

Multichannel - Temperature - Controller FP08



1. Introduction

The Multi-Channel-Controller **FP08** is a consequent addition to the existing Multi-Channel-Systems of **FELLER ENGINEERING**. Like the modular system FP16 the **FP08** is developed as an intelligent subsystem for higher level computers.

The unit is designed to meet the high requirements of machine industry. Increasing numbers of control zones, bus capability in conjunction with customised control platforms and cost-saving aspects forced to develop this extremely good valued product.

Preferred application: packaging machines, injection molding, extruders, large blow moulding machines, presses etc.

2. Description

The **FP08** can control 8 independent temperature control loops. It is designed as a 3-point controller, ready to handle 2 switching outputs (heating / cooling) per circuit. Refresh rate for all zones is 1 sec.

The unit has no manual operator controls. Configuration and data transfer are only handled via a bus capable RS485 interface. Up to max. 30 units **FP08** can be connected to one RS485 bus to extend a system. Several other bus protocols are available.

Switching cycles are adjustable separately for heating and cooling, to allow adaption to slow switching devices (relays). For different cooling systems two modes are available, continuous cooling or injection cooling.

A FUZZY-logic based self-parameterization supports fast and easy system configuration using several application related actions. For slow loops (e.g. extruders) the tuning method „Start-up trial“ for the configuration of heating parameters and the method „Drop-set-test“ for the configuration of cooling parameters may be used. For fast loops (e.g. hot channel applications) the method „oscillation test“ is provided.

This differentiating parameterisation technique is based on FUZZY-structures. Thus will put in question occasionally the PID-control and use, as result of the optimizing calculations a PI-control, eventually in conjunction with a start-up ramp function. This is the result of many years of application oriented engineering and development.

More useful features complete the power of the **FP08**. A sensor short circuit detection for thermo-couples is included as well as a detection of defective (short circuit) power switching devices resp. blown fuses. An optional feature is the addition of an external disturbance value. This may optimize the product quality of cyclic processes.

Another special feature is that the inputs are totally free configurable by software. This allows to select either thermo-couple (Fe-CuNi / NiCr-Ni) and / or 0-10VDC inputs

As the unit is designed without keypad and display, it's concept is to be mounted "hidden" in a cabinet. Special mounting brackets allow mounting directly to the cabinet's backplane. This will reduce wiring.

3. Price/Volumes

For price information please refer to the valid price pages for series ..08 products.

4. Delivery

Basic units are available within 2-3 weeks after receipt of a purchase order. For delivery of special units please contact our office.

5. Dimensions / Weight

W 57 x H 135 x D 175 mm,
Weight : approx. 0,700 kg.