, self-assembly, 5-pin


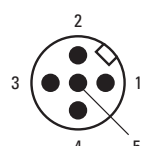
| | | | | | | | | | | | |
|--|---|---|---------------|---------------|-------------|------|-------------|------|-------------|--|---|
| <p>Coupling, Bus in</p>  | <p>straight, IP67, plastic housing</p>  <p>screw connections, for cable \varnothing 6 ... 8 mm</p> | <p><i>suitable for our series:</i></p> <table border="0"> <tr> <td>F3658 / F3678</td> <td>M3658 / M3678</td> </tr> <tr> <td>5858 / 5878</td> <td>5860</td> </tr> <tr> <td>5868 / 5888</td> <td>9080</td> </tr> <tr> <td>IS40 / IS60</td> <td></td> </tr> </table> | F3658 / F3678 | M3658 / M3678 | 5858 / 5878 | 5860 | 5868 / 5888 | 9080 | IS40 / IS60 | | <p><i>Order No.</i></p> <p>05.B-8151-0/9</p> |
| F3658 / F3678 | M3658 / M3678 | | | | | | | | | | |
| 5858 / 5878 | 5860 | | | | | | | | | | |
| 5868 / 5888 | 9080 | | | | | | | | | | |
| IS40 / IS60 | | | | | | | | | | | |

| | | | | | | | | | | | |
|--|---|--|---------------|---------------|-------------|------|-------------|------|------|--|--|
| <p>Connector, Bus out</p>  | <p>straight, IP67, metal / plastic housing</p>  <p>screw connections, for cable \varnothing 6 ... 8 mm</p> | <p><i>suitable for our series:</i></p> <table border="0"> <tr> <td>F3658 / F3678</td> <td>M3658 / M3678</td> </tr> <tr> <td>5858 / 5878</td> <td>5860</td> </tr> <tr> <td>5868 / 5888</td> <td>9080</td> </tr> <tr> <td>IS60</td> <td></td> </tr> </table> | F3658 / F3678 | M3658 / M3678 | 5858 / 5878 | 5860 | 5868 / 5888 | 9080 | IS60 | | <p><i>Order No.</i></p> <p>05.BS-8151-0/9</p> |
| F3658 / F3678 | M3658 / M3678 | | | | | | | | | | |
| 5858 / 5878 | 5860 | | | | | | | | | | |
| 5868 / 5888 | 9080 | | | | | | | | | | |
| IS60 | | | | | | | | | | | |


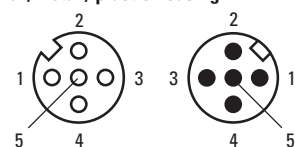
| | | | | | | | | | |
|--|--|---|---------------|---------------|-------------|------|-------------|------|--|
| <p>Coupling, Bus in</p>  | <p>straight, IP67, metal housing</p>  <p>screw connections, for cable \varnothing 6 ... 8 mm</p> | <p><i>suitable for our series:</i></p> <table border="0"> <tr> <td>F3658 / F3678</td> <td>M3658 / M3678</td> </tr> <tr> <td>5858 / 5878</td> <td>5860</td> </tr> <tr> <td>5868 / 5888</td> <td>9080</td> </tr> </table> | F3658 / F3678 | M3658 / M3678 | 5858 / 5878 | 5860 | 5868 / 5888 | 9080 | <p><i>Order No.</i></p> <p>8.0000.5116.0000</p> |
| F3658 / F3678 | M3658 / M3678 | | | | | | | | |
| 5858 / 5878 | 5860 | | | | | | | | |
| 5868 / 5888 | 9080 | | | | | | | | |


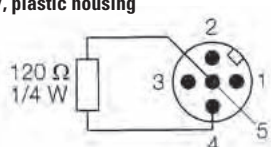
| | | | | | | | | | |
|--|---|---|---------------|---------------|-------------|------|-------------|------|--|
| <p>Connector, Bus out</p>  | <p>straight, IP67, metal housing</p>  <p>screw connections, for cable \varnothing 6 ... 8 mm</p> | <p><i>suitable for our series:</i></p> <table border="0"> <tr> <td>F3658 / F3678</td> <td>M3658 / M3678</td> </tr> <tr> <td>5858 / 5878</td> <td>5860</td> </tr> <tr> <td>5868 / 5888</td> <td>9080</td> </tr> </table> | F3658 / F3678 | M3658 / M3678 | 5858 / 5878 | 5860 | 5868 / 5888 | 9080 | <p><i>Order No.</i></p> <p>8.0000.5111.0000</p> |
| F3658 / F3678 | M3658 / M3678 | | | | | | | | |
| 5858 / 5878 | 5860 | | | | | | | | |
| 5868 / 5888 | 9080 | | | | | | | | |

