SIEMENS

Data sheet

6ES7526-1BH00-0AB0



SIMATIC S7-1500, F digital input module, F-DI 16x 24 V DC PROFIsafe; 35 mm width; up to PL E (ISO 13849-1)/ SIL 3 (IEC 61508)

Product type designation Firmware version Firmware versio	General information	
Firmware version Yes • FW update possible Yes Product function ************************************		F-DI 16x24VDC
• FW update possible Yes Product function		
Product function • IAM data Yes; IBMD to I8M3 Engineering with V13 SP1 with HSP 0086 • STEP 7 TIA Portal configurable/integrated from version V13 SP1 with HSP 0086 Operating mode Ves • DI Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) 24 V permissible range, lower limit (DC) 28 8 V Reverse polarity protection Yes power supply according to NEC Class 2 required No Input current Current consumption (rated value) 50 mA; without load Current consumption, max. 60 mA; without load Encoder supply Current consumption, max. 4 Short-circuit protection Yes; Electronic (response threshold 0.7 A to 1.8 A) 24 V encoder supply Yes; min. L+ (-1.5 V) • Short-circuit protection Yes; min. L+ (-1.5 V) • 24 V Yes; min. L+ (-1.5 V) • Output current, max. 00 mA; Max. 100 mA when mounted vertically Power loss Power loss Power loss Power loss Power loss Power loss, typ. 4.6 W Address space per module 9 byte; S7-300/400F CPU, 8 byte 10 byte		Yes
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Electronic coding element type F Yes Digital inputs	Hardware configuration	
Digital inputs	Automatic encoding	Yes
	 Electronic coding element type F 	Yes
Number of digital inputs 16	Digital inputs	
	Number of digital inputs	16

Source/sink input	Yes; P-reading
Input characteristic curve in accordance with IEC 61131,	Yes
type 1	
Input voltage	
 Rated value (DC) 	24 V
 for signal "0" 	-30 to +5 V
 for signal "1" 	+15 to +30 V
Input current	
 for signal "1", typ. 	3.7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes
— at "0" to "1", min.	0.4 ms
— at "0" to "1", max.	20 ms
— at "1" to "0", min.	0.4 ms
— at "1" to "0", max.	20 ms
Cable length	
 shielded, max. 	1 000 m
 unshielded, max. 	500 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes
Hardware interrupt	No
Diagnoses	
-	Ver
Monitoring the supply voltage	Yes
• Wire-break	No
Short-circuit	Yes
Group error	Yes
Diagnostics indication LED	
RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
 Channel status display 	Yes; green LED
 for channel diagnostics 	Yes; red LED
for module diagnostics	Yes; red LED
Potential separation	
Potential separation channels	Mar.
 between the channels and backplane bus 	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Suitable for safety functions	Yes
Highest safety class achievable in safety mode	163
	Dia
Performance level according to ISO 13849-1	PLe
• SIL acc. to IEC 61508	SIL 3
Probability of failure (for service life of 20 years and repa	
 Low demand mode: PFDavg in accordance with SIL3 	< 5.00E-05
	. 4 005 00 4/
 High demand/continuous mode: PFH in accordance with SIL3 	< 1.00E-09 1/h
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	0°0
 horizontal installation, max. 	60 °C
 vertical installation, min. 	0°0
 vertical installation, max. 	40 °C
Dimensions	
Width	35 mm
	147 mm
Height	
Depth	129 mm
Weights	
Weight, approx.	280 g
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