

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6SL3060-4AF10-0AA0

DRIVE CLIQ CABLE

Used with the applicable PLC System configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens official manufacturer documentation

MOTION-CONNECT connection systems

Signal cables

Technical specifications (continued)

Article No.	6FX2...-1DC...-....	6FX5...-DC...-....	6FX8...-DC...-....
Product name	DRIVE-CLiQ signal cables	DRIVE-CLiQ signal cables MOTION-CONNECT 500	DRIVE-CLiQ signal cables MOTION-CONNECT 800PLUS
Torsional stress	–	Absolute 30°/m	Absolute 30°/m
Bending	–	100000	10 million
Traversing velocity	–	30 m/min	300 m/min
Acceleration	–	2 m/s ²	Up to 50 m/s ²
Insulation material, incl. jacket	CFC/silicone-free	CFC/silicone-free	CFC/halogen/silicone-free IEC 60754-1/DIN VDE 0472-815
Oil resistance	EN 60811-2-1	EN 60811-2-1 (mineral oil only)	EN 60811-2-1
Outer jacket	PVC	PVC	PUR, HD22.10 S2 (VDE 0282, Part 10)
	Gray RAL 7032	DESINA color green RAL 6018	DESINA color green RAL 6018
Flame-retardant	EN 60332-1-1 to 1-3	EN 60332-1-1 to 1-3	EN 60332-1-1 to 1-3

Degree of protection of the pre-assembled signal cables and their extensions when closed and connected: IP67.

Article No.	6FX500...-.....-....	6FX800...-.....-....
Product name	MOTION-CONNECT 500 signal cables	MOTION-CONNECT 800PLUS signal cables
Certificate of suitability		
• cURus or UR/CSA ¹⁾	UL758-CSA-C22.2-N.210.2-M90	UL758-CSA-C22.2-N.210.2-M90
• RoHS conformity	Yes	Yes
Rated voltage	30 V	30 V
Test voltage, rms	500 V	500 V
Operating temperature on the surface		
• Fixed installation	-20 ... +80 °C	-50 ... +80 °C
• Flexible installation	0 ... 60 °C	-20 ... +60 °C
Tensile stress, max.		
• Fixed installation	50 N/mm ²	50 N/mm ²
• Flexible installation	20 N/mm ²	20 N/mm ²
Smallest bending radius		
• Fixed installation	60 mm	4 × D _{max}
• Flexible installation	100 mm	70 mm
Torsional stress	Absolute 30°/m	Absolute 30°/m
Bending	2 million	10 million
Traversing velocity	180 m/min	Up to 300 m/min
Acceleration	5 m/s ²	Up to 50 m/s ²
Insulation material, incl. jacket	CFC/silicone-free	CFC/halogen/silicone-free IEC 60754-1/DIN VDE 0472-815
Oil resistance	EN 60811-2-1 (mineral oil only)	EN 60811-2-1
Outer jacket	PVC	PUR, HD22.10 S2 (VDE 0282, Part 10)
	DESINA color green RAL 6018	DESINA color green RAL 6018
Flame-retardant	EN 60332-1-1 to 1-3	EN 60332-1-1 to 1-3

Degree of protection of the pre-assembled signal cables and their extensions when closed and connected: IP67.

¹⁾ The UR-CSA File No. is printed on the cable jacket.

MOTION-CONNECT connection systems

Signal cables

Pre-assembled DRIVE-CLiQ signal cables/MOTION-CONNECT DRIVE-CLiQ signal cables**Selection and ordering data***Pre-assembled DRIVE-CLiQ signal cables without 24 V DC cores*

Type	Length	$D_{\max}$	Connector/ Degree of protection Module end	Connector/ Degree of protection Motor end	DRIVE-CLiQ signal cable <u>without</u> 24 V DC cores
	m	mm			Article No.
Fixed lengths 	0.11		RJ45/IP20	RJ45/IP20	6SL3060-4AB00-0AA0
	0.16				6SL3060-4AD00-0AA0
	0.21				6SL3060-4AF00-0AA0
	0.26				6SL3060-4AH00-0AA0
	0.31				6SL3060-4AK00-0AA0
	0.36				6SL3060-4AM00-0AA0
	0.41				6SL3060-4AP00-0AA0
	0.60				6SL3060-4AU00-0AA0
	0.95				6SL3060-4AA10-0AA0
	1.20				6SL3060-4AW00-0AA0
	1.45				6SL3060-4AF10-0AA0
	2.80				6SL3060-4AJ20-0AA0
	5.00				6SL3060-4AA50-0AA0
To the decimeter 	max. 70	7.0	RJ45/IP20	RJ45/IP20	6FX2002-1DC00-....
Length code					

