AD-4961 SERIES
CHECKWEIGHER

EZI-Check™

A&D Inspection

0.00

A&D Inspection

...Clearly a Better Value

AD-4961 SERIES

A&D has redefined checkweighing with unparalleled simplicity and best-in-class precision.

» Best-in-class Precision

With a newly developed digital load cell and an ultra-high speed processing module, high level precision of 0.08g (3σ)*1 has been realized. With this high accuracy checkweigher, you can minimize the giveaway of materials above the specified weight and contribute to reductions in production costs.

» 7 inch color touch panel

The display utilizes a high visibility touch panel color LCD with friendly Graphic User Interface (audio guidance support function included).

» Image import from USB

Product images can be quickly uploaded to the checkweigher from a USB flash drive, making product identification and upload fast and simple.

USB flash drive

» IP65

Protected from dust and water to IP65 standards. Hygienic design with the entire system washable.

» Stores up to 1000 products

Products can be divided into 10 different groups with up to 100 products able to be recorded within each group.

» Lightweight and compact design

With it's modular structure, the AD-4961 allows for rapid and simple installation or relocation.

» Unique modular design

AD-4961 consists of four units: an infeed conveyor unit, a weighing conveyor unit, a control unit and a base unit, allowing fast and simple assembly. In the case of system shutdown, you do not need to wait for a service engineer to respond to the issue. Just simply replace the unresponsive module by yourself, so that you can shorten system downtime and maximize production efficiency.

| Infeed Conveyor Unit | Weighing Conveyor Unit | Control Unit | Base Unit |

*1 For AD-4961-2KD-2035. Depends on the shape and the condition of the product and installation environment.

AD-4961-2KD-2035

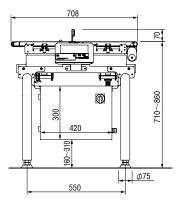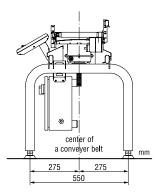Capacity **2,000g**   Conveyor beilt width **200mm**

Specifications

Model	AD-4961-2KD-2035
Capacity	500 g / 2,000 g | 1.1 lbs / 4.4 lbs
Resolution	0.01 g / 0.1 g
Accuracy (3σ)*¹	0.08 g / 0.18 g
Max. throughput	320 pcs/min
Coveyor belt width	200 mm | 7.8 in
Conveyor length	350 mm | 13.7 in
Transport medium	Urethane belt
Conveyor belt speed	15 ~ 120 m/min | 49 ~ 393 ft/min
Max. product dimensions	Length: 30 ~ 300 mm Width: 200 mm
	Length: 1 ~ 11.8 in Width: 7.8 in
Weighing sensor	Strain gauge load cell
Display	7 inch touch panel color display (WVGA)
Operation method	Touch panel (resistive film type), operation buttons
Number of recorded items	1,000 items (10 groups x 100 items)
Communication functions	Modbus TCP / Modbus RTU / RS-232C / 485 (seletable) / TCP/IP (PostScript Printer) / USB (for PostScript printer, USB memory, data storage, image import use)*³
External input	Non-voltage contact input 4 points
External output	Relay outut 8 points
Dust / water resistance specifications	IP65
Operation temperature / humidity range	-5 ~ 40°C / 23 ~ 104°F humidity below 85% (with no condensation)
Power supply*⁴	Single phase AC100V -240V (+10% / -15%), 50/60Hz 180 VA
External dimensions	Length: 700 mm / Width: 660 mm / Height: 710-860 mm
	Length: 27.5 in / Width: 25.9 in / Height: 27.9 - 33.8 in
Weight*²	Approx. 35 kg / 86 lbs
Material	Display: ABS resin
	Conveyor unit: Aluminum (alumite coating) and PP resin
	Control box: Stainles steel
	Base unit: Stainless steel

*1 Depends on the shape and the condition of the product and installation environment.
*2 Vaules for external dimensions and weight are for the standard condition without rejector.
*3 UBS memory must be formatted to FAT32.
*4 Please prepare a Φ 4-7 mm power cable

AD-4961-2KD-2035
Checkweigher with flipper rejector

*Side Grip conveyor is optional

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Options

Optional tower light and display stand installed

Display Stand
AD-4961-01

The display is attached on the opposite side from the standard display position, across from the user. The display is located approx. 310 mm (12 in.) above the conveyor belt

Tower Light
AD-4961-02

Highly visible three color LED tower. Easy configuration with the AD-4961 checkweigher using DO (Digital Output) map setting.

* AD-4961-01 display stand is required to install this option.
* Dust and water resistance level is IP53.

Upper Breeze Break
AD-4961-11

Anti-static breeze break prevents air currents to the weighing conveyor and static electricity to achieve accurate weighing. Clearance between the conveyor belt and the breeze break is 135 mm (5 in.)

* Recommended use with the lower breeze break.
* This option is for AD-4961-2KD-2035.

