## SIEMENS

## Data sheet

## 6ES7522-1BL10-0AA0



SIMATIC S7-1500, digital output module, DQ32xDC 24V/0.5A BA, 32 channels in groups of 8, 4 A per group; the module supports the safetyoriented 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

Product type designation     DQ 32x24VDC/0.6A BA       HW functional status     From FS01       Firmware version     V10.0       • FW update possible     Yes       Product function     Yes       • IskM data     Yes; I&M0 to I&M3       • Isochronous mode     No       • Prioritized startup     Yes       Engineering with     Yes; I&M0 to I&M3       • STEP 7 TIA Portal configurable/integrated from version     V5.5 SP3 / -       • STEP 7 configurable/integrated from version     V5.5 SP3 / -       • PROFINET from GSD version/GSD revision     V1.0 / V5.1       • DQ     Yes       Supply voltage     Yes       Rated value (DC)     24 V       Powere ross. typ.	General information	
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 Fortal configurable/integrated from version     V5.5 SP3 / -       • PROFIBUS from GSD version/GSD revision     V1.0 / V5.1       • PROFIBUS from GSD version/GSD revision     V1.0 / V5.1       • PROFIBUS from GSD version/GSD revision     V2.3 / -       Operating mode     *       • DQ     Yes       Supply voltage     *       Rated value (DC)     24 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.     60 mA       output voltage / header     *       Power loss, typ.     3.8 W       Point of bigital output	Product type designation	DQ 32x24VDC/0.5A BA
• FW update possible     Yes       Product function	HW functional status	From FS01
Product function         Yes           • I&M data         Yes; I&M0 to I&M3           • Isochronous mode         No           • Prioritized startup         Yes           Engineering with         Yes           • STEP 7 TIA Portal configurable/integrated from version         V13 / V13           • STEP 7 configurable/integrated from version         V1.5 / SS P3 / -           • PROFIBUS from GSD version/GSD revision         V2.3 / -           Operating mode         Ves           • DQ         Yes           Supply voltage         Yes           Rated value (DC)         24 V           permissible range, upper limit (DC)         28.8 V           Raverse polarity protection         Yes; through internal protection with 7 A per group           Iput current         Current           Current consumption, max.         60 mA           Output voltage / header         1.15 W	Firmware version	V1.0.0
• I&M data     Yes; I&M0 to I&M3       • Isochronous mode     No       • Proritized startup     Yes       Engineering with     Y13 / V13       • STEP 7 TIA Portal configurable/integrated from version     V13 / V13       • STEP 7 configurable/integrated from version     V13 / V13       • PROFIBUS from GSD version/GSD revision     V1.0 / V5.1       • PROFIBUS from GSD version/GSD revision     V2.3 / -       Operating mode     Yes       • DQ     Yes       • MSO     Yes       Supply voltage     Transistole range, lower limit (DC)       permissible range, lower limit (DC)     24 V       permissible range, lower limit (DC)     28 a V       Reverse polarity protection     Yes; through internal protection with 7 A per group       Input current     Current consumption, max.     60 mA       output voltage / header     Rated value (DC)     24 V       Power loss     1.15 W       Power loss <td< td=""><td><ul> <li>FW update possible</li> </ul></td><td>Yes</td></td<>	<ul> <li>FW update possible</li> </ul>	Yes
<ul> <li>Isochronous mode</li> <li>Prioritized startup</li> <li>Yes</li> <li>Engineering with</li> <li>STEP 7 TIA Portal configurable/integrated from version</li> <li>STEP 7 configurable/integrated from version</li> <li>V13 / V13</li> <li>V13 / V13</li> <li>PROFIBUS from GSD version/GSD revision</li> <li>V1.0 / V5.1</li> <li>PROFINET from GSD version/GSD revision</li> <li>V2.3 / -</li> <li>Operating mode</li> <li>DQ</li> <li>Yes</li> <li>DQ with energy-saving function</li> <li>No</li> <li>Oversampling</li> <li>No</li> <li>Oversampling</li> <li>No</li> <li>WSO</li> <li>Yes</li> <li>Supply voltage</li> <li>Rated value (DC)</li> <li>Paverse polarity protection</li> <li>Yes, through internal protection with 7 A per group</li> <li>Input current</li> <li>Current consumption, max.</li> <li>60 mA</li> <li>outputs</li> <li>At a value (DC)</li> <li>Power loss</li> <li>Power loss, typ.</li> <li>3.8 W</li> <li>Digital outputs</li> <li>Transistor</li> <li>No</li> <li>Digital outputs</li> <li>Yes</li> <li>Digital outputs, parameterizable</li> <li>No</li> </ul>	Product function	
