

Remote I/O

Remote I/O IS1+ Zone 2 power module



9445/35-12 Art. No. 315833



- 24 V DC supply module for IS1+ CPU modules and 16 I/O modules
- Redundancy of the power module with load sharing possible
- Integrated polarity reversal protection
- Error messages according to NE 107 (overload, overtemperature, maintenance required)
- Supports FDT/DTM, OPC UA and web servers for integration in asset management systems
- Extended ambient temperature range from -40 to +75 °C

MY R. STAHL 9445A



The 9445/35 power module is used to supply the 9442/35 CPU and up to 16 I/O modules with intrinsically safe power. The auxiliary power is connected using a pluggable terminal with unconnected cable end (accessory).

Two 9445/35 power modules can be connected to a 9496/35 socket to provide a redundant power supply to the 9442/35 CPU and the I/O modules. The 9445/35 power module monitors itself and reports notifications to the control systems and asset management systems when there is an overload, the ambient temperatures are too high or the end of the service life has been reached.

Technical Data

Explosion Protection

Application range (zones)	2
Application range (Zone) note	Zone 22 is only permissible when a suitable enclosure is used.
Ex interface zone	2
IECEEx gas certificate	IECEEx PTB 17.0042X
IECEEx gas explosion protection	Ex ec [ia Ga, ib Gb] IIC T4 Gc
ATEX gas certificate	PTB 17 ATEX 2026 X
ATEX gas explosion protection	Ex II 3 (1,2) G Ex ec [ia Ga, ib Gb] IIC T4 Gc
FMus certificate	FM17US0332X
cFM certificate	FM16CA0134X
Marking cFMus	NI, Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, AEx/Ex ec [ia Ga, ib Gb] IIC T4 Gc Ta = -40°C ... +75°C See Doc. 9442 6 031 022 1
Certificates	ATEX (PTB), Brazil (ULB), Canada (FM), China (NEPSI), IECEEx (PTB), USA (FM)
Ship approval	BVIS, EU RO MR (DNV), KR, LR
Declaration of conformity	ATEX (EUK), China (CCC)
Installation	Zone 2

Safety Data

Safety-related max. voltage	≤ 60 V DC
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Electrical Data

Start-up current	75 A at ≤ 2 ms
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Auxiliary Power

Auxiliary power nominal voltage	24 V DC
Auxiliary power voltage range	19 ... 32 V DC
Polarity reversal protection	Yes

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Auxiliary Power

Undervoltage monitoring	≤ 18 V DC			
Auxiliary power	Connection: 2-pin via a pluggable terminal with a 3 m single core			
Redundancy	Yes (by using two power modules)			
System plug connection	Via socket 9496/35			
Max. current consumption at nominal voltage [24 V DC]	1 x CPU + 1 x PM + socket	2 x CPU + 1 x PM + socket	1 x CPU + 2 x PM + socket	2 x CPU + 2 x PM + socket
	without modules	0.5 A	0.7 A	0.8 A
	with 8 modules	2.55 A	2.75 A	2.85 A
	with 16 modules	4.6 A	4.8 A	4.9 A
Power dissipation at nominal voltage [24 V DC]	1 x CPU + 1 x PM + socket	2 x CPU + 1 x PM + socket	1 x CPU + 2 x PM + socket	2 x CPU + 2 x PM + socket
	without modules	12 W	16.5 W	19 W
	with 8 modules	13.2 W	17.7 W	20.2 W
	with 16 modules	15 W	19.5 W	22 W

Galvanic Isolation

Auxiliary power/system components	1500 V AC
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Device Specific Data

LED module requires maintenance	"M/S" LED, blue
Auxiliary power LED	"PWR IN" LED, green
LED output	"PWR OUT" LED, green
Module status and alarms	Power module overload Overtemperature Power module requires maintenance Internal hardware error
Status message	Acyclically to control systems and asset management systems over FDT/DTM and the web server

