



Features

- Provides rate and total information while controlling the flow rate of material into a process.
- Both Resetable and Non-Resetable Totals.
- Choice of Kgs/Hour or Tonnes/Hour feed rate control and display.
- Serial Communications via RS232/485 Interface.
- Out-of-Tolerance and Control Limit Alarms.
- Batch quantity feed control from preset Target Total.
- Analogue Remote Control option.

Description

The PR446 controls the feed rate of material from a conveyor belt by adjustment of the belt speed or by adjustment of material feed onto a fixed speed belt. It connects with 1 to 4 load cells fitted to the belt weigher mechanism from which it generates a calibrated weight signal. It also connects with a tacho from which it receives pulses in proportion to belt movement. From these two inputs and from calibration and control data held in its system memory it calculates the rate of flow of material over the belt.

Technical Data

Model No:

Model PR446-2 Basic (includes Serial Interface)

Model PR446A2 Basic + Analogue Remote Control Option from additional 4-20mA input

Add suffix 'D' for DC powered option.

Power Supply:

Universal fused power supply 85-264V AC or 10-36V DC. Internal Mains Fuse fitted. Power consumption 10VA

Load Cell Excitation:

10V DC @ 125mA max, 1 to 4 x 350 ohm load cells may be connected in parallel.

Load Cell Input Range:

0-20mV min, 0-2.5V max.
Filter adjustable 0.2 to 20Hz.

Tacho Input

Proximity Switch, 3 wire NPN.
Or Shaft Encoder, push-pull or open collector NPN.
Integral 12V DC power supply.
Range 0-500Hz

Accuracy:

Up to 16,384 +/-0.5 divisions.
16 bit 1:65,000 internal resolution.

Analogue Output:

4-20mA Active

Relay Outputs:

240V AC or 30V DC 5A rated.

Enclosure:

Panel mounting DIN case.
144mm wide x 96mm high x 132mm deep.
Panel cut-out 138mm x 92mm.
Optional IP65 transparent front cover is available upon request.

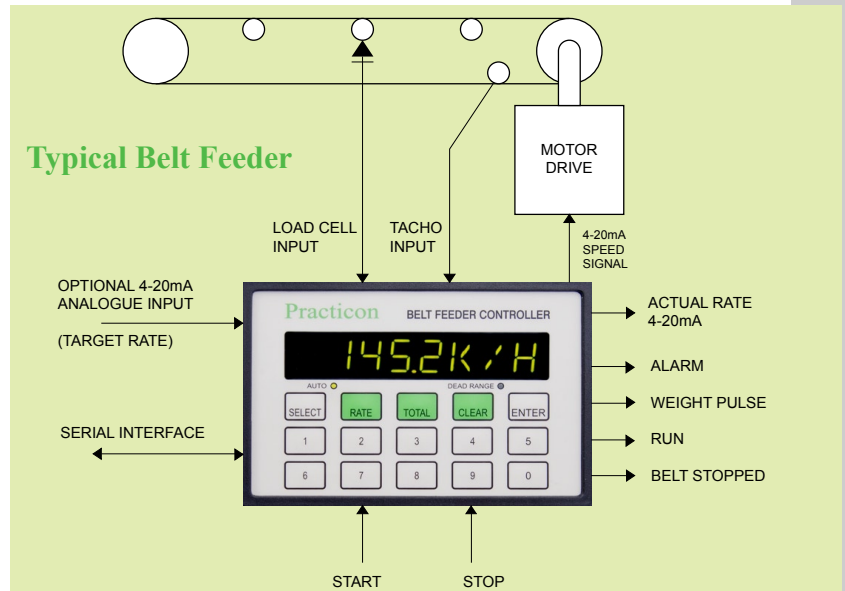
Environment:

Operate 0-50C, 20-80% RH
non-condensing.
Storage -40 to 80C

From the flow rate reading, it accurately controls a 4-20mA analogue output signal to the variable speed motor drive, achieving a pre-set target feed rate.

An additional 4-20mA output provides an actual feed rate signal, to PLC/computer or remote display.

The display may be selected to Actual Rate, Target Rate and Total at any time via the front panel keys. Access may be gained to the control and calibration data which is pass-number protected.



Serial Communications

RS232/485 serial interface provides:

- Multiple Feeder communication with host PC/PLC using a simple ASCII coded message protocol or Modbus ASCII or RTU.
- Master/Slave link between multiple PR446 Controllers in which the slave controllers have their target feed rates controlled by a master PR446.
- Continuous transmission of flow rate or totals to a remote display.
- Uploading/Downloading calibration and configuration data.

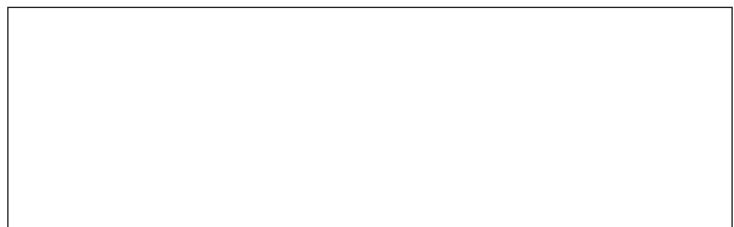
Analogue Remote Control Option

The PR446A provides an additional 4-20mA analogue input, which when configured will control the target feed rate.

Batch Control

The PR446 may be used to control the feeding of a preset quantity of material, output T1 operates as a belt run function and together with start/stop digital inputs provides the means of running the belt until the desired target quantity has been conveyed. The preset material target total may be entered via the keypad or downloaded via the Serial Interface.

Supplied by:



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