

## Thyristor Controllers SGP 160 – 2,5 ... 16

5.01

### Features:

- ☒ for motors with external and permanent excitation
- ☒ one-quadrant operation
- ☒ control range with armature voltage control 1:30
- ☒ control range with tachometer control 1:100
- ☒ degree of protection IP 00



Thyristor Controllers  
SGP 160 – 2,5 ... 16



### Function:

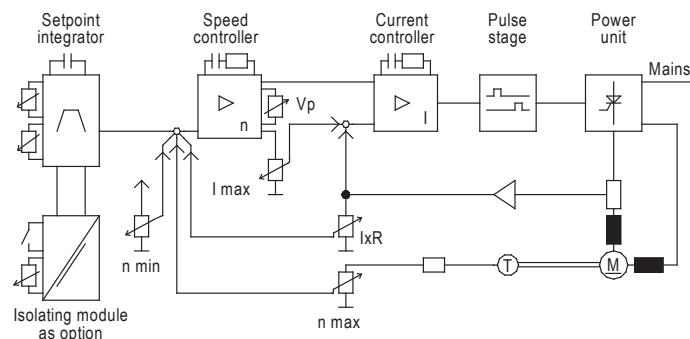
- ☒ half-controlled symmetrical bridge circuit with excitation voltage source
- ☒ adjustable current controller and thus very suitable for permanently excited motors

### Typical Applications:

- conveying systems
- printing machines
- pumps
- rotary table drives
- welding wire feed mechanisms
- packaging machinery

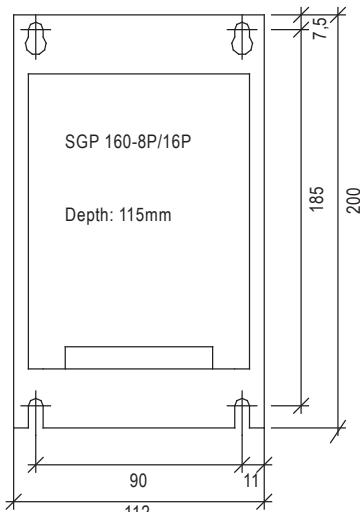
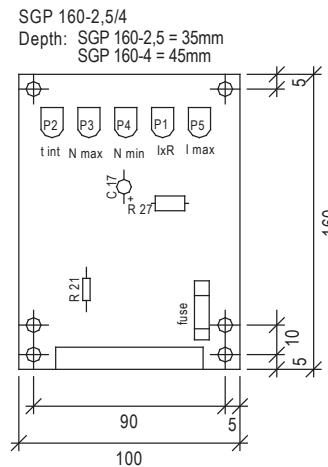
### Options:

- ☒ with isolating module (P)
- ☒ pluggable with pin connector DIN 41617 (ST)
- ☒ pluggable with isolating module (ST/P)



Typical designation	SGP 160-2,5	SGP 160-4	SGP 160-8P	SGP 160-16P
eff. armature current	2,5A	4A	8A	16A
max. motor shaft power	0,25kW	0,37kW	0,9kW	1,8kW
operating voltage acc. to DIN EN 50160 (IEC 38)	230V + 15% 50/60Hz			
order number	22300.22002	22300.22004	22311.22008	22311.22016
recommended mains filter	27000.25003	27000.25006	27000.25010	27000.25020

Technical data	SGP 160-2,5	SGP 160-4	SGP 160-8P	SGP 160-16P
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<b>eff. armature current</b>	2,5A	4A	8A	16A
<b>max. motor shaft power</b>	0,25kW	0,37kW	0,9kW	1,8kW
<b>armature voltage</b>		0 ... 180VDC		
<b>excitation voltage / current</b>	200VDC / 0,5A		200VDC / 1A	
<b>control characteristics</b>				
<b>with I x R compensation</b>		1: 30 / ±3%		
<b>with tachometer control</b>		1: 100 / ±1%		
<b>setpoint input</b>		0 - 10VDC		
		5 - 10kΩ potentiometer		
<b>actual value input</b>		12 - 300VDC depending on adaptation		
		Factory-adapted to 160V armature voltage		
<b>connection</b>	16-pole terminal strip, 1,5mm <sup>2</sup>	Control unit: 6-pole terminal strip, 1,5mm <sup>2</sup> Power unit: 6-pole terminal strip, 1,5mm <sup>2</sup>		
<b>ambient / storage temperature</b>	0 ... 45°C not subject to moisture condensation	-25°C ... 75°C		
<b>cooling</b>		convection		
<b>temperature-dependent power reduction</b>		2% / °C above 45°C...max. 55°C		
<b>weight / kg</b>	0,25	0,3	1,1	1,3

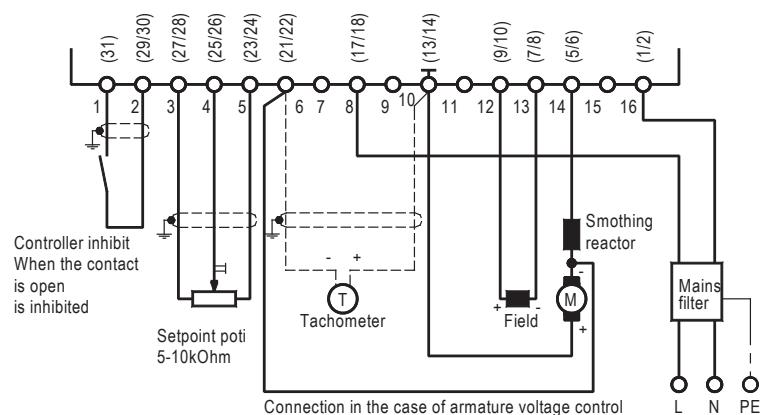
**Dimensions:**

All dimensions indicated in mm

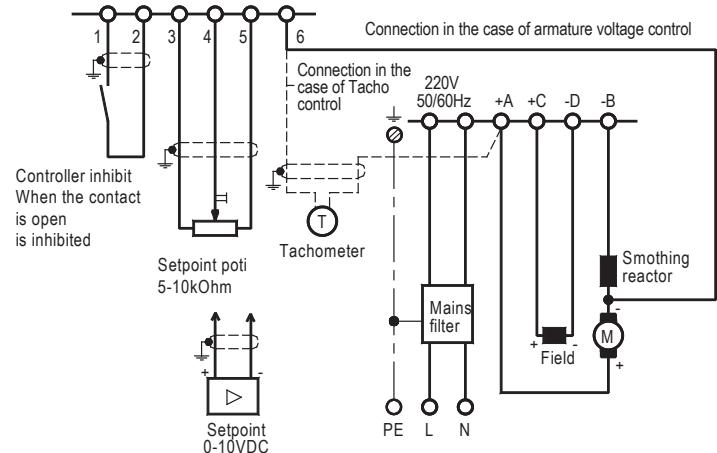
**Connection Diagrams:**

SGP 160-2,5/4

Plug-connector version indicated in brackets



SGP 160-8/16P

Connection Control unit  
(6-pole terminal strip)Control Power unit  
(6-pole terminal strip)

To ensure a good commutation and a long service life of the carbon brushes,  
we recommend to use a smoothing reactor in the case of thyristor controllers.