

## Summing Units, Extension Boxes, and Cables

### FEATURES

- Summing units— analog summing of up to eight (8) transducers (no trim pots that cause calibration shifts)
- Extension boxes— extend transducer cables without performance degradation
- System cables— custom manufactured for high performance over long distances and ranges of environmental conditions

### APPLICATIONS

- Load cell summing
- Hazardous location installations
- Cable extension boxes
- Cables

### DESCRIPTION

Model 308A and 306 Summing Units provide a multi-cell interface for load cell signal conditioning instrumentation. Versions available are capable of (analog) summing up to 8 individual transducer signals. A wide range of enclosure options are available for washdown, corrosive, and electrical hazard applications.

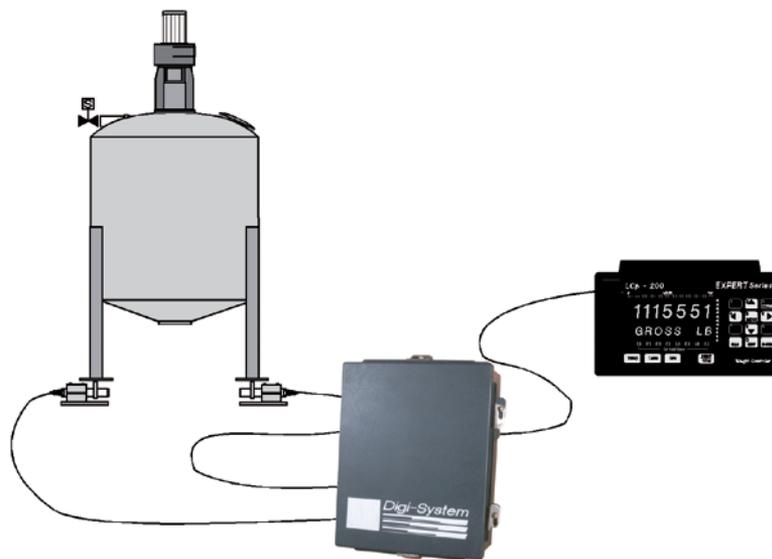
Operationally, these units perform the multiple tasks of distributing excitation current, summing transducer output signals, and protecting wiring and connections. A unique circuit design in the 308A unit minimizes the effects of system unbalance and electrical leakage. This added protection is beneficial when equipment is located in a harsh, corrosive atmosphere. Model 306 units are compatible with Plug-n-Weigh instrument calibration procedures for faster system start-up.



304 Extension Boxes are used whenever transducer cables are not long enough to reach the summing unit or system instrumentation. The internal terminal block or connection provides for either a four wire or six wire (remote sensing) hookup. A range of metallic enclosures are available for washdown, corrosive, and electrical hazard applications.

BLH Nobel offers a range of system cables for connection between the summing unit, junction box, and system instrumentation. These custom cables are designed for use over long distances without signal losses, temperature effects, undue EMI/RFI, or environmental deterioration.

