Specifications

ANALOG INPUT AND A/D CONVERSION

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Input Sensitivity	Greater than 0.6μV/d (d="min. division" or "graduation")
ZERO Adjustment Range	−6mV~+30mV
Load Cell Excitation	12V DC±5% 280mA (up to 8 load cells at 350Ω/load cell)
Zero Temperature Coefficient	±(0.2 μV+0.0008% of dead load)/°C
Span Temperature Coefficient	8ppm/°C of reading
Non-Linearity	0.01% of full scale
Input Noise	±0.3 μVp-p
Input Impedance	10M Ω (Min.)
A/D Conversion Method	3 phase, true integrating dual-slope type
A/D Resolution	330,000 counts (Max.)
A/D Conversion Rate	Approximately 16 times/second

DIGITAL SECTION

Weight Display	High intensity 7-digit, 13mm(h) blue fluorescent
Tare Display	High intensity 8-digit, 11mm(h) blue fluorescent
Display Resolution	20,000 counts (Max.)
Minimum Division	Times 1,×2, ×5, ×10, ×20, ×50
Maximum Display	"999950"
Under ZERO Indication	"–" minus sign
"ZERO" Annunciator	Center of ZERO (0±0.25D)
"MD" Annunciator	Motion Detection
"GROSS" Annunciator	GROSS Mode
"NET" Annunciator	NET Mode
"TARE" Annunciator	Tare is currently displayed
"UNDER" Annunciator	Weight value is under set lower limit
"ACCEPT" Annunciator	Weight is over set lower limit, under set upper limit
"OVER" Anunciator	Weight value is over set upper limit
"lb" Annunciator	Pounds displayed (lb or kg version)
"kg" Annunciator	Kilograms displayed
"t" Annunciator	Tonne displayed (kg or t version)
STANDBY/OPERATE Key	Activates display and functions
ZERO Key	ZERO's the display when stable
TARE Key	Tare when stable -in NET mode, display ZERO
GROSS/NET Key	Changes from "GROSS" to "NET" and vice versa
PRINT Key	Prints, or sends print command to printer via current loop OP-01 or OP-04
CODE Key	Records CODE information
ID/TARE Key	"STORE" mode: Stores TARE weight into memory "RECALL" mode: Recalls stored TARE weight from memory
CLEAR Key	CLEARS the stored TARE or CODE infomation
ENTER Key	ENTERS the display/moves to next level
M + Key	Adds displayed weight to memory
M – Key	Subtracts displayed weight from memory
TOTAL Key	Displays the TOTAL weight in memory
FEED Key	Paper feed (optional built-in printer, OP-08)

GENERAL

Power	100, 117, 220, 240V AC+10%/-15% 50/60Hz
Net Weight	Approximately 3.5kg (7.8lb)
Operating Temperature	-10°C~40°C (14°F to 104°F)
Storage Temperature	-15°C~85°C (-5°F to 185°F)
Operating Humidity	Less than 85% RH (Non- Condensing)
Physical Dimensions	310(W)×149(D)×192(H) mm 12.2(W)×5.9(D)×7.6(H) inches
Panel Cutout Dimensions	294+1.0/-0(W)×174+0.5/-0(H) mm 11.6+0.04/-0(W)×6.9+0.02/-0(H)inches
Memory Battery Backup	Lithium, over six years without AC power
Standard Accessories	Manual, Fuse, Capacity Sticker, Serial Connector, Load Cell Connector

Physical Dimensions

UNIT=mm/inches
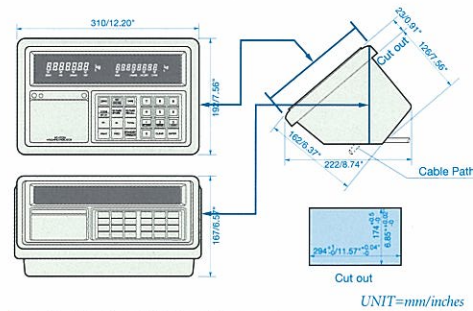
OPTIONS

Option-01	Parallel BCD (Binary-Coded-Decimal) output (DATA OUT). Output date: weight, NET/GROSS, MD Polarity, Decimal point, lb, kg (t), print trigger, overload.
Option-02	External I/O, Output of Comparator signals, Input of ZERO, TARE, NET/GROSS, PRINT STANDBY/OPERATE, TARE CLEAR
Option-04	Serial interface. Two types of serial interfaces are available with this option: 1) EIA-RS-232C (input/output) 2) 20mA current loop (passive) (output only) Baud rate & format identical to RS-232C.
Option-07	Analog output (4~20mA)
Option-08	Built-in printer with feed, 24 digit/line. Prints gross weight, net weight, tare weight (ID #), code#, total code total, number of weighings, time/date.
Option-09	Digital clock
Option-10	Panel mounting kit
Option-11	Wall mounting kit

