

# 320IS Plus

## Intrinsically-Safe Digital Weight Indicator



**CAUTION!** The equipment contained within this Explosive Environment section requires greater attention to specification and installation guidelines. Improper specification, installation or service of these products can result in loss of equipment or serious injury.

### APPROVALS



Measurement  
Canada  
Approved



FM Entity Approved for use in hazardous locations per Rice Lake Weighing Systems control drawing file number 72717.

### STANDARD FEATURES

- Bright Light Emitting Diode (LED)
- Stainless steel NEMA 4X/IP66 enclosure
- T4 temperature rating
- Front panel digital calibration
- Automatic zero and span temperature compensation
- Excitation for four 350Ω or eight 700Ω load cells
- Gross/Tare/Net computation
- Tilt stand
- Factory Mutual (FM) Entity approved
- Duplex fiber optic interface
- Power ON/OFF; battery save mode
- I/O Module Option: two serial ports, two analog outputs, four digital inputs, four relay contact outputs.
- Eight setpoint (requires I/O module)
- Factory Mutual (FM) entity approved for classes I, II, and III; Divisions 1 and 2; Groups A, B, C, D, E, F, and G
- Time & Date (requires I/O module)

\*Exclusions: The following load cells cannot be used with the 320IS: RL71000HE, RL8000HE, RL8000KM, RLBEAM, and RL32155.

### SPECIFICATIONS

#### LOAD CELL EXCITATION:

3.0VDC @ 87.5Ω  
4.6VDC @ 700Ω

#### LOAD CELL CURRENT:

34mA (4 x 350Ω load cells) or  
(8 x 700Ω load cells)

#### LOAD CELL CABLING:

4 and 6-wire with remote sensing (recommended)

#### ANALOG SIGNAL INPUT RANGE:

0.6mV/V - 4.0mV/V

#### ANALOG SIGNAL SENSITIVITY:

0.2μV/graduation minimum  
1.5μV/graduation recommended

#### CONVERSION RATE:

60 updates/second

#### INTEGRATION TIME:

20 mSec typical

#### RESOLUTION:

10,000 displayed graduations (NTEP), 100,000 expanded  
The maximum number of allowed graduations will vary by application

#### DISPLAY INCREMENTS:

1, 2, 5

#### DISPLAY:

Six digits, Light Emitting Diode (LED); 16-segment, 0.8in (20mm) digits

#### DECIMAL POINT:

Configurable with dead zeros

#### UNIT SWITCHING:

Configurable for two units of measurement with front panel operation with conversion for tare and setpoint values

#### FRONT-PANEL CONTROL SWITCHES:

Zero, Gross/Net, Tare, Print, Units Conv, Start, Stop, Accum, Tare Display

#### FRONT PANEL:

24-button flat membrane panel

#### FRONT-PANEL LED ANNUNCIATORS:

Center Zero, Gross, Net, Motion, lb, kg, oz, g

#### MOTION BAND:

Configurable to ±1 or ±3 graduations, 1 second delay (or Off)

#### POWER INPUT:

5.8 - 7.9VDC, 100 - 175mA  
Maximum power consumption 0.25 watts

#### OPERATING TEMPERATURE:

14°F to 104°F (-10°C to 40°C) legal

#### RATING/MATERIAL:

Stainless steel NEMA 4X/IP66 enclosure

#### OPTIONAL BATTERY:

Operating Times: 4 x 350Ω = 35-40 hrs.  
1 x 350Ω = 40-50 hrs.  
Charging Times: 10 hours for dead battery, 14 hours for initial charge

#### WEIGHT:

6.1lb (2.8kg)

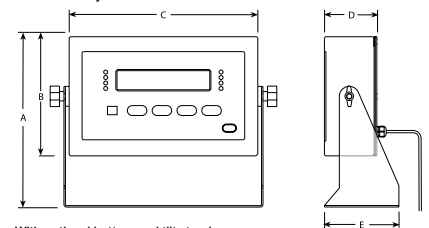
#### APPROVALS:

NTEP pending (TUV, C (UL),  
FM Entity 03-078A1)  
Measurement Canada Approved: AM-5560

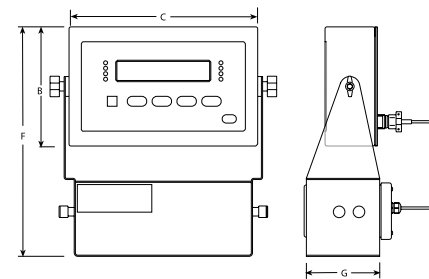
#### WARRANTY:

One-year limited warranty

Without battery



With optional battery and tilt stand



#### DIMENSIONS WITHOUT BATTERY

<b>A</b>	8.56in (217.4mm)	<b>D</b>	2.64in (67.1mm)
<b>B</b>	6.00in (152.4mm)	<b>E</b>	3.75in (95.2mm)
<b>C</b>	9.50in (241.3mm)		