Pre-assembled MOTION-CONNECT DRIVE-CLiQ signal cables with 24 V DC cores

Type	Usage	Length, max.	$D_{\max}$	Connector/ Degree of protection Module end	Connector/ Degree of protection Motor end	MOTION-CONNECT DRIVE-CLiQ signal cable with 24 V DC cores
		m	mm			Article No
To the decimeter	For built-in or built-on encoder systems with DRIVE-CLiQ. For example, for making the connection between SIMOTICS motors and SINAMICS S120 Motor Modules or Power Modules.	75	7.1	RJ45/IP20	RJ45/IP67	6FX8002-2DC10-....
		100	7.1	RJ45/IP20	RJ45/IP67	6FX5002-2DC10-....
						
MOTION-CONNECT 500						5
MOTION-CONNECT 800PLUS						8
Length code						

MOTION-CONNECT connection systems

Signal cables

Signal cables for direct or external measuring systems with full-thread connector

Selection and ordering data

Pre-assembled signal cables for direct or external measuring systems with full-thread connector

Encoder system	Connection via	Length, max.	$D_{\max}$	Degree of protection Connector ¹⁾	Basic cable	Extension
		m	mm		Article No.	Article No.
Absolute encoder with EnDat	SMC20	100	9.8	IP20/IP67	6FX0002-2EQ10-....	6FX0002-2EQ14-....
Absolute encoder with EnDat 6FX2001-5.E..	SMC20	100	9.2	IP20/IP67	6FX0002-2CH00-....	6FX0002-2AD04-....
Absolute encoder with SSI 6FX2001-5.S.. 24 V DC Clock-pulse rate 100 ... 250 kHz	SMC30	100	9.3	IP20/IP67	6FX0002-2CC11-....	6FX0002-2CB54-....
Incremental encoder sin/cos 1 V _{pp} 2048 S/R, with C and D tracks	SMC20	100	9.8	IP20/IP67	6FX0002-2CA31-....	6FX0002-2CA34-....
Incremental encoder sin/cos 1 V _{pp} 256 and 512 S/R, without C and D tracks	SMC20	50	9.2	IP20/IP67	6FX8002-2CA80-....	6FX0002-2CA34-....
HTL incremental encoder	SMC30	300 ²⁾	9.3	IP20/IP67	6FX0002-2AH00-....	6FX0002-2AH04-....
Incremental encoder sin/cos 1 V _{pp} without C and D tracks 6FX2001-3	SMC20	50	9.3	IP20/IP67	6FX0002-2CG00-....	6FX0002-2CB54-....
HTL incremental encoder 24 V DC 6FX2001-4	SMC30	100	9.3	–/IP67	6FX5002-2CA12-....	–
TTL incremental encoder RS422 6FX2001-2						
• 5 V DC	SMC30	100	9.3	IP20/IP67	6FX0002-2CR00-....	6FX0002-2CB54-....
• 24 V DC	SMC30	100	9.3	IP20/IP67	6FX0002-2CD24-....	6FX0002-2CB54-....
MOTION-CONNECT 500					5	5
MOTION-CONNECT 800PLUS					8	8
Length code						

The combinations of signal cable extensions shown are only provided by way of example.

The maximum specified cable length (basic cable and extensions) must not be exceeded. The total maximum length is reduced by 2 m for each interruption point.

¹⁾ The specification of the degree of protection refers to the basic cable.

²⁾ Applicable to HTL encoders with bipolar signal evaluation or for evaluation of the difference signals A*, A and B*, B; for HTL encoders with unipolar signal evaluation, the permissible cable length is reduced to 100 m.