

Intrinsically Safe Compact Balances

# EK-AEP

Series



EK-3000AEP



EK-300AEP



*Stay safe, stay connected,  
stay productive*

# Affordable, Convenient Explosion-Protected Balance With Optical Data Output Capability

The EK-AEP series of internationally certified, intrinsically safe\*<sup>1</sup> balances is compact, lightweight and economical, bringing ease and security to anyone who needs to perform precise weight measurement in potentially explosive and hazardous environments.

The EK-AEP series is equipped with an optical connector from which it can output weighing results to a device in a distant safe area via optical fiber cable and an AD-1611 optical communication adapter.\*<sup>2</sup>

\*1 Limits the energy available to a level insufficient to cause sparks or heat that can ignite flammable gases or vapors.

\*2 Both sold separately

## Areas in which the EK-AEP series is certified for safe use

	Flammable gases/ vapors present continuously	Flammable gases/ vapors present intermittently	Flammable gases/ vapors present only accidentally
IECEX ATEX FM/FMc (NEC505)	Zone 0	Zone 1	Zone 2
FM/FMc (NEC500)	Division 1		Division 2

IECEX: Ex ia op is IIB T3 Ga

ATEX:  II 1G Ex ia op is IIB T3 Ga

FM/FMc (NEC505): Class I, Zone 0, AEx/Ex ia op is IIB T3

FM/FMc (NEC500): IS / I / 1 / C,D / T3C

Tamb -25 to +40°C

You can comfortably bring the balance to locations where ignitable concentrations of flammable gases, vapors or liquids are present continuously or for long periods of time under normal operating conditions (i.e. Zone 0 or Division 1).

## Operation with off-the-shelf batteries\*<sup>3</sup> (life approx. 250 hours with backlight off)

This makes it unnecessary to secure power from a safe area via a safety barrier, allowing you to avoid the expense and inconvenience of special wiring installed by a qualified electrician. It also means that you can easily take and use the balance wherever needed.

\*3 To be used only with four DURACELL AA alkaline MN1500 LR6, ENERGIZER AA E91 alkaline LR6 AM3, or Panasonic AA alkaline LR6 (XJ) 1.5V batteries.

## AD-1611 optical communication adapter for data output (sold separately)

The AD-1611 receives optical data from the EK-AEP series and transmits electric signals to an external device such as a printer or PC through RS-232C or USB.\*4

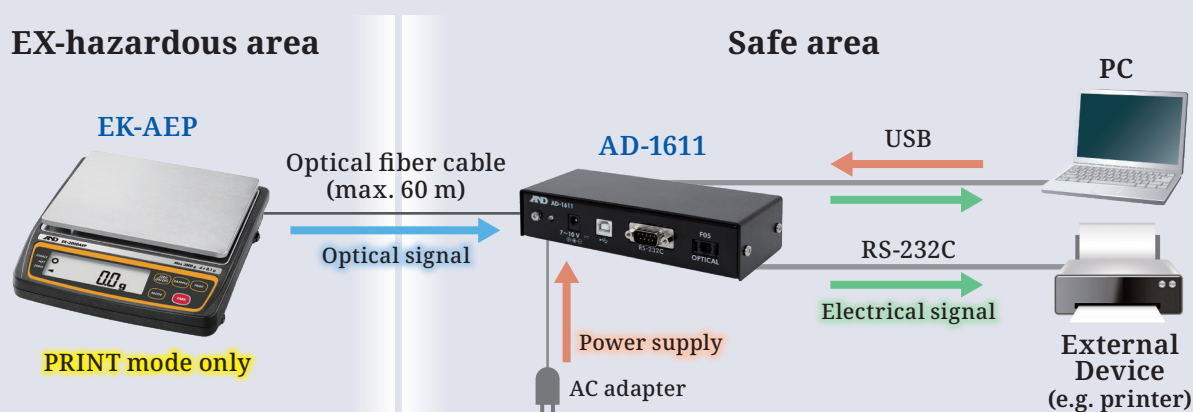
Three optical fiber cables of different lengths (10 m, 30 m, and 60 m) are available as accessories. You can select one that matches the distance between the balance and the AD-1611.



