## 6ES7522-1BH10-0AA0

**Data sheet** 



SIMATIC S7-1500, digital output module, DQ16xDC 24V/0.5A BA, 16 channels in groups of 8, 4 A per group; the module supports the safety-oriented shutdown of load groups up to SIL2 according to EN IEC 62061:2021 and Category 3 / PL d according to EN ISO 13849-1:2015. delivery incl. front connector push-in

General information	
Product type designation	DQ 16x24VDC/0.5A BA
HW functional status	From FS01
Firmware version	V1.0.0
<ul> <li>FW update possible</li> </ul>	Yes
Product function	
■ I&M data	Yes; I&M0 to I&M3
<ul> <li>Isochronous mode</li> </ul>	No
Prioritized startup	Yes
Engineering with	
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V13 / V13
<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
<ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	V1.0 / V5.1
PROFINET from GSD version/GSD revision	V2.3 / -
Operating mode	
• DQ	Yes
<ul> <li>DQ with energy-saving function</li> </ul>	No
• PWM	No
<ul> <li>Oversampling</li> </ul>	No
• MSO	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; through internal protection with 7 A per group
Input current	
Current consumption, max.	30 mA
output voltage / header	
Rated value (DC)	24 V
Power	
Power available from the backplane bus	1.15 W
Power loss	
Power loss, typ.	2.2 W
Digital outputs	
Type of digital output	Transistor
Number of digital outputs	16
Current-sourcing	Yes
Digital outputs, parameterizable	No
Short-circuit protection	Yes
<ul> <li>Response threshold, typ.</li> </ul>	1 A

Limitation of inductive shutchores voltage to Controlling a digital input Switching aspects of the outputs  **White resistive load, max.  **O in lamp boad, max.  **O in lamp boad **I', min.  **Output claiment  **Output c		
Switching sepacity of the outputs  • with resistive load, max. • on large load reac. • on signal "1", min. • Let (-0.8 V)  Culput storage • for again "1", min. • or signal "1" react value • or signal	Limitation of inductive shutdown voltage to	L+ (-53 V)
• with resistive load, max.     • on lamp load, max.     • on lamp load, max.     • swy  Load resistance range      • liver limit     • upper limit     • upper limit     • upper limit     • lor signal ***, min.     • L** (-0.8 V)  Output current      • for signal ***, min.     • lor signal ***, max.     • for signal ***, membrasible range, max.     • for signal switching of swo subgits     • for for ***, max.     • for signal switching of swo subgits     • for for your subgits     • for for your subgits     • for forgic links     • forgi		Yes
on lamp load, max.     lower limit     loyper limit     lower limit     loyper limit     loy signal *1", min.     loy signal *1", min.     loy signal *1"		
Note		
• (upwer limit   12 kg   1		5 W
• Output voltage           • For signal **1", min.         L+ (-0.8 V)           • For signal **1" facted value         0.5 A           • For signal **1" permissible range, max.         0.5 A           • For signal **1" permissible range, max.         0.5 mA           • Or signal **1" permissible range, max.         0.5 mA           • Output diseasy with reseastive load         •**Or 1"1", max.         100 us           • ***Or 1"1", max.         500 us           • Familial switching of two outputs         •**Or 1"1", max.         500 us           • For logic links         Yes         •**Or upcating         No           • For logic links         Yes         •**Or upcating facusency           • With resistive load, max.         0.5 fez; According to IEC 60047-5-1, DC-13         •**Or lange load, max.         10 Hz           • With resistive load, max.         10 Hz         •**Or lange link outputs         •**Or lange link outputs           • Current per channel, max.         0.5 A: see additional description in the manual         •**Cable leasting           • Victorial per production, max.         4 A; see additional description in the manual         •**Cable leasting           • Victorial per production, max.         1 000 m         •**Intermetalliage leasting link outputs intermetalliage leasting link outputs intermetalliage leasting link outputs intermetalliage leas		
Coupur surrest		
		12 kΩ
Output current  • for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max.  • for signal "0" residual current, max.  • for signal "0" residual current, max.  • for signal "0" residual current, max.  • for the residue lead • "0" to "1", max. • for the residue lead • "1" to "0", max. • for logic links • for upcating • for redundant control of a load • Yes • for reputating • for redundant control of a load • Yes • with residitive load, max. • for line line lead, max. • for line line lead, max. • for line line line line • for line line line line line • for line line line line • Current per forup, max. • Current per group, max. • Ray see additional description in the manual • Current per group, max. • As asse additional description in the manual • As see additional description in the manual • As see additional description in the manual • As asses • Current per group, max. • No • Observed the max to the max	· · ·	1. (00)
Cor signal "1" read value   0.5 A		L+ (-0.8 V)
of or Signal "1" permissible range, max.	·	0.5.4
Output delay with resistive load  Output delay with resistive load  Output delay with resistive load  1 "O" to "I", max.  1 100 µs  5 00 µs  1 11 to "0", max.  5 00 µs  For logic links  For dedundant control of a load  For edeutudant control of a load  For edeutudant control of a load  For edeutudant control of a load  For logic links  For logi	-	
Couptor delay with resistive load   *"0" to "1", max.		
