SIEMENS

Data sheet

6ES7522-1BH10-0AA0



SIMATIC S7-1500, digital output module, DQ16x24 V DC/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 SILCL2 acc. to EN 62061:2005 + A2:2015, 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	
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	
• 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.	30 mA
Output voltage	
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 dicult protoction Yes Response thershold, typ, 1 A Limitation of inductive studiodow voltage to L+ (53 V) Controlling a diplicit parameterizable Yes • with resistive load, max. 0 S A • on larm bodin, max. 0 S A • on larm bodin, max. 0 S A • lower limit 4 D • lower limit 1 2 kD • for signal "1", min. L (- 0.8 V) • for signal "1" max 0 S A • for signal "1" max 0 D µ B • The original Otive outputs T • for logic links Yes • for logic links Yes • for logic links Yes • with indictive load, max. 100 Hz • with indictive load, max. 100 Hz • origo load, max. 10 Hz • origo load, max. 10 Hz		
Sinct-Cut protection Yes - Response threshold, byo. 1 A Limitation of inductive shutcom voltage to L * (53 V) Controling a digital input Yes With resistive load, max. 0.5 A - on lang load, max. 5 W - on lang load, max. 5 W - loave link 49 Q - upper linit 12 kQ Output voltage - - for signal *** permissible range, max. 0.5 A - for signal **** permissible range, max. 0.5 A - for signal ************************************		
• Presponse threshold, typ. 1 A Limitation of Inductive shutdown voltage to L+ (-53 V) Controlling a digital input Yes Switching capacity of the outputs - - on lamp load, max. 0 5 A Lead resistance range - - lower limit 4 6 Q - upper limit 12 kQ Output lootage - - for signal "1" rank 0 1 A - for signal "1" rank 0 5 A - for signal "1" rank 0 0 µs - for signal "1" rank 0 0 µs - for togic links Yes - for togic links Yes - for togic links Yes - for redundant control of a load Yes Switching frequency - - with riskitive load, max. 0 5 kz sec additional description in the manual - Current per channel, max. 0 5 kz sec additional description in the manual - Current per channel, max. 0 5 kz sec additiona		
Initiation of Inductive shutdown voltage to L+ (-53 V) Controlling a cigital input Yes Swithing agaadity of me outputs - • with resistive load, max. 0.5 A • on lamp load, max. 5W • lower limit 49 0 • lower limit 12 kD • outpart limit 12 kD • for signal 1", min. L+ (-0.8 V) Output loading - • for signal 1", reads value 0.5 A • for signal of two outputs - • for cigle links Yes Parallel swithing for sho outputs - • for cigle links Yes Stationing frequency - • with resistive load, max. 0.5 A : see additional description in the manual • Current per channel, max. 0.5 A : see a		
Controling a digital input Yes Switching capacity of the outputs 0.5 A • on inerp load, max. 5 W Ladar resistance range		
Switching capacity of the outputs 0.5 A • with resistive load, max. 5W Ladd resistance range 5W • lower limit 45 O • lower limit 12 kD • for signal *1", min. L+ (-0.8 V) Output votage - • for signal *1" rated value 0.5 A • for signal *1" rated value 0.5 A • for signal *1" rested value 0.5 A • for signal *1" sead value 0.5 A </td <td></td> <td></td>		
• with resistive load, max.0.5 ÅLead resistance range5 W- load resistance range4 S O- upper limith12 kO OOutput voltage-• for signal "1" rated value0.5 A• for signal "1" resistive load0.5 M• for signal "1" resistive load0.5 M• for signal "1" resistive load0.0 µs• "1" to "0", max.100 µs• "1" to "0", max.100 µs• "1" to "0", max.100 µs• "1" to "0", ras.0.0 µs• "1" to "0", ras.100 µs• "1" to "0", ras.0.0 N• Curent per rodue, max.0.0 Hz• with resistive load, ras.0.0 Hz• with resistive load, ras.0.0 S hz: see additional description in the manual• Curent per rodue, max.0.5 Å see additional description in the manual• Curent per rodue, max.0.0 N• curent per rodue, max.0.0 N• unshielded, rasz.0.0 N• unshielded, rasz.0.0 N <t< td=""><td></td><td>Yes</td></t<>		Yes
sear lamp load, max. 5 W Load resistance range - i lower limit 48 Ω upper limit 12 kΩ Output load; - or signal "1" rank L (-0.8 V) Output current 0.5 A or signal "1" rank value 0.5 A of or signal or value, max. 0.5 mA of or goin brow outputs		
