



SIMATIC ET 200AL, IO-Link, DI 16x 24 V DC, 8x M12, Degree of protection IP67

General information	
Product type designation	IO-Link DI 16x24VDC
HW functional status	FS01
Firmware version	V1.0.x
Vendor identification (VendorID)	42
Device identifier (DeviceID)	229380
Engineering with	
• IODD file	Yes
Supply voltage	
Load voltage 1L+	
• Rated value (DC)	24 V; Supply from 1Us+ of the IO-Link master
• permissible range, lower limit (DC)	18 V
• permissible range, upper limit (DC)	30 V
• Reverse polarity protection	Yes; Against destruction; encoder power supply outputs applied with reversed polarity
Input current	
Current consumption (rated value)	20 mA; without load
Encoder supply	
Number of outputs	8; Supply from 1Us+ of the IO-Link master
24 V encoder supply	
• Short-circuit protection	Yes; per module, electronic
• Output current, max.	0.7 A; Total current of all encoders (depending on IO-Link master supply via 1Us+)
Power loss	
Power loss, typ.	2.4 W
Digital inputs	
Number of digital inputs	16
Sourcing/sinking input	P-reading
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 55 °C, max.	16
Input voltage	
• Rated value (DC)	24 V
• for signal "0"	-30 to +5 V
• for signal "1"	+11 to +30V
Input current	
• for signal "1", typ.	3 mA
Input delay (for rated value of input voltage)	

for standard inputs			
— at "0" to "1", min.	1.2 ms		
— at "0" to "1", max.	4.8 ms		
— at "1" to "0", min.	1.2 ms		
— at "1" to "0", max.	4.8 ms		
Cable length			
• unshielded, max.	30 m		
Encoder			
Connectable encoders			
• 2-wire sensor	Yes		
— permissible quiescent current (2-wire sensor), max.	1.5 mA		
IO-Link			
IO-Link protocol 1.1	Yes		
Transmission rate	38.4 kBd (COM2)		
Cycle time, min.	2.5 ms		
Size of process data, input per module	2 byte		
Size of process data, output per module	0 byte		
Supported IO-Link profiles	common profile		
Cable length unshielded, max.	20 m		
Connection of IO-Link devices			
• Port type A	Yes		
Interrupts/diagnostics/status information			
Alarms			
• Diagnostic alarm	Yes; Parameterizable		
Diagnoses			
• Short-circuit	Yes; Sensor supply to M; module by module		
Diagnostics indication LED			
• Channel status display	Yes; green LED		
• for module diagnostics	Yes; green/red LED		
Potential separation			
Potential separation channels			
• between the channels	No		
• 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		
Ambient conditions			
Ambient temperature during operation			
• min.	-30 °C		
• max.	55 °C		
Connection method			
Design of electrical connection for the inputs and outputs	M12, 5-pin, A-coded		
Type of electrical connection for IO-Link	M12, 5-pin, A-coded		
Dimensions			
Width	45 mm		
Height	159 mm		
Depth	40 mm		
Weights			
Weight, approx.	155 g		
Classifications			
		Version	Classification
	eClass	16	27-24-26-04
	eClass	14	27-24-26-04
	eClass	12	27-24-26-04
	eClass	9.1	27-24-26-04

eClass	9	27-24-26-04
eClass	8	27-24-26-04
eClass	7.1	27-24-26-04
eClass	6	27-24-26-04
ETIM	10	EC001599
ETIM	9	EC001599
ETIM	8	EC001599
ETIM	7	EC001599
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval



[Miscellaneous](#)

[Manufacturer Declaration](#)



General Product Approval Functional Safety Maritime application



[China RoHS](#)



[TUEV](#)



Maritime application



[NK / Nippon Kaiji Kyokai](#)



[CCS \(China Classification Society\)](#)

Maritime application other

[KR \(Korean Register of Shipping\)](#)



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