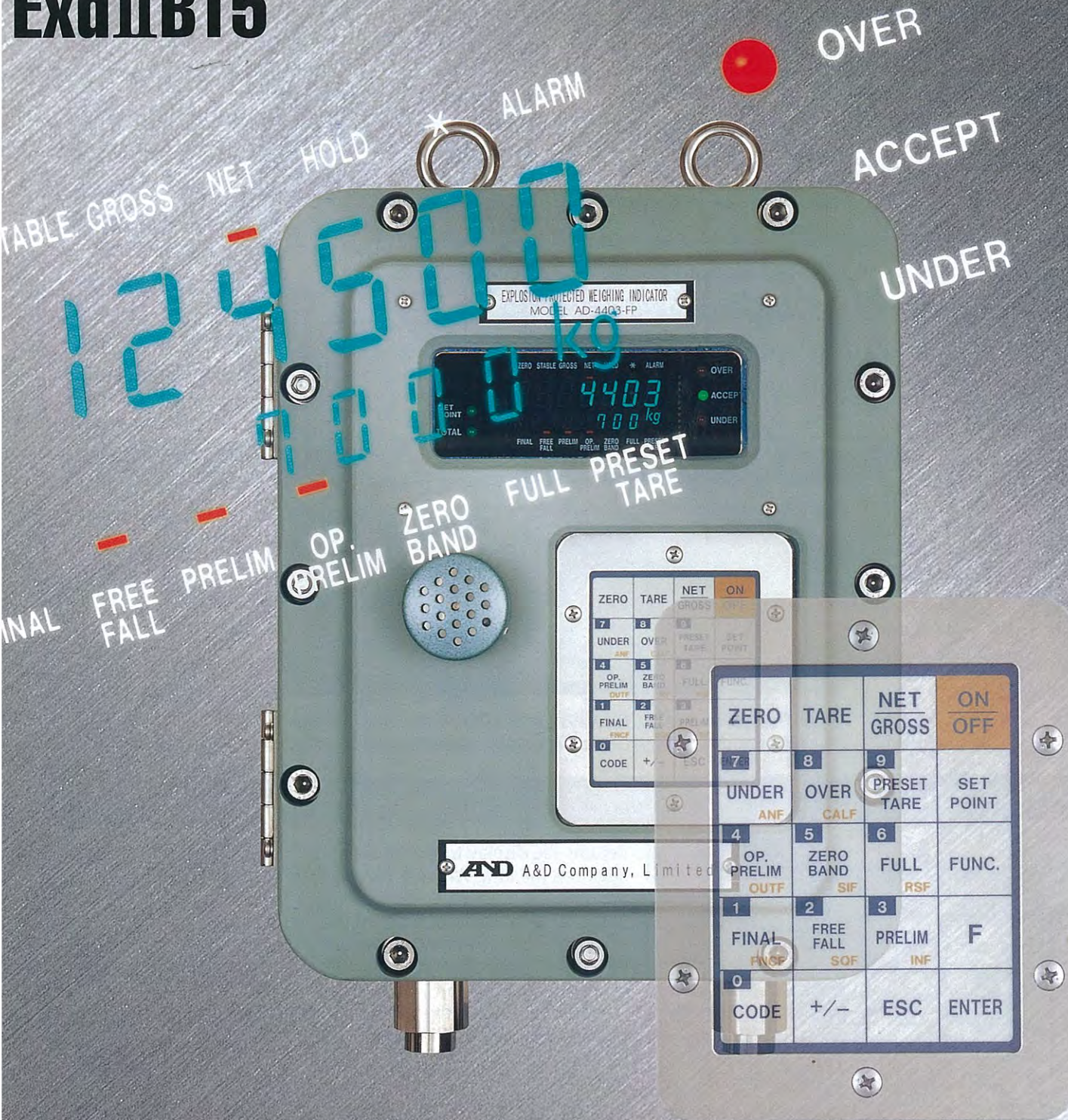


**Flameproof  
Enclosure**

# AD-4403-FP

*Weighing Indicator*

**Exd II BT5**



ZERO	TARE	NET GROSS	ON OFF
7	8	9	PRESET TARE SET POINT
4	5	6	OP. PRELIM ZERO BAND FULL FUNC.
1	2	3	FINAL FREE FALL PRELIM F
0	CODE	+/-	ESC ENTER

