JTR3 Guided Wave Radar Level Transmitter

DESCRIPTION

FineTek Guided Wave Radar uses the Time Domain Reflectometry (TDR) principle, usually applied for both liquid and solid with a different dielectric constant. The sensor emits low power high frequency microwave pulses which are guided through a probe in contact with the process medium, part of the energy is reflected back to the transmitter. The time difference between the transmitted and the reflected pulse is converted into a distance, and the total level or interface level is then calculated. The reflection intensity depends on the dielectric constant of the product.The higher the dielectric constant value, the stronger the reflection. Guided wave radar sensor delivers reliable monitoring for both continuous level and interface measurements in medium using a rod or cable type probe.

FEATURES

- 2-wire design with HART communication
- No moving parts and no re-calibration minimizes maintenance
- Not influenced by medium density, conductivity, temperature, and pressure
- Handles vapor, steam, foam, buildup and turbulence well
- Suitable for interface level measurement
- Suitable for small tanks, difficult tank geometry, and interfering obstacles
- Local Display for easy on-site installation

APPLICATION

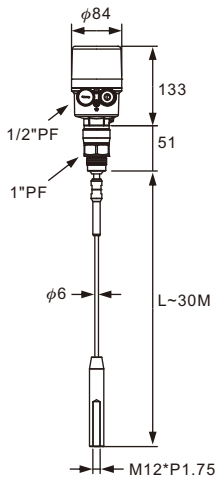
- Power plant
- Chemical industry
- Cement
- Water treatment
- Papermaking
- Steelworks
- Crude tank
- Refined oil products storage tank

SPECIFICATION

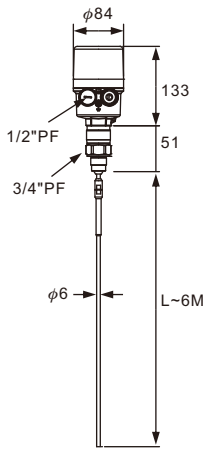
Model	JTR302	JTR301	JTR305
Application environment	solid / powder / granule	liquid	
Measuring range	Guide rod:0.5~6m Cable type: 1~30m		
Connection size	1”PF	Guide rod/cable: 3/4”PF	Coaxial: 3/4”PF
Material of sonde	SUS304/SUS316		
Operating temperature	−40~150℃		
Working pressure	−1~40Bar		
Ambient temperature	No display：−40~80℃ Display：−20~70℃		
Accuracy	±5 mm @(Standard Test Conditions)		
Output	A. 4~20mA(2-wire) B. 4~20mA(2-wire)+HART		
Power	16~36Vdc		
Resolution	1.6uA		
Fault signal	22mA		
Load resistance	$(V_s-16)/0.022A$		
Temperature effect	100ppm/℃		
Blind distance	300mm @(Standard Test Conditions)		50mm @(Standard Test Conditions)
IP rating	IP66/67		

DIMENSION

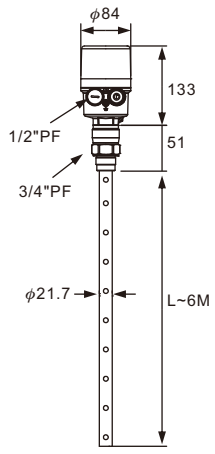
JTR302 Solid cable type



JTR301 Liquid guide rod type



JTR305 Coaxial



ORDER INFORMATION

JTR30 ☐☐☐☐☐☐☐☐☐☐☐

Application type

1: Liquid 2: Solid 5: Coaxial

Power and output specifications

A: Loop Power 16 ~ 36 Vdc
B: Loop Power 16 ~ 36 Vdc with HART

Authentication

0: NA

Connection

Size	Specifications
C--- 3/4""(for JTR301/JTR305) D---1" I---4" 3---1-1/4" J---5" E---1-1/2" K---6" F---2" S---Special G---2-1/2" specifications H---3"	Q---PT(R) U---NPT R---PF(G) S---Special specifications T---BSP
	M---5 kg/cm^2 P---300 Lbs X---PN 16 N---10 kg/cm^2 L---600 Lbs Y---PN 25 O---150 Lbs W---PN 10 Z---PN 40

※JTR302 is suitable for solids, JTR301 is suitable for liquids.
Tri-Clamp connection is customized as below : AD: 1" (3A)、 AE:1-1/2(3A)、 AF: 2" (3A)

Operating temperature

0: 150˚C

Probe type and Material

JTR301	JTR302	JTR305
A: 6mm guide rod SUS304	D: 10mm guide rod SUS304	G: 21.7mm SUS304
B: 4mm cable SUS304	E: 6mm cable SUS304	H: 21.7mm SUS316
C: 6mm guide rod SUS316	F: 10mm guide rod SUS316	S: special
S: special	S: special	

Probe length

0500：500mm or less
1000 : 501~1000 mm
1500 : 1001~1500 mm
2000: 1501~2000 mm

More than 10m, replaced the first code in English
E.g: A150=15m， A200=20m
Guide rod type: Longest 6m
Cable type: Longest 30m

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