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| Version | Date | Description of Revisions |
| 1 | November 1, 2011 | Standard Specification Release |
| 2 | April 21, 2015 | General Formatting |
| 3 | June 13, 2022 | 1.4 Tagging requirement revised (BM) |
|  |  |  |

NOTE:

This is a CONTROLLED Document. Any documents appearing in paper form are not controlled and should be checked against the on-line file version prior to use.

**For each project the Consultant is responsible for the correct application of the specifications and for updating and modifying all highlighted items, as well as updating and modifying those sections that are directly applicable to the project. All updates and modifications to this standard document are to be highlighted to the Region for review and acceptance on each project.**

**Notice:** This Document hardcopy must be used for reference purpose only.

**The on-line copy is the current version of the document.**

# GENERAL

## General

### The specifications in this section define additional requirements to those set forth in Section 13105 – Process Control: General Instrumentation Requirements. Where a conflict exists, the more stringent requirement is to be provided.

### The contractor is to clearly identify on the shop drawings any deviation from the specification.

## Measurement and Payment

### The work outlined in this section shall be included in the lump sum price for Section 13280 – Weigh Scale as indicated in the Bid Form.

## Load Cell

### Material: NTEP, Stainless Steel IP67

### Connections for 4 lead or 6 lead with sense, jumper selectable.

### Signal Range: 0.1 - 20 mV/V scale output

### Resistance: 350 ohms bridge resistance

### 150% safe overload, 300% max.

### Excitation 10VDC, short circuit protected.

### Dual platform, 300kg capacity. 0.1kg precision.

### Provide manufacturer's recommended model appropriate for media application

## Transmitter / Controller

### Stainless Steel NEMA 4X enclosure.

### Sealed elastomer keypad for protection against harsh environments.

### Swivel bracket for mounting to fixed surface.

### Capability to power minimum of twelve 350 ohm load cells.

### Isolated 20-240 VAC, 3-60 VDC output modules, 1-3A rating.

### Equipment tag wired to transmitter and to weigh scale in accordance with Section 01080 – Process Equipment Location Tagging.

### Isolated current loop for load impedance of 0 to 750 ohms, programmable as 4-20mA, linear to weight, provided for each scale value.

# INSTALLATION

## General

### The following installation requirements are in addition to or deviations from the requirements set forth for instrumentation in Section 13105 – Process Control: General Instrumentation Standard.

### Provide all stainless steel mounting hardware.

### Mount transmitter/controller on weigh scale pedestal. Transmitter/controller cabling to be routed through pedestal to load cell.

### Provide front mounted visible data display behind clear, shatterproof viewing cover.

### Provide PVC conduit for cable between transmitter and PAC. Conduit entries through walls to be sealed.

### Transmitter/Electronics are not to not to be mounted outdoors.

# ACCEPTABLE MANUFACTURERS

### Acceptable manufactures are listed in the following table in order of preference. The design has been completed around the first named supplier. The contractor is responsible for all costs associated with any changes required to the design to accommodate one of the other manufacturers.

|  |  |  |
| --- | --- | --- |
| **Preference** | **Manufacturer** | **Model** |
| 1 | Matrix Scale Service | CS300-2 |
| 2 |  |  |
| 3 |  |  |

### The Contractor is to select the appropriate options to suit the application and the requirements of the specification.

### Where second and third named manufacturers are provided, they are to meet the performance specifications of the first named manufacturer.

## Weigh Scale

First Named Manufacturer:

|  |  |
| --- | --- |
| **Service:** | Chlorine Cylinder |
| **Process:** |  |
| Tag Name: | xxxx-xxx |
| Installation DWG: | 13280x |
| Compound: | Chlorine |
| Temp min/max: | 0 to 25 °C |
| Press min/max: | Ambient |
| **Load Cell Device Data:** |  |
| Material: | NTEP, Stainless Steel IP67 |
| Signal Range: | .1 - 20 mV/V scale |
| Resistance: | 350 ohms |
| Platform: | Dual Platform |
| Capacity: | 300kg |
| Precision: | 0.1kg |
| **Transmitter Device Data:** |  |
| Output: | 4 - 20 mA isolated (750 W) |
| Power Supply: | 120 Vac - 60 Hz |
| Enclosure: | Stainless Steel NEMA 4X |
| Indication: | Local Back Lit LCD, Eng units |
| Resolution: | 1,000,000 displayed (+/-500,000 internal) |
| Prog. Software: | Yes |
| Options: | Analog Output Module, I/O Relay Modules |
|  | *Additional added as necessary* |
| Manufacturer: | Matrix Scale Service |
| Part Number: | CS300-2 |

**END OF SECTION**