Data sheet 6ES7532-5HF00-0AB0



SIMATIC S7-1500, analog output module AQ8xU/I HS, 16-bit resolution accuracy 0.3%, 8 channels in groups of 8, diagnostics; substitute value 8 channels in 0.125 ms oversampling; 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 including infeed element, shielding bracket and shield terminal: front connector (screw terminals or push-in) to be ordered separately

Figure similar

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General information		
Product type designation	AQ 8xU/I HS	
HW functional status	From FS01	
Firmware version	V2.1.0	
FW update possible	Yes	
Product function		
I&M data	Yes; I&M0 to I&M3	
 Isochronous mode 	Yes	
 Prioritized startup 	No	
Output range scalable	No	
Engineering with		
 STEP 7 TIA Portal configurable/integrated from version 	V14 / -	
 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		
 Oversampling 	Yes	
• MSO	Yes	
CiR - Configuration in RUN		
Reparameterization possible in RUN	Yes	
Calibration possible in RUN	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	
Input current		
Current consumption, max.	320 mA; with 19.2 V supply	
Power		
Power available from the backplane bus	1.15 W	
Power loss		
Power loss, typ.	7 W	
Analog outputs		
Number of analog outputs	8	
Voltage output, short-circuit protection	Yes	
Voltage output, short-circuit current, max.	45 mA	
Current output, no-load voltage, max.	20 V	
=		

Cycle time (all channels) min	125 us: independent of number of activated channels
Cycle time (all channels), min. Output ranges, voltage	125 μs; independent of number of activated channels
• 0 to 10 V	Yes
• 1 V to 5 V	Yes
• -5 V to +5 V	No
• -10 V to +10 V	Yes
Output ranges, current	100
• 0 to 20 mA	Yes
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
Connection of actuators	
 for voltage output two-wire connection 	Yes
 for voltage output four-wire connection 	Yes
for current output two-wire connection	Yes
Load impedance (in rated range of output)	
with voltage outputs, min.	1 kΩ
 with voltage outputs, capacitive load, max. 	100 nF
with current outputs, max.	500 Ω
with current outputs, inductive load, max.	1 mH
Cable length	
• shielded, max.	200 m
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
 Resolution with overrange (bit including sign), max. 	16 bit
Conversion time (per channel)	50 μs; independent of number of activated channels
Settling time	
 for resistive load 	30 μs; see additional description in the manual
for capacitive load	100 μs; see additional description in the manual
for inductive load	100 μs; see additional description in the manual
Errors/accuracies	
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.02 %
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-)	0.15 %
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-)	0.15 % 0.002 %/K
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max.	0.15 % 0.002 %/K -100 dB
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.15 % 0.002 %/K -100 dB 0.05 %
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to	0.15 % 0.002 %/K -100 dB
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-)	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-)	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Basic error limit (operational limit at 25 °C)	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 %
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Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Basic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-)	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 %
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Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Basic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) schronous mode Execution and activation time (TCO), min.	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 %
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Basic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) • Current, relative to output range, (+/-) Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min.	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 %
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Basic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) schronous mode Execution and activation time (TCO), min.	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 % 100 μs 250 μs
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Basic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) sochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 % 100 μs 250 μs
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Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Basic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 % 100 μs 250 μs Yes Yes
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Basic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms • Diagnostic alarm	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 % 100 μs 250 μs
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Basic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms • Diagnostic alarm Diagnoses	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 % 100 μs 250 μs Yes Yes
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Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) 8 asic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms • Diagnostic alarm Diagnoses • Monitoring the supply voltage • Wire-break	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 % 100 μs 250 μs Yes Yes Yes Yes Yes Yes; Only for output type "current"
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) 8asic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms • Diagnostic alarm Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 % 100 μs 250 μs Yes Yes Yes Yes Yes Yes Yes; Only for output type "current" Yes; Only for output type "voltage"
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Basic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms • Diagnostic alarm Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit • Overflow/underflow	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 % 100 μs 250 μs Yes Yes Yes Yes Yes Yes; Only for output type "current"
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-) Linearity error (relative to output range), (+/-) Temperature error (relative to output range), (+/-) Crosstalk between the outputs, max. Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) note regarding accuracy Operational error limit in overall temperature range • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) 8asic error limit (operational limit at 25 °C) • Voltage, relative to output range, (+/-) • Current, relative to output range, (+/-) Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms • Diagnostic alarm Diagnoses • Monitoring the supply voltage • Wire-break • Short-circuit	0.15 % 0.002 %/K -100 dB 0.05 % at temperatures below 0 °C, the figures for operating error and temperature error are doubled 0.3 % 0.3 % 0.2 % 0.2 % 100 μs 250 μs Yes Yes Yes Yes Yes Yes Yes; Only for output type "current" Yes; Only for output type "voltage"

