FIELDBUS COMPONENTS
CAN/CANopen
DeviceNet™
PHYSICAL MEDIA
TURCK Fieldbus Technology - Fieldbus Solutions à la carte

Over the years, the company TURCK, whose name has been a synonym for sensor and automation technology for more than 30 years, has created a new line of business: the fieldbus division.

More than a decade ago, the company Ford contacted several renowned enterprises, inquiring about the development of a field bus system. A real challenge, considering that the specifications provided were brief while the technical demands were high. Reliability and data integrity are, of course, of utmost importance when networking sensors via a bus.

The system was expected to ensure error-free data transmission between the installed binary sensors and actuators and the bus modules (located directly on the tool) and the control system via a bus.

The application involved ambient temperatures of -25 up to +70 °C, protection against moisture ingress (high pressure cleaning) and electro-magnetic disturbances due to use in welding lines, just to mention a few of the conditions to which the system was to be exposed. At the time, TURCK developed sensoplex®, the first bus system for field applications.

Based on experience gained during the development of sensoplex®, TURCK has continued to develop numerous systems and components which are being utilised throughout the world. Today, TURCK and its daughter company InterlinkBT in the United States are world-wide suppliers of a complete range of products for field bus systems: busstop® - the extremely versatile product line that is really hard to match.

The majority of European automotive manufacturers use TURCK bus components, e.g. TURCK’s Profibus-DP remote I/O modules are part of a single source agreement with Opel Europe, for IP 67 components. GM in the United States additionally uses DeviceNet™ remote I/O modules from TURCK. The process engineering sector also profits from the many advantages of TURCK bus systems: sensoplex® 2 Ex and sensoplex® MC facilitate installation, maintenance and operation.
Positioning & Automation

SIG Positec provides market-oriented solutions for positioning and automation control on the basis of proven series products.

Our customer support includes comprehensive consulting and engineering assistance and a wide range of services. Administration, sales and services are characterised by a decentral structure, based on self-dependent business units to ensure short communication flows, fast reaction times and competent solutions to product related problems.

A wide range of products for positioning and automation control solutions

Twin Line - the programme for modular positioning technology
Two different drive systems - i.e. stepping motors and synchronous AC servo-drives - are included in this product line. The advantages of Twin Line: the same mechanical construction & design and a standardised user-interface.

IcIA - Integrated closed loop Actuator
Intelligent positioning technology in the most compact design: motor, gearbox, amplifier, positioning controller and a bus system - an innovative solution for decentral applications.

Linear axes and robots
Our line of cantilever and portal axes is characterised by a variety of sizes and functions, flexibility and a high quality level. Linear robots in various designs, sizes and with different stroke lengths adapt perfectly to your space requirements and can be easily integrated into existing system installations.

Contact:
SIG Positec Automation GmbH
Breslauerstr. 7
D-77933 Lahr
Tel. (+49) 07821-946-02
Fax (+49) 07821-946-267
E-mail: info@sig-positec.de
Internet: www.sig-positec.de

More information on SIG Positec Automation and up-to-date lists with branch offices and partner companies throughout the world are available via the Internet under www.sig-positec.de
System configuration

Example: Model system with three drives, PLC and connection components

Basic parts list

A DeviceNet™/CANopen system like the one shown above consists of the following parts:

1 pc. bus cable type 572, 2 m long with female eurofast® (M12) connector  Type: RKC572-2M
2 pc. bus cable type 572, 1 m long with male and female eurofast® (M12) connectors  Type: RSC-RKC572-1M
3 pc. bus junction with 1 male and 2 female eurofast® (M12) connectors  Type: VB2-FKM/FSM/FKM57
1 pc. terminating resistor  Type: RSE57-TR2
The positioning drive is connected to the CAN/DeviceNet™ fieldbus via the circular 5-pole male connector:

![Pin configuration - circular 5-pole male connector](image)

- **Pin configuration - circular 5-pole male connector**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Signal</th>
<th>Meaning</th>
<th>I/O</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CAN_SHLD</td>
<td>screen, PE connection</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>not assigned</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>not assigned</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>CAN_H</td>
<td>data wire, dominant high</td>
<td>I/O</td>
</tr>
<tr>
<td>5</td>
<td>CAN_L</td>
<td>data wire, dominant low</td>
<td>I/O</td>
</tr>
</tbody>
</table>

**Network accessories and connection**

Cable connectors, junction boxes and terminating resistors for the positioning drive are specified in this catalogue and can be ordered from TURCK.

