

AD-4325A/V

DIGITAL INDICATOR



AD-4325A

The AD-4325A and AD-4325V (vertical) are high performance weighing indicators that offer memory for 700 Setpoint Sets, Built-in Multi-Ingredient Batching 8 Loss-in-Weight applications, and networking capabilities in one economical, compact unit.

by

AND
A&D MERCURY PTY LTD



AD-4325V

HIGHLIGHTS

FAST

High speed sampling rate of 70 times per second exceeds most operational requirements.

EFFICIENT

- Compact rack or table mount enclosure. Terminal block connection for power, loadcell and control I/O Interface.
- Full Digital Calibration
- Easy-to-Operate System Diagnostics
- Wide Range of Selectable Operating Parameters
- Complete Operational Control via the Serial Interface
- Optional RS-422 Networking Capability, Up to 10 Units at 500m
- Optional Internal Relay Output Board for Direct Connection to External Field Devices

SETPOINT MEMORIES

Up to 100 coded sets of setpoint values can be stored into memory, and easily recalled from the front panel, personal computer (via serial interface), thumbwheel (via standard interface connector), or PLC.

The 100 coded memory information blocks (00 to 99) contain:

- Final Weight
- Free Fall
- Preliminary
- Over and Under Weighing
- Accumulated Weight and Count Totals for Each Set Point
- Data Backed Up in Memory for Up to 10 Years

SIMPLE OPERATION

Full Function Front Keyboard

- Easy Data Entry
- Keyboard Recalls Accumulated Totals
- Keyboard Recalls All Set Point Data

Serial Interface Integration

- Optional RS-232C or RS-422 Buffered Output
- Input Commands
- Change Set Point Parameters
- Retrieve Accumulated Totals

The AD-4325A and AD-4325V are designed for flexible operation. They may be used for normal batching or loss-in-weighing batching. Both may be operated in either the Fully Automatic Mode or User Programmed Mode. Fully Automatic Mode allows the batching operation to be started and completed automatically without the intervention or assistance of an operator.

User Programmed Mode allows the operator to have some control of the batching process, such as manually adjusting ingredients during the operation, or manually starting a new batch.

In either case, the programmability of the AD-4325A and AD-4325V allows the operator to enter settings that adjust the unit for almost any environmental factor. Additionally, Auto Zero Maintenance, Automatic Free Fall Compensation, and the Comparator Inhibitor Function, which guards against gate vibration, assure the user of accurate and reliable batching capability.

FEATURES

70/SEC.

70 Times/Second Conversion Rate

Ultra-fast 70 times/second conversion speed gives greater cut-off judgement accuracy, making the AD-4323 unrivalled when very rapid sampling is required.



RFI/EMI Screened

The analog front-end, and A/D conversion circuitry are shielded by an internal sealed metal case for high immunity against RFI/EMI interference to comply with International regulations and requirements.

Multi-Function Comparator

The AD-4323's built-in Comparator turns this indicator into a self-contained weighing controller. Five different comparator modes are available for complete flexibility in custom weighing system configuration.



Standard Current Loop

The Serial Output Connector can output data to a remote printer, display or scoreboard.

AFFC

Batch Weighing with AFFC™

Using the Built-In Automatic Weighing Program, 3-step gate control functions with Normal Batching (full flow, medium flow, dribble flow), or 2-step gate control functions with Loss-In Weighing Batching, make batch weighing a snap. Or, with the AD-4323's Customer Program Mode, computer programs can be used in conjunction with the comparator to customer-control any batch weighing system. Also, the Automatic Free Fall Compensation (AFFC) function can 'learn' the free fall value for even greater filling accuracy.



Watchdog™ Circuitry

Special circuitry monitors the CPU and automatically resets the unit for normal operation if a software crash starts to develop.

Optional RS-422A (Option-03)

Bi-directional RS-422A can be connected to virtually any computer, printer or other peripheral.

RS-232C

Optional RS-232C (Option-04)

Bi-directional RS-232C can be connected to virtually any computer, printer or other peripheral. A&D manufactures a number of excellent printers such as the AD-8118C.

FDC
Full Digital Calibration

FDC™ Full Digital Calibration

No need to repeatedly load and unload the calibration weight, FDC makes setting Zero and Span a breeze. Now with Fine Span adjustment. Calibration information is stored in nonvolatile memory.

BCD

Optional BCD Output (Option-01)

Parallel BCD Output to send weight data to a printer, score board or PLC (Programmable Logic Controller).

STANDARD

Standard Interface Connector

The Serial Output Connector can output data to a remote printer, display or scoreboard. Allows remote operation of the Zero, Tare and * keys.



Optional Analog Output (Option-07)

Output current of 4 to 20mA. Select: Net Data, Gross Data or Display Data as output.

SPECIFICATIONS

ANALOG & A/D CONVERSION	
Excitation	12V \pm 5%, 280mA, Remote Sensing Limiter for Overload, Maximum 8 x 350 Ω Loadcells
Input Sensitivity	Minimum of 0.3 μ V/Division
Maximum Input	36mV
Operating Modes	Single Range
Zero Cancellation	0.35mV/V to 24mV/V (Full Digital Calibration)
Span Adjustment	Full Digital Calibration Method
Non-Linearity	\pm 0.01% of Full Scale or Less
Temperature Co-Efficient	Zero \pm (0.2 μ V + 0.0008% of Dead Load)/ $^{\circ}$ C Span \pm 0.0008%/ $^{\circ}$ C of Reading
Input Impedance	10M Ω Minimum
Sampling Method	3 Phase, True Integrating Dual Slope Type
Input Noise	\pm 0.3 μ Vp-p or Less
Display Resolution	Up to 16,000 Divisions
Internal Resolution	96,000 Internal Counts
Overload Tolerance	Maximum Capacity Plus 9 x Divisions
Sampling Speed	Approximately 70 Times/Second
DIGITAL	
Main Display	13mm, 7-Digits, High-Intensity Cobalt Blue Fluorescent Tube
Setpoint Display	10mm, 2-Digits, Red LED
Under Zero Indication	"-" Negative Sign
Annunciators	Centre of Zero, Motion Detection, Net/Gross, Tare Entered, kg or t
Switches	Standby/Operate, Zero, Tare, Tare Cleared, Net/Gross, *
Count-By	1, 2, 5, 10, 20, 50
GENERAL	
Power	240VAC +10%/-15%, 50/60Hz
Memory Backup	10 Years or More Without Back-Up AC Power (Lithium Battery)
Operating Temperature	-5 $^{\circ}$ C ~ +40 $^{\circ}$ C
Storage Temperature	-15 $^{\circ}$ C ~ +70 $^{\circ}$ C
Operating Humidity	Less than 85% Relative Humidity (Non-Condensing)
Dimensions	AD-4325A: 270mm(W) x 120mm(D) x 234mm(H) AD-4325V: 144mm(W) x 240mm(H) x 233mm(D)
Panel Cutout	AD-4325A: 161mm +0.5/-0mm(W) x 115mm +0.5/-0mm(H) AD-4325V: 137mm +1.0/-0mm(W) x 232mm +1.0/-0mm(H)

OPTIONS

- OP-01 BCD Output
- OP-02 Relay Output
- OP-03 RS-422A Interface
- OP-04 RS-232C/Current Loop Interface
- OP-07 Analog Output (4-20mA Passive)

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