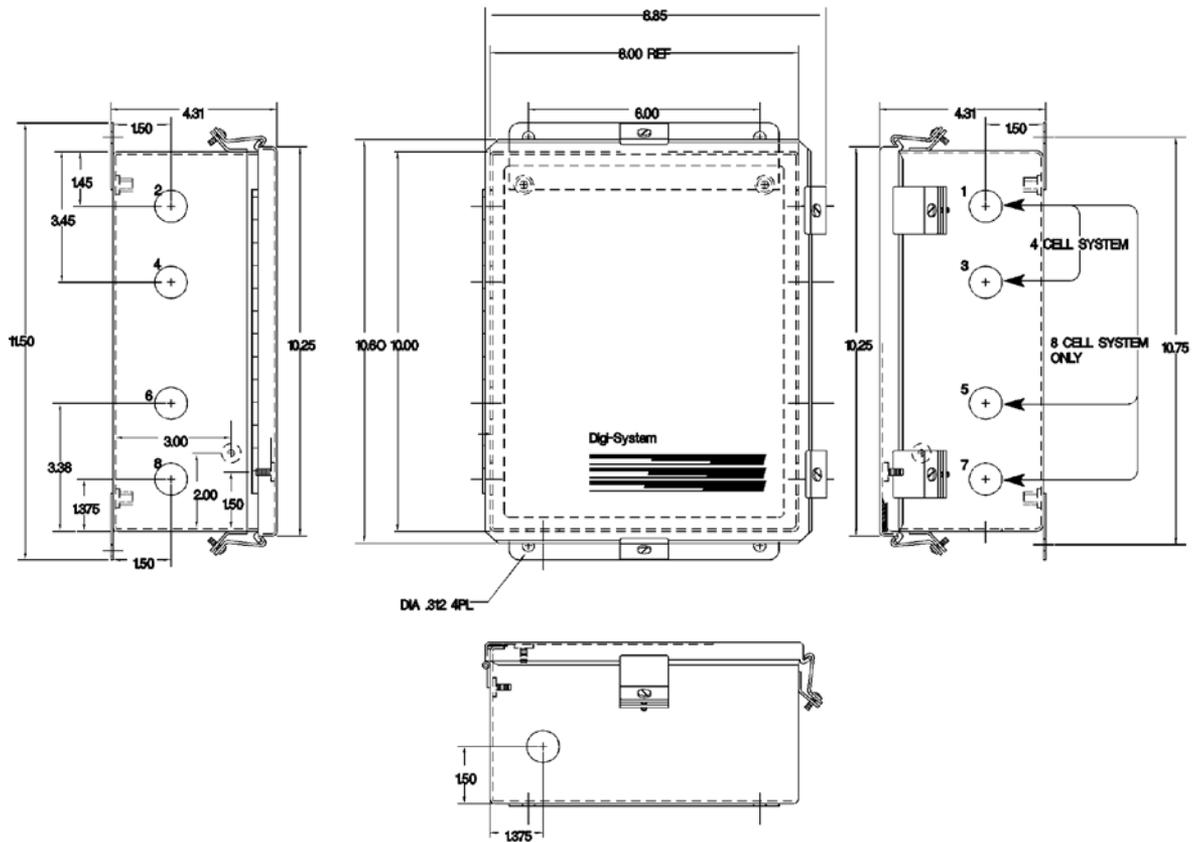
### CONFIGURATION



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**MODEL 308A SUMMING JUNCTION BOX** in inches

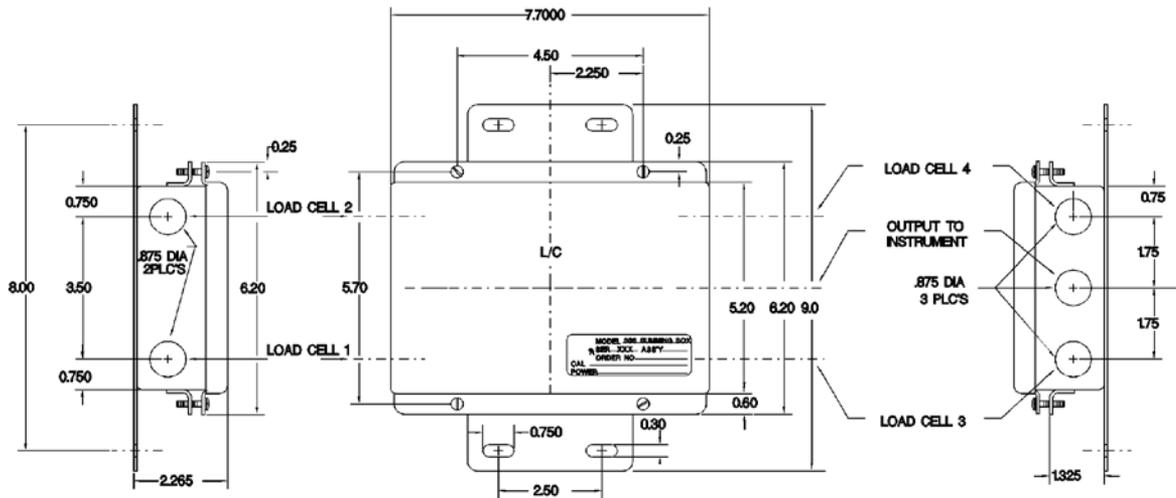
- 4 or 8 transducer capability
- Unbalance/leakage compensation
- Standard NEMA 4 enclosure
- Optional NEMA 4X or explosion-proof enclosures



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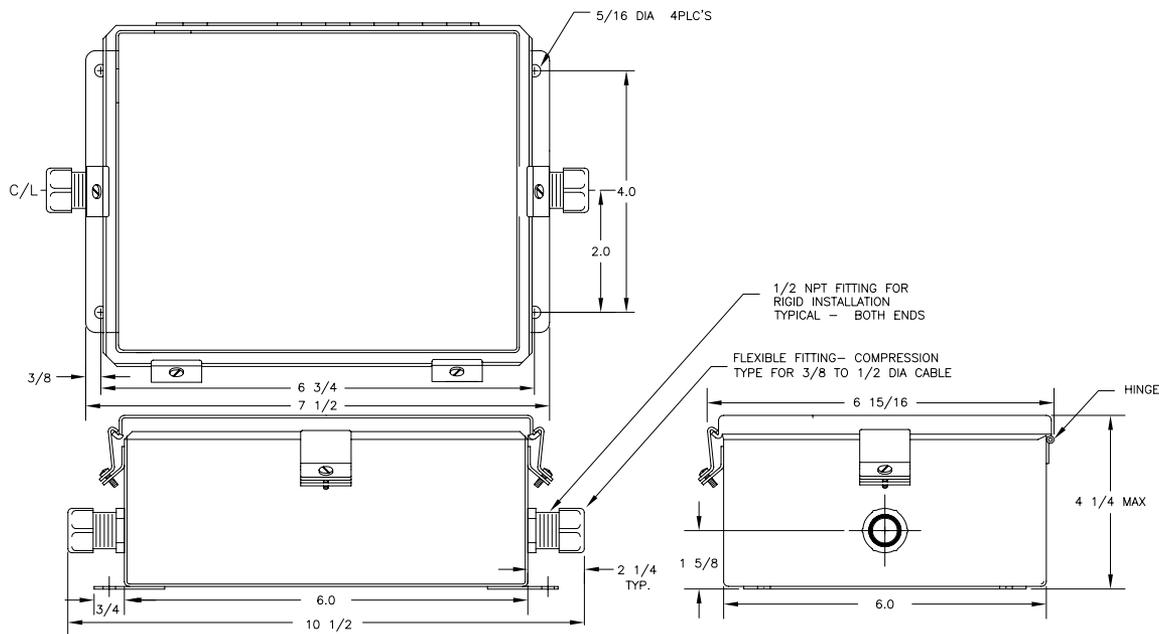
**MODEL 306 SUMMING JUNCTION BOX** in inches

