6ES7531-7NF00-0AB0

Data sheet



SIMATIC S7-1500 analog input module AI 8xU/I HF, up to 24 bit resolution, accuracy 0.1%, 8 channels in groups of 1; common mode voltage: 30 V AC/60 V DC, Diagnostics; Hardware interrupts Measured values scalable, measuring range adjustment, Calibrate in RUN; Delivery including infeed element, shield bracket and shield terminal: Front connector (screw terminals or push-in) to be ordered separately

Product type designation AI 8xU/I HF HW functional status From FS01 Firmware version FW update possible Product function I M data I Sochronous mode Prioritzed startup Fos Scalable measured values Scalable measured values Adjustment of measuring range Fingineering with FT1AP Ortal configurable/integrated from version FRCFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision FRCFIBUS from FRC	General information	
Firmware version Fiv update possible Product function Riv data Fisch data	Product type designation	AI 8xU/I HF
Product function I &M data I sochronous mode Prioritized startup Measuring range scalable Scalable measured values Adjustment of measuring range Engineering with STEP 7 TIA Portal configurable/integrated from version FROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFIBUT from GSD version/GSD revision Oversampling MSI CIR - Configuration in RUN Reparameterization possible in RUN Zuphy voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, puper limit (DC) permissible range, puper limit (DC) permissible range, puper limit (DC) permissible range, sower limit (DC) permi	HW functional status	From FS01
Product function • I&M data • Isochronous mode • Prioritized startup • Measuring range scalable • Scalable measured values • Adjustment of measuring range • Adjustment of measuring range • STEP 7 TIA Portal configurable/integrated from version • STEP 7 tonfigurable/integrated from version • STEP 7 configurable/integrated from version • STEP 7 configurable/integrated from version • STEP 7 configurable/integrated from version • PROFIBUS from GSD version/GSD revision • PROFIBUS from GSD version/GSD revision • PROFIBUS from GSD version/GSD revision • Oversampling • Oversampling • MSI • Yes CiR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN Calibration possible in RUN Yes Supply voltage Type of supply voltage Type of supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus Power loss, typ. 1.9 W	Firmware version	V1.1.0
I like data data data I like data data I like data data data data data data data dat	FW update possible	Yes
Isochronous mode Prioritized startup Measuring range scalable Scalable measured values Adjustment of measuring range Engineering with STEP 7 It Portal configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision Oversampling MSI CIR - Configuration in RUN Reparameterization possible in RUN Reparameterization possible in RUN Reparameterization possible in RUN Supply voltage Type of supply voltage Rated value (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Power ravailable from the backplane bus Power ross Power loss Power loss Power loss, typ. 1.9 W	Product function	
Prioritized startup Measuring range scalable Scalable measured values Adjustment of measuring range Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision MSI MSI CIR - Configuration in RUN Reparameterization possible in RUN Yes Cill bration possible in RUN Reparameterization possible in RUN Yes Culibration possible in RUN Yes Culibration possible in RUN Yes Supply voltage Type of supply voltage DC Rated value (DC) 224 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss, typ. 1.9 W	● I&M data	Yes; I&M0 to I&M3
Measuring range scalable Scalable measured values Adjustment of measuring range Yes Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 To Portal configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision MSI Operating mode Oversampling MSI Yes CIR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes Supply voltage Type of supply voltage DC Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Power Power Power vavailable from the backplane bus O.85 W Power loss Power loss, typ. 1.9 W	 Isochronous mode 	No
Scalable measured values Adjustment of measuring range Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 TOR Portal configurable/integrated from version STEP 7 TOR Portal configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision Pres Operating mode Oversampling No MSI Yes CIR-Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes Calibration possible in RUN Yes Supply voltage Type of supply voltage DC Rated value (DC) Permissible range, lower limit (DC) 20.4 V Permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss Power loss, typ. 1.9 W	 Prioritized startup 	Yes
