



MM A MINI-IO CAB19

PILZ
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► Accessories PNOZmulti

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SD means Secure Digital

Description

The connection cable MM A MINI-IO CAB19 is used to connect an encoder to the speed monitors PNOZ m EF 1MM, PNOZ m EF 2MM or PSSu K F EI.

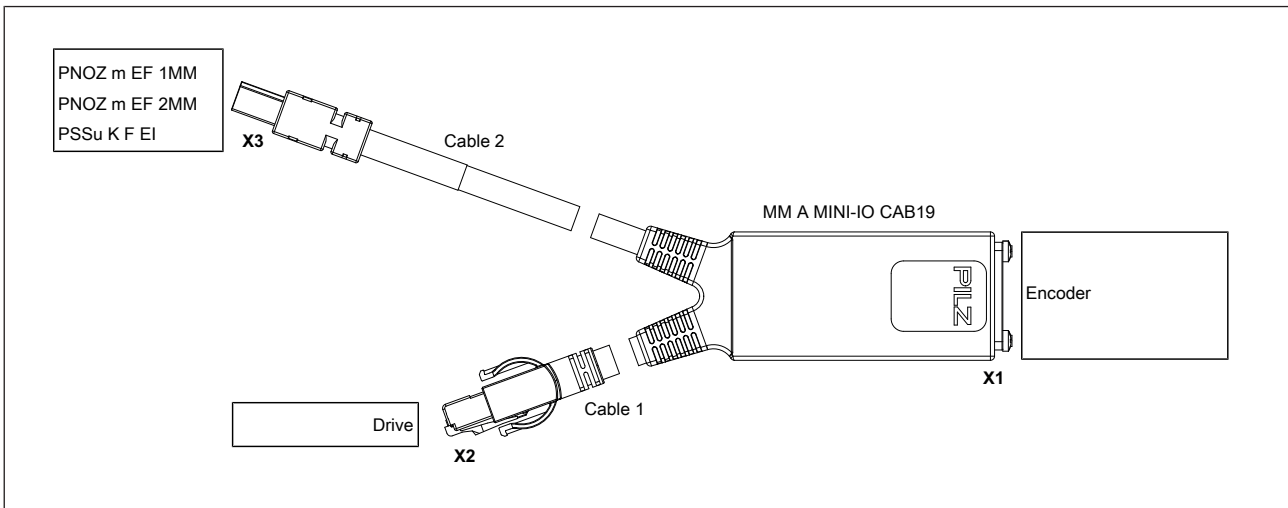
The connection to the speed monitor is made via the Mini-IO connector.



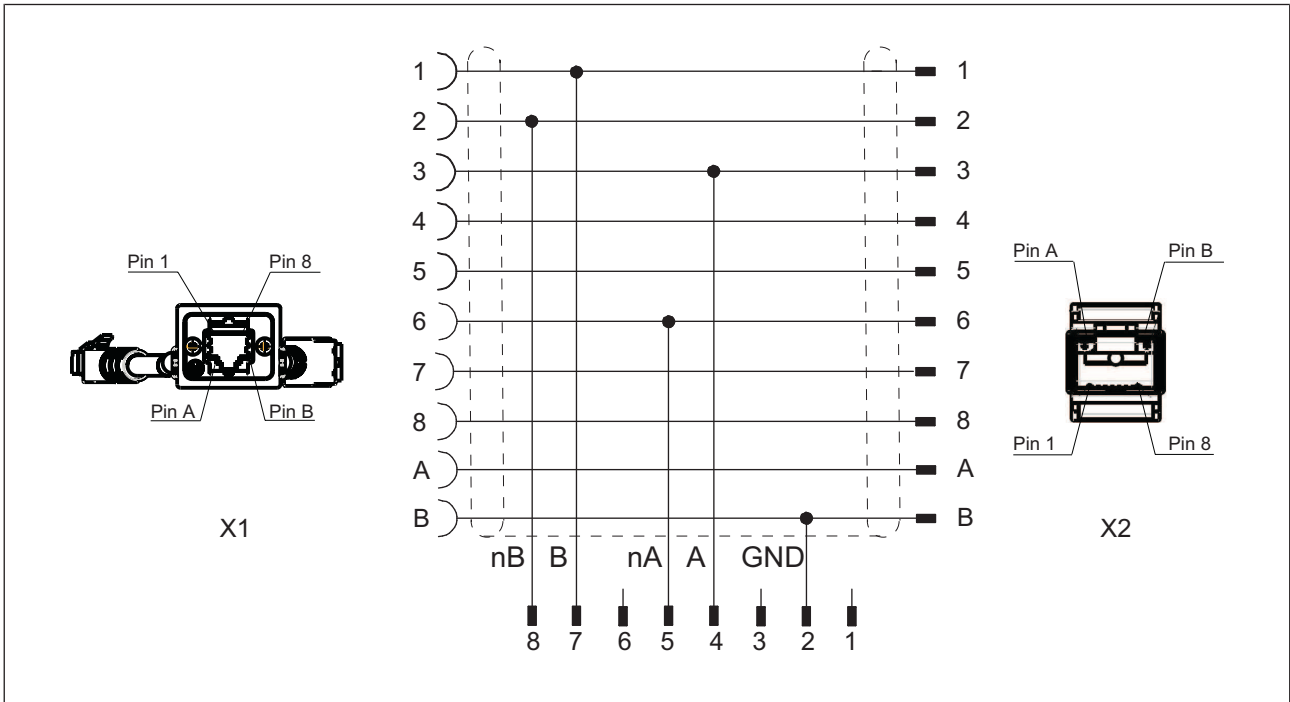
CAUTION!