| | | | | | | | | | |
|--|--|---|---------------|---------------|-------------|------|-------------|------|---|
| <p>Coupling, Bus in</p>  | <p>right-angle, IP67, plastic housing</p>  <p>screw connections, for cable \varnothing 4 ... 8 mm</p> | <p><i>suitable for our series:</i></p> <table border="0"> <tr> <td>F3658 / F3678</td> <td>M3658 / M3678</td> </tr> <tr> <td>5858 / 5878</td> <td>5860</td> </tr> <tr> <td>5868 / 5888</td> <td>9080</td> </tr> </table> | F3658 / F3678 | M3658 / M3678 | 5858 / 5878 | 5860 | 5868 / 5888 | 9080 | <p><i>Order No.</i></p> <p>05.B-8251-0/9</p> |
| F3658 / F3678 | M3658 / M3678 | | | | | | | | |
| 5858 / 5878 | 5860 | | | | | | | | |
| 5868 / 5888 | 9080 | | | | | | | | |

| | | | | | | | | | |
|--|--|---|---------------|---------------|-------------|------|-------------|------|--|
| <p>Connector, Bus out</p>  | <p>right-angle, IP67, metal / plastic housing</p>  <p>screw connections, for cable \varnothing 4 ... 8 mm</p> | <p><i>suitable for our series:</i></p> <table border="0"> <tr> <td>F3658 / F3678</td> <td>M3658 / M3678</td> </tr> <tr> <td>5858 / 5878</td> <td>5860</td> </tr> <tr> <td>5868 / 5888</td> <td>9080</td> </tr> </table> | F3658 / F3678 | M3658 / M3678 | 5858 / 5878 | 5860 | 5868 / 5888 | 9080 | <p><i>Order No.</i></p> <p>05.BS-8251-0/9</p> |
| F3658 / F3678 | M3658 / M3678 | | | | | | | | |
| 5858 / 5878 | 5860 | | | | | | | | |
| 5868 / 5888 | 9080 | | | | | | | | |

Accessories

| | | | |
|---|---|---|---|
| <p>T-junction, coupling – coupling – connector</p>  | <p>IP67, metal / plastic housing</p>  | <p><i>suitable for:</i></p> <p>M12 connector and coupling</p> | <p><i>Order No.</i></p> <p>05.FKM5-FKM5-FSM5</p> |
|---|---|---|---|


| | | | | | | | |
|--|--|--|-------------|------|-------------|------|---|
| <p>Terminating resistor</p>  | <p>IP67, plastic housing</p>  <p>120 Ω 1/4 W</p> | <p><i>suitable for our series:</i></p> <table border="0"> <tr> <td>5858 / 5878</td> <td>5860</td> </tr> <tr> <td>5868 / 5888</td> <td>9080</td> </tr> </table> | 5858 / 5878 | 5860 | 5868 / 5888 | 9080 | <p><i>Order No.</i></p> <p>05.RSE 57 TR2</p> |
| 5858 / 5878 | 5860 | | | | | | |
| 5868 / 5888 | 9080 | | | | | | |

Connection Technology

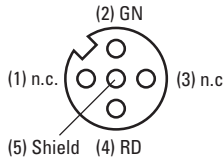
M12 Connection Technology CANopen / DeviceNet

Bus cable, pre-assembled, 5-pin (Working temperature range -30°C ... +80°C)

Coupling, PVC cable, Bus in



straight, single-ended, IP67, metal / plastic housing



(2) GN
(1) n.c. (3) n.c.
(5) Shield (4) RD

suitable for our series:

| | |
|---------------|------|
| M3658 / M3678 | |
| 5858 / 5878 | 5860 |
| 5868 / 5888 | 9080 |


cable length

| |
|------|
| 6 m |
| 10 m |
| 15 m |

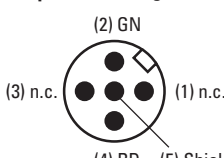
Order No.

| |
|-----------------------|
| 05.RKC-572-6M |
| 05.RKC-572-10M |
| 05.RKC-572-15M |

Connector, PVC cable, Bus out



straight, single-ended, IP67, metal / plastic housing



(2) GN
(3) n.c. (1) n.c.
(4) RD (5) Shield

suitable for our series:

| | |
|---------------|------|
| M3658 / M3678 | |
| 5858 / 5878 | 5860 |
| 5868 / 5888 | 9080 |


cable length

| |
|------|
| 6 m |
| 10 m |
| 15 m |

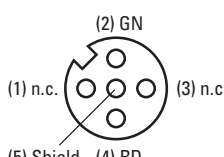
Order No.

| |
|-----------------------|
| 05.RSC-572-6M |
| 05.RSC-572-10M |
| 05.RSC-572-15M |

Coupling, PVC cable, Bus in



straight, single-ended, IP67, metal housing



(2) GN
(1) n.c. (3) n.c.
(5) Shield (4) RD

suitable for our series:

| | |
|---------------|------|
| M3658 / M3678 | |
| 5858 / 5878 | 5860 |
| 5868 / 5888 | 9080 |


cable length

| |
|------|
| 2 m |
| 5 m |
| 10 m |
| 15 m |

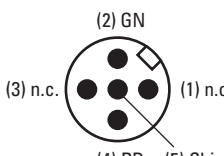
Order No.