Load residence range 48 0 upper limit 48 0 output outrage 12 k0 Output outrage 12 k0 Output outrage 0.5 A * for signal "1" rated value 0.5 A * for signal "1" remissible range, max. 0.5 A * for signal "1" remissible range, max. 0.5 A * for signal "1" remissible range, max. 0.5 A * for signal "1" remissible range, max. 0.5 A * for signal "1" remissible range, max. 0.5 A * for signal "1" remissible range, max. 0.5 A * for signal "1" remissible range, max. 100 µs * for logic links Yes * for logic links Yes * for logic links Yes * for redundant control of a load Yes * with inductive load, max. 0.5 A; see additional description in the manual * Current per channel, max. 0.5 A; see additional description in the manual * Current per robunde, max. 0.5 A; see additional description in the manual * Current per robunde, max. 0.00 m * outrent per robunde, max. 000 m		
• were limit 48 0 • upper limit 12 k0 • for signal *1", min. L + (0.8 V) • for signal *1", min. 0.5 A • for signal *1" permissible range, max. 0.5 A • for signal *1" permissible range, max. 0.5 mA • Original *1" permissible range, max. 0.5 mA Output delay with resistive load		5 W
• upper limit12 kQOutput voltage-• for signal *1*, min.L + (0.8 V)Output durrent0.5 A• for signal *1* permissible range, max.0.5 A• for folg: links100 µs• for log: linksYes• for logic linksYes• for logic linksYes• for logic linksYes• for logic linksNo• for redundant control of a loadYes• for redundant control of a loadYes• with inductive load, max.100 Hz• with inductive load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• ourset per channel, max.0.5 A; see additional description in the manual• Current per robune, max.8.4 see additional description in the manual• Current per robune, max.8.4 see additional description in the manual• Current per robune, max.8.4 see additional description in the manual• Current per robune, max.8.4 see additional description in the manual• Current per robune, max.8.0 see additional description in the manual• Current per robune, max.8.0 see additional description in the manual• Current per robune, max.8.0 see additional description in the manual• Current per robune, max.8.0 see additional descript	-	
Output voitage • (or signal "1", min. L + (0.8 V) • (or signal "1" retristule range, max. 0.5 A • (or signal "1" permissible range, max. 0.5 A • (or signal "1" retristule range, max. 0.5 mA Output delay with resistive load • (or signal "1", max. • (or login, "1", max. 100 µs • (or login, "1", max. 500 µs • Parallel switching of two outputs • (or logic links • (or logic links Yes • (or logic links Yes • (or logic links Yes • (or redundant control of a load Yes Switching frequency 100 Hz • (with inductive load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 • on lamp load, max. 100 Hz • Current per channel, max. 0.5 A; see additional description in the manual • Current per module, max. 8 A; see additional description in the manual • Current per module, max. 1000 m • Isolecided, max. 600 m • Isolecided, max. 600 m • Isolecided, max. 600 m • Isolecided, max. 1000 m <td></td> <td></td>		
• for signal *1**, min.L+ (-0.8 V)Output current		12 kΩ
Output current 0.5 A • for signal "1" permissible range, max. 0.5 A • or signal "0" residual current, max. 0.5 mA Output delay with resistive load • 0° to "1", max. • 0° to "1", max. 100 µs • 1° to "0", max. 500 µs • 0° to logic links Yes • 0° to logic links Yes • for logic links Yes • for uprating No • for uprating No • for uprating No • of redundant control of a load Yes Structure to the outputs - • uth inductive load, max. 0.5 Hz; According to IEC 60947.5-1, DC-13 • on lamp load, 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. 1000 m • unshielded, max. 600 m • unshielded, max. 6000 m • unshielded, max. 6000 m • No No Substitue values connectable No No No	Output voltage	
• for signal *1*" permissible range, max. 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 • Or to *1", max. 100 µs • *1" to *0"; max. 500 µs • Or to permissible range, max. 500 µs • Parallel switching of two outputs 500 µs • for uprating No • for or permissible range, max. 100 Hz • for redundant control of a load Yes • with resistive load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 • or iamp load, max. 0.5 A; see additional description in the manual • Current per dynamel, max. 0.5 A; see additional description in the manual • Current per group, max. 4 A; see additional description in the manual • Current per dynamel, max. 1000 m • shielded, max. 1000 m • shielded, max. 1000 m • shielded, max. 000 m • Substitue values connectable No • Monitoring the supply voltage No • Monitoring the supply vol	● for signal "1", min.	L+ (-0.8 V)