Connect a T-piece or a plug with two cable outlets to the circular plug connector on the positioning drive, and connect neighbouring fieldbus devices via fieldbus cables:

- terminate both open ends of the CAN fieldbus with 120 Ohm resistors.
- fix T-piece to positioning drive not allowing any cable stub.
- the maximum cable length for a CAN network depends on the baud rate at which the network is to be operated. The higher the baud rate, the shorter the bus cable must be.
- CANopen: no drops recommended

**Maximum ratings**

<table>
<thead>
<tr>
<th>Baud rate [kBd]</th>
<th>Cable length [m]</th>
<th>Baud rate [kBd]</th>
<th>Cable length [m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>25</td>
<td>100</td>
<td>600</td>
</tr>
<tr>
<td>800</td>
<td>50</td>
<td>50</td>
<td>1000</td>
</tr>
<tr>
<td>500</td>
<td>100</td>
<td>20</td>
<td>2500</td>
</tr>
<tr>
<td>250</td>
<td>250</td>
<td>10</td>
<td>5000</td>
</tr>
</tbody>
</table>
TURCK Fieldbus Components for Sensors and Actuators

InterlinkBT - A BANNER-TURCK Company for Bus Products

InterlinkBT was founded by the companies TURCK und BANNER and combines the experience and know-how of these two pioneers in the field of industrial automation, resulting in one of the most complete and versatile lines of bus products. The range of products comprises stations, junctions and connection products for all customary industrial fieldbus systems.

InterlinkBT is the distributor for the American market.
Table of Contents:

Cables:
- 572 Thin 8
- 577 Flexlife™ Thin 9
- 5711 Mid 10
- 5710 Flexlife™ Mid 11

Cables with connectors:
- 572, 577 Thin, 5711, 5710 Mid 12
eurofast® connectors
dimensions/pin configuration 13

VB2 eurofast® drop junctions
dimensions/pin configuration 14 15

minifast® and eurofast®
feed-through receptacles 16

Terminating Resistors 17
eurofast® field solderable receptacles
dimensions/pin configuration 18 19

eurofast® field wireable connectors
dimensions/pin configuration 20 21

minifast® to eurofast® adapter 22
Fieldbus components

CAN/DeviceNet™ - 572 thin cable and premoulded connectors

Colour coded for CAN/DeviceNet™ systems
High flex construction, compact size
Tough polyurethane premoulded connectors
Oil and abrasion resistant
2-pair individually shielded and overall third shield

Complete line of eurofast® connectors available.

Specifications

Cable: CAN/DeviceNet™
Ident-no.: 69 580 26
Rating: 300 V, 80 °C
Materials:
- PVC outer jacket
- Polyethylene inner construction insulation
Power pair:
- black, red
- 2/22 AWG (2 x 0.32 mm²), stranded tinned copper, twisted pair
- insulation AWM 10233, 300 V, polyethylene, 80 °C,
- DC resistance - 54.13 Ω/km (1000 ft. 16.5 Ω)
- current rating - 6.4 A
Data pair:
- blue, white
- 2/22 AWG (2 x 0.32 mm²), stranded tinned copper, twisted pair
- insulation AWM 10233, 300 V, polyethylene, 80 °C,
- DC resistance - 54.13 Ω/km (1000 ft. 16.5 Ω)
- current rating - 6.4 A
- nominal impedance 126 Ω at 1 MHz
- nominal capacitance - conductor to conductor 37.17 pF/m (11.33 pF/ft)
- velocity of propagation 0.75

Signal attenuation:
- at 125 kHz - 0.34776 dB/100 m (0.1060 dB/100 ft)
- at 500 kHz - 0.34875 dB/100 m (0.1063 dB/100 ft)
- at 1 MHz - 0.34908 dB/100 m (0.1064 dB/100 ft)

Shield/drain:
- Aluminium foil (100 % coverage)
- 22 AWG (0.32 mm²), stranded tinned copper

Approvals:
- UL recognized, AWM Type 2476, 80 °C, 300 V
- CSA AWM III A/B, 80 °C, 300 V, FT1

Connector: eurofast® (M12)
Plug body: moulded polyurethane, spacings to VDE 0110, Group C (250 VAC/300 VDC)
Contacts: gold-plated brass
Coupling Nuts: nickel-plated brass, stainless steel optional
Temperature: -40 °C to +70 °C
Protection: IP 67 (IEC 60529/EN 60529), NEMA 1, 3, 4, 6, 13
Rated current: eurofast® - 4.0 A
**CAN/DeviceNet™ - 577 Flexlife™ thin cable and premoulded connectors**

Complete line of eurofast® connectors available.

