**Application Area**

The FiberFlex is well-suited for a wide variety of continuous level measurements in liquids and bulk solids. Typical applications are the measurement of liquids in process vessels including curved vessels and tower sumps. Other industries include:

- Chemical
- Petrochemical
- Offshore
- Refining
- Power
- Steel Industry
- Food and Beverage
- Pulp and Paper

**Advantages**

Recognizable benefits of the FiberFlex include:

- Flexible sensor to wrap around vessel structures and obstacles
- Long length reduces the need for multiple detectors
- Light weight construction
- Electronics permit a wide variety of setup and compensation options

**Function**

The detector uses a special fiber-optic scintillator bundle inside a flexible, galvanized steel "conduit" covered with thermoplastic rubber. This bundle 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 on the vessel opposite the detector. Level changes expose varying lengths of the scintillator to radiation. The detector’s microprocessor-based transmitter produces a 4 ... 20 mA HART output proportional to vessel level when properly adjusted.

**Technical Data**

- **System Accuracy**: Typically +/- 1% of span
- **Active Length**: 305 ... 7,010 mm (12 ... 276")
- **Power Requirements**
  - AC Non-heated: 90 ... 250 VAC, 50 ... 60 Hz, 15 VA
  - AC Heated: 115 or 230 VAC, 50 ... 60 Hz, 25 VA
  - DC Non-heated: 20 ... 60 VDC (< 100 mV, 1 ... 1000Hz ripple), 15 VA
  - DC Heated: 24 VDC +/- 10%, 25 VA
  - Wire Size: 14 ... 22 AWG (1.63 ... 0.64 mm) per local electrical code
- **Ambient Conditions**
  - Temperature: -20 ... +50 °C (-4 ... 122 °F)
  - Humidity: Extended temperature options available 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
  - Rating: 6A at 240VAC, or 6A at 24VDC (SPDT Form C), or ¼ HP at 120VAC
- **Auxiliary Inputs**
  - Standard: Frequency input (0 ... 100kHz)
  - Optional: RTD Input, 4 ... 20 mA DC Input, RS485
- **Weight**: 6.8 kg + 0.0015 kg x length in mm (15 lbs. + 0.084 lb. x length in inches)

**Materials**

- **Electronics Housing**: Cast Aluminum ASTM A357
- **Housing Coating**: Polyester powder coating (Standard) or PVC coating
- **Sensor**: Styrene
- **Sensor Conduit**: Santoprene rubber coated steel

**Housing Versions**

The housing carries a NEMA 4X (IP 66) rating and features two ¾” NPT conduit entries. Options for ½” NPT or M20 conduit entry adapters are available.

**Electronic Versions**

The standard electronic version available for the FiberFlex is 4 ... 20 mA HART. Optional electronic versions include frequency output and RS485 for inter-gauge communication.
**Specifications**

### Approvals
- **CSA, GOST-R**: Class I, Div I, GR. A, B, C, D; Class II, Div I, GR. E, F, G T6 Ta= -20°C to +60°C or Class I, Zone I, GR. IIC T6 Ta= -20°C to +60°C
- **FM**: Class I, Div I, GR. A, B, C, D; Class II, Div I, GR. E, F, G T6 Ta= -20°C to +60°C or Class I, Zone I, GR. IIC T6 Ta= -20°C to +60°C
- **ATEX**: II 2 G/D EExd IIC T6 Ta= -20°C to +60°C

### Other Certifications
- NEPSI (China), KTL (Korea), JIS (Japan)

**Note**: Approvals for heated versions may vary. Consult factory.

### Operation
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

#### FiberFlex Dimensions
1. **External Ground**
2. **Use 8 mm (5/16") Mounting Hardware (2) Places**
3. **Clearance for Servicing, 254 mm (10.0") preferred, 152 mm (6.0") minimum**
4. **19 mm (3/4") (2) Places**
5. **391 mm +/- 25 mm + Length (15.38" +/- 1" + Length**
6. **Flexible Detector may be Bent up to 305 mm (12") Minimum Radius**
7. **Length 305 mm to 7010 mm (12" to 276")**

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All information is subject to change without notice.
Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.