Adjustment of measuring range Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision Operating mode Oversampling MSI Yes CIR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Supply voltage Type of supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss Power loss, typ. 1.9 W	 Measuring range scalable 	No
Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision Pres No Supply voles CiR - Configuration in RUN Pres Calibration possible in RUN Pres Supply voltage Type of supply voltage Type of supply voltage DC Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Pres Reverse polarity protection Pres Current consumption, max. So mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss Power loss, typ. 1.9 W	 Scalable measured values 	Yes
STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PV2.3 /- Operating mode Oversampling No Yes CIR-Configuration in RUN Pes Calibration possible in RUN Pes Supply voltage Proper fosuply voltage DC Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Pess Reverse polarity protection Pess Power variable from the backplane bus O.85 W Power loss Power loss, typ. 1.9 W	Adjustment of measuring range	Yes
version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision V2.3 /- Operating mode Oversampling No MSI PREPARE TO TO THE TO TH	Engineering with	
PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision V2.3 /- Operating mode Oversampling No MSI Yes CIR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN Yes Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Fower loss Power loss Power loss, typ. 1.9 W No No Yes DC Rated Value (DC) 24 V 28.8 V Yes Supply voltage Power loss Power loss, typ. 1.9 W		V14 / -
PROFINET from GSD version/GSD revision Operating mode Oversampling MSI Yes CIR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power loss Power loss, typ. 1.9 W	 STEP 7 configurable/integrated from version 	V5.5 SP3 / -
Operating mode Oversampling MSI Ves CIR - Configuration in RUN Reparameterization possible in RUN Yes Calibration possible in RUN Yes Supply voltage Type of supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power loss Power loss, typ. 1.9 W	 PROFIBUS from GSD version/GSD revision 	V1.0 / V5.1
Oversampling MSI MSI Yes CiR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN Yes Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power loss Power loss, typ. 1.9 W	PROFINET from GSD version/GSD revision	V2.3 / -
● MSI CiR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN Yes Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus Power loss, typ. 1.9 W	Operating mode	
CiR - Configuration in RUN Reparameterization possible in RUN Calibration possible in RUN Yes Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus Power loss Power loss, typ. 1.9 W	 Oversampling 	No
Reparameterization possible in RUN Calibration possible in RUN Yes Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus Power loss Power loss, typ. 1.9 W	• MSI	Yes
Calibration possible in RUN Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss Power loss, typ. 1.9 W	CiR - Configuration in RUN	
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Current consumption, max. Power available from the backplane bus Power loss Power loss, typ. DC 24 V 20.4 V 28.8 V Reverse polarity protection Yes Input current 50 mA; with 24 V DC supply Power 1.9 W	Reparameterization possible in RUN	Yes
Type of supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss Power loss, typ. 1.9 W	Calibration possible in RUN	Yes
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss Power loss, typ. 1.9 W	Supply voltage	
permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss Power loss, typ. 1.9 W	Type of supply voltage	DC
permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss Power loss, typ. 1.9 W	Rated value (DC)	24 V
Reverse polarity protection Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus Power loss Power loss, typ. 1.9 W	permissible range, lower limit (DC)	20.4 V
Input current Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss Power loss, typ. 1.9 W	permissible range, upper limit (DC)	28.8 V
Current consumption, max. 50 mA; with 24 V DC supply Power Power available from the backplane bus 0.85 W Power loss Power loss, typ. 1.9 W	Reverse polarity protection	Yes
Power available from the backplane bus Power loss Power loss, typ. 1.9 W	Input current	
Power available from the backplane bus O.85 W Power loss Power loss, typ. 1.9 W	Current consumption, max.	50 mA; with 24 V DC supply
Power loss Power loss, typ. 1.9 W	Power	
Power loss, typ. 1.9 W	Power available from the backplane bus	0.85 W
•	Power loss	
Analog inputs	Power loss, typ.	1.9 W
	Analog inputs	