**Specifications**

- **Cable:** CAN/DeviceNet™
- **Ident-no.:** 69 580 25
- **Rating:** 300 V, 80 °C
- **Materials:** PUR outer jacket, PUR inner construction insulation
- **Power pair:**
  - black, red
  - 2/22 AWG (2 x 0.32 mm²), stranded bare copper, twisted pair
  - insulation AWM 10233, 300 V, Polyethylene, 80 °C
  - DC resistance - 54.13 Ω/km (1000 ft. 16.5 Ω)
  - current rating - 6.4 A
- **Data pair:**
  - blue, white
  - 2/22 AWG (2 x 0.32 mm²), stranded bare copper, twisted pair
  - insulation AWM 10233, 300 V, Polyethylene, 80 °C
  - DC resistance - 54.13 Ω/km (1000 ft. 16.5 Ω)
  - current rating - 6.4 A
  - nominal impedance 118 Ω at 1 MHz
  - nominal capacitance - conductor to conductor 39.37pF/m (12 pF/ft)
  - velocity of propagation 0.75
- **Signal attenuation:**
  - at 125kHz - 0.34776 dB/100 m (0.1060 dB/100 ft)
  - at 500kHz - 0.34875 dB/100 m (0.1063 dB/100 ft)
  - at 1 MHz - 0.34908 dB/100 m (0.1064 dB/100 ft)
- **Shield/drain:**
  - 36 AWG (0.013 mm²), tinned copper braid (65 % coverage)
  - 22 AWG (0.32 mm²), stranded tinned copper
- **Approvals:** UL recognized AWM Type 2476, 80 °C, 300 V; CSA AWM I/II A/B, 80 °C, 300 V, FT1 ODVA Cable I approval pending; ODVA Release 2.0 compliant
- **Connector:** moulded polyurethane, spacings to VDE 0110, Group C (250 VAC/300 VDC)
- **Contacts:** gold-plated brass
- **Coupling Nuts:** nickel-plated brass, stainless steel optional
- **Temperature:** -40 °C to +70 °C
- **Protection:** IP 67 (IEC 60529/EN 60529), NEMA 1, 3, 4, 6, 13
- **Rated current:** eurofast® (M12) - 4.0 A

**Application suitability**

<table>
<thead>
<tr>
<th>Distance for power pair</th>
<th>100 m max</th>
<th>175 m max</th>
<th>Moderate &lt;1 million</th>
<th>High</th>
<th>Typ</th>
<th>AWM</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flex cycles*</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEC/UL approval</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil resistance</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td></td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Flex cycle life may vary by application
Fieldbus components

CAN/DeviceNet™ - 5711 mid cable and premoulded connectors

Colour coded for CAN/DeviceNet™ systems
High flex construction; longer distances
Tough Polyurethane premoulded connectors
Oil and abrasion resistant
2-pair individually shielded and overall third shield

Application suitability

<table>
<thead>
<tr>
<th>Distance for power pair</th>
<th>“Thin”</th>
<th>“Mid”</th>
<th>Moderate</th>
<th>&gt;1 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flex cycles*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEC/UL approval</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil resistance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Flex cycle life may vary by application

Specifications

Cable: CAN/DeviceNet™
Ident-no.: 69 581 16
Rating: 300 V, 80 °C
Materials: PVC outer jacket
Polyethylene inner construction insulation

Power pair:
- black, red
- 2/16 AWG (2 x 1.3 mm²), stranded tinned copper,
twisted pair
- insulation AWM 1569, 300 V, PVC, 80 °C,
- DC resistance - 13 Ω/km (1000 ft. 4.1 Ω)
- current rating - 15.2 A

Data pair:
- blue, white
- 2/20 AWG (2 x 0.5 mm²), stranded bare copper,
twisted pair
- insulation AWM 10233, 300 V, polyethylene, 80 °C,
- DC resistance - 34.1 Ω/km (1000 ft. 10.4 Ω)
- current rating - 9.6 A
- nominal impedance 110 Ω at 1 MHz
- nominal capacitance - conductor to conductor 40.52 pF/m (12.35 pF/ft)
- velocity of propagation 0.75

Signal attenuation:
- at 125kHz - 0.02624 dB/100 m (0.0080 dB/100 ft)
- at 500kHz - 0.02624 dB/100 m (0.0080 dB/100 ft)
- at 1 MHz - 0.02624 dB/100 m (0.0080 dB/100 ft)

Shield/drain:
- aluminium foil (100 % coverage)
- 20 AWG (0.5 mm²), stranded tinned copper

Approvals:
UL recognized AWM Type 2464, 80 °C, 300 V; CSA AWM I/II A/B, 80 °C, 300 V, FT1
ODVA Cable I approval pending; ODVA Release 2.0 compliant

Connector:
Plug body: moulded polyurethane, spacings to VDE 0110, Group C (250 VAC/300 VDC)
Contacts: gold-plated brass
Coupling Nuts: nickel-plated brass, stainless steel optional
Temperature: -40 ° to +70 °C
Protection: IP 67 (IEC 60529/EN 60529), NEMA 1, 3, 4, 6, 13
Rated current: eurofast® (M12) - 4.0 A

Complete line of eurofast® connectors available.
**CAN/DeviceNet™ - 5710 Flexlife™ mid cable and premoulded connectors**

Complete line of eurofast® connectors available.

