

# 12V40 SG

## OEM Piezo Controller



12 VDC or 24 VDC main voltage



40 mA permanent output current



1-channel OEM piezo controller



Modulation input,  
monitor output



Image: 12V40 SG (screw slot casing)

The 12V40SG and 24V40SG piezo controller series from piezosystem jena are especially made for piezoelectric actuators used for nanopositioning tasks in the industrial field.

The SG version of the controller series comes with a sensor controller module. The 12V40 and 24V40 SG versions are especially made for use in combination with piezoelectric actuators equipped with an integrated feedback sensor. Piezoelectric actuators can be controlled with the highest positioning accuracy possible and repeatability in the nanometer range. The piezo controller offers the user the choice to control a piezoelectric element manually or via an analog modulation input with a signal of 0 to 10 VDC with a nearly unlimited step resolution. To support industrial use, all operational elements from the front panel are also available on the rear side. Due to their design and small dimensions, the piezo controllers from the 12V40 and 24V40 series are well suited for nanopositioning tasks for industrial applications as well as for simpler laboratory setups made for scientific applications.

### Specifics:

- 1-channel OEM piezo controller
- Compact dimensions
- 40 mA permanent output current
- Protected by a robust metal casing
- 12 V DC main voltage
- Modulation input
- Monitor output

### Specials:

The piezo controllers in the 12V40 and 24V40 series have a robust metal casing. The casings are available as a screw slot version to support stand-alone application and as a 19"-Rack mount version for system integration. The DC offset level used to control the piezoelectric actuator is adjustable with a  $\frac{3}{4}$  turn potentiometer on the front side and by an analog modulation input signal of 0 to 10 VDC.

### Applications

- Pick & place automation
- Valve and gripper technology
- Fiber alignment

# 12V40 SG & 24V40 SG

## Technical Data

	Unit	12V40 SG <i>(with sensor feedback controller)</i>		24V40 SG <i>(with sensor feedback controller)</i>	
Part no	-	E-440-111	E-440-112	E-440-131	E-440-132
Casing style	-	screw slot version	19"-rack mount module	screw slot version	19"-rack mount module
Number of channels	-	1	1	1	1
Display	-	no	no	no	no
Main supply voltage	V	12VDC	12VDC	24VDC	24VDC
Output voltage signal	V	-10...150			
Output current (permanent)	mA	40			
Voltage noise	mV	< 0.3mV <sub>RMS</sub> @500H			
Piezo connector	voltage	LEMO 0S.302			
	sensor	LEMO 0S.304			
Sensor controller	-	yes			
PC interface	-	no			
DC Offset	-	¾ turn potentiometer front panel			
Modulation input	V	0...+10V (front and rear panel)			
Modulation input impedance	kOhm	10			
Monitor output impedance (typ.)	Ohm	50			
Monitor output	V	-1...+15 front panel / 0...+10 rear panel			
Working temperature range	°C / °F	5 - 35°C (41F - 95F)			
Specials	-	power on delay, overdrive protection			
Dimensions (L x W x H)	mm	182.5x130x45	182.5x105x48	182.5x130x45	182.5x105x48

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