

## RPL Radar Level Transmitters



- Continuous Non-contact level measurement for solids, liquids, pulps and slurries
- Measurement range up to 70 Metres
- Measurement accuracy:  $\pm 10\text{mm}$
- Process temperatures up to  $180\text{ }^{\circ}\text{C}$
- Process pressures up to 40 Bar
- Power supply options: 2 wire 24vDC or 4 wire 20-72vDC, 20-250vAC
- Simple on site configuration via a menu driven matrix display
- Easy on site calibration without product handling
- Analogue Output 4-20mA
- Optional HART communications protocol

The RPL series of Radar level transmitters are suitable for continuous non contact level measurement applications for solids, liquid, pulps and slurries. The RPL transmitters are available with either a threaded or DIN flanged process connection and either a Rod or Horn antenna depending on the measurement range required. There are 4 different models available to cover measurement ranges up to 70 Metres with maximum operating temperatures up to  $180\text{ }^{\circ}\text{C}$  and pressures up to 40 Bar. The radar pulses emitted by the antenna are reflected back by the product surface to the antenna with the time gap between the emission and return of the pulse named as the "fly time." The "fly time is proportional to the product surface distance. Through the matrix display it is possible to input all the necessary data for the level measurement and to display and recognize false echo signals.

## Specification

### RPL51

Applications:	Level transmitter for liquids and aggressive media.
Maximum Measurement range:	30 Metres
Accuracy:	±10mm
Process Connections:	G1.5" PVDF, 1.5" NPT PVDF
Antenna Material:	Polypropylene or PTFE
Temperature range:	-40 to + 120 C or -40 to 150 C
Pressure Range:	-1 to +3 Bar
Frequency Range:	6GHz
Output Signal:	4-20mA, HART

### RPL52

Applications:	Level transmitter for liquids and aggressive media.
Maximum Measurement range:	30 Metres
Accuracy:	±10mm
Process Connections:	DN50, DN80, DN100, DN150 flanges PN16 / AISI 316L
Antenna Material:	PTFE
Temperature range:	-40 to 150 C
Pressure Range:	-1 to +16 Bar
Frequency Range:	6GHz
Output Signal:	4-20mA, HART