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



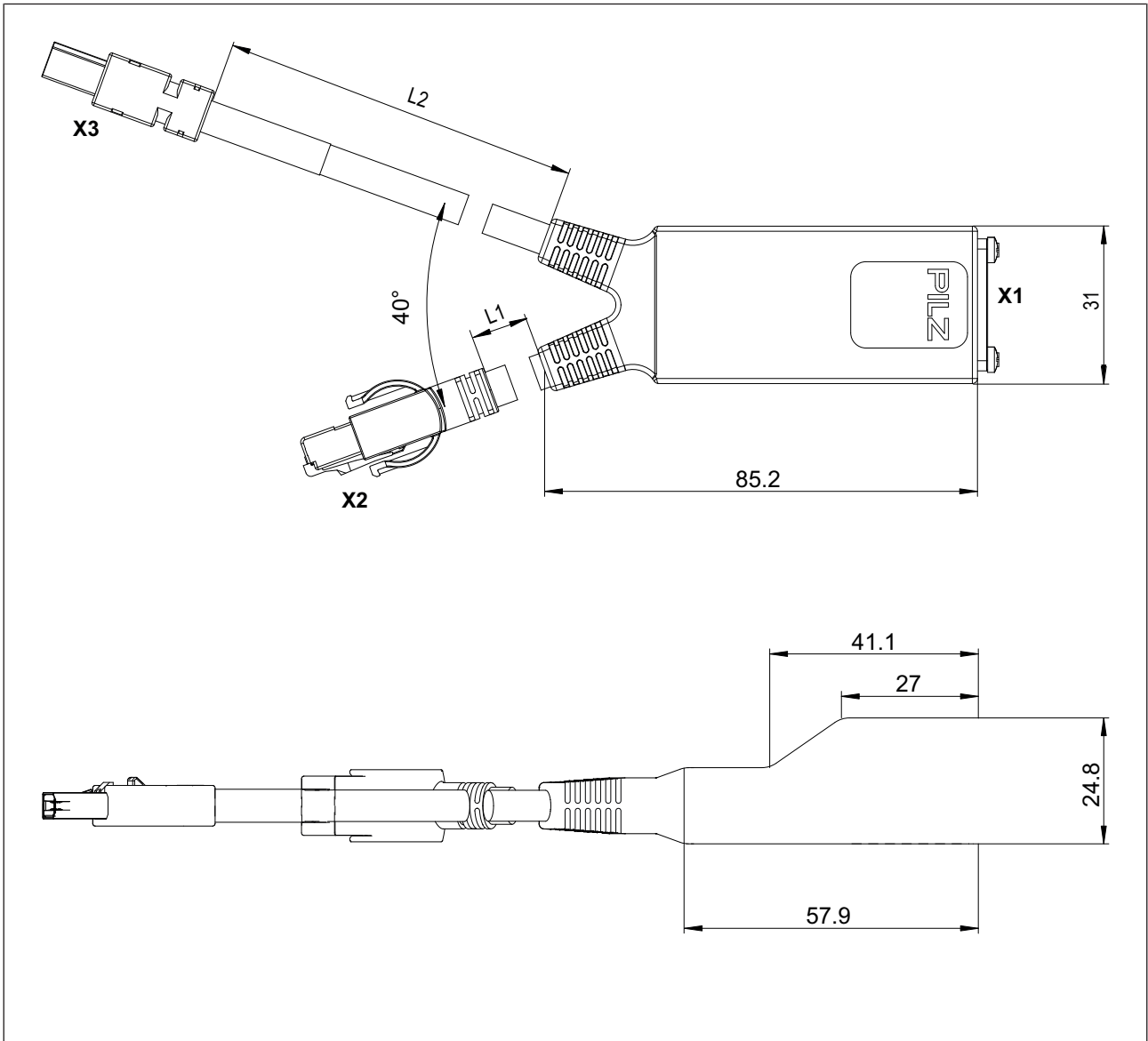
X3	Pin	Track
	1	S
	2	GND
	3	Z
	4	A
	5	/A
	6	/Z
	7	B
	8	/B



