

Isolator Barriers

Ex i power supply

Ex i field circuit ISpac

9143/10-156-160-20s Art. No. 159829



- For the intrinsically safe supply of power to three- or four-conductor transmitters, solenoid valves, light barriers and controllers
- Stable, adjustable output voltage
- Extensive portfolio with either DC or AC auxiliary power

MY R. STAHL 9143A



The 9143 series compact I.S. power supply is used for the intrinsically safe supply of power to field devices, e.g. three- or four-conductor transmitters, solenoid valves, light barriers and controllers. It delivers stable, adjustable output voltage via intrinsically safe outputs.

Technical Data

Explosion Protection	
Ex interface zone	1, 2, 21, 22
IECEX gas certificate	IECEX BVS 12.0009 X
IECEX gas explosion protection	Ex [Ex ib Gb] IIC/IIB
IECEX dust certificate	IECEX BVS 12.0009 X
IECEX dust explosion protection	[Ex ib Db] IIIC
IECEX firedamp certificate	IECEX BVS 12.0009 X
IECEX firedamp protection	[Ex ib Mb] I
ATEX gas certificate	BVS 05 ATEX E 152 X
ATEX gas explosion protection	Ex II (2) G Ex [Ex ib Gb] IIC/IIB
ATEX dust certificate	BVS 05 ATEX E 152 X
ATEX dust explosion protection	Ex II (2) D [Ex ib Db] IIIC
ATEX firedamp certificate	BVS 05 ATEX E 152 X
ATEX firedamp protection	Ex I (M2) [Ex ib Mb] I
cCSAus certificate	1570027
Marking cCSAus	Class I, Zone 1, [AEx ib Gb]/[Ex ib Gb] Group IIB See doc. 91 436 01 32 2
Certificates	ATEX (BVS), Canada / USA (CSA), IECEX (BVS), Korea (KGS)
Ship approval	CCS, EU RO MR (DNV)
Declaration of conformity	ATEX (EUK)
Installation	In safe areas
Further information	see respective certificate and operating instructions
Safety Data	
Max. voltage U_o/V_{oc}	15.6 V
Max. current I_o/I_{sc}	160 mA
Max. power P_o	2.496 W
Max. permissible external capacitance C_o/C_s for IIB	3.03 μ F

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Safety Data

Max. permissible external inductance L_o /La for IIB	0.351 mH
Max. permissible external capacity C_o for I	16.3 μ F
Max. permissible external inductance L_o for I	18 mH
Internal capacitance	Negligible
Internal inductance	Negligible
Safety-related max. voltage	253 V AC
Intrinsically safe limiting values inductance L_o /capacitance C_o	Jointly connectable inductance L_o /capacitance C_o
IIC	L_o [mH] C_o [μ F]
IIB	L_o [mH] C_o [μ F]
I	L_o [mH] C_o [μ F]

Functional Safety

Further information	See test report
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Electrical Data

Type of signal	Ex i power supply
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Auxiliary Power

Auxiliary power	110 / 115 / 230 V AC
Auxiliary power voltage range	85 to 230 V AC
Auxiliary power frequency range AC	48 – 62 Hz
Power consumption	4.9 VA
Polarity reversal protection	no
Auxiliary power indication	Green LED

Galvanic Isolation

Test voltage	Acc. to IEC EN 60079-11
Output to power supply	1.5 kV

Output

Min. nominal voltage output	12.5 V
Max. nominal voltage output	14.7 V
Max. nominal current I_n output	140 mA
Current limiting	If the max. nominal current is reached, the output voltage is linearly regulated down to 0 V.

Ambient Conditions

Ambient temperature °C	-20 °C ... +65 °C (Single device) -20 °C ... +60 °C (Group assembly)
Ambient temperature °F	-4°F ... +158°F (Single device) -4°F ... +140°F (Group assembly)
Note	Installation conditions influence the ambient temperature. Please observe the "Cabinet installation guide".
Storage temperature °C	-40 °C ... +80 °C
Storage temperature °F	-40°F ... +176°F
Max. relative humidity	< 85% at $T_a > 40$ °C

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Ambient Conditions

Use at the height of	< 2000 m
Electromagnetic compatibility	Tested to the following standards and regulations: EN 61326-1 For use in industrial areas; NAMUR NE 21

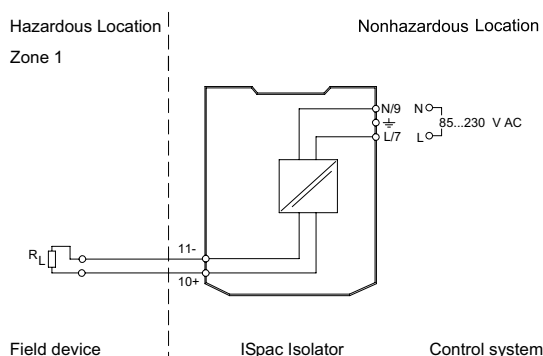
Mechanical Data

Degree of protection (IP)	IP30
Degree of protection (IP) terminals	IP20
Fire resistance (UL 94)	V0
Enclosure material	PA 6.6
Grid dimension	35.2 mm
Width	35.2 mm
Width, inches	1.39 in
Height	114.5 mm
Height in inches	4.51 in
Length	108 mm
Length in inches	4.25 in
Weight	190 g
Weight	0.42 lb

Mounting / Installation

Mounting type	DIN rail (NS35/15, NS35/7.5)
Mounting orientation	Horizontal Vertical
Connection type	Screw terminal
Min. rigid conductor cross section	0.2 mm ²
Max. rigid conductor cross section	2.5 mm ²
Min. flex conductor cross section	0.2 mm ²
Max. flex conductor cross section	2.5 mm ²
Connection cross-section AWG	24 ... 14

Technical Drawings – Subject to Alterations



Connection diagram 9143/.....-20.

Isolator Barriers

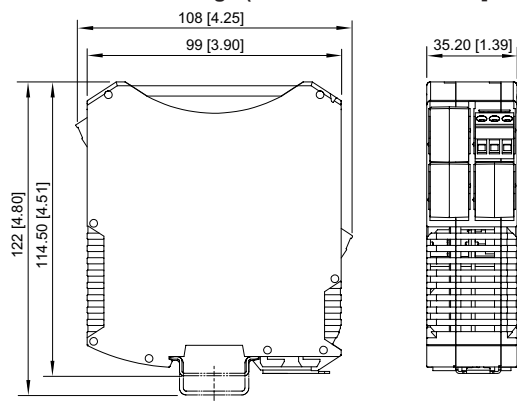
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Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



ISpac Series 9185, 9192 with screw terminal

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