



SIMATIC S7-1500, DIGITAL OUTPUT MODULE, DQ 16 X
24VDC/0.5A; 16 CHANNELS IN GROUPS OF 8, 4 A PER GROUP;
INCL. FRONT CONNECTOR PUSH-IN

Product type designation

General information

HW functional status	E01
Firmware version	V1.0.0

Product function	
• I&M data	Yes

Engineering with	
• STEP 7 TIA Portal can be configured/integrated as of version	V13 / V13
• STEP 7 can be configured/integrated as of version	V5.5 SP3 / -
• PROFIBUS as of GSD version/GSD revision	V1.0 / V5.1
• PROFINET as of GSD version/GSD revision	V2.3 / -

Operating mode	
• MSO	Yes

Supply voltage

Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes; through internal protection with 7 A per group

Input current

Current consumption, max.	30 mA
---------------------------	-------

Power

Power available from the backplane bus	1.15 W
--	--------

Power losses	
Power loss, typ.	2.2 W
Digital outputs	
Number of digital outputs	16
Current-sourcing	Yes
short-circuit protection	Yes
• Response threshold, typ.	1 A
Limitation of inductive shutdown voltage to	L+ (-53 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
• with resistive load, max.	0.5 A
• on lamp load, max.	5 W
Load resistance range	
• lower limit	48 Ω
• upper limit	12 kΩ
Output voltage	
• for signal "1", min.	L+ (-0.8 V)
Output current	
• for signal "1" rated value	0.5 A
• for signal "1" permissible range, max.	0.5 A
• for signal "0" residual current, max.	0.5 mA
Output delay with resistive load	
• "0" to "1", max.	100 μs
• "1" to "0", max.	500 μs
Parallel switching of 2 outputs	
• for logic links	Yes
• for increased power	No
• for redundant control of a load	Yes
Switching frequency	
• with resistive load, max.	100 Hz
• with inductive load, max.	0.5 Hz; to IEC 947-5-1, DC-13
• on lamp load, max.	10 Hz
Aggregate current of the outputs	
• Current per channel, max.	0.5 A; see additional description in the manual
• Current per group, max.	4 A; see additional description in the manual
• Current per module, max.	8 A; see additional description in the manual
Cable length	
• shielded, max.	1 000 m
• Unshielded, max.	600 m
Interrupts/diagnostics/status information	
Substitute values connectable	No

Alarms	
• Diagnostic alarm	No
Diagnostic messages	
• Diagnostics	No
Diagnostics indication LED	
• RUN LED	Yes; Green LED
• ERROR LED	Yes; Red LED
• MAINT LED	No
• Monitoring of the supply voltage (PWR-LED)	Yes; Green LED
• Channel status display	Yes; Green LED
Galvanic isolation	
Electrical isolation channels	
• between the channels	No
• between the channels, in groups of	8
• between the channels and the backplane bus	Yes
Permissible potential difference	
between different circuits	75 V DC/60 V AC (base isolation)
Isolation	
Isolation checked with	707 V DC (type test)
Decentralized operation	
Prioritized startup	Yes
Dimensions	
Width	25 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	230 g
other	
Note:	Supplied incl. 40-pole push-in front connectors
last modified:	12.03.2015