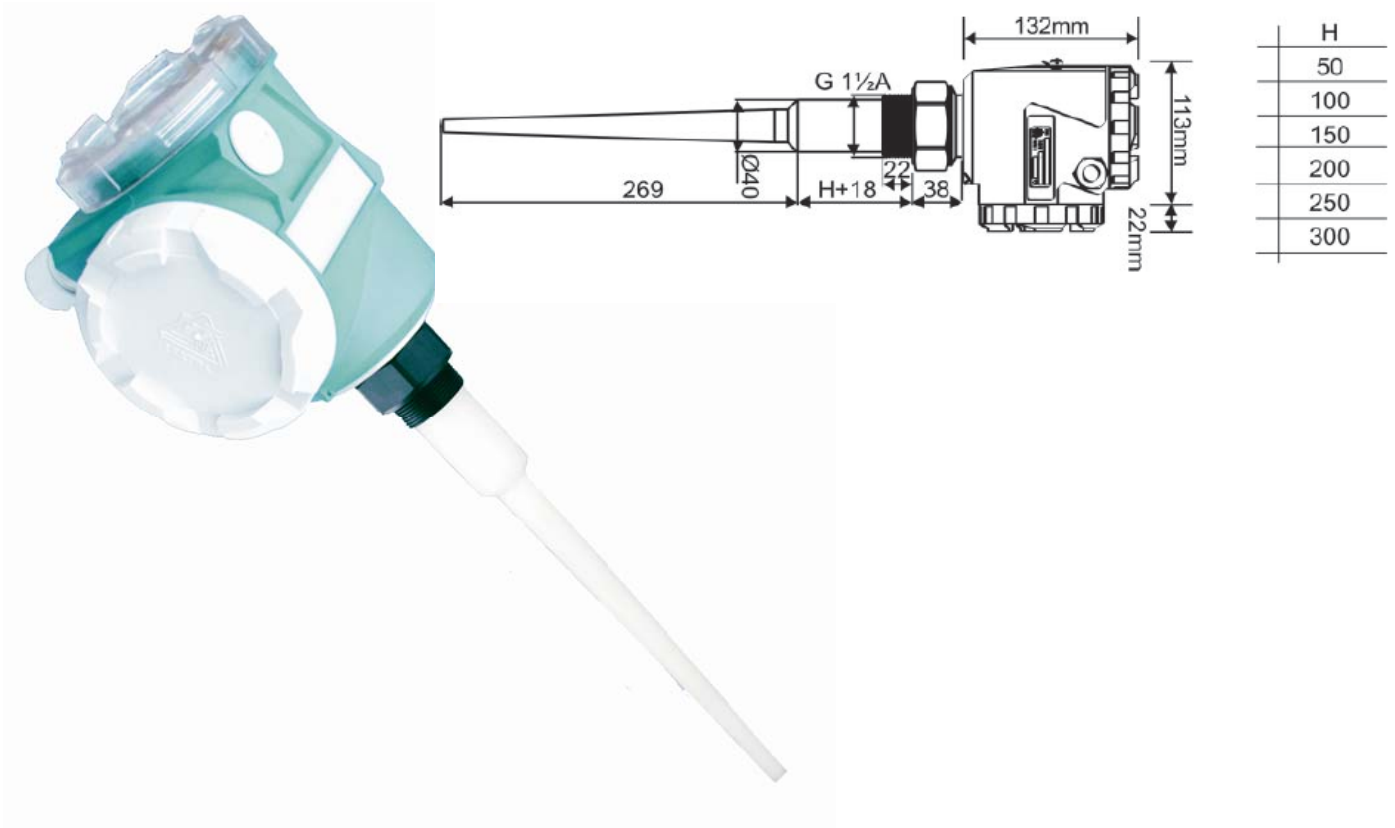
### RPL53

Applications:	Level transmitter for storage and process applications
Maximum Measurement range:	30 Metres
Accuracy:	±10mm
Process Connections:	DN50, DN80, DN100, DN150, DN200, DN250 flanges PN16 / AISI 316L
Antenna Material:	PTFE and AISI316L
Temperature range:	-40 to 200 C
Pressure Range:	-1 to +40 Bar
Frequency Range:	6GHz
Output Signal:	4-20mA, HART

