

Ex i Power Supply
 Series 8510



- > Output, intrinsically safe
- > Stable output voltage
- > Galvanic isolation between output and power supply



12661E00

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Basic function: The power supplies are used for the intrinsically safe operation of field devices e.g. 3- or 4-wire transmitters, solenoid valves, light barriers, controllers and more.

	ATEX / IECEx					
Zone	0	1	2	20	21	22
For use in		x	x			

Explosion Protection

Global (IECEx)	
Gas	IECEx BVS 07.0029U Ex d e IIC, Ex d e I
Europe (ATEX)	
Gas	DMT 00 ATEX E 073 U II 2G Ex d e IIC I M2 Ex d e I
Certifications and certificates	
Certificates	ATEX, IECEx, Belarus (operating authorisation)

E9

WebCode 8510T

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Selection Table

Version	Circuit diagram	Fitted device	Order number	Weight kg
1-channel AC 20 ... 28 V (48 ... 62 Hz) DC 18 ... 35 V		9143/10-114-200-10	8510/122-20-001-00	1.600
		9143/10-187-050-10	8510/122-20-003-00	1.600
		9143/10-104-220-10s	8510/122-20-005-00	1.600
		9143/10-065-220-10	8510/122-20-007-00	1.600
		9143/10-156-065-10	8510/122-20-011-00	1.600
		9143/10-156-160-10	8510/122-20-013-00	1.600
		9143/10-244-060-10	8510/122-20-018-00	1.600
1-channel AC 85 ... 230 V (48 ... 62 Hz)		9143/10-114-200-20	8510/122-20-002-00	1.600
		9143/10-104-220-20s	8510/122-20-006-00	1.600
		9143/10-065-200-20	8510/122-20-008-00	1.600
		9143/10-124-150-10	8510/122-20-009-00	1.600
		9143/10-124-150-20	8510/122-20-010-00	1.600
		9143/10-156-065-20	8510/122-20-012-00	1.600
		9143/10-156-160-20	8510/122-20-014-00	1.600
		9143/10-187-050-20	8510/122-20-015-00	1.600
		9143/10-244-060-20	8510/122-20-019-00	1.600

Order Number Supplement

Ex i output		Safety data											Fitted device	Installed in
U _A	U _N	I _N	P ₀	I ₀	U ₀	U _m	C ₀ IIB	C ₀ IIC	L ₀ IIC	L ₀ IIB	C _i	L _i		
9.5 ... 10.5 V	9.4 ... 10.4 V	180 mA	2.28 W	200 mA	11,4 V	250 V AC	11,2 μF	1,64 μF	0,16 mH	1,4 mH	negligible		9143/10-114-200-10	8510/122-20-001-00
9.5 ... 10.5 V	9.4 ... 10.4 V	180 mA	2.28 W	200 mA	11,4 V	250 V AC	11,2 μF	1,64 μF	0,16 mH	1,4 mH	negligible		9143/10-114-200-20	8510/122-20-002-00
14.8 ... 17.8 V	14.6 ... 17.6 V	35 mA	0.935 W	50 mA	18,7 V	250 V AC	1,64 μF	0,27 μF	0,06 mH	15,5 mH	negligible		9143/10-187-050-10	8510/122-20-003-00
4.2 ... 5.8 V	4.0 ... 5.6 V	130 mA	0.975 W	150 mA	6,5 V	250 V AC	570 μF	25 μF	1,43 mH	6,25 mH	negligible		9143/10-065-150-10	8510/122-20-004-00
8.8 ... 9.6 V	8.7 ... 9.5 V	200 mA	2.288 W	220 mA	10,4 V	250 V AC	18,6 μF	2,5 μF	0,24 mH	1,5 mH	negligible		9143/10-104-220-10s	8510/122-20-005-00
8.8 ... 9.6 V	8.7 ... 9.5 V	200 mA	2.288 W	220 mA	10,4 V	250 V AC	18,6 μF	2,5 μF	0,24 mH	1,5 mH	negligible		9143/10-104-220-20s	8510/122-20-006-00
4.2 ... 5.8 V	4.0 ... 5.6 V	160 mA	1.3 W	200 mA	6,5 V	250 V AC	570 μF	25 μF	0,82 mH	3,71 mH	negligible		9143/10-065-200-10	8510/122-20-007-00
4.2 ... 5.8 V	4.0 ... 5.6 V	160 mA	1.3 W	200 mA	6,5 V	250 V AC	570 μF	25 μF	0,82 mH	3,71 mH	negligible		9143/10-065-200-20	8510/122-20-008-00

- U_A → No-load voltage
- U_N → Nominal voltage
- U_m → Isolation voltage
- U₀ → Max. voltage
- I_N → Max. nominal current
- I₀ → Max. current
- P₀ → Max. power
- C₀ → Max. external capacitance
- L₀ → Max. external Inductance
- C_i → Internal capacitance
- L_i → Internal inductance