**Specifications**

- **Cable**: CAN/DeviceNet™
- **Ident-no.**: 69 581 15
- **Rating**: 300 V, 80 °C
- **Materials**: PUR outer jacket, Polyethylene inner construction insulation
- **Power pair**:
  - black, red
  - 2/17 AWG (2 x 0.32 mm²), stranded bare copper, twisted pair
  - insulation AWM 10233, 300 V, Polyethylene, 80 °C,
  - DC resistance - 13 Ω/km (1000 ft. 5.16 Ω)
  - current rating - 13.6 A
- **Data pair**:
  - blue, white
  - 2/20 AWG (2 x 0.5 mm²), stranded bare copper, twisted pair
  - insulation AWM 10233, 300 V, polyethylene, 80 °C,
  - DC resistance - 34.1 Ω/km (1000 ft. 10.4 Ω)
  - current rating - 9.6 A
  - nominal impedance 110 Ω at 1 MHz
  - nominal capacitance - conductor to conductor 40.52 pF/m (12.35 pF/ft)
- **Signal attenuation**:
  - at 125kHz - 0.2624 dB/100 m (0.080 dB/100 ft)
  - at 500kHz - 0.2624 dB/100 m (0.080 dB/100 ft)
  - at 1 MHz - 0.2624 dB/100 m (0.080 dB/100 ft)
- **Shield/drain**:
  - aluminium foil (100 % coverage)
  - 20 AWG (0.5 mm²), stranded tinned copper
- **Approvals**:
  - UL recognized AWM Type 2476, 80 °C, 300 V; CSA AWM I/II A/B, 80 °C, 300 V, FT1
  - ODVA Cable I approval pending; ODVA Release 2.0 compliant

**Application suitability**

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Moderaate</th>
<th>Low</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance for power pair</td>
<td>⭐</td>
<td>⭐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flex cycles*</td>
<td></td>
<td>⭐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEC/UL approval</td>
<td></td>
<td>⭐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil resistance</td>
<td></td>
<td>⭐</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Flex cycle life may vary by application
Fieldbus components

**CAN/DeviceNet™ - thin cable, mid cable, connectors - 572, 577, 5710, 5711**

<table>
<thead>
<tr>
<th>eurofast® **</th>
<th>eurofast® bulkhead **</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Socket (male)</strong></td>
<td><strong>Pin (female)</strong></td>
</tr>
<tr>
<td>*<em>RSC 57-<em>M</em></em></td>
<td>*<em>WSC 57-<em>M</em></em></td>
</tr>
<tr>
<td>*<em>RSC RSC 57-<em>M</em></em></td>
<td>*<em>RSC WSC 57-<em>M</em></em></td>
</tr>
<tr>
<td>*<em>WSC WSC 57-<em>M</em></em></td>
<td>*<em>WKC RKC 57-<em>M</em></em></td>
</tr>
<tr>
<td>*<em>RKC RKC 57-<em>M</em></em></td>
<td>*<em>WKC WKC 57-<em>M</em></em></td>
</tr>
</tbody>
</table>

* Indicates cable type
* Indicates length in meters
** Consult factory for availability

| Ordering information:
| Preferred cable type: cable 572 |

<table>
<thead>
<tr>
<th>Standard cable lengths</th>
<th>Premoulded</th>
<th>Bulk cable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>metres</strong></td>
<td><strong>feet</strong></td>
<td><strong>metres</strong></td>
</tr>
<tr>
<td>0.3</td>
<td>1.0</td>
<td>30</td>
</tr>
<tr>
<td>0.5</td>
<td>1.6</td>
<td>60</td>
</tr>
<tr>
<td>1.0</td>
<td>3.3</td>
<td>120</td>
</tr>
<tr>
<td>1.5</td>
<td>4.9</td>
<td>180</td>
</tr>
<tr>
<td>2.0</td>
<td>6.6</td>
<td>240</td>
</tr>
<tr>
<td>2.5</td>
<td>8.2</td>
<td>300</td>
</tr>
<tr>
<td>3.0</td>
<td>9.8</td>
<td>360</td>
</tr>
<tr>
<td>4.0</td>
<td>13.1</td>
<td>480</td>
</tr>
<tr>
<td>5.0</td>
<td>16.4</td>
<td>600</td>
</tr>
<tr>
<td>6.0</td>
<td>20.6</td>
<td>720</td>
</tr>
<tr>
<td>8.0</td>
<td>26.3</td>
<td>960</td>
</tr>
<tr>
<td>10</td>
<td>33.1</td>
<td>1200</td>
</tr>
<tr>
<td>15</td>
<td>49.2</td>
<td>1800</td>
</tr>
<tr>
<td>20</td>
<td>66.2</td>
<td>2400</td>
</tr>
<tr>
<td>25</td>
<td>82.1</td>
<td>3000</td>
</tr>
<tr>
<td>30</td>
<td>98.3</td>
<td>3600</td>
</tr>
<tr>
<td>40</td>
<td>131.4</td>
<td>-</td>
</tr>
<tr>
<td>50</td>
<td>164.6</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes:
1. Other cable lengths on request
2. Cable conversions:
   1 metre = 3.2808 feet
   1 metre = 39.37 inch
3. Tolerances:
   0 - 1 metre : +25 / -0 mm
   1 - 12.5 metres : +50 / -0 mm
   > 12.5 metres : +4% of length / -0 mm
eurofast® connectors - dimensions and pin configuration