AD-1611

\*4 The communication is unidirectional and the AD-1611 cannot transmit commands from the external device/PC to the EK-AEP series. The AD-1611 itself isn't explosion-protected.

### Setup image



When the AD-1611 is connected to a PC via USB,\*5 the power is supplied from the PC and there is no need to use the AC adapter. (When the RS-232C is used, power needs to be supplied from the AC adapter.)

\*5 Only a PC can be connected to the USB port of the AD-1611. A USB cable (type B male - type A male, 1 m) is provided as standard.

### Other useful features

- ✓ GMP/GLP compliant output to meet documentation requirements
- ✓ Auto power OFF function to save battery power
- ✓ Easy-to-read LCD display with backlight (16 mm character height)
- ✓ Hygienic and chemically resistant stainless steel (SUS304) weighing pan
- ✓ Multiple weighing units: g, oz, lb, ozt, ct, mom, dwt, gr, N, in addition to pcs (counting mode), % (percent mode) and SG (specific gravity)\*6
- ✓ Comparator function for faster and more accurate filling, packing, sorting, etc.
- ✓ Response characteristics adjustable depending on the degree of drafts and vibrations at the location
- ✓ Security ring for wire-locking the balance to prevent theft

\*6 Either tl (tael) or tol (tola) can be added upon request.

## Specifications

EK-AEP Series		EK-300AEP	EK-3000AEP	EK-12KAEP
Weighing capacity		300 g	3000 g	12 kg
Minimum weighing value		0.01 g	0.1 g	1 g
Repeatability (standard deviation)		0.01 g	0.1 g	1 g
Linearity		±0.02 g	±0.2 g	±1 g
Sensitivity drift		±20 ppm/°C (10 to 30°C/50 to 86°F)		
Counting mode	Min. unit mass* <sup>i</sup>	0.01 g	0.1 g	1 g
	No. of samples	5, 10, 25, 50 or 100 pieces		
Percent mode	Min. % display	0.1%		
	Min. 100% reference mass	1 g	10 g	100 g
Display		7 segment LCD (character height: 16 mm) with backlight		
Display refresh rate		Approx. 10 times/second		
Operating temperature and humidity		0 to 40°C/32 to 104°F, 85% RH or less (no condensation)		
Battery life		Approx. 250 hours (with four AA alkaline batteries* <sup>ii</sup> , backlight off)		
Weighing pan size		Ø110 mm	133 × 170 mm	
Dimensions		190 (W) × 218 (D) × 54 (H) mm	190 (W) × 218 (D) × 53 (H) mm	
Net weight		Approx. 1.2 kg	Approx. 1.5 kg	
Calibration weight* <sup>i</sup>		300 g	3000 g	10 kg

\*<sup>i</sup> Factory setting

\*<sup>ii</sup> To be used only with four DURACELL AA alkaline MN1500 LR6, ENERGIZER AA E91 alkaline LR6 AM3, or Panasonic AA alkaline LR6 (XJ) 1.5V batteries.

## AD-1611

Power supply	AC adapter or USB
Operating temperature and humidity	-10 to 40°C/32 to 104°F, 85% RH or less (no condensation)
Baud rate	According to the value set on the balance
Receiving connector	F05 (IEC 60874-17, F05 type)
Sending connector	RS-232C (D-Sub 9 pin) or USB (type B)
Optical transmission distance	Max. 60 m (no extension available)
Dimensions	160 (W) × 58 (D) × 38 (H) mm
Net weight (main unit only)	Approx. 380 g
Standard accessories	AC adapter, USB cable

## Accessories

- AX-KS5456-010 Optical fiber cable (10 m)  
 AX-KS5456-030 Optical fiber cable (30 m)  
 AX-KS5456-060 Optical fiber cable (60 m)



AX-KS5456-030



## Discover Precision

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