| |
|-------------------------|
| 8.0000.6V88.0002 |
| 8.0000.6V88.0005 |
| 8.0000.6V88.0010 |
| 8.0000.6V88.0015 |

Connector, PVC cable, Bus out



straight, single-ended, IP67, metal housing



(2) GN
(3) n.c. (1) n.c.
(4) RD (5) Shield

suitable for our series:

| | |
|---------------|------|
| M3658 / M3678 | |
| 5858 / 5878 | 5860 |
| 5868 / 5888 | 9080 |


cable length

| |
|------|
| 2 m |
| 5 m |
| 10 m |
| 15 m |

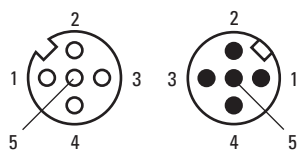
Order No.

| |
|-------------------------|
| 8.0000.6V81.0002 |
| 8.0000.6V81.0005 |
| 8.0000.6V81.0010 |
| 8.0000.6V81.0015 |

Connector + coupling, PVC cable, Bus in / out



straight, IP67, metal / plastic housing



(2) GN
1 3 3 1
5 4 4 5

suitable for our series:

| | |
|---------------|------|
| M3658 / M3678 | |
| 5858 / 5878 | 5860 |
| 5868 / 5888 | 9080 |


cable length

| |
|-------|
| 0,5 m |
| 1 m |
| 2 m |
| 4 m |
| 10 m |
| 15 m |

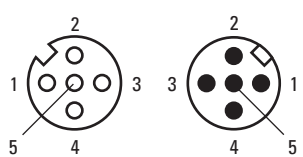
Order No.

| |
|----------------------------|
| 05.RSC-RKC-572-0,5M |
| 05.RSC-RKC-572-1M |
| 05.RSC-RKC-572-2M |
| 05.RSC-RKC-572-4M |
| 05.RSC-RKC-572-10M |
| 05.RSC-RKC-572-15M |

Connector + coupling, PVC cable, Bus in / out



right-angle, IP67, metal / plastic housing



(2) GN
1 3 3 1
5 4 4 5

suitable for our series:

| | |
|---------------|------|
| M3658 / M3678 | |
| 5858 / 5878 | 5860 |
| 5868 / 5888 | 9080 |

cable length

| |
|-------|
| 0,5 m |
| 2 m |
| 6 m |


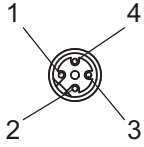
Order No.


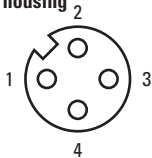
| |
|----------------------------|
| 05.WSC-WKC-572-0,5M |
| 05.WSC-WKC-572-2M |
| 05.WSC-WKC-572-6M |


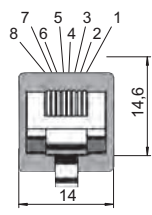
Connection Technology

M12 and RJ45 Connection Technology EtherCat


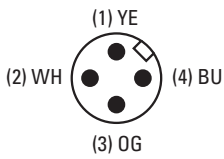
Connectors, self-assembly, 4-pin


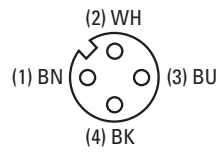
| | | | |
|---|---|--|--|
| <p>M12 connector, Port A and B</p>  | <p>straight, D-coded, IP67, metal / plastic housing</p>  <p>screw connections, for cable ø 4 ... 9 mm</p> | <p><i>suitable for our series:</i> 5858 / 5878 5868 / 5888</p> | <p><i>Order No.</i> 05.WASCSY4S</p> |
|---|---|--|--|

| | | | |
|--|--|--|---|
| <p>M12 coupling, power supply</p>  | <p>straight, IP67, plastic housing</p>  <p>screw connections, for cable ø 4 ... 6 mm</p> | <p><i>suitable for our series:</i> 5858 / 5878 5868 / 5888</p> | <p><i>Order No.</i> 05.B8141-0</p> |
|--|--|--|---|

| | | | |
|---|---|--|---|
| <p>RJ45 connector</p>  | <p>straight, IP20, plastic housing</p>  <p>screw connections, for cable ø 4.5 ... 8 mm</p> | <p><i>suitable for:</i> EtherCat Bus cable</p> | <p><i>Order No.</i> 05.VS-08-RJ45-5-Q/IP20</p> |
|---|---|--|---|

