



## Features

- PROFIBUS-DP communications to PLC's and computers.
- Standardised Gain enabling replacement without the need for vessel emptying or re-calibration.
- Adjustable filtering, down to 0.2Hz, for elimination of the effects of mechanical vibration.
- DIN Rail or wall mount options.
- Security code protected calibration.

## Description

The PR486P connects with a single set of 1 to 4 strain gauge load cells. It supplies 10V DC excitation and amplifies and conditions the resultant return signal. From this signal and from stored control and calibration data it generates a Gross/Net Weight signal for display and for transmission to PLCs and computers via PROFIBUS-DP.

Two front panel entered preset Trip Flags with deadbands are also transmitted.

Front panel access to the control and calibration data is pass-number protected.

### Technical Data

#### Model No:

PR486P AC powered.  
Add suffix 'D' for DC powered option ie PR486P-D

#### Power Supply:

Universal fused power supply 85-264VAC, or 12-36VDC (PR486P-D only)

#### Load Cell Excitation:

10V DC @ 125mA max, 1 to 4 x 350 ohm load cells may be connected in parallel, 4 or 6 wire for volt drop compensation in long cables.

#### Input Range:

0-20mv min  
0-2.5v max

#### Filter:

0.2 to 20Hz active low pass.

#### Resolution:

Internal : 16,000,000 counts  
External: 65,000 divisions

#### Profibus Connection:

Via a fixed female 9 way D type connector. A loose matching male connector is supplied. The Profibus address is set in EEPROM via the front panel.

#### Enclosure:

DIN rail mounting IP30 protection  
140mm wide x 128mm high x 60mm  
Optional IP66 enclosure  
255 x 180 x 75mm

#### Environment:

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

Powerful 'System On Chip' technology provides 24 bit (16,000,000 counts) internal resolution, which combined with drift compensation, provides outstanding levels of accuracy and stability.

## Calibration

Calibration adjustments are performed by means of the four push-buttons in conjunction with the LCD display. There are no potentiometers and access to the inside is not required.

In addition to the conventional method, calibration can be achieved by entry of the precise sensitivity and capacity figures from the load cells. A calibration check facility is provided to verify the load cells and amplifier gain consistency.

Each PR486 is factory calibrated to have the same precise input range. This facilitates unit replacement, without the need for vessel emptying or recalibration, by entry of zero and gain coefficients.

The weigher may be calibrated using a single test weight; often of considerably lower weight than the weigher capacity. The data parameters and procedures are:

**ZR ZERO.** Operate ENTER then ZERO and ENTER again to zero the weigher.

**CA CALIBRATION.** Load known test weight, operate ENTER, use ▲, ▼, & ◀ keys to enter test weight value and ENTER again to complete the calibration.

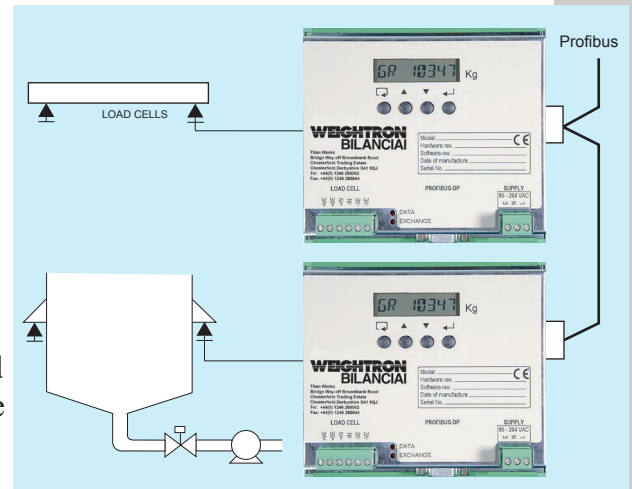
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## Profibus Communications

The following weigh data is accessible:

PROFIBUS MASTER INPUTS	OUTPUTS
Gross/Net Weights & 2 Trip Flags	Zero/Tare Flags

The high data rates (up to 12 MBaud) enable PLC's and computers to check weights at high rates and to exercise rapid control over material feeders to achieve accurate automatic weighing.



Supplied by:



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