

8ECF00X4.1241C-0

1 General information

- ACOPOS P3 adapter cable for digital encoder interfaces
- Makes it possible to connect an encoder cable with 9-pin DSUB connector to a digital encoder interface on an ACOPOS P3 8EI servo drive or ACOPOS P3 8EAC0150.00x-1 plug-in module
- Assembled specifically for use with ACOPOS P3 8EI servo drives and ACOPOS P3 8EAC0150.00x-1 plug-in modules

Information:

On X4x connectors of ACOPOS P3 SafeMOTION 8EIxxxxxxS... servo drives, it is only permitted to use adapter cable 8ECF00X4.1241C-0 in combination with B&R cables (e.g. 8BCFxxxx.1221B-0).

1.1 Instructions for use

- The DSUB connectors of the encoder cable and adapter cable must be screwed together to ensure a reliable connection between the two cables.

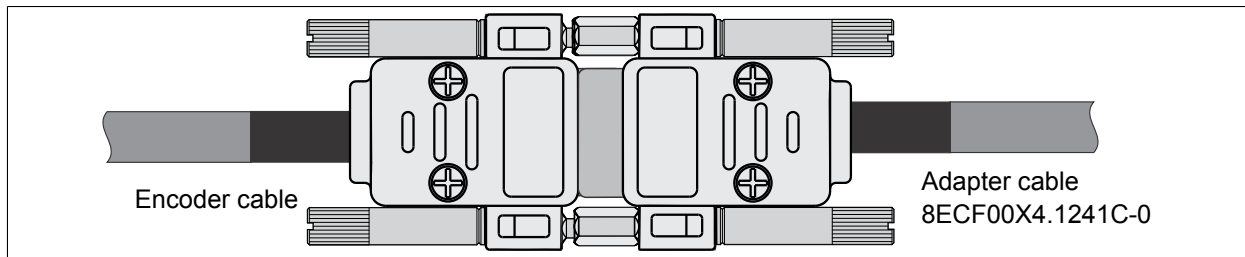


Figure 1: Screwing together the DSUB connectors on the adapter cable and encoder cable

- To ensure proper strain relief of the adapter cable, secure it to the holding bracket of the ACOPOS P3 8EI servo drive using a cable tie.



Figure 2: Strain relief on the holding bracket (figure shows 8ECH hybrid motor cable)

- It is recommended to also provide separate strain relief for the encoder cable.

Information:

If the ACOPOS P3 8EI servo drive is equipped with a shield plate (8SCSE shield component set), a cable tie on this shield plate can provide strain relief for the encoder cable.

2 Order data

Order number	Short description	Figure
8ECF00X4.1241C-0	Adapter cables ACOPOS P3 adapter cable for digital encoder interface, length 0.4 m, 1x 4x 0.14 mm ² + 4x 0.35 mm ² , 9-pin female DSUB, 8-pin male Mini I/O connector	

Table 1: 8ECF00X4.1241C-0 - Order data

3 Technical data

Order number	8ECF00X4.1241C-0
General information	
Cable cross section	4x 0.14 mm ² + 4x 0.35 mm ²
Durability	Oil resistance per DIN EN 50363-10-2 (VDE 0207-363-10-2) as well as standard cleaning agents and hydraulic oil ¹⁾
Certification	UR AWM Style 20963, 80°C, 30 V, E63216 ¹⁾
Certifications	
CE	Yes
UKCA	Yes
Cable construction	
Supply lines	
Quantity	4
Wire insulation	Special thermoplastic material
Wire colors	White/Green, brown/green, blue, white
Variant	Tinned copper stranded wire
Cross section	0.35 mm ²
Shield	No
Stranding	No
Signal line	
Quantity	4
Wire insulation	Polyolefin foam
Wire colors	Yellow, gray, pink, violet
Variant	Tinned copper stranded wire
Cross section	0.14 mm ²
Shield	No
Stranding	All 4 wires together
Cable stranding	With terminating foil shield
Cable shield	Copper/Tin braiding, optical coverage ≥85%
Outer jacket	
Material	PUR
Color	Green flat
Labeling	B&R 4x0.14 + 4x0.35 FLEX (UL) AWM STYLE 20963 80°C 30 V E63216 ¹⁾
Connector	
Type	9-pin female DSUB connector
Mating cycles	<200
Contacts	9
Additional connectors	8-pin male Mini I/O servo connector Mating cycles: <1500 Contacts: 8 Degree of protection per EN 60529: IP30 when connected
Degree of protection per EN 60529	IP20 when connected
Electrical properties ¹⁾	
Test voltage	
Wire - Wire	1 kV
Wire - Shield	0.5 kV
Conductor resistance	
Supply lines	≤55 Ω/km
Signal line	≤134 Ω/km
Insulation resistance	>200 MΩ*km

Table 2: 8ECF00X4.1241C-0 - Technical data

Order number	8ECF00X4.1241C-0
Ambient conditions ¹⁾	
Temperature	
Moving	-10 to 80°C
Static	-40 to 80°C
Mechanical properties ¹⁾	
Dimensions	
Length	0.4 m
Diameter	6 mm ±0.2 mm
Bend radius	
Single bend	≥19 mm
Moving	≥47 mm
Drag chain data	
Acceleration	≤6 g
Flex cycles ²⁾	≥3000000
Velocity	≤4 m/s
Weight	0.03 kg

Table 2: 8ECF00X4.1241C-0 - Technical data

1) Values refer to the raw cable being used.