O''16 11', max.     O''16 10', max.     S00 µs  Parallel switching of two outputs      of ro logic links     of ro prograting     No     of roredundant control of a load     Yes  Switching frequency     owith resistive load, max.     owith inductive load, max.     owith induction in the manual  Courrent per module, max.     owith induction in the manual  Outrent per group, max.     owith induction in the manual  Outrent per group, in the manual  Outrent per module, max.     owith induction in the manual  Outrent per group, in the manual  Outrent per deannel  Outrent per group, in the manual  Outrent per group, in the manual  Outrent per group, in the manual  Outrent per deannel  Outrent per group, in the manual  Outrent per group, in the manual  Outrent per group, in the manual  Outrent per group, in		0.5 IIIA
Parallel switching of two outputs  • for logic links • for uprating • for orget interval of a load  Switching frequency • with resistive load, max. • on lamp load, max. • on lamp load, max. • Outernt per channel, max. • Current per proup, max. • Current per proup, max. • Current per module, max. • Current per module, max. • Current per module, max. • Shielded, max. • I 000 m • Shielded, max. • I 100 m • Shielded, max. • I 100 m • Shielded, max. • I 100 m • Shielded, max. • Unshielded, max. • Outernt per module in the manual • Current per module in the manual • Current per module in the manual • Current per module in the manual • Shielded, max. • I 100 m • Shielded, max. • I 100 m • Shielded, max. • Outernt per module in the manual • Shielded, max. • I 100 m • Shielded, max. • Outernt per module in the manual • Shielded, max. • Outernt per module in the manual • Shielded, max. • Outernt per module in the manual • Shielded, max. • Outernt per module in the manual • Shielded, max. • Outernt per module in the manual • Outernt per module in the manual • Outernt per module in the manual • No manual interval	·	100 ue
Parallel switching of two outputs  of or logic links of or uprating of or redundant control of a load Yes  Switching frequency  with resistive load, max. output frestive load, max. output load		
• for logic links     • for uprating     • for uprating     • for uprating     • for rendunat control of a load     • Yes  Switching frequency      • with resistive load, max.     • with inductive load, max.     • on lamp load, max.     • on lamp load, max.     • on lamp load, max.     • Current per channel, max.     • Current per group, max.     • Current per group, max.     • Current per group, max.     • Current per module, max.     • Current per module, max.      • No      • Diagnostic site of status information      Diagnostic site of status information      Diagnostic site of status information      • No      • Sond-factorial to No      • Monitoring the supply voltage      • Monitoring of the s	·	ουυ μο
for uprating		Yes
For redundant control of a load	-	
Switching frequency  with resistive load, max. with inductive load, max. with inductive load, max. 100 Hz on lamp load, max. 10 Hz  Total current of the outputs  Current per channel, max. Current per group, max. A A; see additional description in the manual Current per module, max. Current per module, max. A A; see additional description in the manual A; see additional description in the manual  I 000 m		
with resistive load, max.     with inductive load, max.     vin lamp load, max.     on lamp load, max.     on lamp load, max.     Outerful per channel, max.     Current per dechannel, max.     Current per group, max.     A; see additional description in the manual     Current per group, max.     A; see additional description in the manual     Current per module, max.     Current per module, max.     A; see additional description in the manual     A; see additional description in the manual     Cable length     shelded, max.     1000 m     on lamp load, max.     A is see additional description in the manual     A is see additional description in the manual     Cable length     shelded, max.     A is see additional description in the manual     Cable length     shelded, max.     A is see additional description in the manual     A is description in the manual     A is the secrit of the manual     A is the manual     A is deditional description in the manual     A is the seadditional description in the manual     A is the secrit		
with inductive load, max.     on lamp load, max.     10 Hz  Total current of the outputs      • Current per channel, max.     • Current per propup, max.     • Current per group, max.     • Current per module, max.     • A; see additional description in the manual  Cable length      • shielded, max.     • I 000 m      • shielded, max.     • I 000 m      • Substitute values connectable  No  Substitute values connectable  No  Substitute values connectable  No  No  No  No  No  No  No  No  No  N		100 Hz
