

Affordable, Intrinsically Safe Balance with Optical Data Output Capability

The EK-AEP series of internationally certified, intrinsically safe*¹ 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.

*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

	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

The balance can be used in locations where ignitable concentrations of flammable gases, vapors or liquids are present for long periods. (i.e. Zone 0 or Division 1).

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



Optical Interface

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 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. Three optical fiber cables of different lengths (10 m, 30 m, and 60 m) are available as accessories.

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



KEY FEATURES:



Intrinsic Safety



External Calibration



LCD Backlight



Normal Battery



Optical Communication

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 ^{*i}	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 ^{*ii} , 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 ^{*i}		300 g	3000 g	10 kg

*i Factory setting

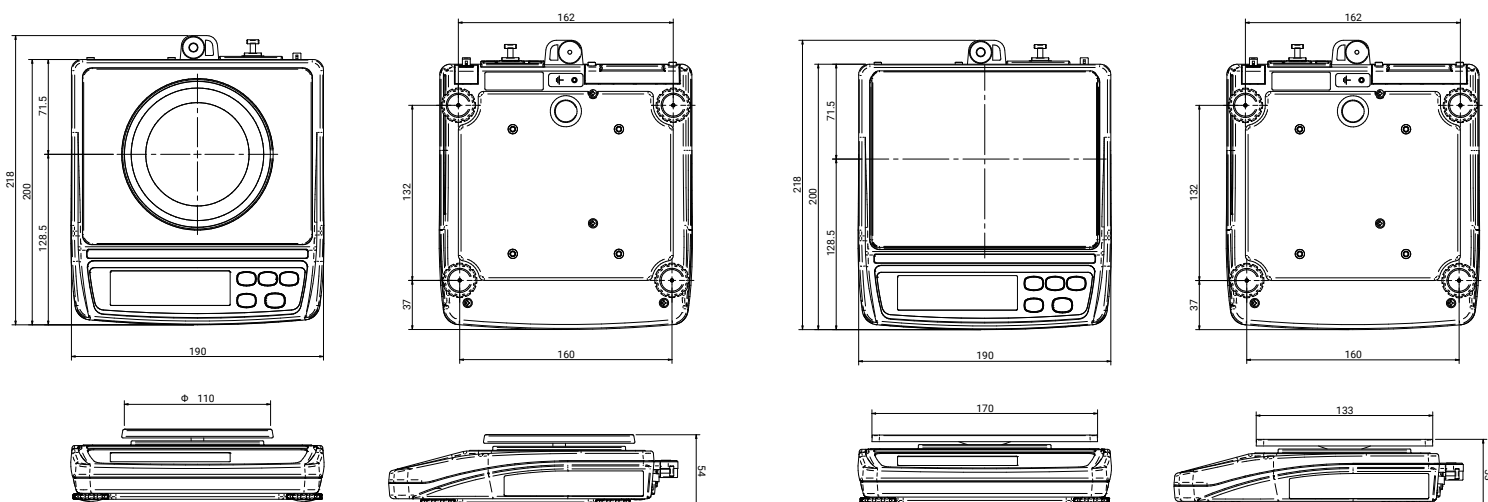
*ii To be used only with four DURACELL AA alkaline MN1500 LR6, ENERGIZER AA E91 alkaline LR6 AM3, or Panasonic AA alkaline LR6 (XJ) 1.5V batteries.

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

Dimensions (mm/inch)

Models with readability of 0.001mg to 0.1mg



Part Materials