- 4 transducer capability standard; multiple units can be connected together for 8 cell systems
- Standard NEMA 4X stainless steel enclosure



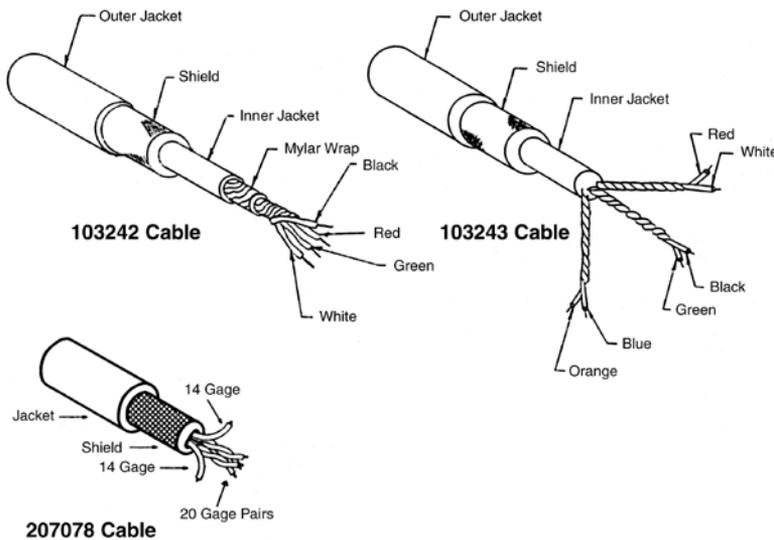
**MODEL 304 EXTENSION BOX** in millimeters (inches)

- Extend cable length to reach summing box
- Supports applications requiring remote sensing
- Explosion-proof enclosure option



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<b>INSTRUMENTATION CABLES</b>			
Special BLH Nobel instrumentation cables are recommended to insure that the full accuracy and dynamic performance of the transducers are maintained in the installed system. The special shielding and very high insulation resistance of BLH Nobel cables allows measurement of smaller signals and offer greater		accuracy at all signal levels. Cables are needed whenever required cable runs exceed the length of cable supplied with transducers and/or when outputs of several transducers must be summed into a single channel.	
<b>Catalog Number</b>	<b>103242</b>	<b>103243</b>	<b>207078</b>
<b>Description</b>	4-conductor shielded	6-conductor shielded	6-conductor shielded
<b>Outside Diameter</b>	0.365"	0.450"	0.370"
<b>Conductors</b>	2 twisted pairs #20 AWG	3 twisted pairs #20 AWG	2 twisted pairs #20 AWG 2 single #14 AWG
<b>Insulation</b>	Teflon	Teflon	polypropylene
<b>Inner Jacket</b>	waterproof polyethylene	waterproof TPR 5280 polyolefin	
<b>Outer Jacket</b>	0.072" black hypalon	0.040"/0.045" black hypalon	thermo-plastic TPR/TPE or neoprene
<b>Leakage Test</b> 50 VDC between conductor and shield	1,000,000 MΩ/ft	1,000,000 MΩ/ft	400,000 MΩ/ft
<b>Max. Temperature Insulation</b>	400°F	400°F	185°F
<b>Max. Temperature Outer Jacket</b>	195°F	195°F	221°F



**Fitting Kits:**

BLH Nobel provides cable and conduit kits for NEMA 4/4X Junction Boxes. Each kit includes nine fittings, one for each enclosure opening. The conduit kit accommodates conduit dimensions from 1/2 to 3/4 of an inch in diameter. The cable kit accommodates cables from 0.125 to 0.375-inch diameters.

Cable Kit Part Number 466615

Conduit Kit Part Number 466614

BLH Nobel is continually seeking to improve product quality and performance. Specifications may change accordingly.