■ ERROR LED ■ Monitoring of the supply voltage (PWR-LED) ■ Channel status display ■ for channel diagnostics ■ for module diagnostics ■ for module diagnostics ■ for module diagnostics ■ the supply voltage (PWR-LED) Potential separation Potential separation Potential separation channels ■ between the channels in groups of ■ between the channels and backplane bus ■ between the channels and load voltage L+ Yes Pormissible potential difference between S- and MANA (UCM) Isolation Isolation tested with 707 V DC (type test) Standards, approvals, certificates Suitable for safety-related tripping of standard modules ■ Performance level according to ISO 13849-1 ■ Category according to ISO 13849-1 ■ Category according to IEC 62061 Ambient temperature during operation ■ horizontal installation, min. ■ horizontal installation, min. ■ vertical installation, min. ■ vertic			
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• for channel diagnostics • for module diagnostics • for module diagnostics Potential separation Potential separation channels • between the channels • between the channels, in groups of • between the channels and backplane bus • between the channels and backplane bus • Between the channels and backplane bus • Between the channels and load voltage L+ Yes Pormissible potential difference between S- and MANA (UCM) Isolation Isolation tested with 707 V DC (type test) Standards, approvals, certificates Suitable for safety-related tripping of standard modules • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • Category according to ISO 13849-1 • SILCL according to IEC 62061 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, min. • horizontal installation, min. • vertical installation according to sea level • Installation altitude above sea level, max. Dimensions Width Height Height Weights			
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Potential separation Potential separation channels • between the channels in groups of 8 • between the channels and backplane bus Yes • Between the channels and load voltage L+ Yes Permissible potential difference between S- and MANA (UCM) 8 V DC Isolation Isolation tested with 707 V DC (type test) Standards, approvals, certificates Suitable for safety-related tripping of standard modules Yes; from FS04 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, min30 °C; From FS03 • horizontal installation, min30 °C; From FS03 • vertical installation, min30 °C; From FS03 • Vertical installation, max. 60 °C • Vertical installation, max. 40 °C Allitude 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 35 mm Height 147 mm Depth 129 mm Weights	_		
Potential separation channels • between the channels in groups of • between the channels and backplane bus Yes • Between the channels and load voltage L+ Yes Permissible potential difference between S- and MANA (UCM) 8 V DC Isolation Isolation tested with 707 V DC (type test) Standards, approvals, certificates Suitable for safety-related tripping of standard modules Yes; from FS04 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. • horizontal installation, min. • horizontal installation, min. • vertical installation, min. • vertical installation, max. 40 °C Allitude during operation relating to sea level • Installation allitude above sea level, max. 5 000 m; Restrictions for installation allitudes > 2 000 m, see manual Dimensions Width 35 mm Height 147 mm Depth 129 mm Weights		Yes; red LED	
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between S- and MANA (UCM) Isolation Isolation tested with 707 V DC (type test) Standards, approvals, certificates Suitable for safety-related tripping of standard modules Ves; from FS04 Highest safety class achievable for safety-related tripping of standard modules Performance level according to ISO 13849-1 Cat. 3 SILCL according to IEC 62061 SILCL 2 Ambient conditions Ambient temperature during operation horizontal installation, min. horizontal installation, max. vertical installation, min. vertical installation, max. It installation, max. Vertical installation, max. It installation, max. Vertical installation relating to sea level Installation altitude above sea level, max. Dimensions Width 35 mm Height 147 mm Depth Weights	 Between the channels and load voltage L+ 	Yes	
Isolation Isolation tested with 707 V DC (type test) Standards, approvals, certificates Suitable for safety-related tripping of standard modules Yes; from FS04 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, min30 °C; From FS03 • horizontal installation, min30 °C; From FS03 • 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 35 mm Height 147 mm Depth 129 mm Weights	Permissible potential difference		
Isolation tested with 707 V DC (type test) Standards, approvals, certificates Suitable for safety-related tripping of standard modules Yes; from FS04 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, min30 °C; From FS03 • horizontal installation, max. 60 °C • vertical installation, max. 40 °C Altitude during operation relating to sea level • Installation relating to sea level • Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual Dimensions Width 35 mm Height 147 mm Depth 129 mm Weights	between S- and MANA (UCM)	8 V DC	