Specifications subject to change for improvement without notice.

AD-4322A MKII

Weighing Indicator

- ●Advanced connectivity ●Total computer control
- ●100 coded memory locations ●50 ID locations
- ●Positive/Negative comparator
- ●Auto maintenance check mode

POWER SIMPLICITY SPEED

Plenty of Power to do the job;
simple enough to do it easily and the speed to do it quickly.
These are the requirements of today's high performance weighing indicators.
The AD-4322A MKII was designed to meet these requirements and more.

Power

High Display Resolution: — 1/20,000
Fast Sample Rate: — 16 times per second.
Advanced Connectivity:

- **Standard Serial Output:** — Printers, external displays, etc.
- **Parallel BCD Output Option:** — Sends weight data to printers, scoreboards & PLC's.
- **External I/O Interface Option:** — Input: Zero, Zero Tare, Tare Clear, Net/Gross, Standby/Operate, Print. Output: Under, Accept, Over.
- **RS-232C Interface Option:** — Selectable Baud Rate, Output Data, Output Mode, Output Availability, Print Interval.
- **Analog Output Option:** — Outputs data to any analog data compatible instrument. Range 4mA to 20mA.
- **Built-In Printer Option:** — Multiple printing format capability.
- **Digital Clock/Date Option:** — Data prints out with Day/Month/Year or Month/Day/Year.
- **Digital Filtration:** — Four levels of selectable stability filtration. Adjusts to any application.
- **Watch Dog Circuitry:** — Constant surveillance of the AD-4322A MKII operation to assure reliable operation.
- **RFI Protection:** — Protects the AD-4322A MKII from Radio Frequency Interference, IR-76 standards.

Digital Linearization
The AD-4322A MKII employs 3 point digital linearization to improve load cell linearity. This assures the user of maximum system accuracy.

Gravity Compensation
The force of gravity varies by location. As a result, a scale shipped from one location to another may display a different weight even though there is nothing wrong with the system or original calibration. This is particularly true when great distances are involved. Indicators without Gravity Compensation need to be re-calibrated at the users site to assure accurate weighing. The AD-4322A MKII is equipped with Gravity Compensation allowing the scale to be assembled and calibrated in one location and shipped to another without sacrificing accuracy. Entering the Gravity Compensation factor that corresponds to the user's site assures accurate weighing and eliminates the need for the costly transportation of calibration weights.

Tare Memory
Up to 50 tare values may be assigned ID numbers (8 digits) and stored in the Tare Memory. Tare values are entered by inputting a tare weight located on the weighing platform or pre-set through the 10 key pad. This feature speeds the weighing process by eliminating the need to re-tare the indicator with each change of tare weight.

Code Memory
In addition to Tare Memory, the AD-4322A MKII can store up to 100 eight digit codes, each containing Tare Weight Value, Low Limit Setpoint, High Limit Setpoint and Code Total, which accumulates all weighs for each specific Code. Code Memory greatly enhances operational efficiency by allowing code data to be pre-set without interfering with weighing operations during peak periods.

Comparator Function
In many cases it's not enough simply to weigh an item. Frequently, it is important to control weighing within pre-specified limits. This is done to assure high quality control standards and to control product give away. Incoming items frequently are check-weighed to confirm correct parts count. The Comparator Function available with the AD-4322A MKII displays "Under, Accept and Over" prominently on the indicator display, alerting the operator of the in-tolerance/out-of-tolerance status of the package being weighed. Comparator data can also be output to a computer or used for automated check-weighing operations.