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Order Number Supplement

Ex i output		Safety data										Order number	Installed in	
U _A	U _N	I _N	P ₀	I ₀	U ₀	U _m	C ₀ IIB	C ₀ IIC	L ₀ IIC	L ₀ IIB	C _i			L _i
9.6 ... 11.9 V	9.5 ... 11.8 V	130 mA	1.86 W	150 mA	12,4 V	250 V AC	7.9 μF	1.24 μF	0.17 mH	2.08 mH	negligible		9143/10-124-150-10	8510/122-20-009-00
9.6 ... 11.9 V	9.5 ... 11.8 V	130 mA	1.86 W	150 mA	12,4 V	250 V AC	7.9 μF	1.24 μF	0.17 mH	2.08 mH	negligible		9143/10-124-150-20	8510/122-20-010-00
12.6 ... 14.8 V	12.5 ... 14.7 V	45 mA	1.014 W	65 mA	15,6 V	250 V AC	3.03 μF	0.497 μF	0.445 mH	11.2 mH	negligible		9143/10-156-065-10	8510/122-20-011-00
12.6 ... 14.8 V	12.5 ... 14.7 V	45 mA	1.014 W	65 mA	15,6 V	250 V AC	3.03 μF	0.497 μF	0.445 mH	11.2 mH	negligible		9143/10-156-065-20	8510/122-20-012-00
12.6 ... 14.8 V	12.5 ... 14.7 V	140 mA	2.496 W	160 mA	15,6 V	250 V AC	3.03 μF	--	--	0.351 mH	negligible		9143/10-156-160-10	8510/122-20-013-00
12.6 ... 14.8 V	12.5 ... 14.7 V	140 mA	2.496 W	160 mA	15,6 V	250 V AC	3.03 μF	--	--	0.351 mH	negligible		9143/10-156-160-20	8510/122-20-014-00
14.8 ... 17.8 V	14.6 ... 17.6 V	35 mA	0.935 W	50 mA	18,7 V	250 V AC	1.64 μF	0.27 μF	0.06 mH	15.5 mH	negligible		9143/10-187-050-20	8510/122-20-015-00
19.1 ... 23.2 V	18.9 ... 23.0 V	15 mA	0.854 W	35 mA	24,4 V	250 V AC	0.88 μF	--	--	26.3 mH	negligible		9143/10-244-035-10	8510/122-20-016-00
19.1 ... 23.2 V	18.9 ... 23.0 V	15 mA	0.854 W	35 mA	24,4 V	250 V AC	0.88 μF	--	--	26.3 mH	negligible		9143/10-244-035-20	8510/122-20-017-00
19.1 ... 23.2 V	18.9 ... 23.0 V	40 mA	1.464 W	60 mA	24,4 V	250 V AC	0.88 μF	--	--	534 μH	negligible		9143/10-244-060-10	8510/122-20-018-00
19.1 ... 23.2 V	18.9 ... 23.0 V	40 mA	1.464 W	60 mA	24,4 V	250 V AC	0.88 μF	--	--	534 μH	negligible		9143/10-244-060-20	8510/122-20-019-00

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- L₀ → Max. external Inductance
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- L_i → Internal inductance

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Technical Data

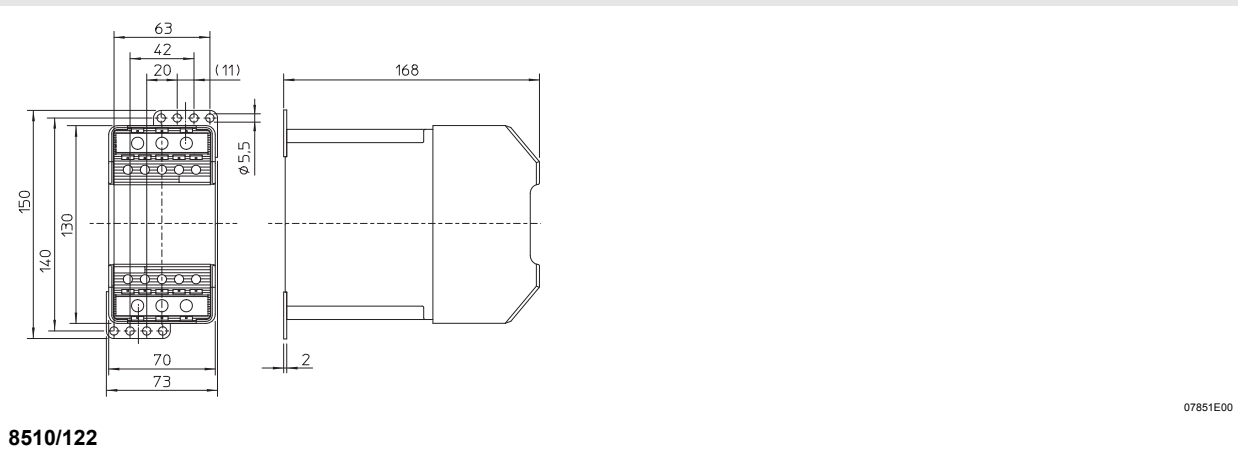
Ambient conditions

Ambient temperature	
Storage	- 50 ... + 80 °C
Operation at Uc	- 20 ... + 40 °C

Mechanical data

Material	
Enclosure material	Epoxy resin
Terminal cover	Polyamide; IP20, protection against direct contact acc. to IEC/EN 60529
Conductor cross-section	
Main contacts	1,5 ... 6 mm ² flexible 1,5 ... 10 mm ² solid
Auxiliary contacts	0.75 ... 1.5 mm ² finely stranded 0.75 ... 2.5 mm ² solid

Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



We reserve the right to make alterations to the technical data, weights, dimensions, designs and products available without notice. The illustrations cannot be considered binding.