• on lamp load, max.  Total current of the outputs  • Current per proannel, max. • Current per group, max. • Current per group, max. • Current per module, max. • Sa, see additional description in the manual • Current per module, max. • Sa, see additional description in the manual  Cable length • shelded, max. • unshielded, max. • unshielded, max. • 1000 m • shelded, max. • 1000 m • Substitute values connectable  No Substitute values connectable  No Substitute values connectable  No Maintenance interrupt  No Diagnostics alarm • Maintenance interrupt  No Diagnostics alarm • Monitoring the supply voltage • Wire-break • Short-circuit • No • Group error  No Diagnostics indication LED • RUN LED • Person and the supply voltage (PWR-LED) • See; red LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • Yes; green LED • Yes; reen LED • Channel status display • For channel diagnostics • No Potential separation  Potential separation channels • between the channels in groups of • between the channels and backplane bus  Yes  Standards, approvals, certificates  Suitable for safety functions  No		
Current per channel, max. Current per group, max. Current per group, max. Current per group, max. A A; see additional description in the manual A; see ad	• on lamp load, max.	
Current per group, max.  Ourrent per module, max.  Ourrent per module, max.  Sa i see additional description in the manual  Ourrent per module, max.  I 1000 m  Solutional description in the manual  Ourrent per module, max.  I 1000 m  Solutional description in the manual  Ourrent per module, max.  I 1000 m  Solutional per max.  Interrupts/diagnostics/status information  Diagnostics function  No  Substitute values connectable  No  Alarms  Ourrent per module, max.  No  Maintenance interrupt  No  Diagnoses  Monitoring the supply voltage  No  Solutional per supply voltage  No  Ourre-break  Solort-circuit  No  Ourre-break  Solort-circuit  No  Forup error  No  Diagnostic indication LED  FRON LED  FROR LED  Ourrent per module, max.  No  Potential supply voltage (PWR-LED)  For module diagnostics  No  Potential separation  Potential separation channels  Detween the channels in groups of  Detween the channels and backplane bus  No  No  Volve test)  Standards, approvals, certificates  Suitable for safety functions  No		
Cable length  Shielded, max. Shielded, max. Shielded, max. Substitute values connectable  Alarms  Diagnostics function No	Current per channel, max.	0.5 A; see additional description in the manual
Cable length  * shielded, max.  * unshielded, max.  * unshielded, max.  * foo m  Interrupts/diagnostics/status information  Diagnostics function  No  Substitute values connectable  No  Alarms  * Diagnoses  * Maintenance interrupt  No  Diagnoses  * Monitoring the supply voltage  * Wire-break  * Short-circuit  * No  * Croup error  Diagnostics indication LED  * RUN LED  * RON Signostics function  * Monitoring of the supply voltage (PWR-LED)  * Pes; green LED  * Konnow in the status display (PWR-LED)  * Fes; green LED  * Channel status display (PWR-LED)  * For channel diagnostics  * for module diagnostics  * for module diagnostics  * between the channels  * between the channels  * between the channels in groups of  * between the channels and backplane bus  * Solation  Isolation tested with  * 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions  No	Current per group, max.	4 A; see additional description in the manual
shielded, max.	Current per module, max.	8 A; see additional description in the manual
Unshielded, max. 600 m  Interrupts/diagnostics/status information  Diagnostics function No Substitute values connectable No Alarms  Diagnostic alarm No Maintenance interrupt No Diagnostics  Monitoring the supply voltage No Short-circuit No Group error No Diagnostics indication LED  RUN LED Yes; green LED ERROR LED Yes; green LED Monitoring of the supply voltage (PWR-LED) Yes; green LED Channel status display Yes; green LED Channel status display Yes; green LED Channel status display Yes; green LED  Or channel diagnostics No For module diagnostics No  Potential separation  Potential separation channels  Obetween the channels No Obetween the channels in groups of Sebetween the channels and backplane bus  Stolation  Suttable for safety functions  No  No  No  Standards, approvals, certificates  Suitable for safety functions	Cable length	
Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  No  Alarms  • Diagnostic alarm • Mo • Maintenance interrupt  No  Diagnoses  • Monitoring the supply voltage • Wire-break • Short-circuit • Group error  No  Diagnostics indication LED  • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics • for module diagnostics • between the channels • between the channels • between the channels and backplane bus  Isolation tested with  TO7 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions		