<table>
<thead>
<tr>
<th>RSC-*</th>
<th>Dimension drawings</th>
<th>RKC-*</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="RSC-* dimension drawings" /></td>
<td><img src="image" alt="RSC-* dimension drawings" /></td>
<td><img src="image" alt="RSC-* dimension drawings" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WSC-*</th>
<th>Dimension drawings</th>
<th>WKC-*</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="WSC-* dimension drawings" /></td>
<td><img src="image" alt="WSC-* dimension drawings" /></td>
<td><img src="image" alt="WSC-* dimension drawings" /></td>
</tr>
</tbody>
</table>

[ ] Brackets indicate cable dimensions for cable type 572, 577, 5710, 5711

<table>
<thead>
<tr>
<th>FSFD-*</th>
<th>FKFD-*</th>
<th>Mounting/installation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="FSFD-* dimension drawings" /></td>
<td><img src="image" alt="FKFD-* dimension drawings" /></td>
<td><img src="image" alt="Mounting/installation" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Male</th>
<th>Pin configuration</th>
<th>Female</th>
</tr>
</thead>
</table>
| ![Male pin configuration](image) | 1 = bare (shield drain wire)  
2 = red (+ voltage)  
3 = black (- voltage)  
4 = white (CAN_H)  
5 = blue (CAN_L) | ![Female pin configuration](image) |

Hans Turck GmbH & Co.KG  •  D-45466 Mülheim an der Ruhr  •  Tel. 02 08/49 52-0  •  Fax 02 08/49 52-264  •  E-Mail: turckmh@mail.turck-globe.de
### Fieldbus components

**CAN/DeviceNet™ - VB2 eurofast® - drop junctions**

eurofast® branch from eurofast® bus line  
Keyed for CAN/DeviceNet™ systems  
Tough polyurethane moulded body  
Heavy duty internal wiring

---

#### Selection guide

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Applications</th>
<th>Schematic</th>
</tr>
</thead>
</table>
| VB2-FKM FKM FSM 57 | VB2 junction  
- ready for eurofast® connectors branch and bus | ![Schematic 1](image1) |
| VB2-FKM/RKC RSC 572 *M *M | VB2 junction with 572 “thin” bus line  
- reduced power and data drop | ![Schematic 2](image2) |
| VB2-FKM/FKM RSC 572 *M | VB2 junction with 572 “thin” bus line  
- ready for eurofast® connectors branch and bus | ![Schematic 3](image3) |
| VB2-RKC 572 *M/FKM FSM | VB2 junction with 572 “thin” branch line  
- ready for eurofast® bus line  
Note: not recommended for CANopen | ![Schematic 4](image4) |
| VB2-RKC 572 *M/RKC RSC 572 *M *M | VB2 junction with 572 “thin” branch and bus line  
Note: not recommended for CANopen | ![Schematic 5](image5) |
**CAN/DeviceNet™ - VB2 eurofast® - dimensions and pin configuration**

| Connector* | moulded polyurethane construction, spacings to VDE 0110, Group C (250 VAC/300 VDC) |
| Contact materials* | gold-plated brass |
| Coupling nuts* | nickel-plated brass, stainless steel optional |
| Temperature | -40 to +70 °C |
| Protection degree | IP67 (IEC 60529/EN 60529), NEMA 1, 3, 4, 6, 13 |

**Cable specification**

<table>
<thead>
<tr>
<th>DeviceNet thin cable</th>
<th>FSK or RSC male eurofast®</th>
<th>FKM or RKC female eurofast®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 572</td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
</tbody>
</table>

**Dimension drawings**

![Diagram](image3) ![Diagram](image4)

**Part Number Definition**

<table>
<thead>
<tr>
<th>C</th>
<th>A</th>
<th>B</th>
<th>Connector*</th>
<th>Cordset*</th>
<th>LengthA</th>
<th>LengthB</th>
</tr>
</thead>
<tbody>
<tr>
<td>VB2-FKM ___ /FKM FSM 57 ______</td>
<td>VB2 RKC 572 *M/RKC RSC 572 *M *M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Example: FKM in position A is an eurofast® connector; RKC in position A in an eurofast® cordset; FKM – female eurofast® connector; FSM – male eurofast® connector; RKC – female eurofast® cordset; RSC – male eurofast® cordset;
**Fieldbus components**

**CAN/DeviceNet™ - eurofast® bulkhead feed-through receptacles**

Keyed for CAN/DeviceNet™ systems  
Easy panel or enclosure mounting  
eurofast® - standard cutout size (Ø 12.7 mm)  
Rugged IEC IP67/ NEMA 6

