Gönnheimer
Elektronic GmbH

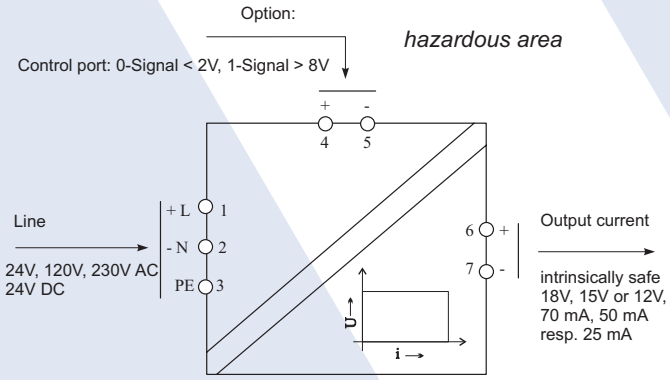
Intrinsically safe, electronic Power supply

SG160

For mounting in hazardous area

TÜV 01 ATEX 1693

Block diagram



Description

The intrinsically safe power supply SG160 is mountable in explosion endangered areas (zone 1). Its intrinsically safe output current (category 1b) has a rectangular characteristic. The output voltages are 18V, 15V and 12V at an output current of 25, 50 or 70 mA.

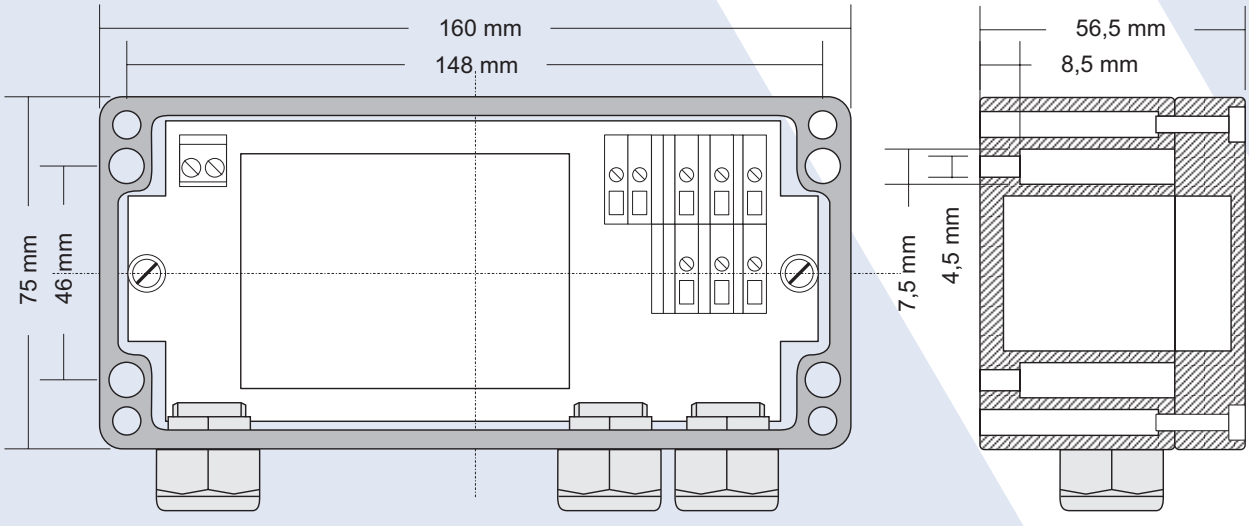
The housing as well as the input terminals of the SG160 have protection class „increased safety“. The supply voltage can be connected directly to the SG160 - an additional EEx e-terminal box is unnecessary.

The SG160 is available with an additional control port option. An active non intrinsically safe 8 up to 30V signal switches the SG160 power supply on and off.