Cordsets, pre-assembled, 4-pin (Working temperature range -30°C ... +80°C)

| | | | | |
|--|--|--|---|--|
| <p>M12 connector, PUR cable, Port A and B</p>  | <p>straight, D-coded, single-ended, IP67, metal / plastic housing</p>  | <p><i>suitable for our series:</i> 5858 / 5878 5868 / 5888</p> | <p><i>cable length</i> 2 m 5 m 10 m</p> | <p><i>Order No.</i> 05.WASSY4.029-2/S2171/S222 05.WASSY4.029-5/S2171/S222 05.WASSY4.029-10/S2171/S222</p> |
|--|--|--|---|--|

| | | | | |
|--|---|--|---|---|
| <p>M12 coupling PUR cable, power supply</p>  | <p>straight, single-ended, IP67, metal / plastic housing</p>  | <p><i>suitable for our series:</i> 5858 / 5878 5868 / 5888</p> | <p><i>cable length</i> 2 m 5 m 10 m</p> | <p><i>Order No.</i> 05.WAK4-2/S90 05.WAK4-5/S90 05.WAK4-10/S90</p> |
|--|---|--|---|---|

Connection Technology

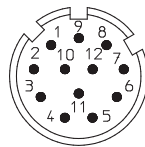
M23 Connection Technology Standard

Connectors, self-assembly, 12-pin

Coupling, male



**pin assignment ccw
IP67, metal housing**



Solder connections,
for cable ø 5.5 ... 10.5 mm

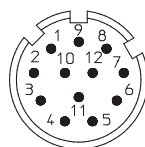
suitable for:
Versions with cable outlet

Order No.
8.0000.5011.0000

Plug connector with coupling thread



**pin assignment ccw
IP67, metal housing**



Solder connections,
for cable ø 5.5 ... 10.5 mm

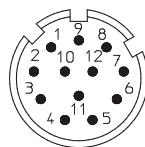
suitable for:
Versions with cable outlet

Order No.
8.0000.5015.0001

**Plug connector with coupling thread,
central fastening**



**pin assignment ccw
IP67, metal housing**



Solder connections,
for cable ø 5.5 ... 10.5 mm

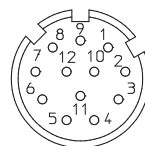
suitable for:
Versions with cable outlet

Order No.
8.0000.5015.0000

Coupling



**pin socket assignment cw
IP67, metal housing**



Solder connections,
for cable ø 5.5 ... 10.5 mm

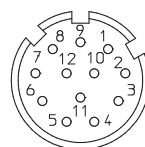
suitable for our series:
5000 / 5020 5814 / 5834
580X / 582X 585X / 587X
586X / 588X 9000
908X A02X

Order No.
8.0000.5012.0000

Coupling, Ex zone 2/22



**pin socket assignment cw
IP67, metal housing**



Solder connections,
for cable ø 5.5 ... 10.5 mm

suitable for our series:
5000 / 5020 5814 / 5834
580X / 582X 585X / 587X
586X / 588X 9000
908X A02X

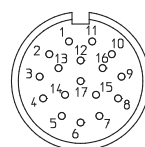
Order No.
8.0000.5012.0000.Ex

Connectors, self-assembly, 17-pin

Coupling



**pin socket assignment ccw
IP67, metal housing**



Solder connections,
for cable ø 5.5 ... 10.5 mm

suitable for our series:
5850 / 5870
with parallel interface

Order No.
8.0000.5042.0000

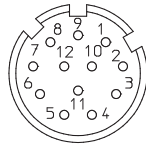
M23 Connection Technology Standard

Cordsets, pre-assembled, 12-pin, for incremental encoders (Working temperature range -30°C ... +80°C)

Coupling, PUR cable
(10 x 0.14 mm² + 2 x 0.5 mm²)



pin socket assignment cw
IP67, metal housing



suitable for our series:

5000 / 5020 5814 / 5834
580X / 582X 9000
(Push-Pull output)

cable length

2 m
5 m
10 m
15 m

Order No.

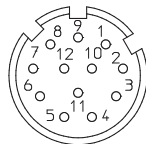
8.0000.6101.0002
8.0000.6101.0005
8.0000.6101.0010
8.0000.6101.0015

| | | | | | | | | | | | | |
|---------------|----|----|----|----|----|----|---|----|---|---------------------------|----|---------------------------|
| PIN: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| cable colour: | PK | BN | BU | RD | GN | YE | - | GY | - | WH 0.5 mm ² | WH | BN 0.5 mm ² |

Coupling, PVC cable
(12 x 0.14 mm²)



pin socket assignment cw
IP67, metal housing



suitable for our series:

5000 / 5020 5814 / 5834
580X / 582X 9000
(Push-Pull output)

cable length

2 m
5 m
10 m
15 m

Order No.

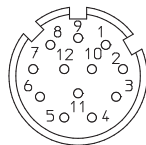
8.0000.6201.0002
8.0000.6201.0005
8.0000.6201.0010
8.0000.6201.0015

| | | | | | | | | | | | | |
|---------------|----|-------|----|----|----|----|---|----|---|----|-------|----|
| PIN: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| cable colour: | PK | RD-BU | BU | RD | GN | YE | - | GY | - | WH | GY-PK | BN |

Coupling, PVC cable
(6 x 2 x 0.14 mm²)



pin socket assignment cw
IP67, metal housing



suitable for our series:

5000 / 5020 5814 / 5834
580X / 582X 9000
(RS422 or SinCos interface)

cable length

2 m
5 m
10 m
15 m

Order No.