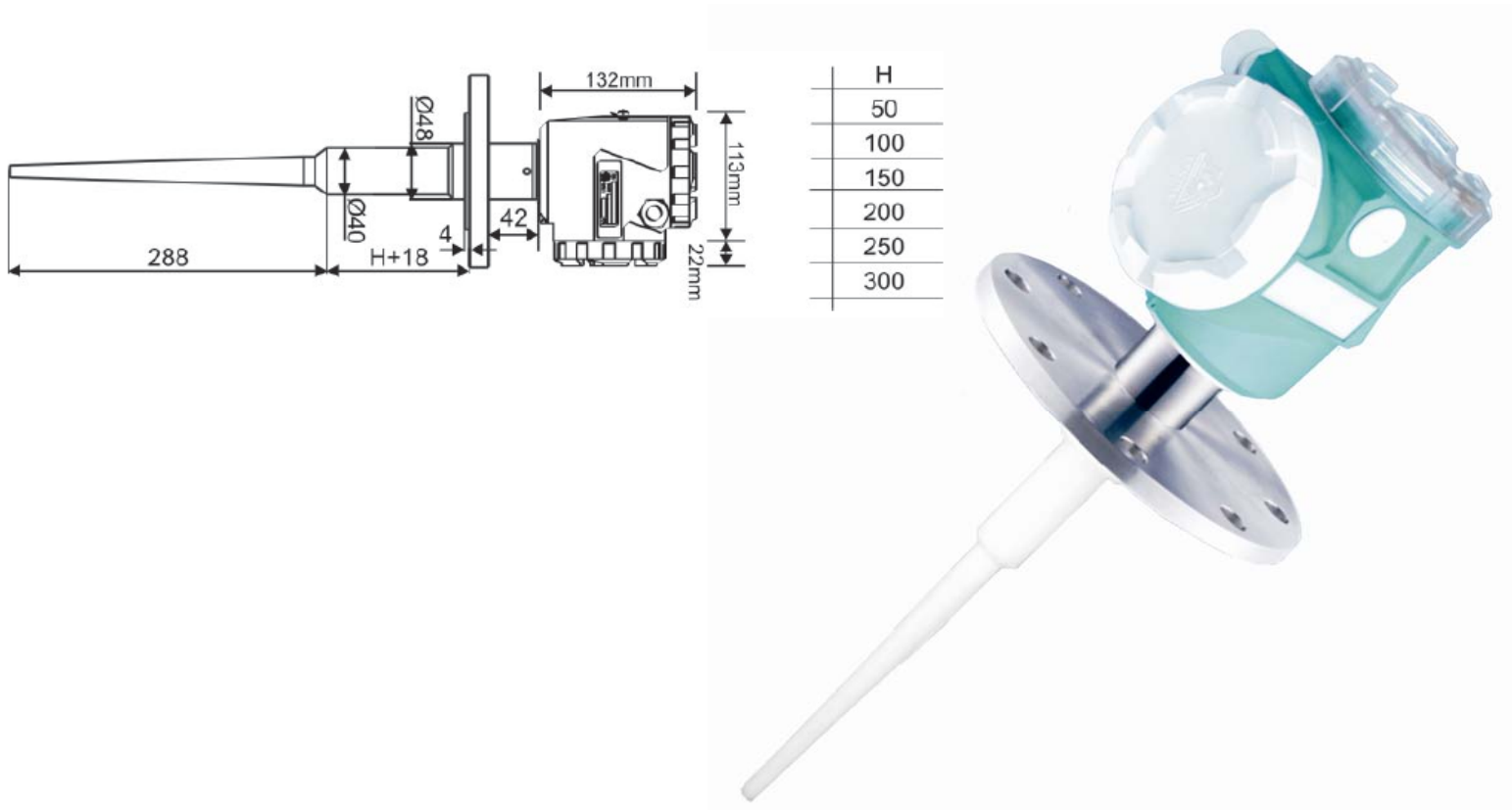
### RPL54

Applications:	Level transmitter for storage and process applications
Maximum Measurement range:	70 Metres
Accuracy:	±20mm
Process Connections:	DN150, DN200, DN250 flanges PN16 / AISI 316L
Antenna Material:	PTFE and AISI316L
Temperature range:	-40 to 200 C
Pressure Range:	-1 to +40 Bar
Frequency Range:	6GHz
Output Signal:	4-20mA, HART

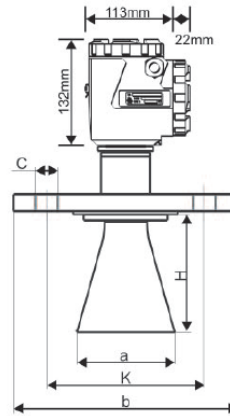
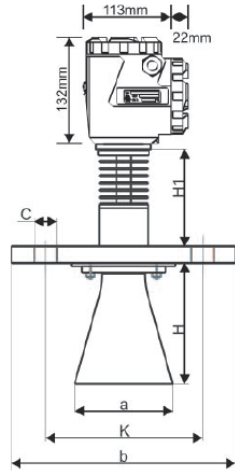
**RPL51 Radar Level Transmitter**



**RPL52 Radar Level Transmitter**

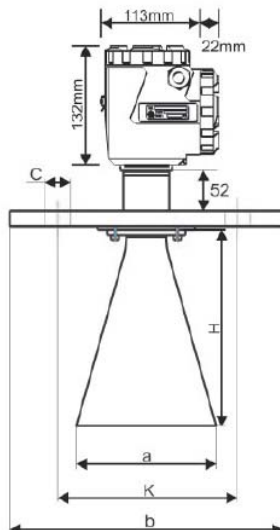
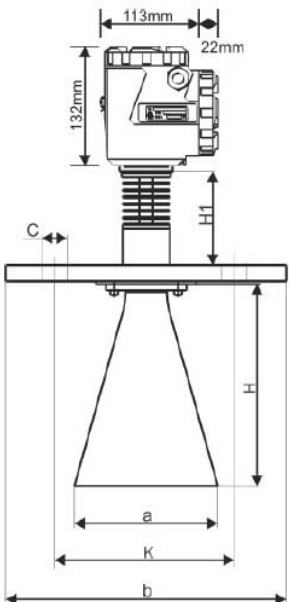


## RPL53 Radar Level Transmitter



	a	K	b	C	H	H1
DN50		Ø125	Ø165	Ø16x4		123
DN80	Ø75	Ø160	Ø200	Ø16x8	60	123
DN100	Ø96	Ø180	Ø220	Ø16x8	120	123
DN150	Ø146	Ø240	Ø285	Ø20x8	205	123