• Prioritized startup     Yes       Engineering with	<ul> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
Engineering with <ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> <li>STEP 7 configurable/integrated from version</li> <li>V5.5 SP3 / -</li> <li>PROFIBUS from GSD version/GSD revision</li> <li>V1.0 / V5.1</li> <li>PROFINET from GSD version/GSD revision</li> <li>V2.3 / -</li> </ul> <li>Operating mode</li> <li>DQ</li> <li>Yes</li> <li>DQ with energy-saving function</li> <li>No</li> <li>Oversampling</li> <li>No</li> <li>Oversampling</li> <li>No</li> <li>Oversampling</li> <li>MSO</li> <li>Yes</li> <li>Supply voltage</li> <li>Rated value (DC)</li> <li>Part Configurable range, lower limit (DC)</li> <li>Part Sible range, lower limit (DC)</li> <li>Part Consumption, max.</li> <li>60 mA</li> <li>output voltage / header</li> <li>Current consumption, max.</li> <li>60 mA</li> <li>output voltage / header</li> <li>Power loss, typ.</li> <li>Sa W</li> <li>Digital outputs</li> <li>Yes</li> <li>Subly of digital outputs</li> <li>Yes</li> <li>Subly outputs</li> <li>Yes</li> <li>Digital outputs, parameterizable</li> <li>No</li>	<ul> <li>Isochronous mode</li> </ul>	No
• STEP 7 TIA Portal configurable/integrated from       V13 / V13         version       V5.5 SP3 / -         • PROFIBUS from GSD version/GSD revision       V1.0 / V5.1         • PROFINET from GSD version/GSD revision       V2.3 / -         Operating mode       Ves         • DQ       Yes         • DQ       Yes         • DQ       Yes         • DQ with energy-saving function       No         • Oversampling       No         • Oversampling       No         • MSO       Yes         Supply voltage          Rated value (DC)       19.2 V         permissible range, lower limit (DC)       28.8 V         Reverse polarity protection       Yes; through internal protection with 7 A per group         Input current       Current consumption, max.         Cottage / header       60 mA         Power loss       1.15 W         Power loss, typ.       3.8 W         Digital outputs       32         Type of digital outputs       32         Output of digital outputs       32         Output outputs, parameterizable       No	· · · · · · · · · · · · · · · · · · ·	Yes
version     VFS 5 SP3 / -       • STEP 7 configurable/integrated from version     V1.0 / V5.1       • PROFINET from GSD version/GSD revision     V2.3 / -       Operating mode     Ves       • DQ     Yes       • DQ with energy-saving function     No       • PWM     No       • Oversampling     No       • MSO     Yes       Supply voltage     Ves       Rated value (DC)     24 V       permissible range, lower limit (DC)     28.8 V       Reverse polarity protection     Yes; through internal protection with 7 A per group       Input current     Current consumption, max.       Output voltage / header     24 V       Power     Power available from the backplane bus       Power loss     1.15 W       Power loss, typ.     3.8 W       Digital outputs     32       Current consurption     32       Digital outputs     32       Power loss     1/15 W		
PROFIBUS from GSD version/GSD revision     V1.0 / V5.1     PROFINET from GSD version/GSD revision     V2.3 / -      Operating mode     DQ     DQ     Vers     DQ with energy-saving function     No     PWM     No     Oversampling     No     Versampling     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.     60 mA     output voltage / header Rated value (DC)     24 V Power Power available from the backplane bus     1.15 W Power loss Power loss Type of digital output     Transistor Number of digital output     Sa     Digital outputs, parameterizable     No		V13 / V13
PROFINET from GSD version/GSD revision     V2.3 / -     Operating mode          DQ         Yes         DQ with energy-saving function         PWM         No         Oversampling         No         Oversampling         No         Oversampling         No         Oversampling         No         Oversampling         No         Exted value (DC)         Permissible range, lower limit (DC)         19.2 V         permissible range, lower limit (DC)         19.2 V         permissible range, lower limit (DC)         28.8 V         Reverse polarity protection         Yes; through internal protection with 7 A per group         Input current         Current consumption, max.         60 mA         output voltage / header         Rated value (DC)         24 V         Power         Power available from the backplane bus         1.15 W         Power loss, typ.         3.8 W         Digital outputs         Transistor         Xumber of digital output         Sage         Xel         Digital outputs, parameterizable         No	5 6	V5.5 SP3 / -
