

Intrinsically Safe Platform Scales

# HV-CEP/HW-CEP

Series



*Minimum Investment,  
Maximum Safety!*

**AND**  
A&D Company, Ltd.

Discover Precision



THORNE &  
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INTERNATIONAL

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# Danger Comes When You Least Expect It

Boom! Sparks in potentially explosive atmospheres (like those that arise where petrol and other flammable chemicals are processed) can turn a plant floor into a raging inferno in an instant. If you perform weighing in these types of environments, your equipment must have the proper features to prevent explosions and loss of life.

The HV-CEP/HW-CEP series of internationally certified, intrinsically safe\*<sup>1</sup> platform scales will always keep you and your colleagues safe from the risk of these tragedies!

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

## Areas in which the HV-CEP/HW-CEP 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 IIB T4 Ga

ATEX:  II 1G Ex ia IIB T4 Ga

FM/FMc (NEC505): Class I, Zone 0, AEx/Ex ia IIB T4

FM/FMc (NEC500): IS / I / 1 / C,D / T4

Tamb -25 to +40°C

You can comfortably bring the scale 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).

## IP65 dust & waterproof base unit with stainless steel (SUS430) pan

In addition to being intrinsically safe, the base unit of the HV-CEP/HW-CEP series can be washed with water and can weigh wet objects without problems. Further, the surface of the pan is resistant to chemicals, scratches and rust, and easy to keep clean and hygienic.



IP65 base unit with a SUS430 pan



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## Multi-colored 5-step LED comparator lights

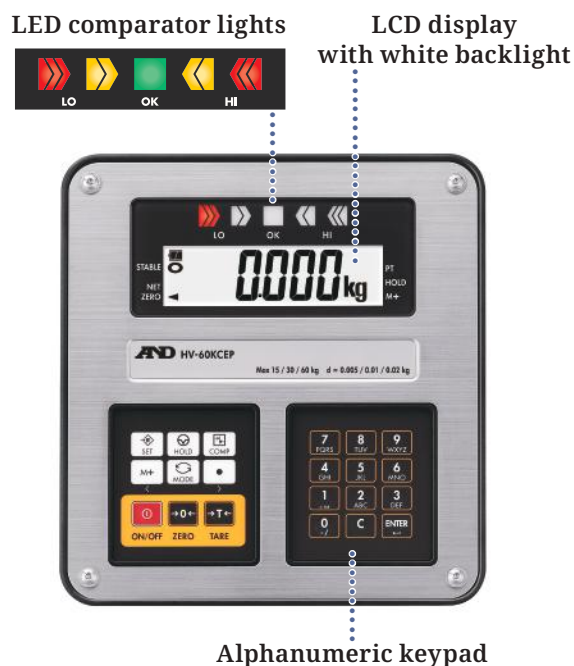
With the clearly-discernible LED signals, check weighing (judging whether the measured weight is within the designated limits) becomes far more accurate and efficient than with a numeric display alone.

### ■ Auto-tare and negative comparison functions

The scale can perform tare automatically when the weight reaches the set target range. Additionally, negative values can be used as comparator limits. With these functions combined, you can perform "take-away" check weighing, that is, removing a target amount repeatedly from its container with no key press.

## LCD display (26 mm character height) with white backlight

Do not underestimate the effect of display visibility on operator work efficiency, fatigue and tendency to make errors, especially in areas where illumination is not sufficient.



## Quick and easy settings using the alphanumeric keypad

Direct alphanumeric input makes it simple and straightforward to enter/re-enter preset tare values, comparator limits, calibration values and various internal settings.

### ■ Key lock function

You can inhibit the use of certain keys to prevent operators from making unwanted changes to the scale settings.

## Long battery life of approx. 1,500 hours\*2

The HV-CEP/HW-CEP series operates on 4 D batteries\*3, making it unnecessary to secure power from a safe area via a safety barrier.

### ■ Auto power OFF function

To avoid wasting power, the scale powers off automatically when it is inactive for a set period of time (5 to 60 minutes).

\*2 With LED and backlight OFF (or approx. 1,000 hours with LED and backlight ON)

\*3 The batteries to be used are specified: DURACELL MN1300, ENERGIZER E95, or Panasonic LR20 (XJ).

## Other Useful Features

- ✓ High-speed measurement—response in 1 second or less (typical for the HV-CEP series) \*4
- ✓ Adjustable response characteristics and display hold function to be used depending on the weighing/environmental conditions
- ✓ Counting mode to count a number of small pieces of the same mass value instantly and precisely
- ✓ Accumulation (M+) function to display the sum total of separate weighing results
- ✓ Display angle adjustable to five levels to suit the convenience of individual operators

\*4 Time required for the last digit to settle (the stabilization mark will be lit one second after).  
With the HW-CEP series, response typically takes not more than 1.5 seconds.