• for signal "1" permissible range, max.0.5 A• for signal "0" residual current, max.0.5 nA• 00" to "1", max.100 µs• 10" to "1", max.100 µs• 10" to "1", max.00 µsParallel switching of two outputs0.5 nA• for logic linksYes• for logic linksYes• for logic linksYes• for logic linksNo• for rediant control of a loadYesSwitching frequencyU• with resistive load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 A; see additional description in the manual• Current per channel, max.0.5 A; see additional description in the manual• Current per module, max.8 A; see additional description in the manual• Current per module, max.0.5 A; see additional description in the manual• Current per module, max.0.5 A; see additional description in the manual• Current per module, max.8 A; see additional description in the manual• Current per module, max.0.5 A; see additional description in the manual• Current per module, max.0.5 A; see additional description in the manual• Current per module, max.0.5 A; see additional description in the manual• Current per module, max.0.5 A; see additional description in the manual• Current per module, max.0.5 A; see additional description in the manual• Current per module, max.0.6 Mo• Indepicted, max.0.6 Mo </td <td>Output current</td> <td></td>	Output current	
 for signal '0' residual current, max. 0.5 mA Otiput delay with resistive load 0.10 µs 0.5 m A 100 µs 11' to '0', max. 500 µs Parallel switching of two outputs 6 for logic links 10 re during links 10 m redundant control of a load Yes Switching frequency with resistive load, max. 0.5 Hz, According to IEC 60947-5-1, DC-13 0 m lamp load, max. 0.5 A; see additional description in the manual 0.5 A; see additional description in the manual Current per droup, max. 4.3, see additional description in the manual Current per group, max. 4.3, see additional description in the manual Current per group, max. 4.3, see additional description in the manual Current per group, max. 4.3, see additional description in the manual Current per group, max. 4.3, see additional description in the manual Cable length Used ledd, max. 000 m unshielded, max. 000 m substitute values connectable No Substitute values connectable No Substitute values connectable No Monitoring the supply voltage Wire-break No Biognostic alarm No Biognostic alarm No Biognostic alarm No Group error No Biognostic alarm Monitoring the supply voltage (PWR-LED) Yes; green LED KeROR RD LED Yes; green LED Yes; green LED KeROR RD LED Yes; green LED KeROR RD LED Yes; green LED Yes; g	 for signal "1" rated value 	0.5 A
Output delay with resistive load 	 for signal "1" permissible range, max. 	0.5 A
• "0" to "1", max.100 μs• "1" to "0", max.500 μsParallel switching of two outputs• for logic linksYes• for for dundant control of a loadYesSwitching frequencyYes• with inductive load, max.100 Hz• with inductive load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Az; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Az; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Az; According to IEC 60947-5-1, DC-13• Current per channel, max.0.5 Az; see additional description in the manual• Current per group, max.4 A; see additional description in the manual• Current per group, max.1000 m• Shielded, max.1000 m• onshielded, max.000 m• nunshielded, max.000 m• nunshielded, max.000 m• nunshielded, max.No• Substitue values connectableNoAlarmsImage Note No• Diagnostic alarmNo• NoNo• Monitoring the supply voltageNo• Wire-breakNo• Short-circuitNo• RUN LEDYes; green LED• ERROR LEDYes; green LED• ERROR LEDYes; green LED• Forthanel diagnosticsNo• Forthanel diagnosticsNo• Forthanel diagnosticsNo• Forthanel diagnosticsNo• Entend diagnosticsNo• Entend diagnosticsNo	 for signal "0" residual current, max. 	0.5 mA