Operating mode       PQ         • DQ       Yes         DQ with energy-saving function       No         • PWM       No         • Oversampling       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.         G0 mA       output voltage / header         Rated value (DC)       24 V         Power available from the backplane bus       1.15 W         Power loss       1.15 W         Power loss       3.8 W         Digital output       Transistor         Number of digital output       Transistor         Number of digital outputs       32         Current-sourcing       Yes         Digital outputs, parameterizable       No		
<ul> <li>DQ</li> <li>Yes</li> <li>DQ with energy-saving function</li> <li>No</li> <li>PWM</li> <li>No</li> <li>Oversampling</li> <li>MSO</li> <li>Yes</li> <li>Supply voltage</li> <li>Rated value (DC)</li> <li>24 V</li> <li>permissible range, lower limit (DC)</li> <li>19.2 V</li> <li>permissible range, upper limit (DC)</li> <li>28.8 V</li> <li>Reverse polarity protection</li> <li>Yes; through internal protection with 7 A per group</li> <li>Input current</li> <li>Current consumption, max.</li> <li>60 mA</li> <li>output voltage / header</li> <li>Rated value (DC)</li> <li>24 V</li> <li>Power available from the backplane bus</li> <li>1.15 W</li> <li>Power loss.</li> <li>Power loss, typ.</li> <li>3.8 W</li> <li>Digital output</li> <li>Transistor</li> <li>Number of digital output</li> <li>Transistor</li> <li>Number of digital outputs</li> <li>32</li> <li>Current-sourcing</li> <li>Yes</li> <li>No</li> </ul>		V2.3 / -
• DQ with energy-saving functionNo• PWMNo• OversamplingNo• MSOYesSupply voltageRated value (DC)permissible range, lower limit (DC)permissible range, upper limit (DC)28.8 VReverse polarity protectionYes: through internal protection with 7 A per groupInput currentCurrent consumption, max.60 mAoutput voltage / headerRated value (DC)24 VPowerPower loss1.15 WPower lossType of digital outputTransistorNumber of digital outputTransistorNumber of digital outputs32Current-sourcingYesDigital outputs, parameterizableNo		
<ul> <li>PWM</li> <li>No</li> <li>Oversampling</li> <li>MSO</li> <li>Yes</li> <li>Supply voltage</li> <li>Rated value (DC)</li> <li>24 V</li> <li>permissible range, lower limit (DC)</li> <li>19.2 V</li> <li>permissible range, upper limit (DC)</li> <li>28.8 V</li> <li>Reverse polarity protection</li> <li>Yes; through internal protection with 7 A per group</li> <li>Input current</li> <li>Current consumption, max.</li> <li>60 mA</li> <li>output voltage / header</li> <li>Rated value (DC)</li> <li>24 V</li> <li>Power</li> <li>Power loss</li> <li>Power loss, typ.</li> <li>3.8 W</li> <li>Digital outputs</li> <li>Transistor</li> <li>Number of digital outputs</li> <li>Gurent-sourcing</li> <li>Yes</li> <li>No</li> </ul>		
• OversamplingNo YesSupply voltageRated value (DC)24 Vpermissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYes; through internal protection with 7 A per groupInput current60 mAoutput voltage / header24 VRated value (DC)24 VPower7000000000000000000000000000000000000		
• 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     60 mA       Output voltage / header       Rated value (DC)     24 V       Power       Power loss       Power loss, typ.     3.8 W       Digital outputs     Transistor       Number of digital outputs     32       Current-sourcing     Yes       Digital outputs, parameterizable     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 7 A per group         Input current       60 mA         Current consumption, max.       60 mA         output voltage / header       24 V         Power       24 V         Power available from the backplane bus       1.15 W         Power loss       1.15 W         Power loss, typ.       3.8 W         Digital outputs       32         Current-sourcing       Yes         Digital outputs, parameterizable       No		