## Specifications

		HV-15KCEP	HV-60KCEP	HV-200KCEP	HW-10KCEP	HW-60KCEP	HW-100KCEP	HW-200KCEP
kg	Capacity	3 / 6 / 15 <sup>*i</sup>	15 / 30 / 60 <sup>*i</sup>	60 / 150 / 220 <sup>*i</sup>	10	60	100	220
	Readability	0.001 / 0.002 / 0.005 <sup>*i</sup>	0.005 / 0.01 / 0.02 <sup>*i</sup>	0.02 / 0.05 / 0.1 <sup>*i</sup>	0.001	0.005	0.01	0.02
lb	Capacity	6 / 15 / 30 <sup>*i</sup>	30 / 60 / 150 <sup>*i</sup>	150 / 300 / 500 <sup>*i</sup>	20	150	200	500
	Readability	0.002 / 0.005 / 0.01 <sup>*i</sup>	0.01 / 0.02 / 0.05 <sup>*i</sup>	0.05 / 0.1 / 0.2 <sup>*i</sup>	0.002	0.01	0.02	0.05
oz	Capacity	96 / 240 / 480 <sup>*i</sup>	480 / 960 / 2400 <sup>*i</sup>	2400 / 4800 / 8000 <sup>*i</sup>	320	2400	3200	8000
	Readability	0.05 / 0.1 / 0.2 <sup>*i</sup>	0.2 / 0.5 / 1 <sup>*i</sup>	1 / 2 / 5 <sup>*i</sup>	0.05	0.2	0.5	1
lb-oz	Capacity	30 lb	N/A		20 lb	N/A		
	Readability	0.1 oz			0.1 oz			
Counting mode	Max. countable number	150,000	120,000	110,000	100,000	120,000	100,000	110,000
	Number of samples	5, 10, 20, 50 or 100						
Stabilization time <sup>*ii</sup>		Within 1 second			Within 1.5 seconds			
Repeatability (std. deviation) [kg]		0.001 / 0.002 / 0.005	0.005 / 0.01 / 0.02	0.02 / 0.05 / 0.1	0.002	0.01	0.02	0.04
Linearity [kg]		±0.001 / ±0.002 / ±0.005	±0.005 / ±0.01 / ±0.02	±0.02 / ±0.05 / ±0.1	±0.002	±0.01	±0.02	±0.04
Sensitivity drift (typical)		±20 ppm/°C (5 to 35 °C / 41 to 95 °F)						
Display		7 segment LCD (Character height: 26 mm) with backlight 3-color, 5-step LED comparator lights						
Display refresh rate		10 times / second						
Operating environment		-10 to 40 °C / 14 to 104 °F, 85% RH or less (no condensation)						
Power supply		Four D-size, alkaline, 1.5 V batteries <sup>*iii</sup>						
Battery life (approx.)		1,500 hours with LED and backlight OFF or 1,000 hours with LED and backlight ON						
Weighing pan size		250 × 250 mm	330 × 424 mm	390 × 530 mm	250 × 250 mm	330 × 424 mm	390 × 530 mm	
		9.8 × 9.8 in	13.0 × 16.7 in	15.4 × 20.9 in	9.8 × 9.8 in	13.0 × 16.7 in	15.4 × 20.9 in	
Dimensions (W × D × H)		250 × 439 × 397 mm	330 × 585 × 776 mm	390 × 691 × 776 mm	250 × 439 × 397 mm	330 × 585 × 776 mm	390 × 691 × 776 mm	
		9.8 × 17.3 × 15.6 in	13.0 × 23.0 × 30.6 in	15.4 × 27.2 × 30.6 in	9.8 × 17.3 × 15.6 in	13.0 × 23.0 × 30.6 in	15.4 × 27.2 × 30.6 in	
Net weight (approx.)		8 kg / 17.6 lb	12 kg / 26.5 lb	18 kg / 39.7 lb	8 kg / 17.6 lb	12 kg / 26.5 lb	18 kg / 39.7 lb	

\*i Multi-interval: The lighter the target object, the finer the readability.

\*ii Time required for the last digit to settle (the stabilization mark will be lit one second after), which is subject to the weighing environment, response characteristic setting and how the target object is placed.

\*iii Only DURACELL MN1300, ENERGIZER E95, or Panasonic LR20 (XJ) can be used (but not mixed).



Platform only

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