Ambient Conditions

Ambient temperature	-40°C ... +65°C (without mounting plate) -40°C ... +70°C (With 3 mm sheet steel mounting plate) -40°C ... +75°C (With 6 mm aluminium mounting plate)
Ambient temperature	-40°F ... +149°F (without mounting plate) -40°F ... +158°F (With 3 mm sheet steel mounting plate) -40°F ... +167°F (With 6 mm aluminium mounting plate)
Storage temperature	-40°C ... +80°C
Storage temperature	-40°F ... +176°F
Max. operating altitude	< 2000 m
Max. relative humidity	95% (without condensation)
Shock (semi-sinusoidal)	(IEC EN 60068-2-27) 15 g (3 shocks per axis and direction)
Vibration (sinusoidal)	(IEC EN 60068-2-6) Frequency range 2 to 13.2 Hz Amplitude 1 mm (peak value) Frequency range 13.2 to 100 Hz Acceleration amplitude 0.7 g

Mechanical Data

Degree of protection (IP) (IEC 60529)	IP30
Module enclosure	Seawater-resistant aluminium Polyamide 6GF

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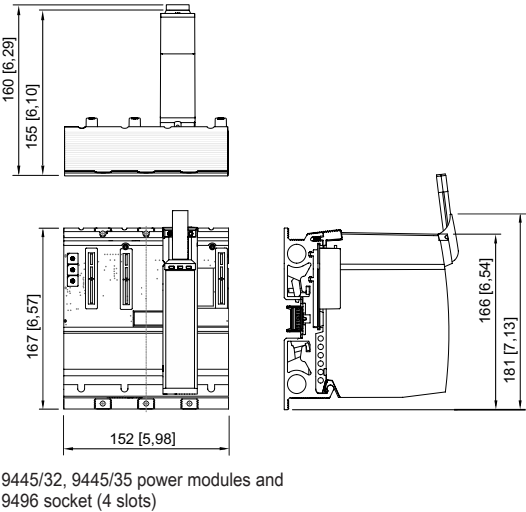
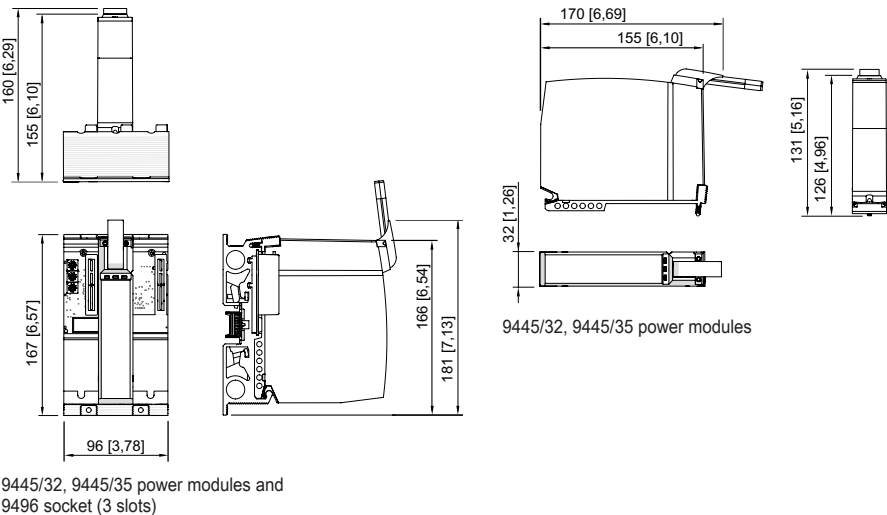
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Mechanical Data	
Fire resistance (UL 94)	V2
Pollutant class	Corresponds to G3
Width	31 mm
Width, inches	1.22 in
Depth	110 mm
Length	152 mm
Length in inches	5.98 in
Mounting depth in inches	4.33 in
Weight	1 kg
Mounting / Installation	
Mounting orientation	Vertical Horizontal
Module fuse	Torx T20 screws
Note	Only connect the 9445/35 power module to the 9496/35 socket

Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



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Accessories

Connection set		Art. No.
	Auxiliary power set, 24 V (3 m)	261232
Series 9496/35 – socket for CPU & power modules		Art. No.
	Zone 2 3 slots for mounting 1 x CPU and 2 x power module or 2 x CPU and 1 x power module Dimensions approx. L = 167 mm, W = 96 mm, H = 50.6 mm	246871
	Zone 2 4 slots for mounting 2 x CPU and 2 x power module Dimensions approx. L = 167 mm, W = 152 mm, H = 50.6 mm	262392

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