8.0000.6901.0002
8.0000.6901.0005
8.0000.6901.0010
8.0000.6901.0015

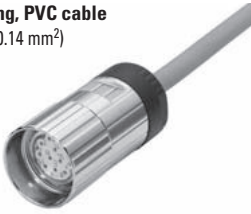
| | | | | | | | | | | | | |
|---------------|----|-------|----|----|----|----|---|----|---|----|-------|----|
| PIN: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| cable colour: | PK | RD-BU | BU | RD | GN | YE | - | GY | - | WH | GY-PK | BN |

M23 Connection Technology

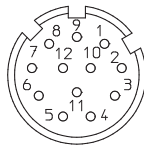
Standard

Cordsets, pre-assembled, 12-pin, for absolute encoders

Coupling, PVC cable
(6 x 2 x 0.14 mm²)



pin socket assignment cw
IP67, metal housing



suitable for our series:

5850 / 5870 5853 / 5873
5863 / 5883 5862 / 5882
9081
(SSI- or analogue interface)

cable length

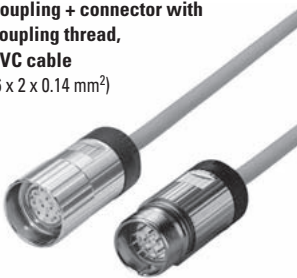
2 m
5 m
10 m
15 m

Order No.

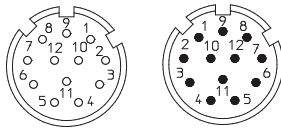
8.0000.6901.0002.0031
8.0000.6901.0005.0031
8.0000.6901.0010.0031
8.0000.6901.0015.0031

| | | | | | | | | | | | | |
|---------------|----|----|----|----|----|----|----|----|----|----|-------|-------|
| PIN: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| cable colour: | WH | BN | GN | YE | GY | PK | BU | RD | BK | VT | GY-PK | RD-BU |

Coupling + connector with coupling thread, PVC cable
(6 x 2 x 0.14 mm²)



pin socket assignment cw/cw
IP67, metal housing



suitable for our series:

5850 / 5870 5853 / 5873
5863 / 5883 5862 / 5882
9081
(SSI- interface)

cable length

2 m
5 m
10 m
15 m

Order No.

8.0000.6905.0002.0032
8.0000.6905.0005.0032
8.0000.6905.0010.0032
8.0000.6905.0015.0032

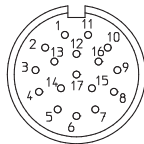
| | | | | | | | | | | | | |
|---------------|----|----|----|----|----|----|----|----|----|----|-------|-------|
| PIN: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| cable colour: | WH | BN | GN | YE | GY | PK | BU | RD | BK | VT | GY-PK | RD-BU |

Cordsets, pre-assembled, 17-pin, for absolute encoders

Coupling, PVC cable
(18 x 0.14 mm²)



Pin socket assignment ccw
IP67, metal housing



suitable for our series:

5850 / 5870 5852 / 5872
(Parallel interface)

cable length

2 m
5 m
10 m
15 m

Order No.

8.0000.6741.0002
8.0000.6741.0005
8.0000.6741.0010
8.0000.6741.0015

| | | | | | | | | | | | | | | | | | |
|---------------|----|----|----|----|----|----|----|----|----|----|-------|-------|-------|-------|-------|-------|-------|
| PIN: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| cable colour: | WH | BN | GN | YE | GY | PK | BU | RD | BK | VT | GY-PK | RD-BU | WH-GN | BN-GN | WH-YE | YE-BN | WH-GY |

Connection Technology

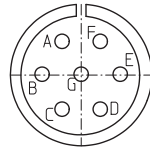
| | |
|---|-----------------|
| MIL-approved connection technology | Standard |
|---|-----------------|

| | | | |
|---|--|--|--|
| Connectors, self-assembly, 7-pin | | | |
|---|--|--|--|

Coupling



straight, IP67, metal housing



Solder connections,
for cable ø 5 ... 8 mm

suitable for our series:
580X, 582X

Order No.

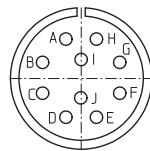
8.0000.5052.0000

| | | | |
|--|--|--|--|
| Connectors, self-assembly, 10-pin | | | |
|--|--|--|--|

Coupling



straight, IP67, metal housing










Solder connections,
for cable ø 5 ... 8 mm

suitable for our series:
580X, 582X, 5000, 5020

Order No.

