Data sheet

6ES7526-2BF00-0AB0



SIMATIC S7-1500, F digital output module, F-DQ 8x 24 V DC 2A PPM PROFIsafe; 35 mm width; up to PL E (ISO 13849-1)/ SIL3 (IEC 61508)

General information	
Product type designation	F-DQ 8x24VDC/2A PPM
Firmware version	
FW update possible	Yes
Product function	
I&M data	Yes; I&M0 to I&M3
Engineering with	
STEP 7 TIA Portal configurable/integrated from version	V13 SP1 with HSP 0086
Operating mode	
• DQ	Yes
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
Input current	
Current consumption (rated value)	110 mA; without load
Current consumption, max.	130 mA; without load
output voltage / header	
Rated value (DC)	24 V
Power	
Power available from the backplane bus	0.8 W
Power loss	
Power loss, typ.	11 W
Address area	
Address space per module	
• Inputs	6 byte; S7-300/400F CPU, 5 byte
Outputs	6 byte; S7-300/400F CPU, 5 byte
Hardware configuration	
Automatic encoding	Yes
 Electronic coding element type F 	Yes
Digital outputs	
Number of digital outputs	8
Current-sinking	Yes
Current-sourcing	Yes
Short-circuit protection	Yes
Open-circuit detection	Yes
 Response threshold, typ. 	8 mA

Overload protection	Yes
Response threshold, typ.	2.9 A
Limitation of inductive shutdown voltage to	PM-switching: -24 V + (-47 V), PP-switching: -24 V
Switching capacity of the outputs	
 with resistive load, max. 	2 A
on lamp load, max.	10 W
Load resistance range	
lower limit	12 Ω
upper limit	2 000 Ω
Output voltage	
• for signal "1", min.	24 V; L+ (-0.5 V)
Output current	
for signal "1" rated value	2 A
• for signal "0" residual current, max.	0.5 mA; Current-sourcing, or current sourcing and sinking switches individually, current sinking: max. 1 mA
Switching fraguency	individually, current sinking. max. 1 ma
Switching frequency	20.11-
with resistive load, max.	30 Hz
with inductive load, max.	0.1 Hz
• on lamp load, max.	10 Hz
Total current of the outputs	
Current per channel, max.	2 A
Total current of the outputs (per module)	
horizontal installation	
— up to 40 °C, max.	16 A
— 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.	500 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	No
Alarms	
Diagnostic alarm	Yes
Diagnoses	
Monitoring the supply voltage	Yes
Wire-break	Yes
Short-circuit	Yes
	Yes
Group error Diagnostics indication LED	100
	Vacuum I FD
• RUN LED	Yes; green LED
ERROR LED Magitaring of the guaphy veltage (DMR LED)	Yes; red LED
Monitoring of the supply voltage (PWR-LED)	Yes
Channel status display	Yes; green LED
• for channel diagnostics	Yes; red LED
for module diagnostics	Yes; red LED
Potential separation	
Potential separation channels	
 between the channels 	No
	INO
 between the channels and backplane bus 	Yes
between the channels and backplane bus Isolation	
·	Yes
Isolation Isolation tested with	
Isolation Isolation tested with Standards, approvals, certificates	Yes 707 V DC (type test)
Isolation Isolation tested with Standards, approvals, certificates Suitable for safety functions	Yes
Isolation Isolation tested with Standards, approvals, certificates Suitable for safety functions Highest safety class achievable in safety mode	Yes 707 V DC (type test) Yes
Isolation Isolation tested with Standards, approvals, certificates Suitable for safety functions Highest safety class achievable in safety mode • Performance level according to ISO 13849-1	Yes 707 V DC (type test) Yes PLe
Isolation Isolation tested with Standards, approvals, certificates Suitable for safety functions Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508	Yes 707 V DC (type test) Yes PLe SIL 3
Isolation Isolation tested with Standards, approvals, certificates Suitable for safety functions Highest safety class achievable in safety mode • Performance level according to ISO 13849-1	Yes 707 V DC (type test) Yes PLe SIL 3

with SIL3 — High demand/continuous mode: PFH in accordance with SIL3	< 2.00E-09 1/h
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	0 °C
 horizontal installation, max. 	60 °C
 vertical installation, min. 	0 °C
 vertical installation, max. 	40 °C
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	300 g
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