



## MM A MINI-IO CAB09B

**PILZ**  
THE SPIRIT OF SAFETY

► Accessories PNOZmulti

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SD means Secure Digital

### Description

The connection cable MM A MINI-IO CAB09B is used to connect an encoder to the speed monitors PNOZ m EF 1MM, PNOZ m EF 2MM or PSSu K F EI.

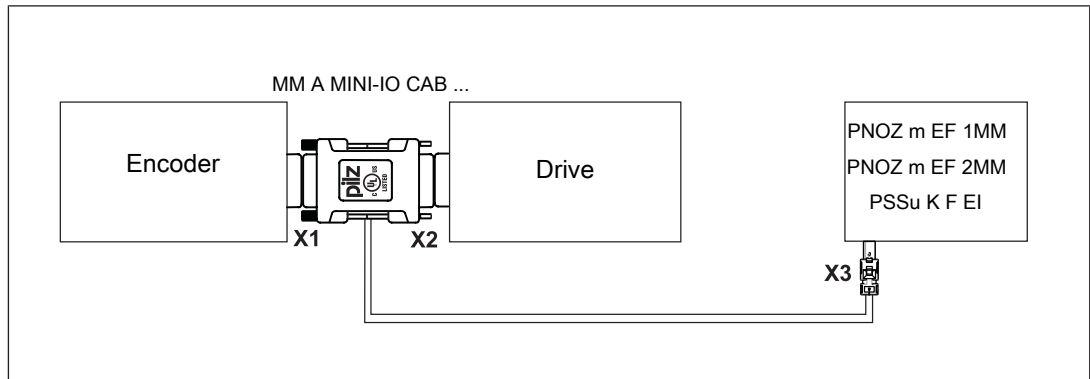
The connection to the speed monitor is made via the Mini-IO connector.



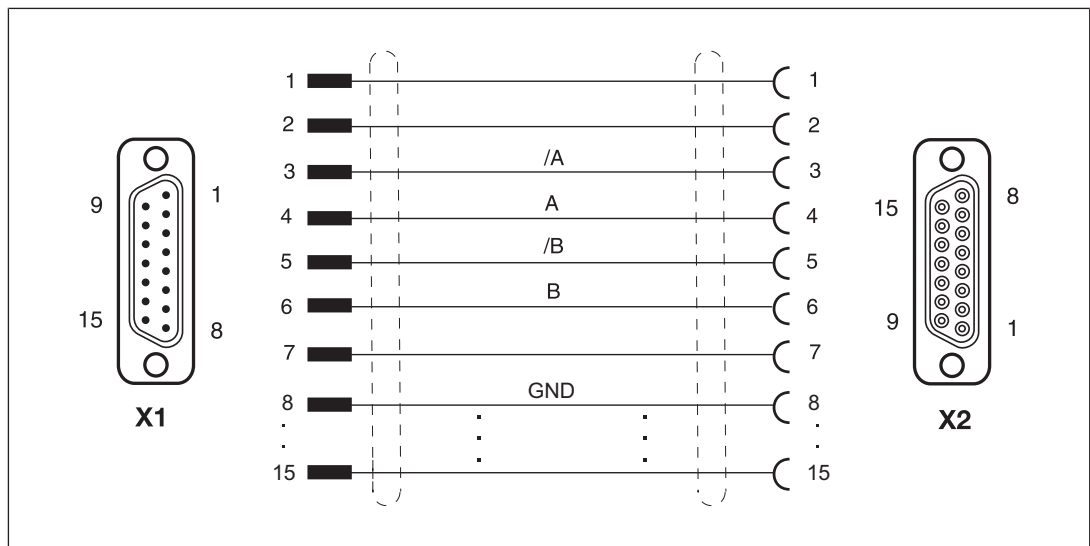
#### CAUTION!

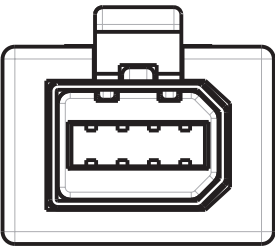
Communication errors may occur if the adapter cable is too long or there are any external sources of interference. Use an adapter cable that's less than 5 m in length. Lay the adapter cable separately from any potential sources of interference, such as drive cables leading to the motor, for example.