8.0000.5062.0000

Connection Technology

| Cable | | Unprepared, cut to length | | |
|--|---|---|--|---|
| 12 core + shield | | | | |
| PUR electronic trailing cable halogen-free  | Cross section 10 x 0.14 mm ² + 2 x 0.5 mm ² Permanent working temp. range flexible installation -30°C ... +80°C secure installation -50°C ... +90°C Bending radius flexible installation min. 50 mm secure installation min. 35 mm Cable diameter approx. 6.9 ±0.3 mm | <i>suitable for:</i> robust incremental encoders | <i>Order No.</i> 8.0000.6100.XXXX ¹⁾ | |
| | PVC electronic cable LiYCY  | Cross section 12 x 0.14 mm ² Permanent working temp. range flexible installation -5°C ... +70°C secure installation -30°C ... +80°C Bending radius flexible installation min. 100 mm secure installation min. 70 mm Cable diameter approx. 6.7 ±0.2 mm | <i>suitable for:</i> incremental encoders Standard cable | <i>Order No.</i> 8.0000.6200.XXXX ¹⁾ |
| TPE electronic cable LIYCY (TP) halogen-free  | Cross section 5 x 2 x 0.14 mm ² + 2 x 0.5 mm ² Permanent working temp. range flexible installation -40°C ... +110°C secure installation -60°C ... +135°C Bending radius flexible installation min. 90 mm secure installation min. 70 mm Cable diameter approx. 8.5 ±0.4 mm | <i>suitable for:</i> high temperatures or voltages Sine wave encoders | <i>Order No.</i> 8.0000.6E00.XXXX ¹⁾ | |
| | PVC electronic cable LiYCY (TP)  | Cross section 6 x 2 x 0.14 mm ² Permanent working temp. range flexible installation -5°C ... +70°C secure installation -30°C ... +80°C Bending radius flexible installation min. 110 mm secure installation min. 75 mm Cable diameter approx. 7.3 ±0.2 mm | <i>suitable for:</i> absolute encoders with SSI or 4 ... 20 mA interface, twisted pair conductors | <i>Order No.</i> 8.0000.6900.XXXX ¹⁾ |
| 5 core + shield | | | | |
| PVC electronic cable LiYCY  | Cross section 5 x 0.14 mm ² Permanent working temp. range flexible installation -5°C ... +70°C secure installation -30°C ... +80°C Bending radius flexible installation min. 75 mm secure installation min. 75 mm Cable diameter approx. 4.7 ±0.2 mm | <i>suitable for:</i> incremental encoders without inversions | <i>Order No.</i> 8.0000.6300.XXXX ¹⁾ | |
| | 8 core + shield | | | |
| PUR training cable halogen-free, flame resistant  | Cross section 8 x 0.14 mm ² Permanent working temp. range flexible installation -20°C ... +80°C secure installation -40°C ... +80°C Bending radius flexible installation min. 65 mm secure installation min. 45 mm Cable diameter approx. 5.5 ±0.2 mm | <i>suitable for:</i> Limes, 365X, 368X SSI and analogue | <i>Order No.</i> 8.0000.6P00.XXXX ¹⁾ | |
| | 18 core + shield | | | |
| PVC electronic cable LiYCY  | Cross section 18 x 0.14 mm ² Permanent working temp. range flexible installation -5°C ... +70°C secure installation -30°C ... +80°C Bending radius flexible installation min. 120 mm secure installation min. 100 mm Cable diameter approx. 7.8 ±0.2 mm | <i>suitable for:</i> absolute encoders with parallel interface, twisted pair conductors | <i>Order No.</i> 8.0000.6700.XXXX ¹⁾ | |

1) XXXX = cable length in meters (e.g. 10 m = 0010)

Connection Technology

Cable Unprepared, cut to length

Profibus-DP Cable

PUR outer jacket, PE wire insulation



| | | |
|--------------------------------------|--|---|
| Cross section | 10 x 0.14 mm ² + 2 x 0.5 mm ² | <i>suitable for:</i> robust incremental encoders |
| Permanent working temp. range | flexible installation -30°C ... +70°C secure installation -50°C ... +90°C | |
| Bending radius | flexible installation min. 70 mm secure installation min. 50 mm | |
| Cable diameter | approx. 6.9 ±0.2 mm | |

Order No.
05.KABEL451.XXX¹⁾

DeviceNet Cable

PUR outer jacket, PE wire insulation



| | | |
|--------------------------------------|--|---|
| Cross section | 10 x 0.14 mm ² + 2 x 0.5 mm ² | <i>suitable for:</i> robust incremental encoders |
| Permanent working temp. range | flexible installation -30°C ... +70°C secure installation -50°C ... +90°C | |
| Bending radius | flexible installation min. 70 mm secure installation min. 50 mm | |
| Cable diameter | approx. 6.9 ±0.2 mm | |

Order No.
05.KABEL5723.XXX¹⁾

1) XXX = cable length in meters (e.g. 10 m = 010)

Optical fibre signal transmission

RS422/HTL

Optical fibre transmitter and receiver

eco plus

Cost advantage compared to conventional wiring over 150 m length*



The solution for tough signal transmission.

The system is made up of an optical fibre transmitter and an optical fibre receiver. The optical fibre transmitter converts the electrical signals of a normal incremental encoder into a light signal for transmission by means of an optical fibre.

