

TECHTROL RADAR LEVEL TRANSMITTER 'INTROL 81' SERIES

Non-contact type 80 GHz, FMCW radar transmitters for continuous level measurement of liquids and solids.

SALIENT FEATURES

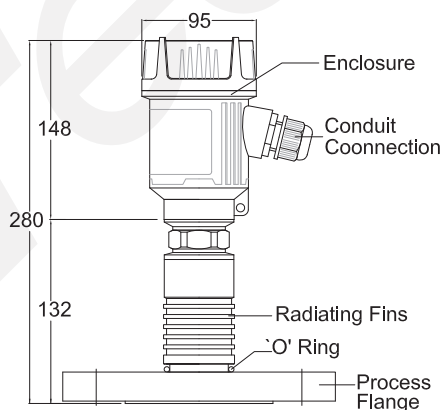
- Measuring range upto 60 meters
- Easy to install and retrofit on existing tanks
- Reliable & accurate performance with high frequency signal

WORKING

The transmitter emits continuous signal of RF frequency (80 GHz) towards the service media and then reflected back. The electronics detect the frequency difference between transmitting and receiving signal (Doppler shift) and generates 4-20 mA output corresponding to level. This output can be connected to Techtrol Level Indicator Controller, PLC or DCS for indication and control.

Introl 81- D

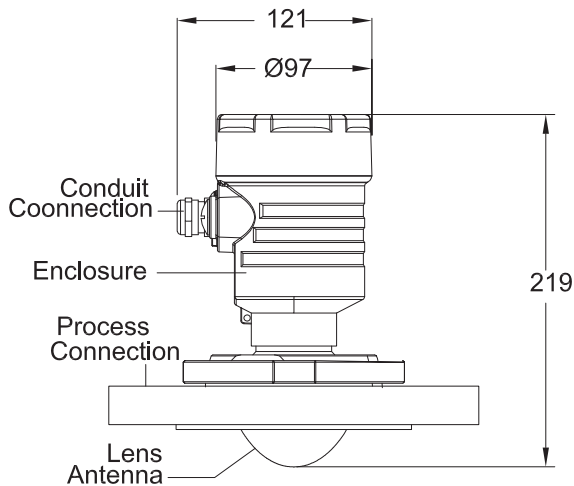
A non- contact, standalone radar transmitter for level measurement of liquids



Applications - Water, diluted acids, alkalis, dosing liquids, slurries, oils, thermic fluid, molasses and mild corrosive liquids.

Introl 81- B

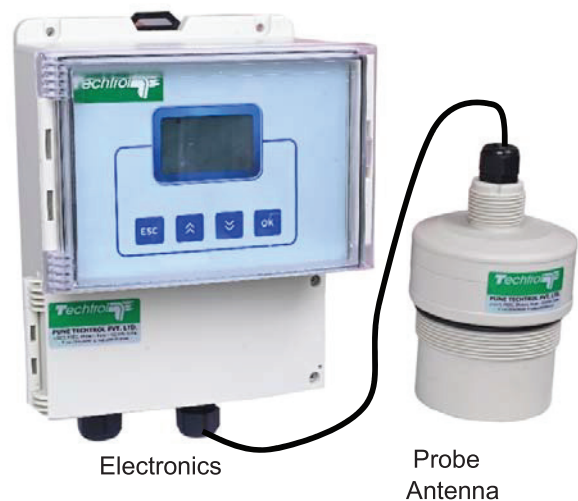
A non- contact, standalone radar transmitter for level measurement of solids and liquids.



Applications - Powders, flours, ash, cement, granules, gravels, grains, plastic pellets, lime, flakes, coal, sand, clinker and water.

Introl 81- S

A non- contact, two -part radar transmitter for level measurement of solids.



Applications - Powders, flours, ash, cement, granules, gravels, grains, plastic pellets, lime, flakes, coal, sand and clinker.

SPECIFICATIONS

Type	Intrrol 81 – D (Integral)	Intrrol 81 – B (Integral)	Intrrol 81 – S (Two- Part System)
Application	Liquids	Solids / liquids	Solids
Range	0.3 to 30 mtrs	0.8 to 60 mtrs	0.2 to 30 mtrs
Dead Band	0.3 m	0.8 m	0.2 m
Optg. Frequency	76-81 GHz		
Antenna	PTFE	PTFE	PP Lens
Beam Angle	7°	3°	3°
Response Time	< 2 Sec		
Material Dielectric	≥2	≥1.5	≥1.6
Process Conn. MOC	CS or SS304	CS or SS304	PP
Process Connection	3"NB ASME 150# Flange	4"NB ASME 150 # Flange	4"NB ASME 150 # Flange
Enclosure	Cast Al. IP67	Cast Al. IP67	ABS Plastic IP67
Cable Gland	M20 x 1.5, Nylon	M20 x 1.5, Nylon	PG 11, Nylon
Display	LCD		
Power Supply	24 VDC ±10%		
Output	4-20mA + HART (2 wire)		
Accuracy	±0.25 % FS		
Power Consumption	< 0.5 W		
Max. Load	350 Ohms	350 Ohms	250 Ohms
Max. Temperature	-40 to 200 °C	-40 to 120 °C	-20 to 80 °C
Max. Pressure	-1 to 20 bar	Atm (Solid) -1 to 20 Bar (Liq.)	-1 to 2 bar

* Intrrol 81-D available with triclover flange for sanitary applications

LEVEL INDICATORS & CONTROLLERS - For continuous Indication & Control.

Refer individual catalog for further details.

Panel Mtd.



'TLIC'

Level Indicator Controller

Panel Mtd.



'TUIC'

Universal Indicator Controller

Wall Mtd.



'LP-Cator'

Loop Powered Indicator

MODEL IDENTIFICATION

		Introl 81-		
1. Type				
D	(Integral system for liquids)	D		
B	(Integral system for liquids & solids)	B		
S	(Two Part system for solids)	S		
2. Process Connection MOC				
CS	(B & D type)		M	
SS304	(B & D type)		N	
PP	(S type)		P	
Others			O	
3. Process Connection				
3" NB ASME 150# flange	(D type)			1
4" NB ASME 150 # flange				2
Others				0

ORDERING INFORMATION

1. Model no. x Service x Operating Temperature & Pressure
2. Techtrol Indicator Controller if required.

*All dimensions in mm except specified

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