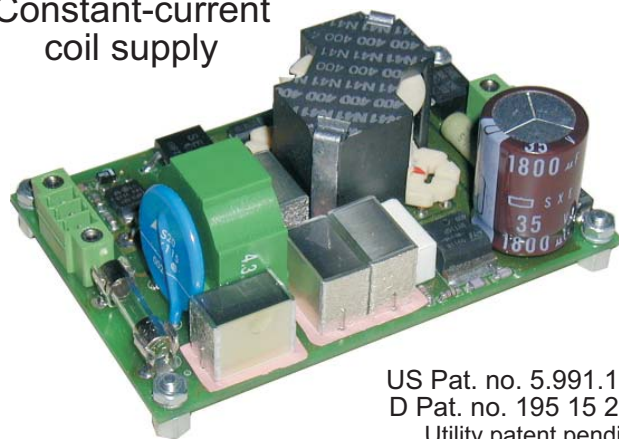


- Input voltage lower / equal / higher as output burden voltage
- Extreme input voltage range
- Constant current-output
- Attraction / holding current switch-over
- Output voltage clamping
- No-load / short circuit protected
- Surge proof EN 61000-4-5 level 3/2 Ohm
- EMC EN 55022.B

for Railway / Instrumentation / Industry

Constant-current  
coil supply



© registered trademark of company SYKO GmbH & Co. KG

## Series MSG 01

US Pat. no. 5.991.166  
D Pat. no. 195 15 210  
Utility patent pending

### Main points:

#### Output:

- Constant current with voltage clamping to  $1,2 U_{nom}$
- Programmable load's switch-on
- Attraction- ( $I_a$ ) and holding current- ( $I_h$ ) switch over
- Fast passive demagnetisation

#### Input:

- Inhibit function (on-off)
- Under voltage control
- VG 96916 part 5 (50V / 50ms 70V / 2ms) Activating with input voltage
- Activating over inhibit (wake-up-function)
- Noise suppression EN 55022 B

#### General:

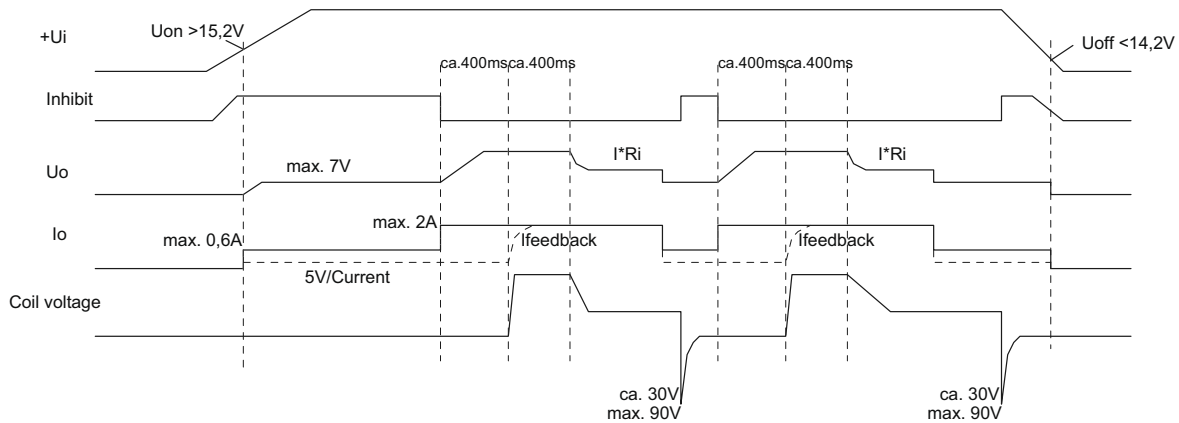
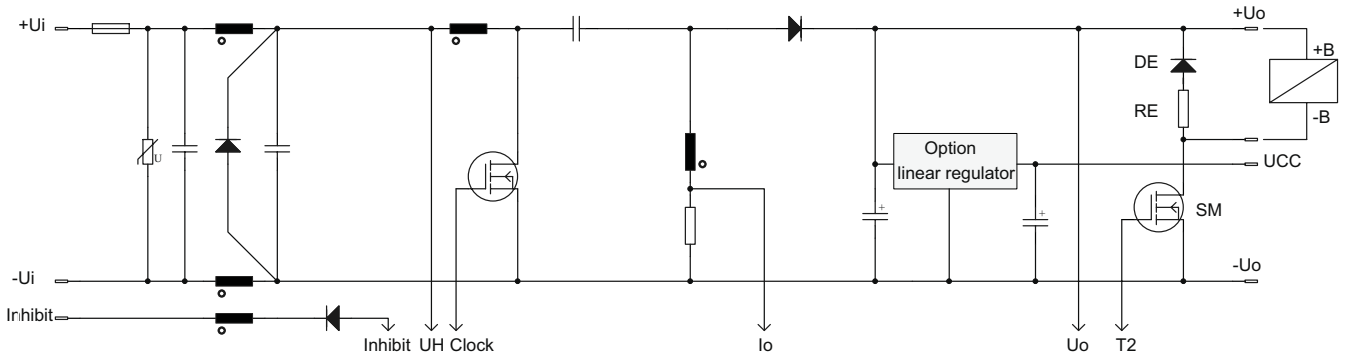
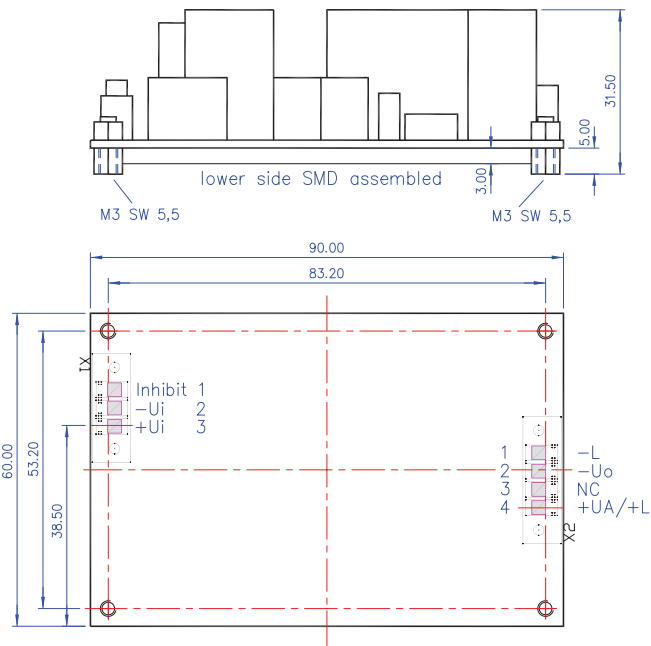
- Security relevant topology
- Ambient temperature  $-25^{\circ}\text{C} / +70^{\circ}\text{C}$
- Option H:  $-40^{\circ}\text{C} / +85^{\circ}\text{C}$
- Derating: no
- Air convection cooled
- MTBF on request
- Shock / vibration on request
- Weight approx. 140 g
- Dimension 90 x 60 x 35 mm<sup>3</sup>