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       60 mA         Output voltage / header       60 mA         Rated value (DC)       24 V         Power       24 V         Power loss       1.15 W         Power loss, typ.       3.8 W         Digital outputs       32         Type of digital output       Transistor         Number of digital outputs       32         Current-sourcing       Yes         Digital outputs, parameterizable       No		Yes
permissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYes; through internal protection with 7 A per groupInput current60 mACurrent consumption, max.60 mAoutput voltage / header24 VRated value (DC)24 VPowerPower evailable from the backplane bus1.15 W1.15 WPower loss, typ.3.8 WDigital outputsTransistorType of digital outputTransistorNumber of digital outputs32Current-sourcingYesDigital outputs, parameterizableNo	Supply voltage	
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Reverse polarity protectionYes; through internal protection with 7 A per groupInput currentCurrent consumption, max.60 mAoutput voltage / headerRated value (DC)24 VPowerPower available from the backplane bus1.15 WPower lossPower loss, typ.3.8 WDigital outputsType of digital outputTransistorNumber of digital outputs32Current-sourcingYesDigital outputs, parameterizableNo		19.2 V
Input current       60 mA         Output voltage / header       60 mA         Rated value (DC)       24 V         Power       24 V         Power available from the backplane bus       1.15 W         Power loss       1.15 W         Power loss       3.8 W         Digital outputs       3.8 W         Digital outputs       32         Current-sourcing       Yes         Digital outputs, parameterizable       No		
Current consumption, max.60 mAoutput voltage / headerRated value (DC)24 VPowerPower available from the backplane bus1.15 WPower lossPower lossPower loss, typ.3.8 WDigital outputsType of digital outputTransistorNumber of digital outputs32Current-sourcingYesDigital outputs, parameterizableNo	Reverse polarity protection	Yes; through internal protection with 7 A per group
output voltage / headerRated value (DC)24 VPowerPower available from the backplane bus1.15 WPower loss1.15 WPower loss3.8 WDigital outputs3.8 WDigital outputsTransistorNumber of digital outputs32Current-sourcingYesDigital outputs, parameterizableNo	Input current	
Rated value (DC)24 VPowerPower available from the backplane bus1.15 WPower lossPower lossPower loss, typ.3.8 WDigital outputsType of digital outputTransistorNumber of digital outputs32Current-sourcingYesDigital outputs, parameterizableNo		60 mA
Power       Power available from the backplane bus     1.15 W       Power loss     1.15 W       Power loss, typ.     3.8 W       Digital outputs     Transistor       Type of digital outputs     32       Current-sourcing     Yes       Digital outputs, parameterizable     No	output voltage / header	
Power available from the backplane bus1.15 WPower loss3.8 WDigital outputs3.8 WType of digital outputTransistorNumber of digital outputs32Current-sourcingYesDigital outputs, parameterizableNo	Rated value (DC)	24 V
Power loss         Power loss, typ.       3.8 W         Digital outputs       Transistor         Type of digital output       Transistor         Number of digital outputs       32         Current-sourcing       Yes         Digital outputs, parameterizable       No	Power	
Power loss, typ.3.8 WDigital outputsType of digital outputTransistorNumber of digital outputs32Current-sourcingYesDigital outputs, parameterizableNo	Power available from the backplane bus	1.15 W
Digital outputs       Type of digital output     Transistor       Number of digital outputs     32       Current-sourcing     Yes       Digital outputs, parameterizable     No	Power loss	
Type of digital outputTransistorNumber of digital outputs32Current-sourcingYesDigital outputs, parameterizableNo	Power loss, typ.	3.8 W
Number of digital outputs32Current-sourcingYesDigital outputs, parameterizableNo	Digital outputs	
Current-sourcing     Yes       Digital outputs, parameterizable     No	Type of digital output	Transistor
Digital outputs, parameterizable No	Number of digital outputs	32
	Current-sourcing	Yes
Short-circuit protection Yes	Digital outputs, parameterizable	No
	Short-circuit protection	Yes

- Deepense threshold two	1 A
Response threshold, typ.	1A
Limitation of inductive shutdown voltage to	L+ (-53 V) Yes
Controlling a digital input Switching capacity of the outputs	res
with resistive load, max.	0.5 A
<ul> <li>on lamp load, max.</li> </ul>	5.W
