Cardinal®

HIGH-TEMPERATURE. HIGH-PRESSURE
WASHDOWN

190 STORM
weight indicator

190

190DC

Model 190
AC Power

Both the 190 and 190DC may utilize an
optional rechargeable Lithium Ion battery.

Optional DC
Power Supply

Model 190DC
DC Power

CAPACITIVE TOUCH KEYS

Capacitance is the ability of a person to hold an electrical charge, so Cardinal's 190 unique capacitive touch keys allow the front of the panel to be constructed as a single piece. The keypad senses the operator's finger from the inside of the enclosure. There are no moving parts to wear out or exposed electronics. Red status lamps above each key provide a visual indication of keypresses, as shown here.

ULTRA-TOUGH ENCLOSURE

The combination of the rugged polycarbonate enclosure and capacitive touch keys provide total protection from sharp objects. The 190 is impact resistant for ultimate durability in harsh environments. The IP69K watertight, highly-durable enclosure provides you with the assurance of dependability that you require.

COLORZONE CHECKWEIGHING

ColorZONE is the solution for efficient time management during your checkweighing processes. The bright, vivid display, changes color automatically as the pre-assigned target weights are reached. You know immediately when you've hit the acceptable weight range. The 190 STORM displays amber for under weight, green for accepted weights, and bright red when weights exceed the upper weight limit. The target weights are easy to assign through the 190's capacitive touch keypad and can be changed quickly as different sized products are weighed.

OVER 192 lb G

ACCEPT 190 lb G

UNDER 188 lb G

Cardinal's 190 STORM high-impact indicator is perfect for:

- *Food Processing*
- *Chemical Industry*
- *Pharmaceutical*
- *Almost any harsh application environment*

WASHDOWN

IP69K

With an IP69K rating, the 190's enclosure is designed for high pressure water jet cleaning (1450PSI) at high temperatures of up to 176° F / 80° C.

STORM
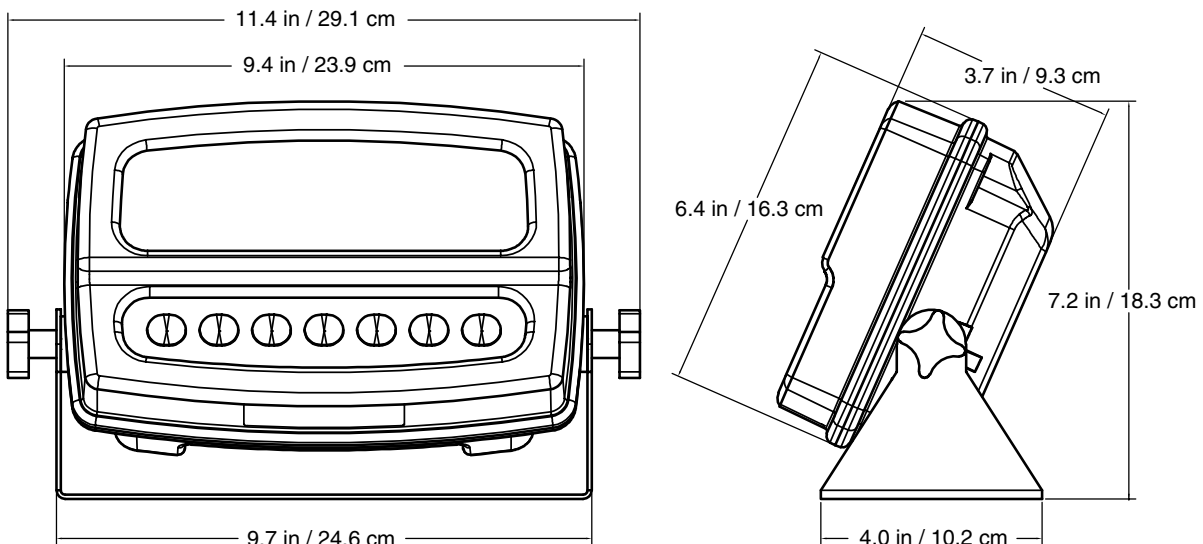
Model 190
WEIGHT INDICATOR

- **Large 1-inch-high clearly-visible LCD**
- **Versatile power options: AC, DC, and rechargeble battery**
- **Built-in RS232 communicatons port**
- **Highest protection rating possible**

NTEP
NATIONAL CONFERENCE ON WEIGHTS AND MEASURES
LEGAL FOR TRADE

190 SPECIFICATIONS

Power Requirements:	100 to 240 VAC (50/60 Hz) at 0.4A Max. / 190DC: 10.5 to 30 VDC 1.0A Max.
Enclosure Type:	Thermoplastic IP69K wall or desk-mount
Enclosure Size:	9.4 inch W x 6.4 inch H x 3.7 inch D / 239 mm W x 163 mm H x 93 mm D
Operating Environment:	Temperature: 14 to 104 °F (-10 to +40 °C) Humidity: 90% non-condensing (maximum)
Display:	Six digit, seven segment, 1.0 inch high Backlit LCD
Transducer Excitation:	5.18 VDC
Signal Input Range:	0.5 mV min. to 40 mV max. (with dead load boost)
Number of Load Cells:	6 each, 350 OHM minimum resistance
Load Cell Cable Length:	1500 feet maximum. 30 feet maximum without sense lines *Consult factory for other requirements*
Division Value:	1, 2, or 5 x 10, 1, 0.1, 0.01, 0.001 commercial 0 to 99, non-commercial

Sensitivity:
    NON-COMMERCIAL
    COMMERCIAL
	
	0.15 uV/e
	0.5uV/e (Class III/IIIL/IIIHD)

Scale Divisions:
    NON-COMMERCIAL
    COMMERCIAL
	
	100 to 240,000
	100 to 10,000 (Class III/IIIL/IIIHD)

Internal Resolution:	1 part in 16,777,216
Tare Capacity:	Scale Capacity
Sample Rate:	1 to 100 samples per second, selectable
Auto Zero Range:	0.5 or 1 through 9 divisions
Weighing Units:	Pounds, Ounces, Kilograms, Grams
Keypad:	Color Coded Capacitive Touch type, 7 keys
Standard I/O:	(1) bi-directional RS232
Approvals:	**NTEP:** 10-084 **MEASUREMENT CANADA:** AM-5804 **OIML:** Pending

11.4 in / 29.1 cm
9.4 in / 23.9 cm
9.7 in / 24.6 cm
3.7 in / 9.3 cm
6.4 in / 16.3 cm
7.2 in / 18.3 cm
4.0 in / 10.2 cm

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SOLD BY:

Cardinal®

Cardinal Scale Manufacturing Co.

MADE IN USA

ISO REGISTERED 9001