Number of analog inputs	8
 For current measurement 	8
For voltage measurement	8
permissible input voltage for voltage input (destruction limit), max.	28.8 V
permissible input current for current input (destruction limit), max.	40 mA
Input ranges (rated values), voltages	
• 0 to +5 V	No
• 0 to +10 V	No
• 1 V to 5 V	Yes
— Input resistance (1 V to 5 V)	100 kΩ
• -10 V to +10 V	Yes
— Input resistance (-10 V to +10 V)	100 kΩ
• -2.5 V to +2.5 V	Yes
— Input resistance (-2.5 V to +2.5 V)	100 kΩ
• -25 mV to +25 mV	No
• -250 mV to +250 mV	No
• -5 V to +5 V	Yes
— Input resistance (-5 V to +5 V)	100 kΩ
• -50 mV to +50 mV	No
• -500 mV to +500 mV	No
• -80 mV to +80 mV	No
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
— Input resistance (0 to 20 mA)	25 Ω ; Plus approx. 42 ohms for overvoltage protection by PTC
• -20 mA to +20 mA	Yes
— Input resistance (-20 mA to +20 mA)	25 Ω ; Plus approx. 42 ohms for overvoltage protection by PTC
• 4 mA to 20 mA	Yes
— Input resistance (4 mA to 20 mA)	25 Ω ; Plus approx. 42 ohms for overvoltage protection by PTC
Input ranges (rated values), thermocouples	
• Type B	No
• Type C	No
▼ Type E	No
• Type J	No
Type K	No
Type L	No
- Type N	No
● Type N	
Type R	No
Type RType S	No No
Type RType SType T	No No No
Type RType SType TType TXK/TXK(L) to GOST	No No
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer	No No No
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 	No No No No
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST 	No No No No
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 	No No No No No No No No No
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST 	No
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 	No
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 Cu 100 Cu 100 according to GOST 	No N
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 Cu 100 according to GOST Ni 10 	No N
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 Cu 100 Ni 10 Ni 10 according to GOST 	No N
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 Cu 100 Ni 10 Ni 10 Ni 10 according to GOST Ni 100 	No N
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 Cu 100 Ni 10 Ni 10 according to GOST Ni 100 Ni 100 	No N
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 Cu 100 Ni 10 Ni 10 Ni 10 according to GOST Ni 100 Ni 100 according to GOST Ni 100 Ni 100 according to GOST Ni 100 Ni 100 according to GOST Ni 100 Ni 1000	No N
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 Cu 100 Ni 10 Ni 10 Ni 10 according to GOST Ni 100 Ni 100 according to GOST Ni 1000 Ni 1000 Ni 1000 Ni 1000 according to GOST 	No N
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 Cu 100 Ni 10 Ni 10 Ni 10 according to GOST Ni 100 Ni 100 according to GOST Ni 1000 Ni 1000 according to GOST Ni 1000 Ni 1000 according to GOST LG-Ni 1000 	No N
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 Cu 100 Ni 10 Ni 10 Ni 10 according to GOST Ni 100 Ni 100 according to GOST Ni 1000 Ni 1000 according to GOST LG-Ni 1000 Ni 120 	No N
 Type R Type S Type T Type TXK/TXK(L) to GOST Input ranges (rated values), resistance thermometer Cu 10 Cu 10 according to GOST Cu 50 Cu 50 according to GOST Cu 100 Cu 100 Ni 10 Ni 10 Ni 10 according to GOST Ni 100 Ni 100 according to GOST Ni 1000 Ni 1000 according to GOST Ni 1000 Ni 1000 according to GOST LG-Ni 1000 	No N

 Ni 200 according to GOST 	No
• Ni 500	No
 Ni 500 according to GOST 	No
• Pt 10	No
 Pt 10 according to GOST 	No
• Pt 50	No
 Pt 50 according to GOST 	No
• Pt 100	No
 Pt 100 according to GOST 	No
• Pt 1000	No
 Pt 1000 according to GOST 	No
• Pt 200	No
 Pt 200 according to GOST 	No
• Pt 500	No
Pt 500 according to GOST	No
Input ranges (rated values), resistors	
• 0 to 150 ohms	No
• 0 to 300 ohms	No
• 0 to 600 ohms	No
• 0 to 3000 ohms	No
• 0 to 6000 ohms	No
• PTC	No
Cable length	
shielded, max.	800 m
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
 Resolution with overrange (bit including sign), max. 	24 bit; When using the function "Scaling of the measured values" or "Measuring range adaptation" (32 bit REAL format); 16 bit when using the S7 format (16 bit INTEGER)
 Integration time, parameterizable 	Yes
• Integration time (ms)	Fast mode: 2.5 / 16.67 / 20 / 100 ms, standard mode: 7.5 / 50 / 60 / 300 ms
 Basic conversion time, including integration time (ms) 	Fast mode: 4 / 18 / 22 / 102 ms; Standard mode: 9 / 52 / 62 / 302 ms
 Interference voltage suppression for interference frequency f1 in Hz 	400 / 60 / 50 / 10 Hz
Basic execution time of the module (all channels released)	Corresponds to the channel with the highest basic conversion time
Smoothing of measured values	
 parameterizable 	Yes
Step: None	Yes
Step: low	Yes
Step: Medium	Yes
Step: High	Yes
Encoder	