ZERO	TARE	NET GROSS	ON OFF
7	8	9	PRESET TARE SET POINT
4	5	6	OP. PRELIM ZERO BAND FULL FUNC.
1	2	3	FINAL FREE FALL PRELIM F
0	CODE	+/-	ESC ENTER



**AND**  
A&D Company, Limited

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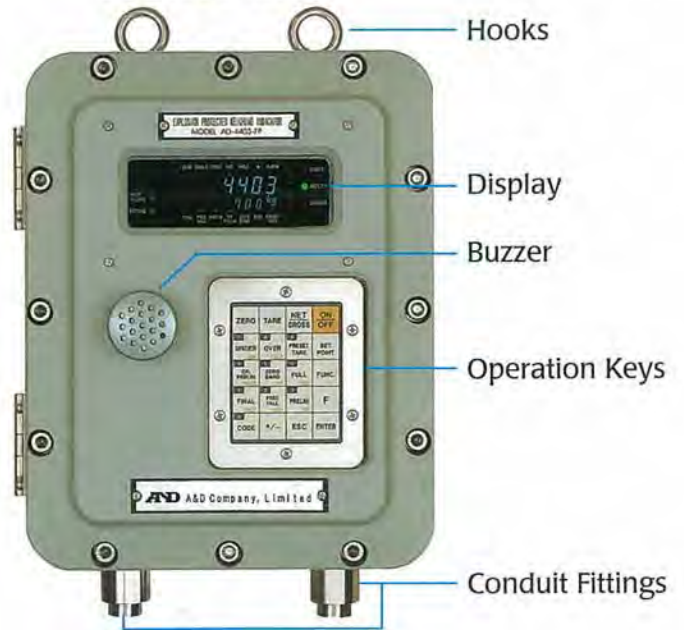
**Flameproof  
Enclosure**

# AD-4403-FP *Weight*

**AD-4403-FP** is an Explosion Protected Weighing Indicator for use in Zone 1 and Zone 2 hazard areas where explosive gases exist in the air. It fully complies with the IEC standard requirements.

The AD-4403-FP is one of the most compact (300 × 380 × 199mm) and lightest (26kg) Explosion Protected Indicators in the industry, with many features, such as high speed sampling (100 times per second), blue fluorescent display, 100 sets of set points with individual code numbers.

## Front Panel



## Display



Main Display — 7-digit 7-segment display. Displays Gross Weight, Net Weight, etc.  
Sub Display — 8-digit 7-segment display. Display content selected with function settings.

## Operation Keys



- [ZERO] — Returns the display to the center of zero.
- [TARE] — Subtracts the tare. When gross weight is "0", it clears tare.
- [NET/GROSS] — Switches the display between "net" and "gross" weight.
- [ON/OFF] — Turns the display ON and OFF in the normal mode. In the OFF mode, display and external I/Os are all off with the "O" mark displayed. Available during operation.
- [0~9] — Numerical keys, used for settings.
- [SET POINT] — Selects a set point of the code input with numerical keys.
- [FUNC.] — Enters the function setting mode.
- [F] — Selects item.
- [CODE] — Selects a code number. Calls a set point of the code input by numerical keys. Edits (call/retrieve/copy/erase) a set point by code. Selects code set points with numerical keys.
- [+/-] — Sets polarity + (blank) or -.
- [ESC] — Returns to the previous setting. Puts a blank in data. Returns to the previous status. Escapes from the current operation. Mutes the sound of the buzzer.
- [ENTER] — Writes a value into memory or completes the settings.



