CANmp Option

Interface description
Controller Area Network – multi-protocols
Installation location:
The interface is built into the rear side of the device. It can be installed on delivery. The device has to be sent back for retrofitting.

Combination with other interfaces
- Standard connection
  Point to point connection.
- Network topology
  It is possible to connect 32 bus members in the bus chain. In case of distance reduction and transfer rate reduction more bus members are possible. The bus ends has to be terminated.

Technical characteristics
- Type: designed as D-Sub socket, 9 pin male
- Interface standard: ISO 11898; Layer 1 and 2 in the ISO/OSI layer model
Example of TopCon devices in a bus chain
The CANmp interface X115 of the previous TopCon device is connected to the CANmp interface X114 of the following TopCon device. The last CANmp interface X115 in the chain has to be terminated.

![Diagram of CANmp bus chain between TopCon devices and termination.]

**Fig. 1** CANmp bus chain between TopCon devices and termination.

Cable connection between bus members

![Diagram of cable connection between bus members.]

**Fig. 2** Connection between bus members.

Terminator connection

![Diagram of terminator connection.]

**Fig. 3** The 120 Ω terminator resistance is connected between the pins CAN L and CAN H of the CANmp interface.
**Pins of the Interface**

![Pin diagram](image)

**Fig. 4** D-Sub 9 Pin: female -1- and male -2-

<table>
<thead>
<tr>
<th>Pin</th>
<th>Signal</th>
<th>I/O</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>---</td>
<td>I/O</td>
<td>n.c. ¹)</td>
</tr>
<tr>
<td>2</td>
<td>CAN L</td>
<td>I/O</td>
<td>Signal: Dominant Low, see</td>
</tr>
<tr>
<td>3</td>
<td>CAN GND</td>
<td>O</td>
<td>Common ground</td>
</tr>
<tr>
<td>4</td>
<td>---</td>
<td>---</td>
<td>n.c. ¹)</td>
</tr>
<tr>
<td>5</td>
<td>CAN SHLD</td>
<td>---</td>
<td>High resistance connection to common ground. It is connectable via a jumper.</td>
</tr>
<tr>
<td>6</td>
<td>CAN GND</td>
<td>---</td>
<td>n.c. ¹)</td>
</tr>
<tr>
<td>7</td>
<td>CAN H</td>
<td>I/O</td>
<td>Signal: Dominant High, see</td>
</tr>
<tr>
<td>8</td>
<td>---</td>
<td>O</td>
<td>n.c. ¹)</td>
</tr>
<tr>
<td>9</td>
<td>CAN V+</td>
<td>---</td>
<td>n.c. ¹)</td>
</tr>
<tr>
<td>Shield</td>
<td>Connected to earth</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tab. 1 Interface pins

¹) The signal will be looped through.

![CAN signal construction](image)

**Fig. 5** CAN signal construction.