INFORMATION

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

Dimensions



Technical details Order no. 772220 - 772222

General	772220	772221	772222
Certifications	-	-	-
Electrical data	772220	772221	772222
Insulation resistance	10 MOhm	10 MOhm	10 MOhm
Environmental data	772220	772221	772222
Ambient temperature			
Temperature range	0 - 60 °C	0 - 60 °C	0 - 60 °C
Temperature range (moving)	0 - 60 °C	0 - 60 °C	0 - 60 °C
Storage temperature			
Temperature range	-25 - 70 °C	-25 - 70 °C	-25 - 70 °C
Condensation during operation	Not permitted	Not permitted	Not permitted
Protection type			
X1 when inserted	IP20	IP20	IP20
X2 when inserted	IP20	IP20	IP20
X3 when inserted	IP20	IP20	IP20
Housing	IP20	IP20	IP20
Mounting area (e.g. control cabinet)	IP54	IP54	IP54
Mechanical data	772220	772221	772222
Plug-in connector X1	10-pin RJ45 female connector	10-pin RJ45 female connector	10-pin RJ45 female connector
Form, plug-in connector X1	Straight	Straight	Straight
Plug-in connector X2	10-pin RJ45 male connector	10-pin RJ45 male connector	10-pin RJ45 male connector
Form, plug-in connector X2	Straight	Straight	Straight
Plug-in connector X3	8-pin Mini-IO male connector	8-pin Mini-IO male connector	8-pin Mini-IO male connector
Design of plug-in connector X3	Straight	Straight	Straight
Housing material X1	PA	PA	PA
Housing material X2	PBT	PBT	PBT
Housing material X3	PBT	PBT	PBT
Material of contact surface X1	Au	Au	Au
Material of contact surface X2	Au	Au	Au
Material of contact surface X3	Au	Au	Au
Conductor material K1	Cu	Cu	Cu
Conductor material K2	Cu	Cu	Cu
Mating cycles X1	1500	1500	1500