 **** to "o", max. 500 µs Parallel switching of two outputs For logic links Yes For redundant control of a load Yes Switching frequency with resistve load, max. 0.0 Hz with inductive load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 on lamp load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 Outrent per module, max. A is see additional description in the manual Current per module, max. A is see additional description in the manual Cable length No Substitute values connectable No Substitue values connectable 	Output delay with resistive load	
Parallel switching of two outputs · • for logic links Yes • for uprating No • for uprating No • for uprating Yes • with resultive 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 • Current per channel, max. 0.5 A; see additional description in the manual • Current per ondune, max. 4 A; see additional description in the manual • Current per module, max. 6.5 A; see additional description in the manual • Current per module, max. 600 m • current per module, max. 600 m • unshielded, max. 600 m • unshielded, max. 600 m • unshielded, max. 600 m • Diagnostic function No Substitute values connectable No Alarms • Diagnostic alarm No • Monitoring the supply voltage No • Wire-break No • Substitute values connectable No • Group error	• "0" to "1", max.	100 µs
• for logic linksYes• for rodudant control of a loadYes• of upratingNo• of uprating frequencyYes• 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.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• Current per group, max.4 A; see additional description in the manual• Current per group, max.4 A; see additional description in the manual• Current per module, max.1000 m• current per module, max.600 m• therupts/diagnostics/status informationNo• blightostics/status informationNo• Diagnostic alarmNo• Monitoring the supply voltageNo• Wire-breakNo• Short-CircuitNo• Short-CircuitNo• Short-CircuitNo• Short-CircuitYes; green LED• ERROR LEDYes; green LED• Channel status displayYes; green LED<	• "1" to "0", max.	500 µs
• for upatingNo• for redundant control of a loadYesSwitching frequency100 Hz• 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• on lamp load, max.10 Hz• Current of the outpuitsCurrent per channel, max.• Current per module, max.6.5 A; see additional description in the manual• Current per module, max.8 A; see additional description in the manual• Current per module, max.600 m• Current per module, max.600 m• Subsiticite values connectableNo• Subsitice values connectableNo• Subsitice values connectableNo• Diagnostic alarmNo• Short-forcintNo• Cornent LEDYes; green LED• FRON LEDYes; green LED• Channel diagnosticsNo• Fort-fanel diagnosticsNo• Fort-fanel diagnosticsNo• Short-forcintYes; green LED• ERRON LEDYes; green LED• Fort-fanel diagnosticsNo• for channel diagnosticsNo• for channel diagnosticsNo<	Parallel switching of two outputs	
• for reducidant control of a load Yes Switching frequency	 for logic links 	Yes
Switching frequency • 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 A; see additional description in the manual • Current per channel, max. 0.5 A; see additional description in the manual • Current per module, max. 4 A; see additional description in the manual • Current per module, max. 8 A; see additional description in the manual • Current per module, max. 1000 m • Current per module, max. 600 m • unshielded, max. 600 m • unshielded, max. 600 m • lagnostics function No Substitute values connectable No Alarms • Diagnostic alarm No • Monitoring the supply voltage No • Wire-break No • Short-circuit No • Olagnostic indication LED Yes; green LED • ERROR LED Yes; green LED • Channel status display Yes; green LED • for channel diagnostics	• for uprating	No
• 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 HzTotal current of the outputs• 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.8 A; see additional description in the manual• Current per module, max.8 A; see additional description in the manual• Current per module, max.600 m• shielded, max.1000 m• unshielded, max.600 m• unshielded, max.060 m• diagnostics functionNoSubstitute values connectableNoAlarms1000 m• Diagnostic alarmNo• Maintenance interruptNo• Monitoring the supply voltageNo• Wire-breakNo• Short-circuitNo• Short-circuitNo• Circup errorNo• Diagnostics lated LEDYes; green LED• ERROR LEDYes; green LED• Monitoring of the supply voltage (PWR-LED)Yes; green LED• Channel alstus displayYes; green LED• Contanel diagnosticsNo• Channel alstus displayYes; green LED• Contanel diagnosticsNo• Contanel diagnosticsNo• Contanel diagnosticsNo• Diagnostic separationYes; green LED• Contanel diagnosticsNo• Contanel diagnosticsNo <trt< td=""><td> for redundant control of a load </td><td>Yes</td></trt<>	 for redundant control of a load 	Yes