The receiving module converts the optical signal back into electrical signals. Up to 4 channels with inverted signals may be transmitted safely.

Innovative

- Signal transmission thanks to a simple glass fibre
- Safe signal transmission up to 1000 m
- Input frequency up to 400 kHz
- Input level 10 ... 30 V or RS422
- Inverted input signals
- Resists extremely strong electro-magnetical fields

Compact

- Can be installed even where space is tight
- Minimal installation depth, diameter 70 mm
- Compact cable outlet

Application areas

- Process control technology and automation technology
- Applications sensitive to interference
- High voltage plants
- Plants with long transmission distances
- Potential separation
- Explosive areas

Order code

Optical fibre transmitter / receiver

6.LWLX.X
a b

a
S = Optical fibre transmitter
E = Optical fibre receiver

b Output circuit / Power supply
 1 = RS422 / 10 ... 30 V DC
 2 = HTL, without inverted signals / 10 ... 30 V DC
 (only for optical fibre transmitter)
 4 = RS422 / 5 V DC
 5 = HTL / 10 ... 30 V DC, output

Scope of delivery:
 - Optical fibre module
 - Multilingual operating manual

Optical fibre transmitter versions can be combined with any version of the optical fibre receivers.

Accessories

Simplex Patch cable
ST-ST - Multimode



Connector:
 2 x ST/PC, Optical fibre:
 1 x 50/125

05.B09-B09-821-XXXX

XXXX = Length in m
 Standard lengths: 2 m, 5 m,
 8 m, 10 m, 15 m, 20 m, ...
 (in 5 m steps)

ST Multimode coupling



Barrel: ceramic, slotted

05.LWLK.001

* Comparison of costs:
 Costs per meter standard copper cable compared to costs per meter optical fibre signal cable + costs of transmitter + costs of receiver

Connection Technology

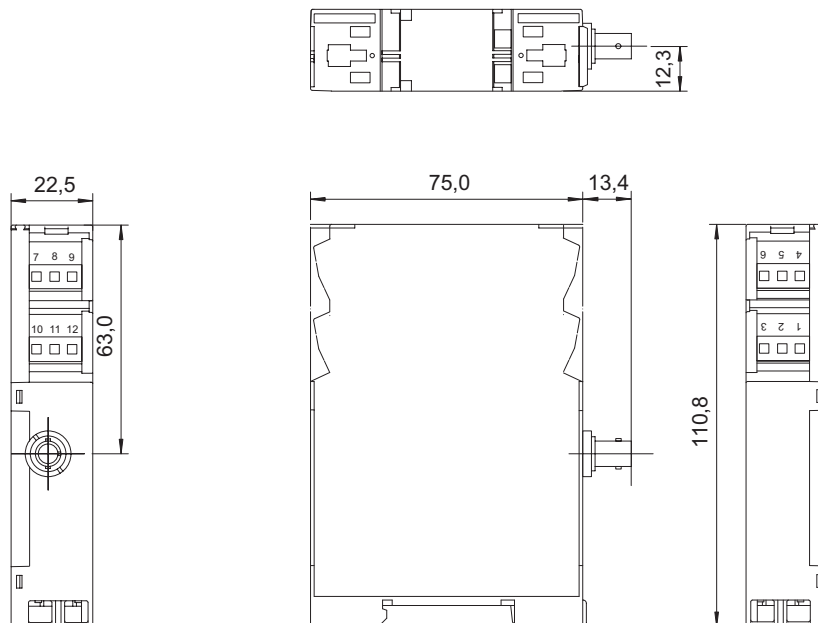
Optical fibre signal transmission RS422/HTL Optical fibre transmitter and receiver

| Technical data | | | |
|--|--|-------------------------------------|---|
| Supply voltage | 10 ... 30 V or 5 V \pm 5% | Glass fibre | multimode fibre, 50/125 μ m, 62,5/125 μ m |
| Power consumption per module | < 2 W | Input signals sampling rate | 10 MSamples/s |
| Operating voltage reverse connection protection | available | Optical fibre transmission distance | max. 1000 m |
| Encoder inputs optical fibre transmitter channels | A, \bar{A} , B, \bar{B} , 0, $\bar{0}$ | Dimensions (W x L x H) | 22.5 x 110,8 x 88,4 mm |
| Max. input frequency optical fibre transmitter and output frequency optical fibre receiver | 400 kHz | Protection | IP40, terminals IP20 |
| Input level optical fibre transmitter | 10 ... 30 V or RS 422 | Terminals | protected against contact 2,5 mm ² |
| Optical wavelength | 820 nm | Temperature range | -10°C ... +60°C |
| Optical transmission rate | 120 Mbit/s | Weight | approx. 95 g |
| Optical fibre synchronisation display | LED on the receiver | Standards | EN 55 011 Class B1 EN 61 000-6-2: 2006 |
| Optical fibre connection | ST connector, 13 mm, \varnothing 9 mm, on the bottom side of the housing | | |

Terminal assignment

| Channel | \bar{A} | \bar{B} | $\bar{0}$ (\bar{C}) | A | B | 0 (C) | \bar{D} | +U _B | D | 0 V, GND <small>linked internally</small> |
|---------|-----------|-----------|-------------------------|---|---|-------|-----------|-----------------|----|--|
| Pin | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 9, 11, 12 |

Dimensions



Optical fibre signal transmission **SSI** **Optical fibre transmitter and receiver**

eco plus
 Cost advantage compared to conventional wiring over 150 m length*



Optical fibre transmission system for SSI absolute encoders

The system is made up of an optical fibre transmitter and an optical fibre receiver.

