

Encoders	Encoder type	Incremental encoder				Resolver		Absolute encoders						
	1XP8 type	1XP8012-10 1XP8012-11 1XP8012-12	1XP8032-10 1XP8032-11 1XP8032-12	1XP8012-20 1XP8012-21 1XP8012-22	1XP8032-20 1XP8032-21 1XP8032-22	1XP8013-10 1XP8013-11 1XP8023-10 1XP8023-11	1XP8013-10 1XP8013-11 1XP8023-10 1XP8023-11	1XP8014-10	1XP8024-10	1XP8014-20	1XP8024-20	1XP8024-21		
	Interface	HTL 1024 pulses 2048 pulses 512 pulses		TTL 1024 pulses 2048 pulses 512 pulses		Input frequency 5kHz 10kHz 5kHz 10kHz		EnDAT 2.1 5V with sine/cosine pulses A, B		SSI 1) 2) 10 ... 30V with sine / Cosine pulses A, B		SSI 3) 10 ... 30V with HTL 2048 pulses A, B		
	Encoder connection	12-pin M23 flange- mounted socket 0° coding	0.8m cable with 12-pin M23 coupling socket 0° coding	12-pin M23 flange-mounted socket 0° coding	0.8m cable with 12-pin M23 coupling socket 0° coding	12-pin M23 flange-mounted socket 0° coding	1m cable with 12-pin M23 coupling socket 0° coding	17-pin M23 flange- mounted socket 0° coding	1m cable with 17-pin M23 coupling socket 0° coding	17-pin M23 flange-mounted socket 0° coding	1m cable with 17-pin M23 coupling socket 0° coding			
Connected to SINAMICS G120	CU250S-2: HTL, TTL, SSI (X2100 15-pin Sub-D)	6FX5002-2CR00-....				Resolver, only via terminal or SMC10		EnDat only via SMC20		NEW 6FX5002-2CC06-.... or 6FX8002-2CC06-....				
	CU250S-2: Resolver, HTL (terminal)	6FX5002-2CA12-..... or 6FX8002-2CA12-....		TTL encoder only via Sub-D or SMC30		4) 2m: Order code Q69 FDU:70000004013576 8m: Order code Q70 FDU:70000004013577 15m: Order code Q71 FDU:70000004013578				SSI only via Sub-D or SMC30				
	Max. cable length	Bipolar 300m		100m		100m				Up to 100m (dependent on the baud rate)				
Connected to SINAMICS S110	Onboard HTL, TTL, SSI (X23 15-pin Sub-D)	6FX5002-2CR00-....				Resolver, only via SMC10		EnDat only via SMC20		NEW 6FX5002-2CC06-.... or 6FX8002-2CC06-....				
	Max. cable length	Bipolar 300m		100m						Up to 100m (dependent on the baud rate)				
Connected to SINAMICS S120	CU310-2 and CUA32 HTL, TTL, SSI (X23 15-pin Sub-D)	6FX5002-2CR00-....				Resolver, only via SMC10		EnDat only via SMC20		NEW 6FX5002-2CC06-.... or 6FX8002-2CC06-....				
	Max. cable length	Bipolar 300m		100m						Up to 100m (dependent on the baud rate)				
Connected to SINAMICS G120- (CU250S-2), S110-, S120 via Sensor Module	SMC10 Resolver, temperature sensor (X520 25-pin Sub-D)	HTL/TTL encoder only via SMC30				NEW 6FX5002-2CF06-.... or 6FX8002-2CF06-....		6FX5002-2CH00-.... or 6FX8002-2CH00-....		Switchover to 1XP8024-21 and SMC30		HTL only via SMC30		
	SMC20 sin/cos, EnDat 2.1, SSI with/without sin/cos (5V supply), temperature sensor (X520 25-pin Sub-D)					6FX5002-2CR00-....				Resolver, only via SMC10		EnDat only via SMC20		NEW 6FX5002-2CC06-.... or 6FX8002-2CC06-....
	SMC30 TTL, HTL, SSI without TTL/HTL (24 V supply), temperature sensor (X520 15-pin Sub-D)	6FX5002-2CA12-..... or 6FX8002-2CA12-....		4) 2m: Order code Q69 FDU:70000004013454 8m: Order code Q70 FDU:70000004013455 15m: Order code Q71 FDU:70000004013456				Up to 100m (dependent on the baud rate)						
	SMC30 TTL, HTL, SSI without TTL/HTL (24 V supply), temperature sensor (X521 / X531 terminals)							Bipolar 300m						100m
	Max. cable length	Bipolar 300m		100m		100m		Up to 100m (dependent on the baud rate)						
	Extension cable	6FX5002-2CB54-.... or 6FX8002-2CB54-....				4) 2m: Order code Q72 FDU:70000004013579 8m: Order code Q73 FDU:70000004013580 15m: Order code Q74 FDU:70000004013581		6FX5002-2AD04-.... or 6FX8002-2AD04-....						

1) Only position control

2) Only SSI signals, sin/cos signals cannot be evaluated

3) Only SSI signals, SSI and HTL signals cannot be simultaneously evaluated, with the exception when connected to SMC30 via terminals

4) Order codes for MOTOX and SIMOGEAR products. Converter order number according to Catalog MD50.1