• with inductive load, max.0.5 Hz; According to IEC 60947-5-1, DC-13• on lamp load, max.10 HzTotal current of the outputs• Current per channel, max.5.5 A; see additional description in the manual• Current per group, max.4 A; see additional description in the manual• Current per module, max.8 A; see additional description in the manualCurrent per module, max.8 A; see additional description in the manualCable length• shielded, max.600 m• unshielded, max.600 m• unshielded, max.600 m• distribute values connectableNoSubstitute values connectableNo• Diagnostics functionNo• Monitoring the supply voltageNo• Monitoring the supply voltageNo• Wire-breakNo• Short-circuitNo• Group errorNoDiagnostics indication LEDYes; green LED• RUN LEDYes; green LED• Channel status displayYes; green LED• Channel status displayYes; green LED• Connel diagnosticsNo• Connel diagnosticsNo• Connel diagnosticsNo• Connel diagnosticsNo• Connel separationYes; green LED• Diagnostic separationYes; green LED• Diagnostic separationNo• Diagnostic separationNo• Diagnostic separationYes; green LED• Diagnostic separationNo <tr <tr="">• DiagnosticsNo</tr>	Switching frequency	
• on lamp load, max. 10 Hz Total current of the outputs	 with resistive load, max. 	100 Hz
Total current of the outputs 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. 8 A; see additional description in the manual • Current per module, max. 8 A; see additional description in the manual • Current per module, max. 8 A; see additional description in the manual • Current per module, max. 1 000 m • unshielded, max. 600 m • unshielded, max. 600 m • unshielded, max. 600 m • biagnostics/status information No Substitute values connectable No Alarms • • Diagnostic alarn No • Monitoring the supply voltage No • Wire-break No • Short-circuit No • Group error No Diagnostic indication LED Yes; green LED • RROR LED Yes; green LED • Channel status display Yes; green LED • for channel diagnostics No • for channel diagnostics No • for channel diagnostics No • for module diagnostics	 with inductive load, max. 	0.5 Hz; According to IEC 60947-5-1, DC-13
• 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.8 J• Shielded, max.1000 m• shielded, max.600 m• unshielded, max.600 m• displeted, max.600 m• displeted, max.No• displeted, max.Yes; green LED• for channel dispnosticsNo	● on lamp load, max.	10 Hz
• Current per group, max.4 A; see additional description in the manual• Current per module, max.8 A; see additional description in the manualCable length1000 m• unshielded, max.1000 m• unshielded, max.600 mnurrupts/diagnostics/status informationNoDiagnostics functionNoSubstitute values connectableNoAlarmsNo• Diagnostic alarmNo• Monitoring the supply voltageNo• Wire-breakNo• Short-circuitNo• Sonditoring the supply voltageNo• RUN LEDYes; green LED• ERROR LEDYes; green LED• Channel status displayYes; green LED• Channel diagnosticsNo• Channel diagnosticsNo• Channel status displayYes; green LED• Channel diagnosticsNo• Channel status displayYes; green LED• for module diagnosticsNo• between the channelsNo	Total current of the outputs	
• Current per module, max. 8 A; see additional description in the manual Cable length 1000 m • unshielded, max. 600 m • unshielded, max. 600 m nerrupts/diagnostics/status information No Diagnostics function No Substitute values connectable No Atarms No • Diagnostic alarm No • Maintenance interrupt No Diagnostic substitute values connectable No • Monitoring the supply voltage No • Wire-break No • Short-circuit No • Group error No Diagnostic indication 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 • for channel diagnostics No	Current per channel, max.	0.5 A; see additional description in the manual
Cable length • shielded, max. 1 000 m • unshielded, max. 600 m nterrupts/diagnostics/status information No Diagnostic function No Substitute values connectable No Alarms No • Diagnostic alarm No • Maintenance interrupt No • Monitoring the supply voltage No • Monitoring the supply voltage No • Monitoring the supply voltage No • Short-circuit No • Group error No Diagnostics indication LED Yes; green LED • RUN LED Yes; green LED • RUN LED Yes; green LED • Channel status display Yes; green LED • Channel status display Yes; green LED • for module diagnostics No • for module diagnostics No	Current per group, max.	4 A; see additional description in the manual