### Connection



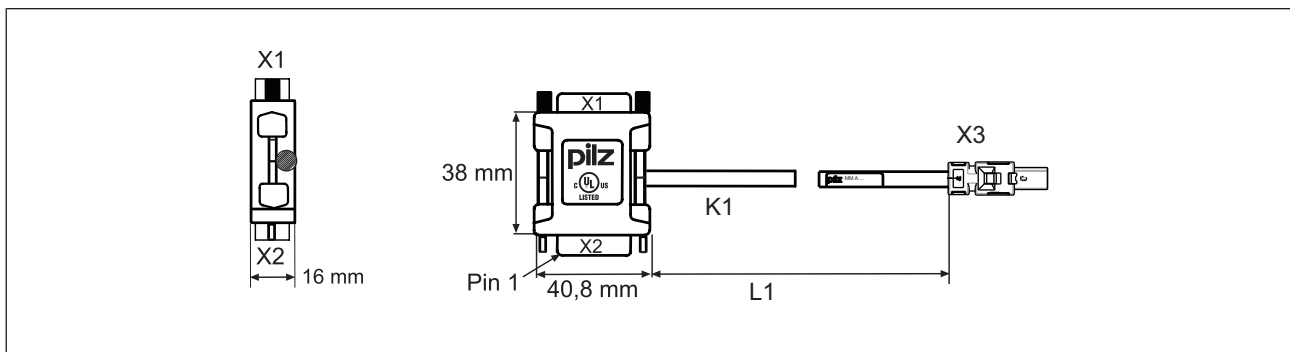
### Connector pin assignment



X3	Pin	Track
	1	S
	2	GND
	3	Z
	4	A
	5	/A
	6	/Z
	7	B
	8	/B

**INFORMATION**

The signals S, Z and /Z are not recorded.

**Dimensions****Technical details**

<b>General</b>	
Approvals	<b>cULus Listed</b>
<b>Electrical data</b>	
Insulation resistance	<b>10 MOhm</b>
<b>Environmental data</b>	
Ambient temperature	
Temperature range	<b>0 - 60 °C</b>
Temperature range (moving)	<b>0 - 60 °C</b>
Storage temperature	
Temperature range	<b>-25 - 70 °C</b>
Condensation during operation	<b>Not permitted</b>

<b>Environmental data</b>	
Protection type	
X1 when inserted	<b>IP20</b>
X2 when inserted	<b>IP20</b>
X3 when inserted	<b>IP20</b>
Housing	<b>IP20</b>
Mounting area (e.g. control cabinet)	<b>IP54</b>
<b>Mechanical data</b>	
Plug-in connector X1	<b>15-pin D-Sub male connector</b>
Form, plug-in connector X1	<b>Straight</b>
Plug-in connector X2	<b>15-pin D-Sub female connector</b>
Form, plug-in connector X2	<b>Straight</b>
Plug-in connector X3	<b>8-pin Mini-IO male connector</b>
Design of plug-in connector X3	<b>Straight</b>
Fixing screws	<b>UNC 4-40</b>
Housing material X1	<b>Nickel steel, tin-plated</b>
Housing material X2	<b>Nickel steel, tin-plated</b>
Housing material X3	<b>PBT</b>
Material of contact surface X1	<b>Au</b>
Material of contact surface X2	<b>Au</b>
Material of contact surface X3	<b>Au</b>
Material of pin	<b>Cu alloy</b>
Material of socket	<b>Cu alloy</b>
Mating cycles X1	<b>50</b>
Mating cycles X2	<b>50</b>
Mating cycles X3	<b>1500</b>
Cable length L1	<b>2,5 m</b>
Cable length tolerance K1	<b>+/- 0,15 m</b>
Colour of external cable insulation K1	<b>Green, similar to RAL6018</b>
Colour of housing	<b>Black RAL 9005</b>
Cable insulation material K1	<b>PUR</b>
Drag chain suitable K1	<b>yes</b>
Min. bending radius (fixed permanently) K1	<b>8 x Ø</b>
Min. bending radius (moving) K1	<b>10 x Ø</b>
Cable diameter K1	<b>5,8 mm</b>
Max. cable diameter K1	<b>6 mm</b>
Conductor cross section K1	<b>0,14 mm<sup>2</sup></b>
Conductor cross section AWG K1	<b>26</b>
Wire colour K1	<b>1: white, 2: brown, 3: green, 4: yellow, 5: grey, 6: pink, 7: blue, 8: red</b>
Shielding K1	<b>yes</b>
Wire layer separation K1	<b>No</b>
No. of wires K1	<b>8</b>
Approval cable K1	<b>UL AWM-Style 20233</b>
Approval of plug-in connector X1	<b>UL94 V-0</b>

<b>Mechanical data</b>	
Approval of plug-in connector X2	<b>UL94 V-0</b>
Approval of plug-in connector X3	<b>UL94 V-0</b>
Material	
Housing	<b>TPE-SEBS UL 94 HB</b>
Dimensions	
Height	<b>38 mm</b>
Width	<b>40,8 mm</b>
Depth	<b>16 mm</b>
Weight	<b>128 g</b>

### Order references

<b>Product type</b>	<b>Features</b>	<b>Connector X1</b>	<b>Connector X2</b>	<b>Connector X3</b>	<b>Order no.</b>
MM A MINI-IO CAB09B 2.5M	2.5 m	15-pin D-Sub male connector	15-pin D-Sub female connector	8-pin Mini-IO male connector	772 260