# Level Transmitters
# Model WIR / WFR



## Application

WIR / WFR series transmitters are suitable for most industrial and commercial applications including:

- Refinery and chemical industries
- Energy and power plant technology
- Feed water heaters and boilers
- Oil and gas industries
- Offshore exploration and drilling
- Pipeline compressor applications


## Features

- WIR process temperature ranges from -320°F to 600°F or -195°C to 315°C
- WFR process temperature ranges from -300°F to 480°F or -184°C to 250°C (plastic up to 212°F or 100°C)
- WIR is mounted externally to the process, can be maintained without interruption
- Cast aluminum epoxy coated housings
- WFR is an all in one unit with integrated float for internal mounting
- Optional digital display or units without digital display

## Specifications

### Housing Options

NEMA 4X Epoxy coated aluminum, XP/I/1BCDT6 aluminum or stainless or NEMA 7/9 FM class 1, division 1, group B

### Electrical Approvals

FM

### Resolutions

5mm (0.197”), 10mm (0.394”), 15mm (0.591”), or 18mm (0.708”)

### Termination Type

Terminal block

## WIR Options

Resolution
5mm, 10mm, 15mm, or 18mm

Unit of measure
Imperial or Metric

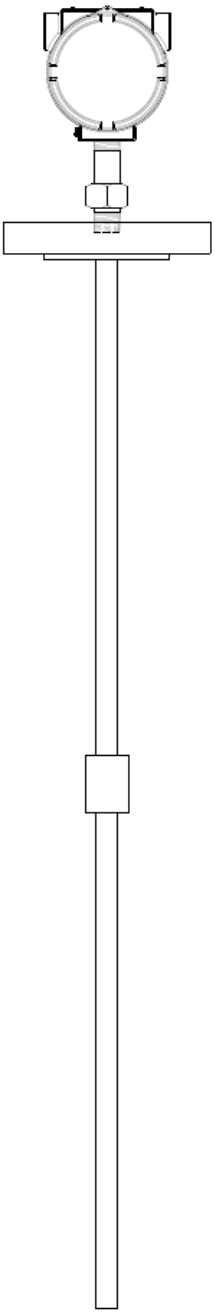
Sensor Length
Up to 240” or 610cm

Housing style
Aluminum housing, FM approved, NEMA 4X, IS, CI, I, II, III/1/ABCDEFG/T4

Aluminum housing, FM approved, XP/1/CBCD/T6, DIP/ II/1/EFG/TC3

Each available with stainless steel cover and/or window cover to view digital indicator

Power source
24 VDC loop power



## WFR Options

Resolution
5mm, 10mm, 15mm, 18mm, or 48 mm (16mm, 20mm for plastic units)

Unit of measure
Imperial or Metric

Sensor Length
Up to 236” or 600cm

Housing style
Aluminum housing, FM approved, NEMA 4X, IS, CI, I, II, III/1/ABCDEFG/T4

Process Connection
NPT, ANSI Flange, Tri-clamp

Power source
24 VDC loop power

Material
Offered in 316L, 316ss, Hastelloy C, B, Titanium, PVC, PP, PTFE, PVDF, 316 with 3A approval





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# Appendix

## Type code - WFR

**1 Transmitter style**

| | | | |
|---|---|---|---|
| **SF** | Standard transmitter with float (temperature rating 100°F - 300°F) | **HD** | High temperature transmitter with dual float (temperature rating 100°F to 480°F) Digital indicator not available on dual float models |
| **DF** | Standard transmitter with dual float (temperature rating 100°F to 300°F) digital indicator not available on dual float models | **SS** | Sanitary transmitter with float (temperature rating -300°F to 480°F) |
| **HS** | High temperature transmitter with float (temperature rating 100°F to 480°F) | **PF** | Plastic transmitter with float (temperature rating 0°F to 212°F depending on material) Plastic transmitters offered with resolutions of 12.7mm or 20mm only |

**2 Sensor tube diameter**

| | | | |
|---|---|---|---|
| **12** | 12mm (.48”) | **18** | 18mm (.70”) |
| **14** | 14mm (.55”) | | |

**3 Wetted parts**

| | | | |
|---|---|---|---|
| **S** | 316 Stainless steel | **T** | Titanium |
| **L** | 316L Stainless steel | **V** | Hard polyvinylchloride (PVC) (plastic only, 0°F to 140°F) |
| **A** | 316L Stainless steel (polished to 3A requirements) | **P** | Polypropylene (PP) (plastic only, 0°F to 175°F) |
| **C** | Hastelloy C | **E** | Teflon (PTFE) (plastic only, 0°F to 212°F) |
| **B** | Hastelloy B | **K** | Kynar (PVDF) (plastic only, 0°F to 175°F) |