**Selection guide**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Applications</th>
<th>Schematic</th>
</tr>
</thead>
</table>
| FKM FS 57/M12 | eurofast® bulkhead receptacle  
- straight male/female feed-thru  
- for use with CAN/DeviceNet™ eurofast® cordsets | 1 < 1  
2 < 2  
3 < 3  
4 < 4  
5 < 5 |

**Specifications**

**Connector:** nickel-plated brass (CuZn), spacings to VDE 0110, Group C (250 VAC/300 VDC)  
**Contact carrier:** PA6 (Nylon)  
**Contact materials:** gold-plated brass  
**Coupling nuts:** nickel-plated brass, stainless steel optional  
**Temperature:** -40 ° to +105 °C  
**Protection degree:** IP67 (IEC 60529/EN 60529), NEMA 1, 3, 4, 6

**Dimensions**

- M12x1 O-RING
- M12x1 LOCKNUT LN-M12
- LOCKWASHER LW-M12

**Pin configuration**

- RSM male eurofast®
- FKM female eurofast®

**Recommended panel cutout**

- Ø 12.7
- rating: 4 A, 250 V
**CAN/DeviceNet™ - terminating resistors**

Terminating resistors with eurofast® connectors
Tough polyurethane moulded body
Heavy duty internal wiring

**Selection guide**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Applications</th>
<th>Schematic</th>
</tr>
</thead>
</table>
| RSE 57-TR2  | eurofast® terminating resistor  
  • internal resistor  
  • male eurofast® connector | ![Schematic](image) |

For stainless steel coupling nut change part number from RSE 57-TR2 to RSEV 57 TR2

For female connector change part number from RSE 57-TR2 to RKE 57 TR2

**Specifications**

- **Connector:** oil resistant grey polyurethane body material and contact carrier, 300 V rating
- **Contact materials:** gold-plated copper alloy
- **Coupling nuts:** nickel-plated brass, stainless steel optional
- **Temperature:** -40 ° to +80 °C
- **Protection degree:** IP 67 (IEC 60529/EN 60529), NEMA 1, 3, 4, 6

**Dimensions**

![Dimensions](image)
Fieldbus components

CAN/DeviceNet™ - eurofast® field solderable receptacles

Field solderable receptacles for bus cables
Easy panel or enclosure mounting
Facilitate field installation

Selection guide

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Applications</th>
<th>Schematic</th>
</tr>
</thead>
<tbody>
<tr>
<td>FK 57</td>
<td>eurofast® field solderable receptacle</td>
<td>Bare 1</td>
</tr>
<tr>
<td></td>
<td>• straight female connector</td>
<td>Red 2</td>
</tr>
<tr>
<td></td>
<td>• for use with CAN/DeviceNet™ thin cables</td>
<td>Black 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>White 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blue 5</td>
</tr>
<tr>
<td>FS 57</td>
<td>eurofast® field solderable receptacle</td>
<td>Bare 1</td>
</tr>
<tr>
<td></td>
<td>• straight male connector</td>
<td>Red 2</td>
</tr>
<tr>
<td></td>
<td>• for use with CAN/DeviceNet™ thin cables</td>
<td>Black 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>White 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blue 5</td>
</tr>
</tbody>
</table>

Receptacles also available with cable
### Specifications

**Connector:** PA6 (Nylon), 250 V rating  
**Housing materials:** nickel-plated brass  
**Contact materials:** gold-plated brass  
**Solder lugs:** 22 AWG capacity  
**Temperature:** -40 °C to +90 °C  
**Protection degree:** IP 68 (IEC 60529/EN 60529), NEMA 1, 3, 4, 6P

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Pin configuration</th>
<th>Wire Capacity</th>
</tr>
</thead>
</table>
| ![Diagram 1](image1) | ![Diagram 2](image2) | female eurofast®
| 1 = bare (shield drain wire) | 2 = red (+ voltage) | 22 AWG CAN/DeviceNet™ cable type 572 type 577 |
| 3 = black (- voltage) | 4 = white (CAN_H) | rating: 4 A, 300 V |
| 5 = blue (CAN_L) | |

<table>
<thead>
<tr>
<th>Male</th>
<th>Pin configuration</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3" alt="Diagram 3" /></td>
<td><img src="image4" alt="Diagram 4" /></td>
<td>1 = bare (shield drain wire)</td>
</tr>
<tr>
<td>1 = red (+ voltage)</td>
<td>2 = black (- voltage)</td>
<td>2 = red (+ voltage)</td>
</tr>
<tr>
<td>3 = white (CAN_H)</td>
<td>4 = blue (CAN_L)</td>
<td>5 = blue (CAN_L)</td>
</tr>
</tbody>
</table>
## Fieldbus components