Diagnostics function No Substitute values connectable No Alarms  Diagnostic alarm No Maintenance interrupt No Diagnoses  Monitoring the supply voltage No Short-circuit No Group error No Diagnostics indication LED  RUN LED Yes; green LED RRROR LED Yes; green LED Monitoring of the supply voltage (PWR-LED) Yes; green LED Channel status display Yes; green LED Or channel diagnostics No For module diagnostics No Potential separation  Potential separation No  between the channels Determine Supply of Supply o	<ul><li>shielded, max.</li></ul>	1 000 m
Substitute values connectable  Alarms  Diagnostic alarm Mo Maintenance interrupt No  Diagnoses  Monitoring the supply voltage Wire-break Short-circuit Group error No  Diagnostics indication LED  RUN LED REROR LED Status display For channel diagnostics For module diagnostics For module diagnostics Detential separation  Potential separation  Potential separation channels  between the channels, in groups of between the channels, and backplane bus Standards, approvals, certificates  Suitable for safety functions  No  No  No  No  No  No  No  No  No  N	,	
Alarms  Diagnostic alarm Mo Maintenance interrupt No  Monitoring the supply voltage Monitoring of the supply voltage Monitoring of the supply voltage (PWR-LED) FRROR LED Monitoring of the supply voltage (PWR-LED) Monitoring of the s	• unshielded, max.	
Diagnoses  Monitoring the supply voltage Monitoring of the supply voltage RUN LED RUN LED REROR LED Monitoring of the supply voltage (PWR-LED) Romand Status display For channel diagnostics No for module diagnostics No Potential separation  Potential separation channels Determine the channels obetween the channels in groups of Determine the channels in groups of Determine the status display Standards, approvals, certificates  Suitable for safety functions No No	unshielded, max.  Interrupts/diagnostics/status information	600 m
Maintenance interrupt  No  Diagnoses  Monitoring the supply voltage  Wire-break No Short-circuit No Group error No  Diagnostics indication LED  RUN LED RUN LED RUN LED Standards, approvals, certificates  No  No  No  No  No  No  No  No  No  N	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function	600 m
Diagnoses  • Monitoring the supply voltage • Wire-break • No • Short-circuit • No • Group error • No  Diagnostics indication LED  • RUN LED • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics • for module diagnostics • between the channels • between the channels, in groups of • between the channels and backplane bus  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms	600 m
Monitoring the supply voltage Wire-break No Short-circuit No Group error No  Diagnostics indication LED  RUN LED REROR LED Monitoring of the supply voltage (PWR-LED) Channel status display For channel diagnostics For module diagnostics No  Potential separation Potential separation channels between the channels, in groups of between the channels and backplane bus  Isolation  Isolation tested with  Tor V DC (type test)  No  No  No  No  No  No  No  No  No  N	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm	No No No
Wire-break Short-circuit No Group error No  Diagnostics indication LED  RUN LED Parameter of the supply voltage (PWR-LED) Standards, approvals, certificates  No  No  No  No  No  No  No  No  No  N	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt	No No No
Short-circuit Group error No  Diagnostics indication LED  RUN LED REROR LED FERROR LED Monitoring of the supply voltage (PWR-LED) Channel status display For channel diagnostics For module diagnostics No  Potential separation  Potential separation channels  between the channels between the channels, in groups of between the channels and backplane bus  Solation  Isolation tested with  Tor V DC (type test)  No  No  No  No  No  No  No  No  No  N	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms  Diagnostic alarm Maintenance interrupt  Diagnoses	No No No No
Group error      Diagnostics indication LED      RUN LED     REROR LED     Yes; green LED     Yes; red LED     Monitoring of the supply voltage (PWR-LED)     Channel status display     For channel diagnostics     No     for module diagnostics     No     Potential separation  Potential separation channels     between the channels     between the channels, in groups of     between the channels and backplane bus  Isolation  Isolation tested with  Tor V DC (type test)  Standards, approvals, certificates  Suitable for safety functions	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses     Monitoring the supply voltage	No No No No No