Mechanical data	772220	772221	772222
Mating cycles X2	1500	1500	1500
Mating cycles X3	1500	1500	1500
Cable length L1	0,2 m	0,2 m	0,2 m
Cable length L2	1,5 m	2,5 m	5 m
Cable length tolerance K1	+ 0,055m	+ 0,055m	+ 0,055m
Cable length tolerance K2	+/- 0,15 m	+/- 0,15 m	+/- 0,15 m
Category cable K1	Cat5	Cat5	Cat5
Colour of external cable insulation K1	Green	Green	Green
Colour of external cable insulation K2	Green	Green	Green
Colour of housing	Black RAL 9005	Black RAL 9005	Black RAL 9005
Cable insulation material K1	PUR	PUR	PUR
Cable insulation material K2	PUR	PUR	PUR
Drag chain suitable K1	yes	yes	yes
Drag chain suitable K2	yes	yes	yes
Min. bending radius (fixed permanently) K1	10 x Ø	10 x Ø	10 x Ø
Min. bending radius (fixed permanently) K2	8 x Ø	8 x Ø	8 x Ø
Min. bending radius (moving) K1	10 x Ø	10 x Ø	10 x Ø
Min. bending radius (moving) K2	10 x Ø	10 x Ø	10 x Ø
Bending cycles cable K1	1.000.000	1.000.000	1.000.000
Cable diameter K1	6,9 mm	6,9 mm	6,9 mm
Cable diameter K2	5,8 mm	5,8 mm	5,8 mm
Max. cable diameter K1	7 mm	7 mm	7 mm
Max. cable diameter K2	6 mm	6 mm	6 mm
Conductor cross section K1	0,14 mm²	0,14 mm²	0,14 mm²
Conductor cross section K2	0,14 mm²	0,14 mm²	0,14 mm²
Conductor cross section of data conductor AWG K1	26	26	26
Conductor cross section of data conductor AWG K2	26	26	26
Conductor cross section of data conductor K1	(4 x 2 x 0,14) mm²	(4 x 2 x 0,14) mm²	(4 x 2 x 0,14) mm²
Conductor cross section of supply conductor K1	2 x 0,25 mm²	2 x 0,25 mm²	2 x 0,25 mm²
Wire colour K1	In accordance with TIA/EIA 568 B	In accordance with TIA/EIA 568 B	In accordance with TIA/EIA 568 B

Mechanical data	772220	772221	772222
Wire colour K2	1: white, 2: brown, 3: green, 4: yellow, 5: grey, 6: pink, 7: blue, 8: red	1: white, 2: brown, 3: green, 4: yellow, 5: grey, 6: pink, 7: blue, 8: red	1: white, 2: brown, 3: green, 4: yellow, 5: grey, 6: pink, 7: blue, 8: red
Shielding K1	yes	yes	yes
Shielding K2	yes	yes	yes
Wire layer separation K1	yes	yes	yes
Wire layer separation K2	No	No	No
No. of wires K1	10	10	10
No. of wires K2	8	8	8
Certification cable K1	UL AWM-Style 20963	UL AWM-Style 20963	UL AWM-Style 20963
Certification cable K2	UL AWM-Style 20233	UL AWM-Style 20233	UL AWM-Style 20233
Certification plug-in connector X1	UL94 V-0	UL94 V-0	UL94 V-0
Certification plug-in connector X2	UL94 V-0	UL94 V-0	UL94 V-0
Certification plug-in connector X3	UL94 V-0	UL94 V-0	UL94 V-0
Material			
Housing	TPE-SEBS UL 94 HB	TPE-SEBS UL 94 HB	TPE-SEBS UL 94 HB
Dimensions			
Height	24,8 mm	24,8 mm	24,8 mm
Width	31 mm	31 mm	31 mm
Depth	85,2 mm	85,2 mm	85,2 mm
Weight	126 g	158 g	300 g

Technical details Order no. 772223, 772225

General	772223	772225
Certifications	-	-
Electrical data	772223	772225
Insulation resistance	10 MOhm	10 MOhm
Environmental data	772223	772225
Ambient temperature		
Temperature range	0 - 60 °C	0 - 60 °C
Temperature range (moving)	0 - 60 °C	0 - 60 °C
Storage temperature		
Temperature range	-25 - 70 °C	-25 - 70 °C
Condensation during operation	Not permitted	Not permitted
Protection type		
X1 when inserted	IP20	IP20
X2 when inserted	IP20	IP20
X3 when inserted	IP20	IP20
Housing	IP20	IP20
Mounting area (e.g. control cabinet)	IP54	IP54
Mechanical data	772223	772225
Plug-in connector X1	10-pin RJ45 female connector	10-pin RJ45 female connector
Form, plug-in connector X1	Straight	Straight
Plug-in connector X2	10-pin RJ45 male connector	10-pin RJ45 male connector
Form, plug-in connector X2	Straight	Straight
Plug-in connector X3	8-pin Mini-IO male connector	8-pin Mini-IO male connector
Design of plug-in connector X3	Straight	Straight
Housing material X1	PA	PA
Housing material X2	PBT	PBT
Housing material X3	PBT	PBT
Material of contact surface X1	Au	Au
Material of contact surface X2	Au	Au
Material of contact surface X3	Au	Au
Conductor material K1	Cu	Cu
Conductor material K2	Cu	Cu
Mating cycles X1	1500	1500
Mating cycles X2	1500	1500
Mating cycles X3	1500	1500
Cable length L1	0,7 m	0,7 m
Cable length L2	1,5 m	5 m
Cable length tolerance K1	+ 0,055m	+ 0,055m
Cable length tolerance K2	+/- 0,15 m	+/- 0,15 m
Category cable K1	Cat5	Cat5
Colour of external cable insulation K1	Green	Green