### CAN/DeviceNet™ - eurofast® field wireable connectors

Field wireable connectors for bus lines and spurs
Facilitate field replacement

### Selection guide

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Applications</th>
<th>Schematic</th>
</tr>
</thead>
</table>
| B8151-0/9   | eurofast® field wireable  
  - straight female connector  
  - for use with CAN/DeviceNet™ thin cables | Bare ______ < 1  
  Red ______ < 2  
  Black ______ < 3  
  White ______ < 4  
  Blue ______ < 5 |
| B8251-0/9   | eurofast® field wireable  
  - right angle female connector  
  - for use with CAN/DeviceNet™ thin cables | Bare ______ < 1  
  Red ______ < 2  
  Black ______ < 3  
  White ______ < 4  
  Blue ______ < 5 |
| BS 8151-0/9 | eurofast® field wireable  
  - straight male connector  
  - for use with CAN/DeviceNet™ thin cables | Bare ______ → 1  
  Red ______ → 2  
  Black ______ → 3  
  White ______ → 4  
  Blue ______ → 5 |
| BS8251-0/9  | eurofast® field wireable  
  - right angle male connector  
  - for use with CAN/DeviceNet™ thin cables | Bare ______ → 1  
  Red ______ → 2  
  Block ______ → 3  
  White ______ → 4  
  Blue ______ → 5 |
**Specifications**

**Dimensions**

| Connector: | polyester, PTB black |
| Contact insert: | PTB, spacings to VDE 0110, Group C (250 VAC/300 VDC) |
| Contact materials: | nickel-plated copper alloy |
| Coupling nuts: | female – PTB; male – nickel-plated brass |
| Temperature: | -40 °C to +85 °C |
| Protection degree: | IP67 (IEC 60529/EN 60529), NEMA 1, 3, 4, 6p |

**Applications**

<table>
<thead>
<tr>
<th>Connector type</th>
<th>Dimensions</th>
<th>Applications</th>
<th>Schematic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female eurofast®</td>
<td><img src="image1" alt="Female eurofast® Dimensions" /></td>
<td>0.236 - 0.330 / 6 - 8.5</td>
<td>CAN/DeviceNet™ cable type 572, 577, 5710, 5711</td>
</tr>
<tr>
<td>Male eurofast®</td>
<td><img src="image2" alt="Male eurofast® Dimensions" /></td>
<td>0.236 - 0.330 / 6 - 8.5</td>
<td>CAN/DeviceNet™ cable type 572, 577, 5710, 5711</td>
</tr>
<tr>
<td>Female eurofast®</td>
<td><img src="image3" alt="Female eurofast® Dimensions" /></td>
<td>0.236 - 0.330 / 6 - 8.5</td>
<td>CAN/DeviceNet™ cable type 572, 577, 5710, 5711</td>
</tr>
<tr>
<td>Male eurofast®</td>
<td><img src="image4" alt="Male eurofast® Dimensions" /></td>
<td>0.236 - 0.330 / 6 - 8.5</td>
<td>CAN/DeviceNet™ cable type 572, 577, 5710, 5711</td>
</tr>
</tbody>
</table>

**Schematic**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 A, 36 VDC</td>
<td>rating 3 A, 36 VDC</td>
</tr>
<tr>
<td>3 A, 36 VDC</td>
<td>rating 3 A, 36 VDC</td>
</tr>
<tr>
<td>3 A, 36 VDC</td>
<td>rating 3 A, 36 VDC</td>
</tr>
<tr>
<td>3 A, 36 VDC</td>
<td>rating 3 A, 36 VDC</td>
</tr>
</tbody>
</table>
Fieldbus components

CAN/DeviceNet™ - minifast® to eurofast® adapter

Keyed for CAN/DeviceNet™ systems
Tough polyurethane moulded body
Heavy duty internal wiring

Selection guide

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Applications</th>
<th>Schematic</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM 57-FK 4.5</td>
<td>minifast® to eurofast® adapter</td>
<td>1 &lt; 1</td>
</tr>
<tr>
<td></td>
<td>• minifast® male to eurofast® female connector</td>
<td>2 &lt; 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>j1 &lt; 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>j2 &lt; 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 &lt; 5</td>
</tr>
</tbody>
</table>

Specifications

Connector: moulded polyurethane constructions, spacings to VDE 0110, Group C (250 VAC/300 VDC)

Contact materials: gold-plated brass

Coupling nuts: nickel-plated brass, stainless steel optional

Temperature: -40 ° to +70 °C

Protection degree: IP 67 (IEC 60529/EN 60529), NEMA 1, 3, 4, 6, 13

Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>RSM male minifast®</th>
<th>FKM female eurofast®</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>rating: 9 A, 600 V</td>
<td>rating: 9 A, 600 V</td>
</tr>
</tbody>
</table>
## Fieldbus components