# ing Indicator

## Features

- **Compact Size** — 300 × 380 × 199 mm
- **Light Weight** — 26 kg
- **High Sampling Speed** — 100 Times per Second
- **Display Resolution** — 1/10,000
- **Clear Blue Fluorescent Display** — Easy to see
- **100 Set Point sets** — Each set is assigned a code number.
- **Standard Current Loop** (Built in Buzzer)
- **Lithium Battery back up** the Zero Compensation, Tare Weight, Set Point and Accumulation Data.
- **Automatic Accumulation**  
Accumulates the net weight after weighing.  
Accumulation settings can be selected at Sq F-02.
- **Nozzle Down Control Function**  
Set the timer by 0.1 second increments to a maximum of 25.5 seconds.
- **Input/Output Selection**  
Select a maximum 6 sequences from 15 types of input and 20 types of output.
- **Auto Print**  
Output the Batch Finish Weight from the external output configured to "Auto Print." The output timing depends on the weighing mode.
- **Automatic Free Fall Compensation**  
Automatically improves the weighing accuracy by replacing the Free Fall value with the "moving average of the last four Actual Free Falls" as the next Free Fall setting.

## Flameproof Enclosure Scales

# ST-FP Series



Shown with optional stand

Models	ST-30K05-FP	ST-60K05-FP	ST-150K05-FP
Capacity/Resolution	30kg × 10g	60kg × 20g	150kg × 50g
Pan Size (W × D × H mm)	290 × 375 × 140		390 × 530 × 170
Indicator Size (W × D × H mm)	300 × 380 × 199		

## International Electrotechnical Commission(IEC)

### Gas or Vapor Class

Maximum Experimental Safe Gap of Gas or Vapor	Class
Over 0.9mm	A
More than 0.5mm Less than 0.9mm	B
Under 0.5mm	C

### Explosion Class

Group	Explosion Class
IIA	1
IIB	2
IIC	3

### Temperature Class

Temperature Class	Maximum Surface Temperature
T1	Up to 450 °C
T2	Up to 300 °C
T3	Up to 200 °C
T4	Up to 135 °C
T5	Up to 100 °C
T6	Up to 85 °C

# Ex d IIB T5

Explosion Proof

Type of Protection

Group

Temperature Class

### Example of Chemicals for Explosion Class and Ignition Class

Explosion Class and Ignition Class	G1	G2	G3	G4
1	Acetone Ammonia Ethane, Toluene Acetic acid Methane Propane	Ethanol Butanol Butane Acetic anhydride	Gasoline Hexane Pentane	Acetaldehyde Ethyl ether
2	Carbon monoxide	Ethylene Ethylene oxide	Isoprene Hydrogen sulfide	
3	Hydrogen	Acetylene		



**Flameproof  
Enclosure**

# Weighing Indicator AD-4403-FP

## Specifications

### A/D Converter Block

Input Sensitivity — 0.3 $\mu$ V/D or more  
Zero Correction Range — 0 to 20mV (0 to 2mV/V)  
Load Cell Excitation — 10VDC $\pm$ 5%, 120mA with remote sensing capability  
Up to four 350 $\Omega$  load cells can be connected

### Temperature Coefficient

Zero Point —  $\pm$ (0.2 $\mu$ +0.0008% of Dead Load)/ $^{\circ}$ C typical

Sensitivity —  $\pm$ 0.0008%/ $^{\circ}$ C typical

Non-linearity —  $\pm$ 0.01% F.S.

Input Noise —  $\pm$ 0.3 $\mu$ Vp-p or less

Maximum Measurement Voltage — 32mV (3.2mV/V)

A/D Conversion Method — Sigma-delta Method

A/D Internal Resolution — Approximately 1,000,000 max.