**4 Resolution**

| | | | |
|---|---|---|---|
| **A** | 5mm (.19”) available for tube diameters 18 and 48 only | **C** | 15mm (.59”) available for all tube diameters HS transmitters 12 and 14 |
| **B** | 10mm (.39”) available for tube diameters 18, 48, and HS transmitters 14, 18 only | **D** | 18mm (.71”) available for all tube diameters |

**5 Units of measure**

| | | | |
|---|---|---|---|
| **I** | Imperial | **M** | Metric |

**6 Sensor length**

| | | |
|---|---|---|
| **--** | Dimension in inches or millimeters.<br>Example: 44” = 0044 | Up to 120” for 12mm, 14mm, 16mm and 18mm (sanitary only) 200” for 16mm plastic, 240” for 18mm and 480” for 48mm sensor tubes |

**7 Connection size and type**

| | | | | | | Sanitary Sizes | | | |
|---|---|---|---|---|---|---|---|---|---|
| **F10** | 1.0” ANSI flange | **F40** | 4.0” ANSI flange | **N10** | 1.0” NPT | **10** | 1.0” Tri-clamp | **40** | 4.0” Tri-clamp |
| **F15** | 1.5” ANSI flange | **F50** | 5.0” ANSI flange | **N15** | 1.5” NPT | **15** | 1.5” Tri-clamp | **50** | 5.0” Tri-clamp |
| **F20** | 2.0” ANSI flange | **F60** | 6.0” ANSI flange | **N20** | 2.0” NPT | **20** | 2.0” Tri-clamp | **60** | 6.0” Tri-clamp |
| **F25** | 2.5” ANSI flange | **N05** | 1/2” NPT | **NAD** | NPT Adjustable fitting (size varies) | **25** | 2.5” Tri-clamp | **AD** | 3/4” NPT adjustable fitting with polished float guide tube |
| **F30** | 3.0” ANSI flange | **N75** | 3/4” NPT | | | **30** | 3.0” Tri-clamp | | |

**8 Connection rating**

| | | | | Sanitary Sizes |
|---|---|---|---|---|
| **A** | 150# ANSI | **D** | NPT 1,000 psi | |
| **B** | 300# ANSI | **S** | Sanitary tri-clamp 275 psi | |
| **C** | 600# ANSI | **N** | Sanitary NPT adjustable fitting 275 psi | |

**9 Electronics**

| | |
|---|---|
| **0** | Remote electronics, terminal block only |
| **1** | 24 VDC loop powered transmitter |
| **2** | 24 VDC loop powered transmitter with integral LCD indicator in explosion proof enclosure |

*Note: Choice 2 requires choosing housing option AWX or SWX. Choice 0 does not require housing.*

**10 Housing**

| | | | |
|---|---|---|---|
| **A4X** | Aluminum housing FM approved, NEMA 4X, IS, CI, I, II, III/1/ ABCDEFG/T4 | **AWX** | Same as ABX but with window cover to view digital indicator |
| **ABX** | Aluminum housing FM approved, XP/I/1/BCD/T6 DIP/II/EFG/T3C | **SBX** | Same as ABX but stainless steel construction |
| | | **SWX** | Same as SBX but with window cover to view digital indicator |

### Ordering example

| 1 | - | 2 | - | 3 | - | 4 | - | 5 | - | 6 | - | 7 | - | 8 | - | 9 | - | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Transmitter style | | Sensor tube diameter | | Wetted parts | | Resolution | | Units of measure | | Sensor length | | Connection size and type | | Connection rating | | Electronics | | Housing |



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# Appendix

## Type code - WIR

| | | | | |
|---|---|---|---|---|
| **1** | **Resolution** | | | |
| | **05** | 5mm (.19”) | | |
| | **10** | 10mm (.39”) | | |
| | **15** | 15mm (.59”) | | |
| | **18** | 18mm (.79”) | | |
| **2** | **Units of measure** | | | |
| | **I** | Imperial | **M** | Metric |
| **3** | **Sensor length** | | | |
| | **--** | Dimension in inches or millimeters.<br>Example: 44” = 0044 | | |
| **4** | **Housing** | | | |
| | **A4X** | Aluminum housing FM approved, NEMA 4X, IS, CI, I, II, III/1/ ABCDEFG/T4 | **AWX** | Same as ABX but with window cover to view digital indicator |
| | **ABX** | Aluminum housing FM approved, XP/I/1/BCD/T6 DIP/II/EFG/T3C | **SBX** | Same as ABX but stainless steel construction |
| | | | **SWX** | Same as SBX but with window cover to view digital indicator |

### Ordering example

| 1 | - | 2 | - | 3 | - | 4 |
|---|---|---|---|---|---|---|
| Resolution | | Units of measure | | Sensor length | | Housing |



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