



SIMATIC S7-1500, digital output module, DQ 64xDC 24V/0.3A SNK BA, 64 channels in groups of 16, 2 A per group at 60 °C, sourcing output, 35 mm wide cables and terminal blocks to be ordered separately as accessories

General information	
Product type designation	DQ 64x24VDC/0.3A SNK BA
HW functional status	From FS01
Firmware version	V1.0.0
• FW update possible	Yes
Product function	
• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	No
• Prioritized startup	No
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	V16 with HSP 0319 / V17
• STEP 7 configurable/integrated from version	V5.5 SP3 / -
• PROFIBUS from GSD version/GSD revision	V1.0 / V5.1
• PROFINET from GSD version/GSD revision	V2.35 / -
Operating mode	
• DQ	Yes
• DQ with energy-saving function	No
• PWM	No
• Cam control (switching at comparison values)	No
• Oversampling	No
• MSO	Yes
• Integrated operating cycle counter	No
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes; Through internal protection with 4 A per group
external protection for power supply lines (recommendation)	24 V DC/6 A miniature circuit breaker with type B tripping characteristic
Input current	
Current consumption, max.	90 mA; without load
output voltage / header	
Rated value (DC)	24 V
Power	
Power available from the backplane bus	0.6 W
Power loss	
Power loss, typ.	4.7 W
Digital outputs	
Type of digital output	Transistor
Number of digital outputs	64
Current-sinking	Yes

Current-sourcing	No
Digital outputs, parameterizable	No
Short-circuit protection	No; external fusing necessary, max. 4 A per group, tripping characteristic type B or C
Limitation of inductive shutdown voltage to	L+ (-53 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
• with resistive load, max.	0.3 A
• on lamp load, max.	5 W
Load resistance range	
• lower limit	80 Ω
• upper limit	10 kΩ
Output voltage	
• for signal "1", min.	M+ (0.5 V)
Output current	
• for signal "1" rated value	0.3 A
• for signal "1" permissible range, max.	0.3 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 two outputs	
• for logic links	Yes
• for uprating	No
• for redundant control of a load	Yes
Switching frequency	
• with resistive load, max.	100 Hz
• with inductive load, max.	0.5 Hz; According to IEC 60947-5-1, DC-13
• on lamp load, max.	10 Hz
Total current of the outputs	
• Current per channel, max.	0.3 A
• Current per group, max.	2 A
• Current per module, max.	8 A
Total current of the outputs (per module)	
horizontal installation	
— up to 60 °C, max.	8 A
vertical installation	
— up to 40 °C, max.	8 A
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	No
Substitute values connectable	No
Alarms	
• Diagnostic alarm	No
• Maintenance interrupt	No
Diagnoses	
• Monitoring the supply voltage	No
• Wire-break	No
• Short-circuit	No
• Group error	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; via SIMATIC TOP connect connection module
• Channel status display	Yes; via SIMATIC TOP connect connection module
• for channel diagnostics	No
• for module diagnostics	No
Potential separation	

Potential separation channels	
• between the channels	No
• between the channels, in groups of	16; 32 when using SIMATIC TOP connect connection module
• between the channels and backplane bus	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Suitable for safety functions	No
Suitable for safety-related tripping of standard modules	No
product functions / security / header	
data integrity	No
Ambient conditions	
Ambient temperature during operation	
• horizontal installation, min.	-30 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	-30 °C
• vertical installation, max.	40 °C
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	270 g
Other	
Note:	Please order cable and connection modules separately

last modified: 12/20/2023 