Standards, approvals, certificates Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard modules Performance level according to ISO 13849-1 Cat. 3 SILCL according to IEC 62061 SILCL 2 Ambient conditions Ambient temperature during operation horizontal installation, min. horizontal installation, max. Vertical installation, max. Vertical installation, max. Vertical installation, max. Vertical installation, max. Vertical installation relating to sea level Installation altitude above sea level, max. So on m; Restrictions for installation altitudes > 2 000 m, see manual Dimensions Width So mm Height Depth Weights	Isolation		
Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of standard modules Performance level according to ISO 13849-1 Cat. 3 SILCL according to IEC 62061 SILCL 2 Ambient conditions Ambient temperature during operation horizontal installation, min. horizontal installation, min. vertical installation, max. vertical installation, max. Vertical installation, max. Installation altitude above sea level Installation altitude above sea level, max. Dimensions Width Height Depth Weights	Isolation tested with	707 V DC (type test)	
Highest safety class achievable for safety-related tripping of standard modules • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SILCL according to IEC 62061 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • horizontal installation, min. • vertical installation, max. • vertical installation, max. • vertical installation relating to sea level • Installation altitude above sea level, max. Dimensions Width Height Depth Weights	Standards, approvals, certificates		
Performance level according to ISO 13849-1 Category according to ISO 13849-1 SILCL according to IEC 62061 SILCL 2 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • vertical installation, max. • vertical installation, max. • vertical installation, max. • vertical installation according to sea level • Installation altitude above sea level, max. Dimensions Width 35 mm Height 147 mm Depth Weights	Suitable for safety-related tripping of standard modules	Yes; from FS04	
Cat. 3 SILCL according to ISO 13849-1 SILCL 2 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • vertical installation, max. • vertical installation, max. • vertical installation max. • Installation relating to sea level • Installation altitude above sea level, max. Dimensions Width 35 mm Height 147 mm Depth Depth 129 mm Weights	Highest safety class achievable for safety-related tripping of standard modules		
SILCL 2 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • vertical installation, max. • vertical installation, max. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Dimensions Width 35 mm Height 147 mm Depth 129 mm Weights	 Performance level according to ISO 13849-1 	PL d	
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • vertical installation, max. • 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 147 mm Depth 129 mm Weights	 Category according to ISO 13849-1 	Cat. 3	
Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Dimensions Width 35 mm Height Depth 129 mm Weights	 SILCL according to IEC 62061 	SILCL 2	
 horizontal installation, min. horizontal installation, max. vertical installation, min. vertical installation, max. vertical installation, max. Vertical installation, max. 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 35 mm Height 147 mm Depth 129 mm Weights Weights 	Ambient conditions		
 horizontal installation, max. vertical installation, min. -30 °C; From FS03 vertical installation, max. 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 Height 147 mm Depth 129 mm Weights 	Ambient temperature during operation		
 vertical installation, min. vertical installation, max. 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 Height Depth 129 mm Weights 	 horizontal installation, min. 	-30 °C; From FS03	
 ◆ vertical installation, max. 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 Height Depth 147 mm Depth Weights 	 horizontal installation, max. 	60 °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 147 mm Depth 129 mm Weights	 vertical installation, min. 	-30 °C; From FS03	
● Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual Dimensions Width 35 mm Height 147 mm Depth 129 mm Weights	vertical installation, max.	40 °C	
Dimensions Width 35 mm Height 147 mm Depth 129 mm Weights	Altitude during operation relating to sea level		
Width 35 mm Height 147 mm Depth 129 mm Weights	 Installation altitude above sea level, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	
Height 147 mm Depth 129 mm Weights	Dimensions		
Depth 129 mm Weights	Width	35 mm	
Weights	Height	147 mm	
	Depth	129 mm	
Weight, approx. 325 g	Weights		
	Weight, approx.	325 g	

last modified:

4/29/2021