Sampling Speed — 100 times/second

Maximum Display Resolution — 10000D (D : minimum division)

### General Specifications

Buzzer — Approximately 90dB at a point 1 meter away

Supply Voltage — 100VAC $\pm$ 10%  $\pm$ 15%, 50Hz  $\cdot$  60Hz

Power Consumption — 60VA

Fuse — 1A, time-lag type fuse

Operating Temperature —  $-5$  to  $40^{\circ}$ C, 45 to 85%RH  
and Humidity (non-condensing)

Storage Temperature —  $-15$  to  $70^{\circ}$ C, 45 to 85%RH  
and Humidity (non-condensing)

Weight — Approximately 26kg  
(Not including the accessories)

Dimensions — 300(W)  $\times$  380(H)  $\times$  199(D) mm

Accessories — Hexagonal wrench to open/close the case (1)  
Hexagonal wrench to affix cable to conduit fittings (1)  
Instruction Manual (1)

## Options

OP-03 — RS-422/485 \*

OP-04 — RS-232C \*

OP-07 — Analog Output

OP-10 — Conduit Fitting HPN21(R8) (Fitting cable diameter : up to 8mm beyond 6mm)

OP-11 — Conduit Fitting HPN21(R10) (Fitting cable diameter : up to 10mm beyond 8mm)

OP-12 — Conduit Fitting HPN21(R12) (Fitting cable diameter : up to 12mm beyond 10mm)

OP-13 — Conduit Fitting HPN22(R14) (Fitting cable diameter : up to 14mm beyond 12mm)

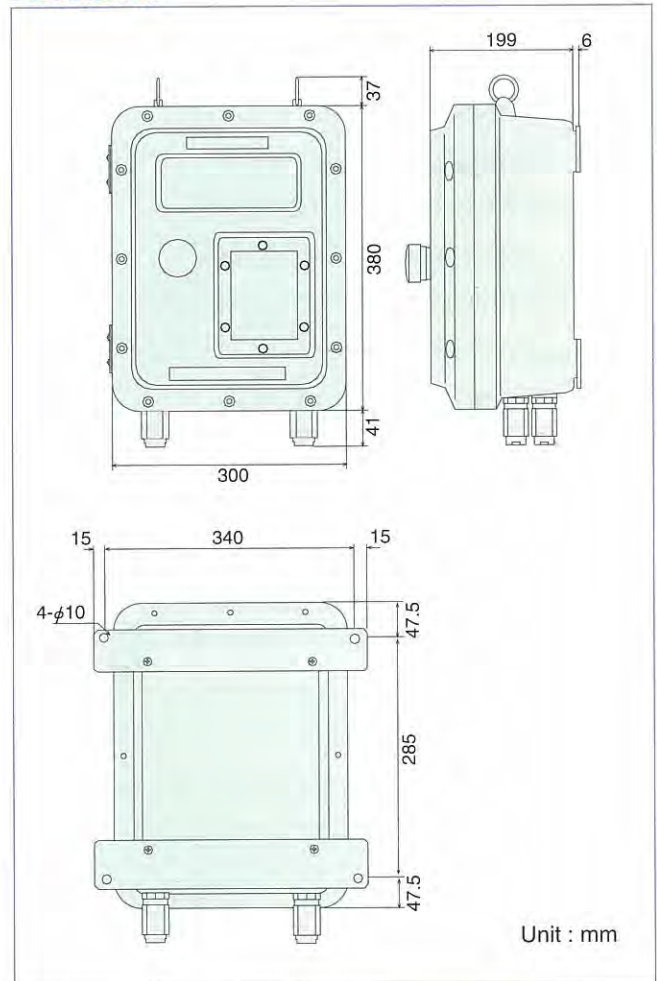
OP-14 — Conduit Fitting HPN22(R16) (Fitting cable diameter : up to 16mm beyond 14mm)

OP-20 — Stand

\*Only one interface option can be installed and operating.

Specifications are subject to change for improvement without notice.

## Dimensions



# A&D

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