Connection of signal encoders	
 for voltage measurement 	Yes
 for current measurement as 2-wire transducer 	Yes; with external transmitter supply
 for current measurement as 4-wire transducer 	Yes
 for resistance measurement with two-wire connection 	No
 for resistance measurement with three-wire connection 	No
 for resistance measurement with four-wire connection 	No
Errors/accuracies	
Linearity error (relative to input range), (+/-)	0.02 %
Temperature error (relative to input range), (+/-)	0.005 %/K
Crosstalk between the inputs, max.	00 40
	-80 dB

	_
range), (+/-)	
Operational error limit in overall temperature range	
 Voltage, relative to input range, (+/-) 	0.1 %
Current, relative to input range, (+/-)	0.1 %
Basic error limit (operational limit at 25 °C)	
 Voltage, relative to input range, (+/-) 	0.05 %
 Current, relative to input range, (+/-) 	0.05 %
Interference voltage suppression for f = n x (f1 +/- 1 %), f1 =	interference frequency
 Series mode interference (peak value of interference < rated value of input range), min. 	80 dB; in the Standard operating mode, 40 dB in the Fast operating mode
 Common mode voltage, max. 	60 V DC/30 V AC
 Common mode interference, min. 	80 dB
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes
Limit value alarm	Yes; two upper and two lower limit values in each case
Diagnoses	. 30, the apper and the lower milit values in each case
Monitoring the supply voltage	Yes
Wire-break Overflow/underflow	Yes; only for 1 5 V and 4 20 mA
Overflow/underflow	Yes
Diagnostics indication LED	
• 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 	Yes; red LED
 for module diagnostics 	Yes; red LED
Potential separation	
Potential separation channels	
between the channels	Yes
 between the channels, in groups of 	1
 between the channels and backplane bus 	Yes
between the channels and the power supply of the	Yes
electronics	
Permissible potential difference	
between different circuits	60 V DC/30 V AC; insulation rated for 120 V AC basic insulation:
	between the channels and the supply voltage L+; between the channels
laciation	
Isolation	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels
Isolation Isolation tested with	between the channels and the supply voltage L+; between the channels
	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and
Isolation tested with Ambient conditions	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and
Isolation tested with	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and
Ambient conditions Ambient temperature during operation	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and the backplane bus
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max.	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and the backplane bus -30 °C; From FS02 60 °C
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min.	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and the backplane bus -30 °C; From FS02
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max.	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and the backplane bus -30 °C; From FS02 60 °C -30 °C; From FS02
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max.	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and the backplane bus -30 °C; From FS02 60 °C -30 °C; From FS02 40 °C
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Vertical installation, max. Width	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and the backplane bus -30 °C; From FS02 60 °C -30 °C; From FS02 40 °C
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Vertical installation, max. Dimensions Width Height	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and the backplane bus -30 °C; From FS02 60 °C -30 °C; From FS02 40 °C 35 mm 147 mm
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Vertical installation, max. Dimensions Width Height Depth	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and the backplane bus -30 °C; From FS02 60 °C -30 °C; From FS02 40 °C
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Vertical installation, max. Width Height	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and the backplane bus -30 °C; From FS02 60 °C -30 °C; From FS02 40 °C 35 mm 147 mm 129 mm
Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Vertical installation, max. Dimensions Width Height Depth	between the channels and the supply voltage L+; between the channels and the backplane bus; between the channels 2 000 V DC between the channels and the supply voltage L+; 2 000 V DC between the channels and the backplane bus; 2 000 V DC between the channels; 707 V DC (type test) between the supply voltage L+ and the backplane bus -30 °C; From FS02 60 °C -30 °C; From FS02 40 °C 35 mm 147 mm