

12V40

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 (screw slot casing)

The 12V40 controller is designed for piezoelectric actuators used in nano-positioning tasks for industrial applications. Different types of casing, with and without screw slots, and a 19" rack mount version are available.

The 12V40 requires a main supply voltage of 12 V DC. The piezo controller offers the user the choice to control a piezoelectric element manually or via analog modulation input with a signal of 0 to 10 V DC – with a nearly unlimited step resolution. To support industrial use, all operational elements from the front panel are also available on the rear panel. All sockets are also available on the back so that the amplifiers can be easily integrated into an OEM product line. The output voltage can be supervised on the monitor output. Special circuits are integrated to protect the piezo element from voltage spikes and excessive voltages.

These amplifiers are well suited for sub-nm positioning tasks due to a very low voltage noise of only 0.3 mV rms.

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

Applications

- Pick & place automation
- Valve and gripper technology
- Switching technology

12V40

Technical Data

	Unit	12V40 (without sensor controller)			
Part no	-	E-440-011	E-440-012	E-440-031	E-440-032
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 _{RMS} @500H			
Piezo connector	voltage sensor	-	LEMO 05.302		
Sensor controller	-	no			
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.)	kOhm	100			
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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