#### WITH OPTIONAL BATTERY AND TILT STAND

<b>F</b>	11.56in (293.6mm)	<b>G</b>	4.75in (120.7mm)
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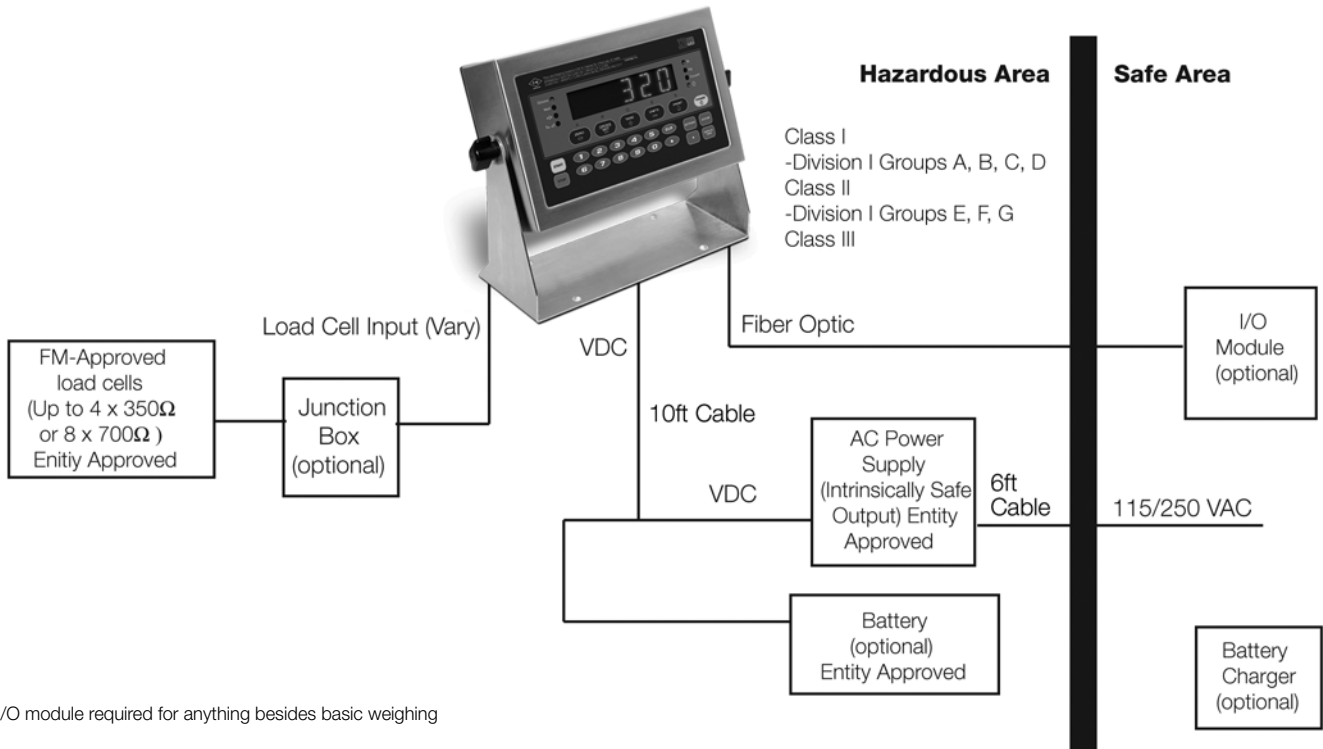
#### OPTIONAL I/O MODULE

12.90in x 11.63in x 6.25in  
(327.7mm x 295.4mm x 158.8mm)

#### OPTIONAL POWER SUPPLY

7.00in x 5.13in x 3.125in  
(177.8mm x 130.0mm x 79.375mm)

# SPECIFICATIONS (CONTINUED)



\*I/O module required for anything besides basic weighing

## PART # DESCRIPTION

91235.....	320IS Plus Intrinsically-Safe Digital Weight Indicator full keypad with battery pack and charger & tilt stand.....
91236.....	320IS Plus Intrinsically-Safe Digital Weight Indicator full keypad with A/C power supply .....
86240.....	320IS Plus indicator only.....
<b>Hazardous Environment Cable and Fiber Optic Cable</b>	
32817.....	EL147IS hazardous environment cable .....
72241.....	Hazardous environment 3 conductor .....
78026.....	Fiber optic, duplex cable 100ft .....
78027.....	Fiber optic, duplex cable 200ft .....

## OPTIONS/ACCESSORIES

72713.....	Power supply, IS-EPS-100-240VAC .....
72725.....	IS-6V battery option with cable adapter .....
74001.....	Battery charger, 115VAC .....
74002.....	Battery charger, 115/230VAC .....
80869.....	Fuse, 1.25A, 250V TR5 time-lag (replacement part for the I/O Module) .....
72726.....	Tilt stand (required for battery model) .....
89239.....	I/O Module, stainless steel NEMA 4 enclosure, safe area option (requires fiber optic cable, AC power required).....
83388.....	Timer relay kit includes din rail, timer relay for latching and mount .....
85353.....	Installation manual .....
78076.....	I/O Module manual .....

Rice Lake Weighing Systems® warrants that all Rice Lake Weighing Systems Intrinsically Safe (IS) equipment and systems installed by a distributor or Original Equipment Manufacturer (OEM) will operate per written specifications as confirmed by the Distributor/OEM and accepted by Rice Lake Weighing Systems. All systems and components are warranted against defects in materials and workmanship for one year.

All Rice Lake Weighing Systems Intrinsically Safe equipment carries a Factory Mutual approval and is documented on various control drawings. Each device is manufactured Rice Lake Weighing Systems factory authorized personnel. To preserve the warranty and Factory Mutual approval, all repairs or replacement of circuit boards or components housed within the enclosures must be performed by Rice Lake Weighing Systems factory authorized personnel.

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