• shielded, max.1 000 m• unshielded, max.600 mnerrupts/diagnostics/status informationNoDiagnostics functionNoSubstitute values connectableNoAlarmsNo• Diagnostic alarmNo• Maintenance interruptNo• Monitoring the supply voltageNo• Wire-breakNo• Short-circuitNo• Short-circuitNo• Group errorNoDiagnostics indication LEDYes; green LED• RUN LEDYes; green LED• RUN LEDYes; green LED• Channel status displayYes; green LED• for module diagnosticsNo• for module diagnosticsNo• Channel status displayYes; green LED• for module diagnosticsNo• between the channelsNo	Current per module, max.	8 A; see additional description in the manual
• shielded, max.1 000 m• unshielded, max.600 mnerrupts/diagnostics/status informationNoDiagnostics functionNoSubstitute values connectableNoAlarmsNo• Diagnostic alarmNo• Maintenance interruptNo• Monitoring the supply voltageNo• Wire-breakNo• Short-circuitNo• Short-circuitNo• Group errorNoDiagnostics indication LEDYes; green LED• RUN LEDYes; green LED• RUN LEDYes; green LED• Channel status displayYes; green LED• for module diagnosticsNo• for module diagnosticsNo• Channel status displayYes; green LED• for module diagnosticsNo• between the channelsNo	Cable length	
Interrupts/diagnostics/status information Diagnostics function No Substitute values connectable No Alarms No • Diagnostic alarm • No No • Diagnostic alarm • No No • Maintenance interrupt No • Monitoring the supply voltage • No No • Monitoring the supply voltage No • Wire-break No • Short-circuit No • RUN LED Yes; green LED • RUN LED Yes; red LED • Channel status display Yes; green LED • Channel diagnostics No • for ondule diagnostics No • Or ondule diagnostics No • for module diagnostics No • for module diagnostics No • for module		1 000 m
Interrupts/diagnostics/status information Diagnostics function No Substitute values connectable No Alarms No • Diagnostic alarm • Maintenance interrupt No • Maintenance interrupt No Diagnoses No • Monitoring the supply voltage No • Wire-break No • Short-circuit No • Group error No Diagnostics indication LED Yes; green LED • RUN LED Yes; green LED • RUN LED Yes; green LED • Channel status display Yes; green LED • for channel diagnostics No • for module diagnostics No	 unshielded, max. 	600 m
Diagnostics function No Substitute values connectable No Alarms No • Diagnostic alarm • Maintenance interrupt No • Maintenance interrupt No Diagnoses No • Monitoring the supply voltage No • Wire-break No • Short-circuit No • Group error No Diagnostics indication LED Yes; green LED • RUN LED Yes; red LED • Anonitoring of the supply voltage (PWR-LED) Yes; green LED • Channel status display Yes; green LED • for channel diagnostics No • for module diagnostics No	Interrupts/diagnostics/status information	
Substitute values connectable No Alarms No • Diagnostic alarm • Maintenance interrupt No Diagnoses No • Monitoring the supply voltage No • Wire-break No • Short-circuit No • Group error No Diagnostics indication LED Yes; green LED • RUN LED Yes; green LED • Channel status display Yes; green LED • for channel diagnostics No • for module diagnostics No		No
Alarms Diagnostic alarm Maintenance interrupt No Maintenance interrupt No Diagnoses Monitoring the supply voltage Monitoring the supply voltage No Short-circuit Short-circuit No Group error No Diagnostics indication LED FRUN LED Yes; green LED Yes; red LED Monitoring of the supply voltage (PWR-LED) Yes; green LED Channel status display Yes; green LED No For module diagnostics No Potential separation channels No	-	
Diagnostic alarmNoMaintenance interruptNoDiagnosesNoMonitoring the supply voltageNoWire-breakNoShort-circuitNoGroup errorNoDiagnostics indication LEDYes; green LEDFRNOR LEDYes; green LEDNonitoring of the supply voltage (PWR-LED)Yes; green LEDMonitoring of the supply voltage (PWR-LED)Yes; green LEDOr channel status displayYes; green LEDfor channel diagnosticsNoof or module diagnosticsNoPotential separation channelsNoNoNoPotential separation channelsNoN		