2) Valid at an ambient temperature of 20°C and bend radius of 78 mm.

4 Wiring

4.1 Cable construction

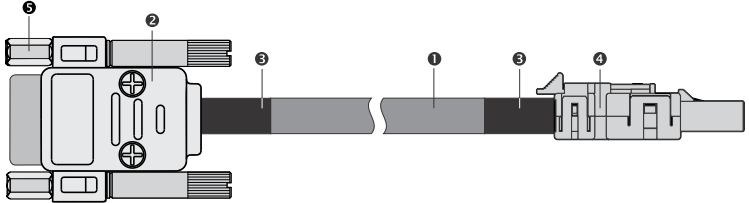
		
Pos.	Name	Note
1	Cables	4 x 0.14 mm ² + 4 x 0.35 mm ²
2	9-pin female DSUB including metal housing	
3	Heat shrink tubing	
4	Mini I/O connector	
5	Hex extender	For screwing in the DSUB connector on an encoder cable

Table 3: Adapter cable 8ECF00X4.1241C-0 - Cable construction

4.2 Pinout

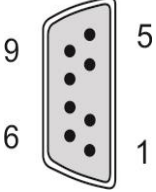
DSUB connector	Pin	Name ¹⁾	Function ¹⁾	Pin	Mini I/O connector
	1	V out	Encoder power supply +	1	
	2	S+ / HDSL+	Sense+ / HiperfaceDSL+	3	
	3	---	---	---	
	4	D	Data input	6	
	5	T	Clock output	2	
	6	COM	Encoder power supply 0 V	7	
	7	S- / HDSL-	Sense- / HiperfaceDSL-	5	
	8	D\	Data inverted	8	
	9	T\	Clock output inverted	4	

Table 4: Adapter cable 8ECF00X4.1241C-0 - Pinout

1) Corresponds to the name/function of X4x connectors on ACOPOS P3 8EI servo drives or X4xx connectors on ACOPOS P3 8EAC plug-in modules.

4.3 Cable diagram

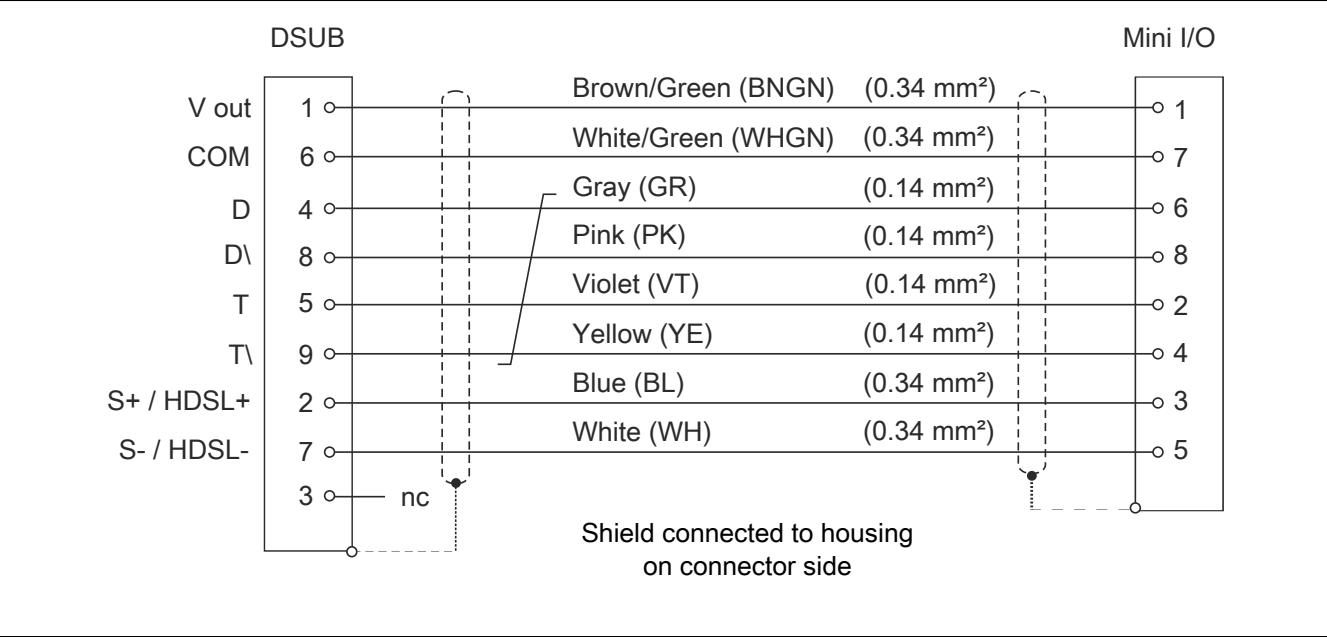


Figure 3: Adapter cable 8ECF00X4.1241C-0 - Cable diagram