# FSC230/10

10A, 230V

Fan and Pump Speed Controller with Signal Input

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# **KEY FEATURES:**

- Standard Din Rail mount for easy installation
- Phase angle control for precise regulation
- Integral protection for added safety.
- Built-in snubber network for enhanced control
- Compatible with input signals or Potentiometer (0-5/0-10VDC 4-20mA)
- Adjustable output power span and zero (Min Speed Set)
- Power and status LEDs for clear monitoring
- Supports loads up to 10A
- Equipped with a built-in heatsink for efficient operation.
- Integral RFI Filter.

#### **APPLICATIONS:**

Suitable for most simple mains-driven motors and fans.

Introducing our variable phase-angle regulator, designed for 230V, 10A singlephase mains driven inductive loads like induction motors, fans, and pumps. Enjoy fully adjustable voltage outputs from zero to maximum, alongside an integrated RC snubber network for precise control of inductive loads and a zeroset speed adjuster to prevent motor sluggishness.

Featuring a large triac for handling high inrush currents, this regulator ensures safety in industrial installations.

Upgrade your control system with our versatile variable phase-angle regulator, designed for optimal performance and safety in industrial settings.

## **TECHNICAL SPECIFICATIONS**

Mains supply +/- 10% @ 50Hz	230VAC
Maximum rms on-state current	10A
Minimum operating current	200mA
TRIAC limiting rms on state current	25A
Peak one cycle surge @ 10mS	250A
I²t for fusing	112 A²s
Isolation voltage	2500V rms
Maximum recommended unit temperature	70°C
Minimum Signal Range	0-4V dc
Maximum Signal Range	0-25V dc
Signal zero offset (Min Speed)	+60% and -40% of Span
Manual potentiometer	5kΩ Typical
Signal input resistance	5kΩ ("V" Signal), 250Ω ("mA" Signal) ±10%
Trigger isolation voltage	2500V ac (RMS)
Trigger pulse rating	250mA in to 10Ω
Storage temperature	0°C to +65°C
Max ambient operating temperature	70°C
Dimensions (Inc DIN Enclosure)	127mm (D) by 72mm (H) by 94mm (W)
Controller Heat Dissipation	1W/A

#### YOU MUST READ THIS BEFORE INSTALLATION



**ELECTRICAL SAFETY** 

WARNING: RISK OF ELECTRIC SHOCK Always consult the Installation & Maintenance Instructions before connecting this product to the power supply. **WARNING: Disconnect Power Before Servicing** Ensure the electrical supply is safely disconnected before connecting to any supply, load, or control terminals



INSTALLATION REQUIREMENTS

INSTALLATION REQUIRE
WARNING: Installation by Qualified Personnel Only

This product must only be installed or fitted by a competent, qualified installer familiar with the relevant electrical standards and installation practices.



USER RESTRICTIONS

WARNING: Not for Use by Vulnerable Individuals This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and by a person responsible for their safety.



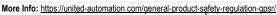
USAGE ENVIRONMENT

WARNING: Industrial Use Only This is an industrial-grade product and is not intended for household



HOT SURFACE WARNING

WARNING: Hot Surfaces On certain models, surfaces marked with this symbol become hot during use. Avoid direct contact and follow all

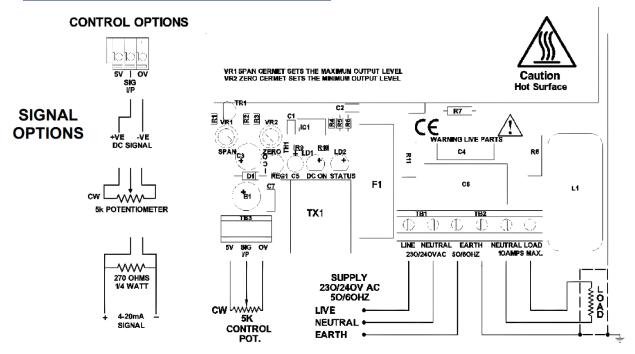




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#### **INSTALLATION - DIMENSIONS & CONNECTIONS**



# **SETUP AND OPERATION**

# INPUT SIGNAL TERMINALS (5V, SIG I/P & 0V)

The FSC230/10 supports the industry-standard signals inputs of 0-5V/0-10Vdc and 4-20mA signal or a manual potentiometer.

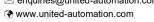
## SPAN AND ZERO ADJUSTMENT

The Span and Zero cermets (VR2 & VR3) allow the user to set the minimum and maximum output voltage in relation to the input signal range [see Typical Control Options].

# **LED INDICATORS**

The FSC230/10 has two LED indicators. The green 'DC ON' is lit when power is supplied to the FSC230/10 and the red 'STATUS' illuminate proportionally in respect to the output.











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## **RECOMMENDATIONS**

# **FUSING**

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor - MCB) for unit protection. On initial switch on some loads may need an increased Factor of Safety (F of S) for unit and/or device protection. See SRA datasheet for information.

# **DOCUMENTS**

Other documents available on request, which may be appropriate for your application:

Code	Identity	Description
X10213	ITA	Interaction: Uses for phase angle and for burst fire control
X10255	SRA	Safety Requirements: Addressing the Low Voltage Directive (LVD) including, Thermal Data/Cooling, Live Parts Warning, Earthing Requirements and Fusing Recommendations

It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.T. regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding the safety of electrical equipment. For International standards refer STANDARDS on D of C.

#### **OPTIONAL EXTRAS**

<b>Product Code</b>	Product Description
A403001	Manual (5K) Potentiometer Knob and Leads
L60018	PR Dial (0-10)

## PRODUCT CODE AND RELATED PRODUCT CODE

230V 10A		
<b>Product Code</b>	Product Description	
A72290	FSC230/10 10A - 2.4kW 230v Fan Control Din Rail with RFI	

Note: FSC230/10 - Custom line voltages are available.