The optical fibre transmitter converts the electrical signals of a normal absolute encoder with Synchronous Serial Interface (SSI) into a light signal for transmission by means of an optical fibre. The receiving module converts the optical signal back into electrical signals. Absolute signals can be transmitted safely through one glass fibre over distances of up to 1500 m.

The resolution of 13 bit for a singleturn encoder or 25 bit for a multiturn encoder can be defined by means of a DIP-switch on the front side of the module.

| | |
|---|---|
| <p>Reliable transmission</p> <ul style="list-style-type: none"> • Safe signal transmission up to 1500 m • Resists extremely strong electro-magnetic fields | <p>Easy installation</p> <ul style="list-style-type: none"> • Signal transmission via a single glass fibre. • Resolution of 13 bit or 25 bit can be set via DIP-switch • LED for monitoring of power supply, clock and date • DIN-rail mounting – requires min. installation space – only 22 mm wide |
| <p>Application areas</p> <ul style="list-style-type: none"> • Process control technology and automation technology • Applications sensitive to interference • High voltage plants | <ul style="list-style-type: none"> • Plants with long transmission distances • Potential separation • Explosive areas |

Order code **Optical fibre transmitter / receiver** **LWL X . AX**

| | | |
|--|--|--|
| <p>a</p> <p>S = Optical fibre transmitter E = Optical fibre receiver</p> | <p>b <i>Supply voltage</i></p> <p>1 = 10 ... 30 V DC 4 = 5 V DC</p> | <p><i>Scope of delivery:</i></p> <ul style="list-style-type: none"> - Optical fibre module - Operating manual, dual language, German and English |
|--|--|--|

Accessories

| | | |
|---|--|--|
| <p>Simplex Patch cable ST-ST - Multimode</p>  | <p>Connector: 2 x ST/PC, Optical fibre: 1 x 50/125</p> | <p>05.B09-B09-821-XXXX</p> <p>XXXX = Length in m Standard lengths: 2 m, 5 m, 8 m, 10 m, 15 m, 20 m, ... (in 5 m steps)</p> |
| <p>ST Multimode coupling</p>  | <p>Barrel: ceramic, slotted</p> | <p>05.LWLK.001</p> |

* Comparison of costs:
 Costs per meter standard copper cable compared to costs per meter optical fibre signal cable + costs of transmitter + costs of receiver

Connection Technology

Optical fibre signal transmission SSI Optical fibre transmitter and receiver

| Technical data | | Optical fibre transmitter and receiver | |
|--|--|---|--|
| Supply voltage | 10 ... 30 V DC or 5 V DC \pm 5% | Glass fibre | multimode fibre, 50/125 μ m, 62.5/125 μ m |
| Power consumption per module | U_B 10 ... 30 V DC max 1.6 W U_B 5 V DC max 0.8 W | Max. optical fibre transmission distance | max. 1500 m |
| Operating voltage reverse connection protection | available | Dimensions | (W x L x H) 22.5 x 110.8 x 88.4 mm |
| Encoder inputs optical fibre transmitter | -T, +T and -D, +D | Protection | IP40, terminals IP20 |
| SSI clock rate | 500 kHz fixed setting | Terminals | protected against contact 2.5 mm ² max. conductor diameter |
| Optical wavelength | 820 nm (infrared) | Temperature range | -10°C ... +60°C |
| Optical transmission rate | 120 Mbit/s | Weight | approx. 100 g |
| Optical fibre connection | ST connector, 13 mm, \varnothing 9 mm, on the bottom side of the housing | Standards | EN 55 011 Class B1 EN 61 000-6-2: 2006 |

Connection diagram Optical fibre transmitter

| Pin | Signal |
|-----|-----------|
| 1 | 0 V (GND) |
| 2 | + U_B |
| 3 | + T |
| 4 | - T |
| 5 | + D |
| 6 | - D |
| 7 | 0 V (GND) |
| 8 | + U_B |

Connection diagram Optical fibre receiver

| Pin | Signal | |
|-----|---------------|---------------------------------|
| 1 | 0 V (GND) | |
| 2 | + U_B | from power supply |
| 3 | + D | |
| 4 | - D | to controller |
| 5 | + T | |
| 6 | - T | from controller |
| 7 | emitter (-) | |
| 8 | collector (+) | optocoupler output alarm output |

Dimensions

