

INTRINSICALLY SAFE

320IS Plus

Intrinsically Safe Digital Weight Indicator

INDICATORS / CONTROLLERS



Standard Features

- LED display, 0.8 in (20 mm), six-digit, 16-segment
- Stainless steel NEMA Type 4X/IP66 enclosure
- T4 temperature rating
- Front panel digital calibration
- Automatic zero and span temperature compensation
- Excitation for four 350 ohms or eight 700 ohms load cells
- Gross/tare/net computation
- Tilt stand
- Numeric keypad
- 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)
- FM Entity Approved for use in hazardous locations per Rice Lake Weighing Systems control drawing file number 72717.

Approvals



Measurement Canada Approved



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 or 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.



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.

Specifications

Load Cell Excitation:

3.0 VDC at 87.5 Ω
4.6 VDC at 700 Ω

Load Cell Current:

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

Load Cell Cabling:

Four and six-wire with remote sensing (recommended)

Analog Signal Input Range:

0.6 mV/V - 4.0 mV/V

Analog Signal Sensitivity:

0.2 μV/graduation minimum 1.5 μV/graduation recommended

Conversion Rate:

60 updates/second

Resolution:

10,000 displayed graduations (NTEP Certified),
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,
0.8 in (20 mm) 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:

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

Operating Temperature:

14° F to 104° F (-10° C to 40° C) legal

Rating/Material:

Stainless steel NEMA Type 4X/IP66 enclosure

Optional Battery:

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

Weight:

6.1 lb (2.8 kg)

Warranty:

One-year limited warranty

Approvals:

NTEP CC 03-078 Class III/IIIL 10,000d
UL/cUL Listed
FM Entity
Measurement Canada AM-5560

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Part Number/Price

Part #	Description	Price
91235	320IS Plus intrinsically-safe digital weight indicator full keypad with battery pack and charger & tilt stand	Consult
91236	320IS Plus intrinsically-safe digital weight indicator full keypad with A/C power supply	Consult
177501	320IS Plus indicator only	Consult

Options/Accessories

Part #	Description	Price
174049	Power supply, IS-EPS-100-240 VAC with barrel connector	Consult
179142	DC extension cable 10 ft	Consult
179143	DC extension cable 25 ft	Consult
179144	DC extension cable 50 ft	Consult
179145	DC extension cable 75 ft	Consult
179146	DC extension cable 100 ft	Consult
72725	IS-6 V battery option with cable adapter	Consult
74001	Battery charger, 115 VAC	Consult
74002	Battery charger, 230 VAC	Consult
80869	Fuse, 1.25A, 250 V TR5 time-lag (replacement part for the I/O module)	Consult
72726	Tilt stand (required for battery model)	Consult
89239	I/O Module, stainless steel NEMA Type 4 enclosure, safe area option (requires fiber optic cable, AC power required)	Consult
83388	Timer relay kit includes din rail, timer relay for latching and mount	Consult
85353	Installation manual	Consult
78076	I/O module manual	Consult

Hazardous Environment Cable and Fiber Optic Cable

32817	EL147IS hazardous environment cable	Consult
72241	Hazardous environment 3 conductor	Consult
78026	Fiber optic, duplex cable 100 ft	Consult
78027	Fiber optic, duplex cable 200 ft	Consult

Dimensions**Without Battery**

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

With Optional Battery and Tilt Stand

F	11.56 in (293.6 mm)	G	4.75 in (120.7 mm)
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Optional I/O Module

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

Optional Power Supply

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