### Index of parts

<table>
<thead>
<tr>
<th>Type</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B</strong></td>
<td></td>
</tr>
<tr>
<td>B 8151-0/9</td>
<td>20</td>
</tr>
<tr>
<td>B 8251-0/9</td>
<td>20</td>
</tr>
<tr>
<td>BS 8151-0/9</td>
<td>20</td>
</tr>
<tr>
<td>BS 8251-0/9</td>
<td>20</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td></td>
</tr>
<tr>
<td>Cable 5710 Flexlife</td>
<td>11</td>
</tr>
<tr>
<td>Cable 5711</td>
<td>10</td>
</tr>
<tr>
<td>Cable 572</td>
<td>8</td>
</tr>
<tr>
<td>Cable 577 Flexlife</td>
<td>9</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td></td>
</tr>
<tr>
<td>FK 57</td>
<td>18</td>
</tr>
<tr>
<td>FKM FS 57/M12</td>
<td>16</td>
</tr>
<tr>
<td>FS 57</td>
<td>18</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td></td>
</tr>
<tr>
<td>RKC FKFD 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>RKC FSFD 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>RKC RKC 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>RKC WKC 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>RSC FKFD 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>RSC FSFD 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>RSC RKC 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>RSC WKC 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>RSC WSC 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>RSE 57-TR2</td>
<td>17</td>
</tr>
<tr>
<td>RSM 57-FK 4.5</td>
<td>22</td>
</tr>
<tr>
<td><strong>V</strong></td>
<td></td>
</tr>
<tr>
<td>VB2-FKM FKM FSM 57</td>
<td>14</td>
</tr>
<tr>
<td>VB2-FKM/FKM RSC 572-+M</td>
<td>14</td>
</tr>
<tr>
<td>VB2-FKM/RKC RSC 572-+M-+M</td>
<td>14</td>
</tr>
<tr>
<td>VB2-RKC 572-+M/FKM FSM</td>
<td>14</td>
</tr>
<tr>
<td>VB2-RKC 572-+M/RKC RSC 572-+M-+M</td>
<td>14</td>
</tr>
<tr>
<td><strong>W</strong></td>
<td></td>
</tr>
<tr>
<td>WKC FKFD 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>WKC FSFD 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>WKC WKC 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>WSC FKFD 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>WSC FSFD 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>WSC RKC 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>WSC WKC 57x-+M</td>
<td>12</td>
</tr>
<tr>
<td>WSC WSC 57x-+M</td>
<td>12</td>
</tr>
</tbody>
</table>
Bitte senden Sie mir Unterlagen:

**Sensortechnik**
- Induktive Sensoren
- uprox® induktive Sensoren
- Kapazitive Sensoren
- Magnetfeldsensoren
- Opto-Sensoren
- Geräte für den Personenschutz
- Ultraschall-Sensoren
- Strömungswächter
- Druckwächter
- Temperaturwächter
- Steckverbinder
- CD-ROM Sensortechnik

**Interfacetechnik**
- Interfacetechnik im Aufbaugehäuse
  - Bauform multimodul
  - Bauform multisafe®
- Allgemeine Informationen
- Interfacetechnik auf 19"-Karte
  - Bauform multicart®
- Miniaturen Relais, Industrierelais, Zeitwürfel, Sockel
- Zeit- und Überwachungsrelais
- Ex-Schutz – Grundlagen für die Praxis (Übersichtsposter)
- CD-ROM Interfacetechnik

**Feldbus technik**
- busstop®-Feldbuskomponenten
- Bussystem sensoplex®2
- Bussystem sensoplex®2 Ex
- Bussystem sensoplex®MC
- Bussystem AS-Interface®
- Bussystem DeviceNet™
- Bussystem FOUNDATION™ fieldbus
- Bussystem PROFIBUS-DP
- Bussystem PROFIBUS-PA
- Bussystem piconet®
- Bussystem excom®

Please send me more information:

**Sensors**
- inductive sensors
- uprox® inductive sensors
- capacitive sensors
- magnetic-field sensors
- photoelectric sensors
- machine safety equipment
- ultrasonic sensors
- flow controls
- pressure controls
- temperature controls
- connectors
- CD-ROM Sensors

**Interface technology**
- devices in modular housings
  - multimodul style
  - multisafe® style
- general information
- devices on 19" card
  - multicart® style
- miniature relays, industrial relays, time cubes, sockets
- programmable relays and timers
- explosion protection – basics for practical application (overview poster)
- CD-ROM Interface technology

**Fieldbus technology**
- busstop® fieldbus components
- bus system sensoplex®2
- bus system sensoplex®2 Ex
- bus system sensoplex®MC
- bus system AS-Interface®
- bus system DeviceNet™
- bus system FOUNDATION™ fieldbus
- bus system PROFIBUS-DP
- bus system PROFIBUS-PA
- bus system piconet®
- bus system excom®

**FAX-ANTWORT/FAX REPLY**

Absender/Sender: 
Name: 
Firma/Company: 
Abt/Position: 
Adresse/Address: 
Tel./Phone: Fax: 
E-Mail:
... and more than 60 representatives and agencies world-wide.