<u><math>U_{in}</math></u> V	<u><math>I_{out} / I_h</math></u> A	<u><math>U_{out}</math></u> V	Model number
<b>16,8 - 38</b> 70V/2ms 50V50ms	2 / 0,6	30	MSG01.24. for 12 Ohm-coils
	3 / 0,6	16	MSG01.24. for 4 Ohm-coils
<b>14,4 - 154</b> Surge proof level 3 / 2 Ohm	2 / 0,5	30	MSG01.03. for 12 Ohm-coils
	1 / 0,4	60	MSG01.03. for 48 Ohm-coils
<b>9 - 18</b> 8 - 26 dyn Load dump	2 / 0,6	30	MSG01.12. for 12 Ohm-coils
	3 / 0,6	16	MSG01.12. for 4 Ohm-coils
<b>9 - 36</b> Load dump	2 / 0,6	30	MSG01.20. for 12 Ohm-coils
	3 / 0,6	16	MSG01.20. for 48 Ohm-coils
Other coil-values on request			
(H)	-40°C up to +85°C		
Modification costs for possible changes above values:			on request

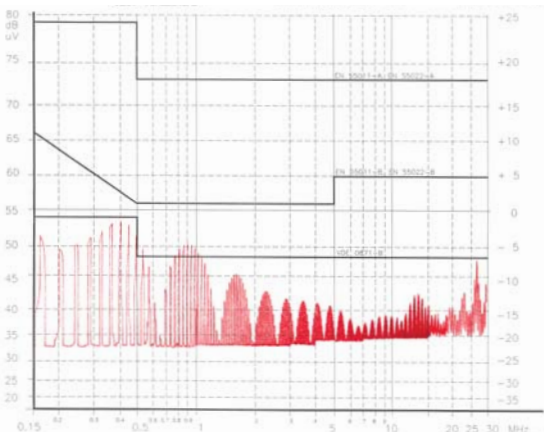
The **MSG 01** series has been developed for the supply of big inductivities (valves / magnet switches). Used is the SYKO-patented and the protection of utility patented Regenerator-topology with constant current feeding against the complex resistance (L/R). The logistic advance of the extreme wide input voltage range, the EN50121/155 railway standard compliance, and the high functionality (Inhibit/short circuit protection, under voltage protection, emergency fuse, surge protection etcetera) lead into the converter's high system suitability.

By connecting the input voltage  $U_{in}$ , the coil is activated with the attraction-current and switches over to the holding current after the programmed time.

With SM = open the inductivity is inactive and can de-magnetize fast over the diode DE and the resistor RE. An auxiliary voltage  $U_{cc}$  with 3,3V / 20mA is put to the customer's disposal.



**Measurement of radio interference**



**Applications**

- High voltage / High power switches
- High power relays
- Magnetic valves