Lower Breeze Break
AD-4961-12

Prevents air currents from underneath the system to ensure accurate weighing.

* Recommended use with the lower breeze break.
* Material: Stainless steel
* This option is for AD-4961-2KD-2035.

Cross Plate
AD-4961-13

Eliminates gap between infeed conveyor and weighing conveyor and conveys product smoothly. Suitable for weighing small products.

* Material: Stainless steel
* This option is for AD-4961-2KD-2035.

Product guide
AD-4961-14

Installed on both infeed and weighing conveyors. Adjust products to be conveyed on the center of both conveyors. Applicable product width is from 500 mm (19 in.) to 100 mm (4 in.)

* This option is for AD-4961-2KD-2035.

Optional upper and lower breeze break installed

Unit Supply

» AD-4961-2K-WU	Weighing Unit		» AD-4961-UF	Attachment Brackets
» AD-4961-2035-MOB	Motor Base Unit		» AD-4961-2035-ICV	Infeed Conveyor Unit
» AD-4961-2035-WCV	Weighing Conveyor Unit		» AD-4961-2035-FP	Base Unit
» AD-4961-DISP	Color Touch Panel Display Unit		» AD-4961-81-2K	Photo Sensor with attachment
» AD-4961-CNT	Control Unit		» AD-4961-80-2K	Attachment for the Display Unit
» AD-4961-INF	Infeed Unit		» AX-KO4223-080	Motor Cable for the Infeed Conveyor

Maintenance Kit for AD-4961-2KD-2035

AD-4961-2035-MNT

The maintenance kit contains disposable parts that need to be replaced periodically.
These maintenance parts are easy to replace, so system downtime can be minimized.

Replacing a belt   Replacing a gear   Replacing a conveyor   Replacing a gear motor

The maintenance kit contains:

Qty: 1 - Weighing Conveyor Unit
Qty: 1 - Infeed Conveyor Unit
Qty: 1 - Photo Sensor without reflector
Qty: 1 - Drive pulley (balance adjusted)

Qty: 1 - Idle pulley (balance adjusted)
Qty: 1 - Motor Unit (including a plastic gear)
Qty: 5 - Plastic gears

» Optimization of weighing configuration By inputting throughput (products per minute) or belt speed (m.min), optimal weighing conditions can be automatically set. You can weigh products precisely without inputting various settings.

» History function

Operational History

The history of configuration changes can be recorded and displayed.
Suitable for use in HACCP programs along with the weighing history function.

Users can be registered and their scope of permitted operations controlled according to 4 management levels.

[Operator]

[Supervisor]

[Quality Manager]

[Administrator]

By assigning each user to the appropriate level of access, inadvertent operations can be avoided. *²

*2 "Operator" is set when the power is turned on.

Weighing History

Weighing results are automatically recorded in a USB flash drive during weighing. Output data: Date, time, group, and product number, weight data and judgments.

Weighing history output example:

```
2014/10/3, 19:45:52, 40, 01−001, 100.05, OK
2014/10/3, 19:45:56, 54, 01−001, 150.1, Over
2014/10/3, 19:46:00, 58, 01−001, 70.5, Under
2014/10/3, 19:46:04, 52, 01−001, 0.0, Detect Two
2014/10/3, 19:46:08, 56, 01−001, 0.0, Unsplit
2014/10/3, 19:46:12, 60, 01−001, 100.5, Metal
2014/10/3, 19:46:16, 54, 01−001, 105.1, Ext 1
2014/10/3, 19:46:20, 78, 01−001, 95.5, Ext 2
```

| Date | Time | Group / Product number | Weight | Judgment |

USB Memory

Approx. 6MB memory size is required for 8 hours operation at the maximum throughput (320 pcs/min.)

Approx. 7GB memory size is required for 24 hours 365 days operation.

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A&D's checkweigher can be used for connection and communication with external devices.

» Modbus® communication

Equipped with Modbus RTU/Modbus TCP as standard. With Modbus communication, seamless connection can be easily achieved. Operations such as stopping and starting weighing, collecting data and changing product can all be set from an external device.
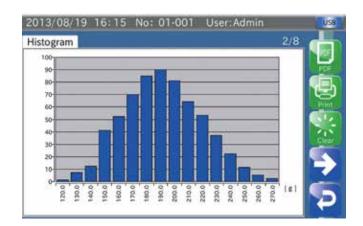
Ethernet

LCD Screen — Touch Panel PC — AD-4971 Metal Detector — AD-4961 Checkweigher

» Various inputs / outputs

Rejector output, alarm output, metal detector input, RS-232C, TCP/IP and USB interface are equipped as standards. Storing data in a USB flash drive or outputting data to a printer is also possible.