• Maintenance interruptNoDiagnoses• Monitoring the supply voltageNo• Wire-breakNo• Short-circuitNo• Group errorNoDiagnostics indication LEDYes; green LED• RUN LEDYes; green LED• ERROR LEDYes; red LED• Monitoring of the supply voltage (PWR-LED)Yes; green LED• Channel status displayYes; green LED• for channel diagnosticsNo• for module diagnosticsNo• between the channelsNo		No
Diagnoses Monitoring the supply voltage No Wire-break No Short-circuit No Group error No Diagnostics indication LED Yes; green LED RUN LED Yes; green LED ERROR LED Yes; green LED Monitoring of the supply voltage (PWR-LED) Yes; green LED Otannel status display Yes; green LED of or channel diagnostics No Potential separation No	-	
• Monitoring the supply voltageNo• Wire-breakNo• Short-circuitNo• Group errorNo• Diagnostics indication LEDYes; green LED• RUN LEDYes; green LED• ERROR LEDYes; green LED• Monitoring of the supply voltage (PWR-LED)Yes; green LED• Channel status displayYes; green LED• for channel diagnosticsNo• for module diagnosticsNo• between the channelsNo		
• Wire-breakNo• Short-circuitNo• Group errorNoDiagnostics indication LEDNo• RUN LEDYes; green LED• ERROR LEDYes; red LED• Monitoring of the supply voltage (PWR-LED)Yes; green LED• Channel status displayYes; green LED• for channel diagnosticsNo• for channel diagnosticsNo• for module diagnosticsNo• between the channelsNo		No
• Short-circuitNo• Group errorNoDiagnostics indication LEDNo• RUN LEDYes; green LED• ERROR LEDYes; red LED• Monitoring of the supply voltage (PWR-LED)Yes; green LED• Channel status displayYes; green LED• for channel diagnosticsNo• for module diagnosticsNo• between the channelsNo		
• Group errorNoDiagnostics indication LED• RUN LED• REROR LED• Serror LED• Monitoring of the supply voltage (PWR-LED)• Konnel status display• Channel status display• for channel diagnostics• for module diagnostics• Rotential separationPotential separation channels• between the channelsNo		
Diagnostics indication LED Yes; green LED • RUN LED Yes; red LED • ERROR LED Yes; red LED • Monitoring of the supply voltage (PWR-LED) Yes; green LED • Channel status display Yes; green LED • for channel diagnostics No • for module diagnostics No • for module diagnostics No		
• RUN LED Yes; green LED • ERROR LED Yes; red LED • Monitoring of the supply voltage (PWR-LED) Yes; green LED • Channel status display Yes; green LED • for channel diagnostics No • for module diagnostics No • for module diagnostics No • for module diagnostics No		
• ERROR LED Yes; red LED • Monitoring of the supply voltage (PWR-LED) Yes; green LED • Channel status display Yes; green LED • for channel diagnostics No • for module diagnostics No • for module diagnostics No • for thial separation No Potential separation channels No • between the channels No		Yes: green LED
• Monitoring of the supply voltage (PWR-LED) Yes; green LED • Channel status display Yes; green LED • for channel diagnostics No • for module diagnostics No Potential separation channels • between the channels No		
for channel diagnostics No for module diagnostics No Potential separation Potential separation channels between the channels No		-
for module diagnostics No Potential separation Potential separation channels between the channels No		-
Potential separation Potential separation channels • between the channels No	-	
Potential separation channels No		
between the channels No		
		Na
• between the channels, in groups of 8		
	 between the channels, in groups of 	0

 between the channels and backplane bus 	Yes	
Isolation		
Isolation	707 V DC (tura tast)	
	707 V DC (type test)	
Standards, approvals, certificates		
Suitable for safety functions	No	
Suitable for safety-related tripping of standard modules	Yes; From FS02	
Highest safety class achievable for safety-related tripping of standard modules		
 Performance level according to ISO 13849-1 	PL d	
 Category according to ISO 13849-1 	Cat. 3	
 SILCL according to IEC 62061 	SILCL 2	
Ambient conditions		
Ambient temperature during operation		
 horizontal installation, min. 	-30 °C; from FS04	
 horizontal installation, max. 	60 °C	
 vertical installation, min. 	-30 °C; from FS04	
 vertical installation, max. 	40 °C	
Altitude during operation relating to sea level		
 Installation altitude above sea level, max. 	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:	7/5/2021 🖸	