Mechanical data	772223	772225
Colour of external cable insulation K2	Green	Green
Colour of housing	Black RAL 9005	Black RAL 9005
Cable insulation material K1	PUR	PUR
Cable insulation material K2	PUR	PUR
Drag chain suitable K1	yes	yes
Drag chain suitable K2	yes	yes
Min. bending radius (fixed permanently) K1	10 x Ø	10 x Ø
Min. bending radius (fixed permanently) K2	8 x Ø	8 x Ø
Min. bending radius (moving) K1	10 x Ø	10 x Ø
Min. bending radius (moving) K2	10 x Ø	10 x Ø
Bending cycles cable K1	1.000.000	1.000.000
Cable diameter K1	6,9 mm	6,9 mm
Cable diameter K2	5,8 mm	5,8 mm
Max. cable diameter K1	7 mm	7 mm
Max. cable diameter K2	6 mm	6 mm
Conductor cross section K1	0,14 mm²	0,14 mm²
Conductor cross section K2	0,14 mm²	0,14 mm²
Conductor cross section of data conductor AWG K1	26	26
Conductor cross section of data conductor AWG K2	26	26
Conductor cross section of data conductor K1	(4 x 2 x 0,14) mm²	(4 x 2 x 0,14) mm²
Conductor cross section of supply conductor K1	2 x 0,25 mm²	2 x 0,25 mm²
Wire colour K1	In accordance with TIA/EIA 568 B	In accordance with TIA/EIA 568 B
Wire colour K2	1: white, 2: brown, 3: green, 4: yellow, 5: grey, 6: pink, 7: blue, 8: red	1: white, 2: brown, 3: green, 4: yellow, 5: grey, 6: pink, 7: blue, 8: red
Shielding K1	yes	yes
Shielding K2	yes	yes
Wire layer separation K1	yes	yes
Wire layer separation K2	No	No
No. of wires K1	10	10
No. of wires K2	8	8
Certification cable K1	UL AWM-Style 20963	UL AWM-Style 20963
Certification cable K2	UL AWM-Style 20233	UL AWM-Style 20233
Certification plug-in connector X1	UL94 V-0	UL94 V-0
Certification plug-in connector X2	UL94 V-0	UL94 V-0
Certification plug-in connector X3	UL94 V-0	UL94 V-0
Material		
Housing	TPE-SEBS UL 94 HB	TPE-SEBS UL 94 HB

Mechanical data	772223	772225
Dimensions		
Height	24,8 mm	24,8 mm
Width	31 mm	31 mm
Depth	85,2 mm	85,2 mm
Weight	178 g	335 g

Order references

Product type	Features	Connector X1	Connector X2	Connector X3	Order no.
MM A MINI-IO CAB19 1.5m	0.2/1.5 m	10-pin RJ45 female connector	10-pin RJ45 male connector	8-pin Mini-IO male connector	772 220
MM A MINI-IO CAB19 2.5m	0.2/2.5 m	10-pin RJ45 female connector	10-pin RJ45 male connector	8-pin Mini-IO male connector	772 221
MM A MINI-IO CAB19 5m	0.2/5 m	10-pin RJ45 female connector	10-pin RJ45 male connector	8-pin Mini-IO male connector	772 222
MM A MINI-IO CAB19 0.7/1.5m	0.7/1.5 m	10-pin RJ45 female connector	10-pin RJ45 male connector	8-pin Mini-IO male connector	772 223
MM A MINI-IO CAB19 0.7/5m	0.7/5 m	10-pin RJ45 female connector	10-pin RJ45 male connector	8-pin Mini-IO male connector	772 225

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Energy
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