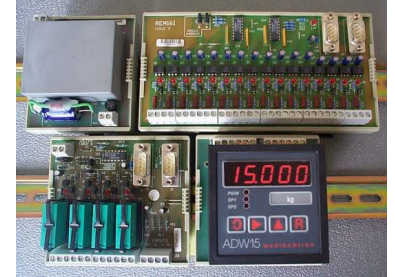


## Weighing Indicator/Controller for Fast Fill Operations

### Features

- Fast & accurate fill control
- Fast 10mS update input
- Fast & slow feeds
- System speed optimisation
- Auto tare
- Auto calibration
- Auto 'In Flight' compensation
- Weight complete output
- Stand alone or control with PLC
- Options for: Printer



- Communications 10 x Fill selections switching
- Totaliser output

### Introduction

This application is to control high speed, high accuracy filling by weight. Either in a stand alone mode or in conjunction with a PLC.

Operation:

On receipt of the start fill signal weightment is auto tared, and the relay contacts for fast and slow speed are closed, The system is optimised by a routine to ensure that, fast feed is held as long as possible. In-flight

compensation is applied to the slow feed and automatically adjusted to minimise final error.

When pre set values are reached, contacts turn off the fast and slow feeds.

The 'weight' complete signal is given when within pre selected setting values and time Auto Tare will take place only when the value falls within the pre set auto tare band.

### Specifications

#### Operating Instructions for Fast Fill Weighing Systems ADW-FFW

Code	Value	Display Range	Description
rEC	-	1 to 10	Current fill selectable (recipe) if available
Pass	-	1111	Password (customer select as standard optional extra)
tsp	Eng terms	± 19,999	Target Set Point
diF	Eng terms	± 19,999	Default In Flight (on slow feed)
FSP*	Eng terms	0 to 19,999	Fast Feed Set Point
*Selected for current fill (recipe).			
ot	-	0.0 to 25.5	Optimisation time (target slow feed)
IFS	-	0 - 25	Number of In Flight error samples
IFP	%	0 - 100	In Flight Gain adjustment
OtP	%	0 - 100	Gain of Fast Feed Setpoint
SEtb	Eng terms	± 19,999	Settle band for scale steady
St	Seconds	0-25.5	Scale steady settle time
Std	Seconds	0-25.5	Start delay for start contact to Fast & Slow feed output energising
POdF	Division	0-19999	Divides totalised pulse output by value set Pulse output
POd	m Seconds	1-255	duration, sets the mark/space ratio of pulse output
Atb	Eng terms	0-19,999	Auto Tare Band
ISP	Eng terms	±19999	Intermediate Setpoint
CALL	Eng terms	± 19,999	Low Calibration value
CALH	Eng terms	± 19,999	High Calibration value
dA	-	0 to 7	Display Averaging + Display freeze at weightment complete (7 = 10mS update)
-	-	8 to 31	Display Averaging with no Display freeze function on weightment complete
-	-	16 or Greater	Sets a NON Latching Intermediate Set Point
dP	-	0 to 5	Decimal Point position
CP	-	0 to 129	Comms Protocol
-	-	0 - 127 Printer	
-	-	128 Fast Format MANTRABUS	
SDST/Lab	-	129 ASCII	
-	-	0 - 254	Selects serial device station number or label type for printer
Ln	-	0 - 19,999	Log number for printer
rS	-	0 - 255	Set Display resolution

## Input Details

Calibration	Automatic digital by use of keypad and 1 (or 2) known weights. Manual calibration can also be selected	Compensation	By $\pm$ sense wires to compensate for cable, connection volt drops and any variation in 10V supply
Sensitivity	Preset via DIL switches between 0.5 to 200mV/V	Accuracy	90 days $\pm$ 0.08% of reading $\pm$ 0.05% of FS typical
Excitation	10V DC nominal, 150mA maximum	Drift	0.002%/C typical @ 2.5mV/V
		Input Filter	Programmable to average up to 64 display updates

## Output Details - The Relay Module (REM4)

The module consists of 4 relays rated at 230 volts 5 Amps - SPCO, DIN rail mounted for a G or top hat profile. Each relay is pluggable and connections are made by 12.5mm field screw terminals. Indication of relay status is shown by LED's. The module can be situated up to 2 metres from the ADW Strain Gauge Controller.

## Totaliser

Fast pulse for electronic counter output of 1 pulse per digit of 'Bagged' material.  
 ADW-FFW Pulse Output  
 5V CMOS output protected.  
 By 1K resistor  
 Pulse width = 300mS negative going

## Communications & Printer Port

20mA, RS485, RS232 set for Comms or Printer Port.

## Power Supplies

Order Code	Type
W240	220V-230V AC 50-60Hz 10W
W110	110V-120V AC 50-60Hz 10W
W12/24	9-32V DC 10W isolated

## Base ADW15

Displays 7 segment LED 4.5 digit 10mm.3 x 3mm LED's 2 for relay status, 1 for program and hold indication.

## Controls

4 membrane panel keys with tactile feedback. 1 scroll key to view/update parameter. 1 digit select key. 1 digit increment key. 1 reset key. Keypad disable by internal links behind front panel. Hold function by digit select key when in input mode.

## Data Retention/Protection

Retention: 10 years for set up values, minimum of 100,000 write cycles.  
 Protection of data and function(s): Watchdog timer giving repeat auto resets. Impending power detection and hold off. Keypad security and time out.

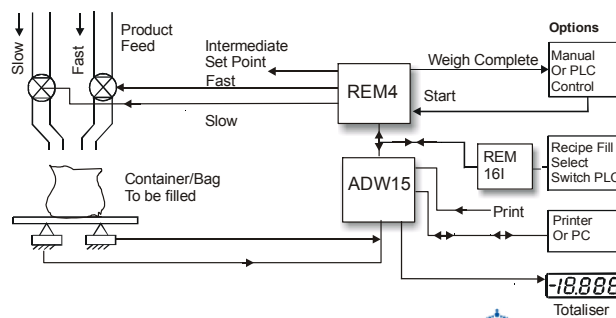
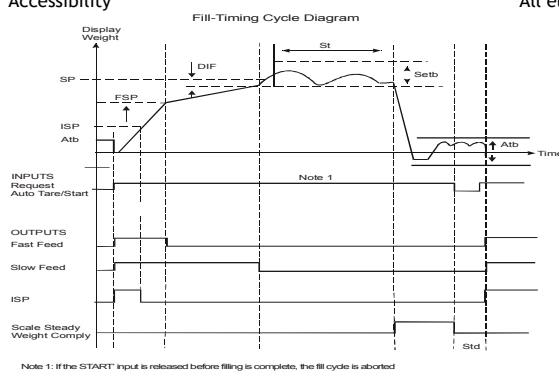
## CE & Environmental

Storage temperature	-20 to +70°C	European EMC Directive	2004/108/EC
Operating temperature	-10 to 50°C	Low Voltage Directive	2006/95/EC
Relative humidity	95% maximum non condensing		

## Physical

Case Dimensions  
 Case Material  
 Weight  
 Terminals  
 Accessibility

DIN 72 x 72 x 163mm (excluding mounting terminal)  
 Grey Noryl, flame retardant  
 750 grams  
 2.5mm, saddle field terminals  
 All electronics removable through front panel leaving field wiring and case in situ.



Designed, Manufactured & Supported in the UK



CE In the interest of continued product development, Mantracourt Electronics Limited reserves the right to alter product specifications without prior notice.