· ·	5 W
Load resistance range     olower limit	48 Ω
	4ο Ω 12 kΩ
upper limit	12 KΩ
Output voltage	
for signal "1", min. Output current	L+ (-0.8 V)
	0.5 A
for signal "1" rated value     for signal "4" permissible range, max	0.5 A
• for signal "1" permissible range, max.	
for signal "0" residual current, max.	0.5 mA
Output delay with resistive load • "0" to "1", max.	100 μο
	100 µs
• "1" to "0", max.	500 µs
Parallel switching of two outputs	Von
for logic links     for uproting	Yes
<ul> <li>for uprating</li> <li>for redundant control of a load</li> </ul>	No
for redundant control of a load	Yes
Switching frequency	100 비구
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	0.5 August additional description is the general
Current per channel, max.	0.5 A; see additional description in the manual
Current per group, max.	4 A; see additional description in the manual
Current per module, max.	16 A; see additional description in the manual
Cable length	4.000 m
	1 000 m
• shielded, max.	000
• unshielded, max.	600 m
unshielded, max. Interrupts/diagnostics/status information	
unshielded, max. Interrupts/diagnostics/status information Diagnostics function	No
unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable	
unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms	No No
unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms      Diagnostic alarm	No No No
unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms      Diagnostic alarm     Maintenance interrupt	No No
• unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms     • Diagnostic alarm     • Maintenance interrupt Diagnoses	No No No
• 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
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
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 No No No No No No
<ul> <li>unshielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Substitute values connectable</li> <li>Alarms</li> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> <li>Diagnoses</li> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul>	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  Diagnostics indication LED	No No No No No No No No
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function <ul> <li>Substitute values connectable</li> </ul> Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> </ul>	No No No No No No No No No Yes; green LED
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> </ul>	No No No No No No No No Yes; green LED Yes; red LED
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	No No No No No No No No Yes; green LED Yes; red LED Yes; green LED Yes; green LED
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> </ul>	No No No No No No No No Yes; green LED Yes; red LED Yes; green LED Yes; green LED Yes; green LED
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> </ul>	No No No No No No No No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> </ul>	No No No No No No No No Yes; green LED Yes; red LED Yes; green LED Yes; green LED Yes; green LED
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> </ul>	No No No No No No No No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> </ul>	No No No No No No No No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> </ul>	No No No No No No No No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED
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<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> </ul> Potential separation channels <ul> <li>between the channels</li> </ul>	No No No No No No No No Yes; green LED Yes; green LED
<ul> <li>unshielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Substitute values connectable</li> <li>Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> </li> <li>Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> </li> <li>Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> </ul> </li> <li>Potential separation channels <ul> <li>between the channels</li> <li>between the channels, in groups of</li> </ul> </li> </ul>	No No No No No No No No Yes; green LED Yes; green LED
<ul> <li>unshielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Substitute values connectable</li> <li>Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> </li> <li>Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> </li> <li>Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> </ul> </li> <li>Potential separation channels <ul> <li>between the channels</li> <li>between the channels and backplane bus</li> </ul> </li> </ul>	No No No No No No No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED No No No
