



SIMATIC ET 200AL, CM 4x IO-Link, 4x M12, Degree of protection IP67

General information	
Product type designation	CM 4x IO-Link
HW functional status	FS05
Firmware version	V1.2.x
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M0 to I&M3
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version 	STEP 7 V13 SP1 or higher
<ul style="list-style-type: none"> STEP 7 configurable/integrated from version 	From V5.5 SP4 Hotfix 3
<ul style="list-style-type: none"> PROFIBUS from GSD version/GSD revision 	GSD as of Revision 5
<ul style="list-style-type: none"> PROFINET from GSD version/GSD revision 	GSDML V2.3.1
Supply voltage	
power supply according to NEC Class 2 required	No
Load voltage 1L+	
<ul style="list-style-type: none"> Rated value (DC) 	24 V
<ul style="list-style-type: none"> permissible range, lower limit (DC) 	20.4 V
<ul style="list-style-type: none"> permissible range, upper limit (DC) 	28.8 V
<ul style="list-style-type: none"> Reverse polarity protection 	Yes
Load voltage 2L+	
<ul style="list-style-type: none"> Rated value (DC) 	24 V
<ul style="list-style-type: none"> permissible range, lower limit (DC) 	20.4 V
<ul style="list-style-type: none"> permissible range, upper limit (DC) 	28.8 V
<ul style="list-style-type: none"> Reverse polarity protection 	Yes; against destruction; load increasing
Input current	
Current consumption (rated value)	40 mA; without load
from load voltage 1L+ (unswitched voltage)	4 A; Maximum value
from load voltage 2L+, max.	4 A; Maximum value
Encoder supply	
Number of outputs	4
24 V encoder supply	
<ul style="list-style-type: none"> Short-circuit protection 	Yes; per module, electronic
<ul style="list-style-type: none"> Output current, max. 	1.4 A; Total current of all ports
Power loss	
Power loss, typ.	2.6 W
IO-Link	
Number of ports	4
<ul style="list-style-type: none"> of which simultaneously controllable 	4
IO-Link protocol 1.0	Yes

IO-Link protocol 1.1	Yes
Transmission rate	4.8 kBaud (COM1); 38.4 kBaud (COM2), 230 kBaud (COM3)
Size of process data, input per port	32 byte
Size of process data, input per module	132 byte
Size of process data, output per port	32 byte
Size of process data, output per module	128 byte
Memory size for device parameter	2 kbyte; for each port
Master backup	Possible with function block IO_LINK_MASTER
Configuration without S7-PCT	Possible; autostart/manual function
Cable length unshielded, max.	20 m
Operating modes	
<ul style="list-style-type: none"> • IO-Link 	Yes
<ul style="list-style-type: none"> • DI 	Yes
<ul style="list-style-type: none"> • DQ 	Yes; max. 100 mA
Connection of IO-Link devices	
<ul style="list-style-type: none"> • Port type A 	Yes; via 3-core cable
<ul style="list-style-type: none"> • Port type B 	Yes; Additional device supply: 1.6 A total current of all ports
Interrupts/diagnostics/status information	
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm 	Yes; Parameterizable
Diagnoses	
<ul style="list-style-type: none"> • Monitoring the supply voltage 	Yes
<ul style="list-style-type: none"> • Wire-break 	Yes
<ul style="list-style-type: none"> • Short-circuit 	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> • Channel status display 	Yes; green LED
<ul style="list-style-type: none"> • for module diagnostics 	Yes; green/red LED
<ul style="list-style-type: none"> • For load voltage monitoring 	Yes; green LED
Potential separation	
between the load voltages	Yes
Potential separation channels	
<ul style="list-style-type: none"> • between the channels 	No
<ul style="list-style-type: none"> • between the channels and backplane bus 	Yes
<ul style="list-style-type: none"> • between the channels and the power supply of the electronics 	No
Isolation	
Isolation tested with	707 V DC (type test)
Degree and class of protection	
IP degree of protection	IP65/67
Standards, approvals, certificates	
Suitable for safety-related tripping of standard modules	Yes; From FS01
Highest safety class achievable for safety-related tripping of standard modules	
<ul style="list-style-type: none"> • Performance level according to ISO 13849-1 	PL d
<ul style="list-style-type: none"> • Category according to ISO 13849-1 	Cat. 3
<ul style="list-style-type: none"> • SILCL according to IEC 62061 	SILCL 2
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • min. 	-30 °C
<ul style="list-style-type: none"> • max. 	55 °C
connection method / header	
Design of electrical connection for the inputs and outputs	M12, 5-pole
Design of electrical connection for supply voltage	M8, 4-pole
ET-Connection	
<ul style="list-style-type: none"> • ET-Connection 	M8, 4-pin, shielded
Dimensions	
Width	30 mm
Height	159 mm
Depth	40 mm
Weights	

Weight, approx.

145 g

last modified:

9/27/2021 