

# FC230/10-300

Document: X10784

Revision: 3

Date: 24/10/2014

Page: 1 of 2

# 10A Fan and Pump Speed Controller with Signal Input

# **FEATURES**

- Standard Din Rail mount
- Phase angle control
- Integral Protection
- Built in snubber network
- Input signal or Potentiometer (0-5/0-10VDC 4-20mA)
- Output power span and zero (Min Speed Set)
- Power and status LEDs
- Up to 10A Load
- Built in Heatsink



#### DESCRIPTION

This variable phase-angle regulator has been designed for 230V, 10A single phase mains driven inductive loads, such as induction motors, fans and pumps giving fully adjustable voltage outputs from zero to maximum.

The controller has an integrated RC snubber network for control of inductive loads and a zero set speed adjuster to allow the designer/installer to fix a maximum and minimum output voltage level to prevent a motor being driven too slowly.

The large triac enables the unit to handle high inrush currents with ample safety margin on industrial installations.

# **SPECIFICATION**

Mains supply +/- 10% @ 50Hz 230VAC Maximum rms on-state current 10A 200mA Minimum operating current Triac limiting rms on state current 25A Peak one cycle surge @ 10mS 250A 112 A<sup>2</sup>s I<sup>2</sup>t for fusing Isolation voltage 2500V rms Maximum recommended unit temperature 70°C 0-4V dc Signal span minimum Signal span maximum 0-25V dc

Signal zero offset +60% and -40% of Span

Manual potentiometer  $5k\Omega$  Typical

Signal input resistance  $5k\Omega$  ("V" Signal),  $250\Omega$  ("mA" Signal)  $\pm 10\%$ 

 $\begin{array}{ll} \mbox{Trigger isolation voltage} & 2500\mbox{V ac (RMS)} \\ \mbox{Trigger pulse rating} & 250\mbox{mA in to }10\Omega \\ \mbox{Storage temperature} & 0^{\circ}\mbox{C to }+65^{\circ}\mbox{C} \end{array}$ 

Max ambient operating temperature 70°C

Dimensions (Inc DIN Enclosure) 122mm (D) by 70mm (H) by 56mm (W)

# **APPLICATION**

Suitable for most simple mains driven motors and fans.

## **SETUP & OPERATION**

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

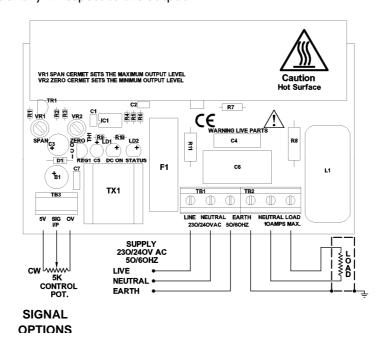
The FSC230/10 supports the industry-standard signals inputs of 0-5V/0-10Vdc and 4-20mA signal or a manual potentiometer.

#### 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.



## SAFETY RECOMMENDATIONS

#### **INSTALLATION**

It is recommended that installation and maintenance of this equipment should be carried out by suitably qualified/trained personnel with reference to the current edition of the I.E.E. wiring regulations (BS7671)

The regulations contain important requirements regarding the safety of electrical equipment. For International

Standards refer to I.E.C/ Directive IEC 950.

#### WARNING

- 1. LIVE terminals Isolate supply before commencing any installation work.
- 2. Unit must be secured on symmetrical 35mm DIN rail DIN rail using the DIN-Housing Supplied.

## ORDERING INFORMATION

Part No: FPSC230/10 Stock Code: A72290

NOTES \*Custom line voltages are available on request

Southport Business Park, Wight Moss Way, Southport, PR8 4HQ