Truck Scale Mode
The AD-4322A MKII Truck Scale Mode may be used either for standard truck weighing or in/out weighing. Enter the tare weight of preloaded trucks or recall previously entered tare weights and accumulated code totals from the 100 number Code Memory. Applications include sand and gravel operations that require multiple shipments and an end of the day tabulation by vehicle. Refuse transfer stations require weighing in a full truck, weighing it out empty and calculating the difference for billing purposes. Using the AD-4322A MKII in the Truck Mode easily accomplishes this task and the optional built in printer and optional clock give the user the added benefit of an instantaneous printout of the day, time and date, Code Number or I.D. Number assigned to the truck, the in-weight (Gross in), out-weight (Tare out) and amount off loaded (Net).
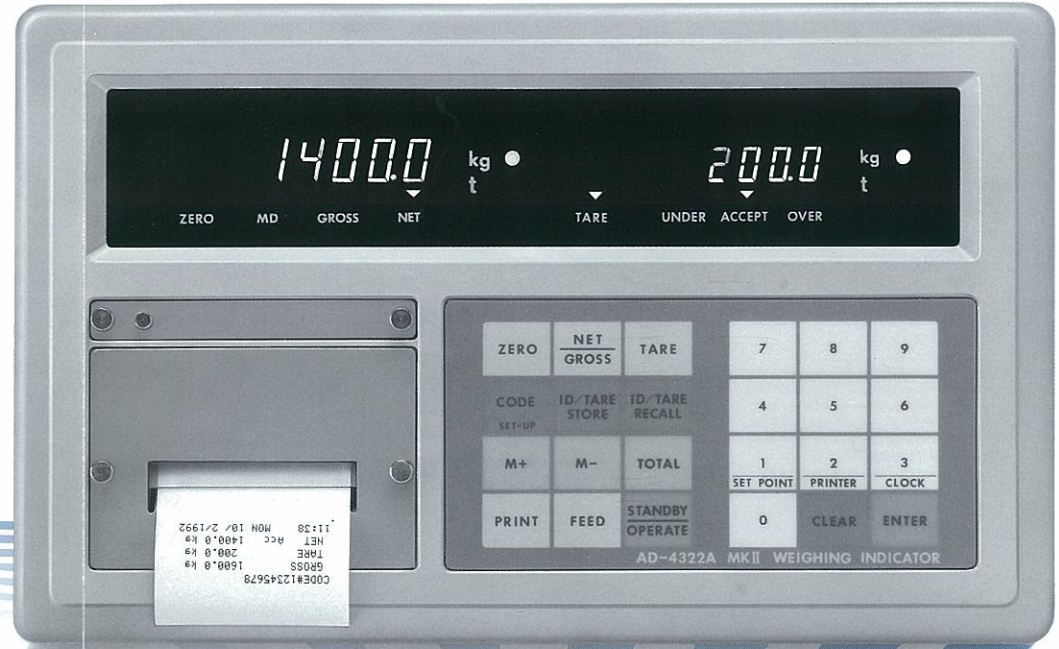
```
ID#       100
GROSS  IN    15620 kg
TARE   OUT   14520 kg
NET           1100 kg
10:15    MON   8/ 2/2000


ID#       101
GROSS  OUT   30930 kg
TARE   IN    15915 kg
NET          15015 kg
10:15    MON   8/ 2/2000
```

Simplicity

- **10-key pad for data entry:** — Accepts entry of all numerical data. Easy to read and operate.
- **Full Digital Calibration (FDC):** — FDC speeds the calibration process. Automatically adjusts span & zero.
- **Clearly Marked Annunciators:** — Zero, Motion Detection, Gross, Net, Lbs/Kgs, Tare, Under, Accept, Over.
- **Lbs/Kgs Conversion:** — Easily select Lb. or Kg. No need for re-calibration.
- **2 Weight Displays:** — Net or Gross Weight displayed on one and Tare on the other. Net/Gross key instantly displays all current weight data.
- **12 Key Function Selection:** — Clearly marked. All operations easily activated.
- **Auto Maintenance Check Mode:** — Designed to aid the maintenance technician in maintaining & troubleshooting the indicator. Greatly speeds & simplifies maintenance.

Speed
With a sample rate of 16 times per second, the AD-4322A MKII can easily meet user performance requirements, while the clearly laid out keypads and annunciators maximize speed and efficiency of operation.