



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

General information	
Hardware product version	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 / -
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 k Ω
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 μ s
"1" to "0", max.	500 μ s
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
on lamp load, max.	10 Hz
Aggregate current of the outputs	
Max. current per channel	0.5 A ; see additional description in the manual
Max. current per group	4 A ; see additional description in the manual
Max. current per module	8 A ; see additional description in the manual

Cable length	
Cable length, shielded, max.	1000 m
Cable length 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 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
Decentralized operation	
Prioritized startup	Yes
Dimensions	
Width	25 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	230 g

Status

May 23, 2014