



SIMATIC ET 200AL, IO-Link, DQ 8x 24 V DC/2 A, 8x M12, Degree of protection IP67

General information	
Product type designation	IO-Link DQ 8x24VDC/2A
HW functional status	FS01
Firmware version	V1.0.x
Vendor identification (VendorID)	42
Device identifier (DeviceID)	229381
Engineering with	
<ul style="list-style-type: none"> • IODD file 	Yes
Supply voltage	
Load voltage 1L+	
<ul style="list-style-type: none"> • Rated value (DC) 	24 V; Supply from 1Us+ of the IO-Link master
<ul style="list-style-type: none"> • permissible range, lower limit (DC) 	18 V
<ul style="list-style-type: none"> • permissible range, upper limit (DC) 	30 V
<ul style="list-style-type: none"> • Reverse polarity protection 	Yes; against destruction
Load voltage 2L+	
<ul style="list-style-type: none"> • Rated value (DC) 	24 V; Supply via M12 connector L-coded
<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)	12 mA; without load
from load voltage 2L+, max.	8 A; Maximum value
Power loss	
Power loss, typ.	3.6 W
Digital outputs	
Number of digital outputs	8
Short-circuit protection	Yes; per channel, electronic
<ul style="list-style-type: none"> • Response threshold, typ. 	2.8 A
Limitation of inductive shutdown voltage to	2L+ (-47 V)
Switching capacity of the outputs	
<ul style="list-style-type: none"> • on lamp load, max. 	10 W
Load resistance range	
<ul style="list-style-type: none"> • lower limit 	12 Ω
<ul style="list-style-type: none"> • upper limit 	4 kΩ
Output voltage	
<ul style="list-style-type: none"> • for signal "1", min. 	L+ (-0.8 V)
Output current	
<ul style="list-style-type: none"> • for signal "1" rated value 	2 A (45 °C); 1 A (55 °C)
<ul style="list-style-type: none"> • for signal "1" permissible range, max. 	2 A; with inductive load to IEC 60947-5-1, DC-13 / AC-15
<ul style="list-style-type: none"> • for signal "0" residual current, max. 	0.5 mA

Switching frequency	
<ul style="list-style-type: none"> with resistive load, max. with inductive load, max. on lamp load, max. 	<p>100 Hz</p> <p>0.1 Hz; 0.25 Hz at 25 °C</p> <p>1 Hz</p>
Total current of the outputs	
<ul style="list-style-type: none"> Current per module, max. 	8 A
Cable length	
<ul style="list-style-type: none"> unshielded, max. 	30 m
IO-Link	
IO-Link protocol 1.1	Yes
Transmission rate	38.4 kBd (COM2)
Cycle time, min.	2.1 ms
Size of process data, input per module	0 byte
Size of process data, output per module	1 byte
Supported IO-Link profiles	common profile
Cable length unshielded, max.	20 m
Connection of IO-Link devices	
<ul style="list-style-type: none"> Port type A 	Yes
Interrupts/diagnostics/status information	
Substitute values connectable	Yes; channel by channel, parameterizable
Alarms	
<ul style="list-style-type: none"> Diagnostic alarm 	Yes; Parameterizable
Diagnoses	
<ul style="list-style-type: none"> Short-circuit 	Yes; Outputs to ground; module by module
Diagnostics indication LED	
<ul style="list-style-type: none"> Channel status display for module diagnostics For load voltage monitoring 	<p>Yes; green LED</p> <p>Yes; green/red LED</p> <p>Yes; green LED</p>
Potential separation	
between the load voltages	Yes
Potential separation channels	
<ul style="list-style-type: none"> between the channels between the channels and the power supply of the electronics 	<p>No</p> <p>Yes</p>
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 Category according to ISO 13849-1 SIL acc. to IEC 62061 	<p>PL d</p> <p>Cat. 3</p> <p>SIL 2</p>
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> min. max. 	<p>-30 °C</p> <p>55 °C</p>
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
Design of electrical connection for supply voltage	M12, 4-pin, L-coded
Dimensions	
Width	45 mm
Height	159 mm
Depth	45 mm
Weights	
Weight, approx.	168 g

last modified:

8/16/2023 