Diagnostics indication LED  RUN LED  RUN LED  RERROR LED  Monitoring of the supply voltage (PWR-LED)  Channel status display  for channel diagnostics  for module diagnostics  No  Potential separation  Potential separation channels  between the channels, in groups of  between the channels and backplane bus  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break	No No No No No No
RUN LED ERROR LED FOR SUPPORT OF THE SUPPLY SET	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break     Short-circuit	No N
ERROR LED     Monitoring of the supply voltage (PWR-LED)     Channel status display     Channel diagnostics     for channel diagnostics     No     for module diagnostics     No  Potential separation  Potential separation channels     between the channels     between the channels, in groups of     between the channels and backplane bus  Isolation  Isolation tested with  Tor V DC (type test)  Standards, approvals, certificates  Suitable for safety functions  No  Yes; green LED  No  No  No  Potential separation  No  No  No  No  No  No  No  No  No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break     Short-circuit     Group error	No N
Monitoring of the supply voltage (PWR-LED)     Channel status display     for channel diagnostics     for module diagnostics     No     Potential separation  Potential separation channels     between the channels     between the channels, in groups of     between the channels and backplane bus  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety functions  Yes; green LED  Yes; green LED  Yes; green LED  Yes; green LED  No  No  No  No  No  No  No  No  No  N	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break     Short-circuit     Group error  Diagnostics indication LED	No N
Channel status display  for channel diagnostics  for module diagnostics  No  Potential separation  Potential separation channels  between the channels  between the channels, in groups of  between the channels and backplane bus  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions  No  No  No  No  No  No  No  No  No  N	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break     Short-circuit     Group error  Diagnostics indication LED     RUN LED	No N
for channel diagnostics     for module diagnostics     No  Potential separation  Potential separation channels     between the channels     between the channels, in groups of     between the channels and backplane bus  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions  No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break     Short-circuit     Group error  Diagnostics indication LED      RUN LED     ERROR LED	No Yes; green LED Yes; red LED
for module diagnostics      Potential separation  Potential separation channels      • between the channels     • between the channels, in groups of     • between the channels and backplane bus  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions  No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break     Short-circuit     Group error  Diagnostics indication LED      RUN LED     ERROR LED     Monitoring of the supply voltage (PWR-LED)	No Yes; green LED Yes; red LED Yes; green LED
Potential separation  Potential separation channels  • between the channels  • between the channels, in groups of  • between the channels and backplane bus  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions  No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms  Diagnostic alarm Maintenance interrupt  Diagnoses  Monitoring the supply voltage Wire-break Short-circuit Group error  Diagnostics indication LED  RUN LED ERROR LED Monitoring of the supply voltage (PWR-LED) Channel status display	No No No No No No No Ves; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED
Potential separation channels  • between the channels  • between the channels, in groups of  • between the channels and backplane bus  Yes  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions  No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break     Short-circuit     Group error  Diagnostics indication LED      RUN LED     ERROR LED     Monitoring of the supply voltage (PWR-LED)     Channel status display     for channel diagnostics	No Ves; green LED Yes; red LED Yes; green LED Yes; green LED No
between the channels     between the channels, in groups of     between the channels and backplane bus  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions  No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms  Diagnostic alarm Maintenance interrupt  Diagnoses  Monitoring the supply voltage Wire-break Short-circuit Group error  Diagnostics indication LED RUN LED ERROR LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics	No Ves; green LED Yes; red LED Yes; green LED Yes; green LED No
