SIEMENS

Data sheet



SIMATIC S7-1500 Digital input module, DI 16x24 V DC BA, 16 channels in groups of 16, input delay typ. 3.2 ms, input type 3 (IEC 61131); Delivery incl. front connector Push-in

General information	
Product type designation	DI 16 x 24 V DC 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	Yes
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	V13 / V13
 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 	V2.3 / -
Operating mode	
• DI	Yes
Counter	No
• MSI	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Power	
Power available from the backplane bus	1.05 W
Power loss	
Power loss, typ.	1.8 W
Digital inputs	
Number of digital inputs	16
Digital inputs, parameterizable	No
Source/sink input	P-reading
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Input voltage	
Rated value (DC)	24 V
● for signal "0"	-30 to +5 V
• for signal "1"	+11 to +30V
Input current	
● for signal "1", typ.	2.7 mA
Input delay (for rated value of input voltage)	
for standard inputs	

— parameterizable	No
— at "0" to "1", min.	3 ms
— at "0" to "1", max.	4 ms
— at "1" to "0", min.	3 ms
— at "1" to "0", max.	4 ms
for interrupt inputs	
— parameterizable	No
for technological functions	
— parameterizable	No
Cable length	
shielded, max.	1 000 m
unshielded, max.	600 m
Encoder	000 111
Connectable encoders	
• 2-wire sensor	Yes
 permissible quiescent current (2-wire sensor), 	1.5 mA
max.	
Interrupts/diagnostics/status information	
Diagnostics function	No
Alarms	
Diagnostic alarm	No
Hardware interrupt	No
Diagnoses	
Monitoring the supply voltage	No
Wire-break	No
Short-circuit	No
Diagnostics indication LED	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
Monitoring of the supply voltage (PWR-LED)	No
Channel status display	Yes; green LED
	No
• for channel diagnostics	
for module diagnostics	No
Potential separation	
Potential separation channels	
 between the channels 	No
 between the channels, in groups of 	16
 between the channels and backplane bus 	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	To the Cope today
Standards, approvais, certificates	
0 11 11 11 11 11 11	N.
Suitable for safety functions	No
Suitable for safety functions Ambient conditions	No
·	No
Ambient conditions	No -30 °C; from FS04
Ambient conditions Ambient temperature during operation	
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Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Dimensions	-30 °C; from FS04 60 °C -30 °C; from FS04 40 °C 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
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