» Graph printing to a printer

Histogram, X/R control charts and summary reports can be outputted to a PostScript printer via Ethernet.
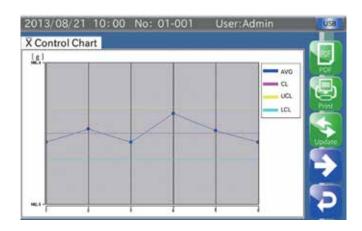
» Data summary

Various summary data such as histograms (frequency including defects), X charts, R charts, total summaries, etc., are available. You can visually confirm fluctuation of weighing results and adjust your manufacturing machine accordingly.

Histogram Display Screen

X̄ Chart Screen

Rejector for AD-4961-2KD-2035

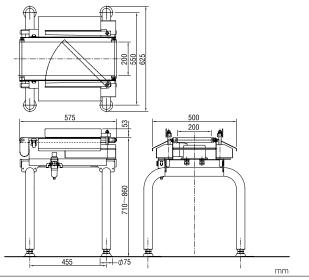*Please supply an air compressor with Φ 6 mm air tube or 1/4" quick connect to be connected to the filter regulator of the rejector.
 Air supply: 72.5 psi, 0.1 NL/time

Flipper Type Rejector
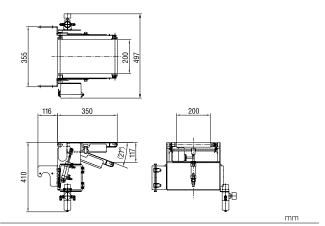
AD-4981-2057

Screening capability 120 pcs/min.

Rejection

Conveyor Drop Rejector

AD-4982-2035

Screening capability 150 pcs/min.
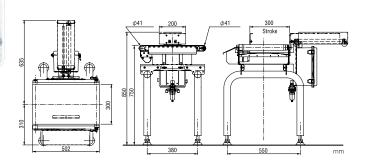

Out of range

Rejector for AD-4961-6K-3050

*Please supply an air compressor with Φ 8 mm air tube or 1/4" quick connect to be connected to the filter regulator of the rejector.
 Air supply: 72.5 psi, 0.1 NL/time

Pusher Rejector
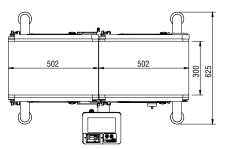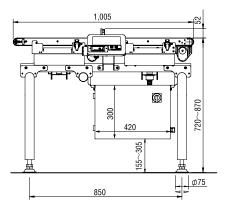
AD-4983-3050

Screening capability 60 pcs/min.

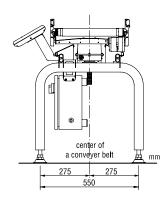Out of range

AD-4961-6K-3050

Capacity **6,000g**   Conveyor beilt width **300mm**

Specifications

Model	AD-4961-6K-2035
Capacity	6,000 g | 13.2 lbs
Resolution	0.1 g
Accuracy (3σ)*1	1.0 g
Max. throughput	145 pcs/min
Coveyor belt width	300 mm | 11.8 in
Conveyor length	500 mm | 19.6 in
Transport medium	Urethane belt
Conveyor belt speed	10 ~ 80 m/min | 32.8 ~ 262.4 ft/min
Max. product dimensions	Length: 80 ~ 450 mm Width: 300 mm
	Length: 3.1 ~ 17.7 in Width: 13 in
Weighing sensor	Strain gauge load cell
Display	7 inch touch panel color display (WVGA)
Operation method	Touch panel (resistive film type), operation buttons
Number of recorded items	1,000 items (10 groups x 100 items)
Communication functions	Modbus TCP / Modbus RTU / RS-232C / 485 (seletable) / TCP/IP (PostScript Printer) / USB (for PostScript printer, USB memory, data storage, image import use)*3
External input	Non-voltage contact input 4 points
External output	Relay outut 8 points
Dust / water resistance specifications	IP65
Operation temperature / humidity range	-5 ~ 40°C / 23 ~ 104°F humidity below 85% (with no condensation)
Power supply*4	Single phase AC100V -240V (+10% / -15%), 50/60Hz 180 VA
External dimensions	Length: 1005 mm / Width: 736 mm / Height: 720-870mm
	Length: 39.5 in / Width: 28.9 in / Height: 28.3 - 34.2 in
Weight*2	Approx. 50 kg / 110 lbs
Material	Display: ABS resin
	Conveyor unit: Aluminum (alumite coating) and PP resin
	Control box: Stainles steel
	Base unit: Stainless steel

*1 Depends on the shape and the condition of the product and installation environment.
*2 Vaules for external dimensions and weight are for the standard condition without rejector.
*3 UBS memory must be formatted to FAT32.
*4 Please prepare a Φ 4-7 mm power cable

**AD-4961-6K-3050
with optional display stand
tower light and pusher rejector**

RICE LAKE
WEIGHING SYSTEMS

230 W. Coleman St. • Rice Lake, WI 54868 • USA
TEL: 715-234-9171 • FAX: 715-234-6967 • **www.ricelake.com**

AND
A&D Inspection

1756 Automation Parkway
San Jose, CA 95131
(800) 726-3364 or (408) 263-5333
Email: info@andinspection.com
www.andinspection.com

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