<ul> <li>unshielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Substitute values connectable</li> <li>Alarms         <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> </li> <li>Diagnoses         <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> </li> <li>Diagnostics indication LED         <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> <li>bot module diagnostics</li> </ul> </li> <li>Potential separation channels         <ul> <li>between the channels</li> <li>between the channels and backplane bus</li> </ul> </li> <li>Isolation tested with</li> </ul>	No No No No No No No No Yes; green LED Yes; green LED
<ul> <li>unshielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Substitute values connectable</li> <li>Alarms         <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> </li> <li>Diagnoses         <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> </li> <li>Diagnostics indication LED         <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> <li>for module diagnostics</li> <li>between the channels</li> <li>between the channels and backplane bus</li> </ul> </li> <li>Isolation tested with         <ul> <li>Standards, approvals, certificates</li> </ul> </li> </ul>	No No No No No No No No Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED Yes; green LED No No No No TOT V DC (type test)
<ul> <li>unshielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Substitute values connectable</li> <li>Alarms         <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> </li> <li>Diagnoses         <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> </li> <li>Diagnostics indication LED         <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> <li>for module diagnostics</li> <li>between the channels</li> <li>between the channels and backplane bus</li> </ul> </li> <li>Isolation tested with         <ul> <li>Standards, approvals, certificates</li> </ul> </li> </ul>	No           Yes; green LED           Yes; green LED           Yes; green LED           Yes; green LED           No           No           No           No           707 V DC (type test)
<ul> <li>unshielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Substitute values connectable</li> <li>Alarms         <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> </li> <li>Diagnoses         <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> </li> <li>Diagnostics indication LED         <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> <li>for module diagnostics</li> </ul> </li> <li>Potential separation channels         <ul> <li>between the channels</li> <li>between the channels</li> <li>between the channels and backplane bus</li> </ul> </li> <li>Isolation tested with</li> <li>Standards, approvals, certificates</li> <li>Suitable for safety functions</li> <li>Suitable for safety functions</li> </ul>	No           No           No           No           No           No           No           No           Yes; green LED           No           No           No           707 V DC (type test)           No           Yes; From FS02
<ul> <li>unshielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Substitute values connectable</li> <li>Alarms         <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> </li> <li>Diagnoses         <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> </li> <li>Diagnostics indication LED         <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> <li>for module diagnostics</li> <li>between the channels</li> <li>between the channels and backplane bus</li> </ul> </li> <li>Isolation tested with         <ul> <li>Standards, approvals, certificates</li> </ul> </li> </ul>	No           No           No           No           No           No           No           No           Yes; green LED           No           No           No           707 V DC (type test)           No           Yes; From FS02

<ul> <li>Category according to ISO 13849-1</li> </ul>	Cat. 3
<ul> <li>SIL acc. to IEC 62061</li> </ul>	SIL 2
<ul> <li>remark on safety-oriented shutdown</li> </ul>	https://support.industry.siemens.com/cs/de/de/view/39198632
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.	280 g
Other	
Note:	Supplied incl. 40-pole push-in front connectors
last modified:	5/6/2022 🖸