Type code

Speisegerät SG160	.	.	.
Mains:			
230V AC.....	.0		
120V AC.....	.2		
24 V DC.....	.6		
Power output			
15V DC,70mA		.0	
15V DC, 50mA.....		.1	
12V DC, 70mA		.2	
12V DC, 50mA		.3	
18V DC, 25mA		.4	
15V DC, 25mA		.5	
12V DC, 25mA		.6	
10V DC, 100mA		.7	
control entrance:			
Ohne			.0
Vorhanden			.1

Dimensions



M16 x 1,5 Sp 5-10

Additonal port
on Option
Control port

M16 x 1,5 Sp 5-10

Technical Details

Line voltage [V]	AC: 230, 120, 24; 48 ..62 Hz		DC: 24 V		
Power consumption	2 W				
Ex group	II 2 G/D				
Ex- protection	II 2 G, EEx e m [ib] IIC T5 bei ϑ_U bis 40°C II 2 G, EEx e m [ib] IIC T4 bei ϑ_U bis 65°C II 2 D, Ex tD [ibD] A21 IP 66 T135°C				
Mounting	Inside hazardous area				
Intrinsically safe output		U ≈ 18V	U ≈ 15V	U ≈ 12V	U ≈ 10V
	I = 100 mA				SG160.x.7.x
	I = 70 mA	-	SG160.x.0.x	SG160.x.2.x	
	I = 50 mA	-	SG160.x.1.x	SG160.x.3.x	
	I = 25 mA	SG160.x.4.x	SG160.x.5.x	SG160.x.6.x	
Control entrance	1-Signal 8 ..30V; 0-Signal 0 .. 2V		U_m < 40V		
Housing protection	IP65				
Housing material	Polyester				
Ambient temperature	-20°C .. 65°C at temperature class T4 -20°C .. 40°C at temperature class T5				

Ex- limits intrinsically safe output

SG	160.x.0.x	160.x.1.x	160.x.2.x	160.x.3.x	160.x.4.x	160.x.5.x	160.x.6.x	160.x.7.x
U_o	16,8 V	16,8 V	12,6 V	12,6 V	20 V	16,8 V	12,6 V	10,5 V
I_o	80 mA	58 mA	80 mA	58 mA	27 mA	27 mA	27 mA	110 mA
P_o	1340 mW	947 mW	1000 mW	731 mW	540 mW	454 mW	341 mW	1155 mW

See also EC- TYPE Certificate: TÜV 01 ATEX 1693

Restricted inductivities and capacities

Zünd-schut-zart	Typ SG160.x.0.x		Typ SG160.x.1.x		Typ SG160.x.2.x		Typ SG160.x.3.x		Typ SG160.x.4.x		Typ SG160.x.5.x		Typ SG160.x.6.x		Typ SG160.x.7.x	
	L_o [mH]	C_o [nF]	L_o [mH]	C_o [nF]	L_o [mH]	C_o [nF]	L_o [mH]	C_o [nF]	L_o [mH]	C_o [nF]	L_o [mH]	C_o [nF]	L_o [mH]	C_o [nF]	L_o [mH]	C_o [nF]
EEx ib IIC	0,17	140	0,5	130	0,15	700	0,15	480	0,15	110	2	200	1	360	0,2	1200
			0,9	100	0,5	240	0,5	270	1	100	5	150	2	300	0,5	750
					1	190	1	240	2	70			5	200	1	480
EEx ib IIB	1	590	2	560	1	1200	1	1300	0,15	1000	0,5	2000	0,15	5000	0,5	5400
	2	490	5	340	2	960	2	1100	5	500	5	1000	5	2000	2	2900
	5	250	10	270	5	520	5	690							5	1600
Ex ibD	2	1150	4	1120	2	2400	2	2600	0,5	1500	1	4000	0,5	7500	1	9000
	4	980	10	680	4	1920	4	2200	10	1000	10	2000	10	4000	4	5800
	10	500	20	540	10	1040	10	1380							10	3200

See also EC- TYPE Certificate: TÜV 01 ATEX 1693

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Zertifiziertes Qualitäts-Managementsystem nach DIN EN ISO 9001

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