**Application Area**

The W4800 is used primarily for measuring the loading (weight or mass flow) of product on a conveyor. Typical applications are the weight measurement of bulk materials. The most common industries for the W4800 include:

- Power (Coal Handling)
- Paper Manufacturing (Wood Chipes, Pulpers)
- Food Processing
- Mineral Processing

**Advantages**

Recognizable benefits of the W4800 include:

- High reliability
- Low maintenance
- Low total installation cost
- Non-contact measurement of bulk solids materials
- Integrated electronics

**Function**

The detector uses a highly-sensitive scintillator rod inside a stainless steel housing. This rod produces photons when exposed to gamma radiation. The number of photons produced represents the intensity of radiation striking the detector. A photomultiplier tube converts the scintillator’s photon signal to an electrical signal. A gamma source is installed above the conveyor opposite the detector. Weight changes vary radiation intensity at the scintillator. The detector’s microprocessor-based transmitter produces a 4 ... 20 mA HART output proportional to vessel level when properly adjusted.

**Technical Data**

**System Accuracy**

Repeatability varies: +/- 1% f.s. for high load span, +/- 5% f.s. for very low load span. Consult factory. Accuracy depends on initial calibration and frequency of empty-belt adjustment.

**Power Requirements**

<table>
<thead>
<tr>
<th>Description</th>
<th>AC Non-heated</th>
<th>AC Heated</th>
<th>DC Non-heated</th>
<th>DC Heated</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 ... 250 VAC, 50 ... 60Hz, 15 VA</td>
<td>115 or 230 VAC, 50 ... 60 Hz, 25 VA</td>
<td>20 ... 60 VDC (&lt; 100 mV, 1 ... 1000Hz ripple), 15 VA</td>
<td>24 VDC +/- 10%, 25 VA</td>
<td></td>
</tr>
<tr>
<td>- Wire Size</td>
<td>1.63 ... 0.64 mm (14 ... 22 AWG) per local electrical code</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ambient Conditions**

- **Temperature**: -20 ... +50 °C (-4 ... 122 °F)
- **Humidity**: 0-95%, non-condensing
- **Vibration**: Tested to IEC 68-2-6, IEC 68-2-27, and IEC 68-2-36

**Relay Output**

- **User Configurable**: Diagnostic, Process high/low alarm, X-Ray Interference
- **Rating**: 6A at 240 VAC, or 6A at 24 VDC (SPDT Form C), or ¼ HP at 120 VAC

**Auxiliary Inputs**

- **Standard**: Frequency input (0 to 100kHz)
- **Optional**: 4 ... 20 mA DC Input for analog tachometer

**Materials**

**Electronics Housing**: Cast Aluminum ASTM A357

**Housing Coating**: Polyester powder coating (Standard) or PVC coating

**Sensor**: Styrene

**Sensor Conduit**: 304 Stainless Steel

**Frame**: Carbon Steel (Standard) or 316 Stainless Steel

**Housing Versions**

The housing carries a NEMA 4X (IP 66) rating and features two ¼” NPT conduit entries. Options for ½” NPT or M20 conduit entry adapters are available.

**Electronic Versions**

The standard electronic version available for the W4800 is 4 ... 20 mA HART or frequency output for SmartPro.
Specifications Sheet

Adjustment
The detector is adjusted using a PC with Ohmview configuration and calibration software via HART modem. Alternatively, a Rosemount 275 or 375 HART handheld communicator with pre-installed Ohmart device description may be used.

Electrical Connection

Terminals
1  Power in (L)
2  Power in (N)
3  Relay NO
4  Relay C
5  Relay NC
6  + Frequency
7  - Frequency
8  + 6V
9  COM
10 - 6V
11 + Auxiliary
12 - Auxiliary
13 + mA
14 - mA

Dimensions

Information
You can find additional information about VEGA product offerings from our home page, www.vega-americas.com. Brochures, operating instructions, quick reference guides, specification sheets, and drawings are also available from the Downloads section of our homepage.

Device Selection
The Downloads section of our home page, www.vega-americas.com provides application data sheets so you can select the measuring principle or product for your particular application.

Contact
Please call 1-513-272-0131, Monday through Friday, 8:00 A.M.-5:00 P.M., EST (Eastern Standard Time) if you have any questions. For emergencies after hours, call the number above and follow the voice mail instructions.

All information is subject to change without notice.