between the channels, in groups of     between the channels and backplane bus  Isolation  Isolation tested with 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break     Short-circuit     Group error  Diagnostics indication LED      RUN LED     ERROR LED     Monitoring of the supply voltage (PWR-LED)     Channel status display     for channel diagnostics     for module diagnostics  Potential separation	No Yes; green LED Yes; red LED Yes; green LED Yes; green LED No
● between the channels and backplane bus  Isolation  Isolation tested with 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break     Short-circuit     Group error  Diagnostics indication LED      RUN LED     ERROR LED     Monitoring of the supply voltage (PWR-LED)     Channel status display     for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels	No Ves; green LED Yes; red LED Yes; green LED Yes; green LED No No No
Isolation Isolation tested with 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety functions No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms  Diagnostic alarm Maintenance interrupt  Diagnoses  Monitoring the supply voltage Wire-break Short-circuit Group error  Diagnostics indication LED  RUN LED RUN LED REROR LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics  Potential separation  Potential separation channels  between the channels	No N
Standards, approvals, certificates  Suitable for safety functions  No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms  Diagnostic alarm Maintenance interrupt  Diagnoses  Monitoring the supply voltage Wire-break Short-circuit Group error  Diagnostics indication LED  RUN LED RUN LED REROR LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics for module diagnostics  Potential separation  Potential separation channels between the channels, in groups of	No N
Suitable for safety functions No	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms  Diagnostic alarm Maintenance interrupt  Diagnoses  Monitoring the supply voltage Wire-break Short-circuit Group error  Diagnostics indication LED RUN LED RUN LED REROR LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics for module diagnostics  Potential separation  Potential separation channels between the channels between the channels and backplane bus	No N
·	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms      Diagnostic alarm     Maintenance interrupt  Diagnoses      Monitoring the supply voltage     Wire-break     Short-circuit     Group error  Diagnostics indication LED      RUN LED     ERROR LED     Monitoring of the supply voltage (PWR-LED)     Channel status display     for channel diagnostics     for module diagnostics      for module diagnostics      between the channels     between the channels     between the channels and backplane bus  Isolation	No N
Suitable for safety-related tripping of standard modules  Yes; From FS02	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms  Diagnostic alarm  Maintenance interrupt  Diagnoses  Monitoring the supply voltage  Wire-break Short-circuit Group error  Diagnostics indication LED  RUN LED ERROR LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics  for module diagnostics  between the channels between the channels between the channels and backplane bus  Isolation  Isolation tested with	No N
	unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms  Diagnostic alarm Maintenance interrupt  Diagnoses  Monitoring the supply voltage Wire-break Short-circuit Group error  Diagnostics indication LED  RUN LED RROR LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics for module diagnostics between the channels between the channels between the channels and backplane bus  Isolation  Isolation tested with  Standards, approvals, certificates	No Ves; green LED Yes; green LED Yes; green LED Yes; green LED No

Highest safety class achievable for safety-related tripping of s	standard modules
<ul> <li>Performance level according to ISO 13849-1</li> </ul>	PL d
<ul> <li>Category according to ISO 13849-1</li> </ul>	Cat. 3
• SIL acc. to IEC 62061	SIL 2
<ul> <li>remark on safety-oriented shutdown</li> </ul>	https://support.industry.siemens.com/cs/de/en/view/39198632
product functions / security / header	
signed firmware update	No
data integrity	No
Ambient conditions	
Ambient temperature during operation	
<ul> <li>horizontal installation, min.</li> </ul>	-30 °C; from FS04
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
<ul> <li>vertical installation, min.</li> </ul>	-30 °C; from FS04
<ul> <li>vertical installation, max.</li> </ul>	40 °C
Altitude during operation relating to sea level	
<ul> <li>Installation altitude above sea level, max.</li> </ul>	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Dimensions	
Width	25 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	230 g
Other	
Note:	Supplied incl. 40-pole push-in front connectors

last modified:

3/12/2024