

## SURVIVOR® 320HE & 390HE

Hostile Environment Digital Weight Indicators



Measurement  
Canada  
Approved

### PART # DESCRIPTION

35826 .....	115 VAC SURVIVOR 320HE
35827 .....	230 VAC SURVIVOR 320HE

From fertilizer and chemical scales to corrosive washdown environments, the SURVIVOR 320HE and SURVIVOR 390HE indicators provide the ideal solution for severe-duty industrial and agricultural applications.

In bright sunlight or black of night, the SURVIVOR 320HE can be read from up to 40 feet away! Remote key operation, selective switch disabling, and switch lockout limit operator access to only the controls required to run their operation, reducing costly errors.

The SURVIVOR 320HE and SURVIVOR 390HE have unparalleled response time from actual scale loading to display update. RATTLETRAP® vibration filtering makes this one of the most advanced special-purpose weight indicators available today.

A serial port drives printers, remote displays, computers, or other devices. A remote print key or serial print command allows printing from a remote print station, programmable controller, or host computer.

### Applications

- Straight weighing
- Corrosive environments
- Oil refineries
- Chemical processing plants
- Wastewater treatment
- Agricultural applications

### Standard Features

- NEMA 4X Fiberglass-Reinforced Polyester (FRP) enclosure
- (320HE) Bright, bold backlit 2" Liquid Crystal Display (LCD)
- (390HE) Bright, bold 1" Liquid Crystal Display (LCD)
- Universal mounting tabs (replaceable)
- 50 updates/second typical (320HE)
- 30, 15, 7 1/2, 3 3/4 updates/second (390HE)
- Selectable display update rate
- lb/kg switching
- 5-button operation
- Selectable units
- One communication port, simplex, selectable RS-232 or 20 mA current loop
- RATTLETRAP® vibration control

### Options/Accessories

- 30911 ..... Additional mounting tabs



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### PART # DESCRIPTION

53517 .....	115 VAC SURVIVOR 390HE
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## EXCITATION VOLTAGE:

320HE: 10 ± 0.5 VDC, 6 x 350Ω load cells  
390HE: 5 VDC, 4 x 350Ω load cells

## LOAD CURRENT:

320HE: 175 mA maximum (6 x 350Ω load cells)  
390HE: 60 mA maximum (4 x 350Ω load cells)

## LOAD CELL CABLE REQUIREMENTS:

4-wire/6-wire selective with jumpers

## ANALOG SIGNAL INPUT RANGE:

0.5 mV/V - 3.5 mV/V

## ANALOG SIGNAL SENSITIVITY:

0.3 microvolts/graduations minimum

## INPUT OVERLOAD PROTECTION:

± 12 volt continuous

## MEASUREMENT RATE:

320HE: 50 updates/second, typical  
390HE: 30, 15, 7 1/2, 3 3/4 updates/second

## SYSTEM LINEARITY:

Within 0.01% of FS

## RESOLUTION:

Internal: Approximately 1,000,000 graduations  
Display: Selectable up to 60,000 dd (320HE)  
Selectable up to 100,000 (390HE)

## DISPLAY:

320HE: 2" (50.8mm) Liquid Crystal Display (LCD), with backlight  
390HE: 1" (25.4mm) Liquid Crystal Display (LCD),  
Decimal point available at each digit

## LB/KG SWITCHING:

Front-panel switch

## FRONT-PANEL CONTROL SWITCHES:

Zero, Net/Gross, Tare, Units, Print

## STATUS ANNUNCIATORS:

Tare, entered tare, standstill, net, gross, center of zero,  
minus sign, lb, kg

## FRONT-PANEL:

5-button rubber-booted SURVIVOR® watertight switches

## SERIAL OUTPUT:

Printer port: RS-232 or 20 mA simplex, 8 data bits, no parity;  
7 data bits, even parity; 7 data bits, odd parity  
Baud rates: 19200, 9600, 4800, 2400, 1200

## DIGITAL INPUTS:

2 inputs, TTL or switch closure, active low

## DIGITAL FILTERING:

3 separately programmable digital filter parameters

## DISPLAY FILTER:

Selectable from 250 mS to 4 sec

## CALIBRATION METHOD:

Software

## MOTION TIME SENSITIVITY:

Fixed at 1 second

## POWER:

Line voltages: 115 or 230 VAC + 10%/-15%  
Frequency: 50/60 Hz  
Power consumption: 25W maximum

## OPERATING TEMPERATURE:

14°F to 104°F (-10°C to 40°C)

## RATING/MATERIAL:

NEMA 4X FRP

## WEIGHT:

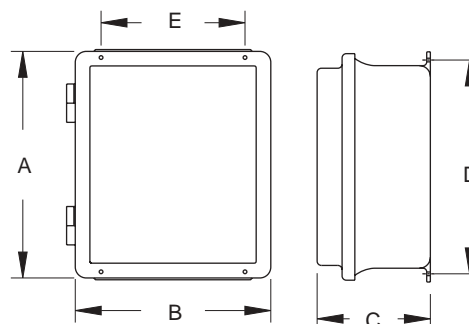
320HE = approximately 18 lb (8.2 kg)  
390HE = approximately 17 lb (7.2 kg)

## APPROVALS:

320HE: NTEP certified per H-44 at 10,000 Divisions, Class III/IIIL,  
CC# 91-132A3. Measurement Canada approved, AM-4838  
390HE: NTEP certified per H-44 at 10,000 Divisions, Class III/IIIL,  
CC# 98-203A2. Measurement Canada approved, AM-5300

## WARRANTY:

One year limited warranty



## DIMENSIONS

### SURVIVOR 320HE

A = 14.50" (368.3mm)  
B = 12.50" (317.5mm)  
C = 8.28" (210.3mm)  
D = 14.94" (379.4mm)  
E = 10.00" (254.0mm)

### SURVIVOR 390HE

A = 10.50" (267mm)  
B = 8.50" (216mm)  
C = 6.00" (152mm)  
D = 10.00" (254mm)  
E = 8.00" (203mm)