## RPL54 Radar Level Transmitter



	a	K	b	C	H	H1
DN150	Ø146	Ø240	Ø285	Ø20x8	205	123
DN200	Ø197	Ø295	Ø340	Ø20x12	296	123
DN250	Ø244	Ø355	Ø405	Ø24x12	380	123

## RPL51 Ordering Codes

RPL51	Code	Version						
	I	Intrinsically Safe (PENDING)						
	P	Standard						
	<b>Code</b>	<b>Antenna shape / Material/ Process temperature</b>						
	A	Rod / PP / -40+120°C						
	B	Rod / PTFE / -40+150°C						
	<b>Code</b>	<b>Antenna extension</b>						
	A	50mm						
	B	100mm						
	C	150mm						
	D	200mm						
	E	250mm						
	F	300mm						
	<b>Code</b>	<b>Process connection/Material</b>						
	GP	Thread G1 ½ A PN3/PVDF						
	NP	Thread G1 ½ NPT PN3/PVDF						
	<b>Code</b>	<b>Electronic preamplifier</b>						
	A	4+20mA 2-wire 24 Vdc						
	B	4+20mA HART (2-wire) 24Vdc						
	C	4+20mA 20+72Vdc / 20+250Vac 4-wire						
	D	4+20mA 20+72Vdc / 20+250Vac HART (4-wire)						
	<b>Code</b>	<b>Housing / Protection /Antenna Protection</b>						
	S	PBT / IP65 / IP67						
	<b>Code</b>	<b>Cable entry</b>						
	M	PG13,5						
	<b>Code</b>	<b>programming display</b>						
	A	Yes						
	X	No						
RPL51	P	B	A	GP	B	S	M	A

# RPL52 Ordering Codes

RPL52	<b>Code</b> <b>Version</b>							
	I	Intrinsically safe (PENDING)						
	P	Standard						
	B	<b>Code</b> <b>Antenna shape/ Materiale/ Process temperature</b>						
		Rod / PTFE / -40+150°C						
	A	<b>Code</b> <b>Antenna extension</b>						
		A	50mm					
		B	100mm					
		C	150mm					
		D	200mm					
		E	250mm					
		F	300mm					
	FC	<b>Code</b> <b>Process connection / Material</b>						
		DN50 PN16 AISI316L flange						
		FD	DN80 PN16 AISI316L flange					
FE		DN100 PN16 AISI316L flange						
FK		DN150 PN16 AISI316L flange						
A	<b>Code</b> <b>Electronic preamplifier</b>							
	A	4+20mA 2-wire; 24Vdc						
	B	4+20mA HART (2-wire); 24Vdc						
	C	4+20mA 20+72Vdc / 20+250Vac 4-wire						
	D	4+20mA 20+72Vdc / 20+250Vac HART (4-wire)						
S	<b>Code</b> <b>Housing / Protection /Antenna protection</b>							
	PBT / IP65 / IP67							
M	<b>Code</b> <b>Cable entry</b>							
	PG13,5							
A	<b>Code</b> <b>Programming display</b>							
	A	Yes						
	X	No						
RPL52	P	B	A	FC	B	S	M	A

## RPL53 Ordering Codes

RPL53	Code	Version							
	I	Intrinsically safe (PENDING)							
	P	Standard							
	<b>Code</b>	<b>Antenna shape / Materiale/ Process temperature</b>							
	C	Horn Ø50mm / AISI316L (only applicable for installation with standpipe)							
	D	Horn Ø80mm / AISI316L (only applicable for installation with standpipe)							
	E	Horn Ø100mm / AISI316L							
	F	Horn Ø150mm / AISI316L							
	<b>Code</b>	<b>Antenna extension</b>							
	A	None							
	B	200mm							
	C	500mm							
	<b>Code</b>	<b>Process connection / Material</b>							
	FA	DN50 PN16 AISI316L flange							
	FB	DN80 PN16 AISI316L flange							
	FC	DN100 PN16 AISI316L flange							
	FD	DN150 PN16 AISI316L flange							
	FE	Flangia DN200 PN16 AISI316L							
	FH	Flangia DN250 PN16 AISI316L							
	<b>Code</b>	<b>Seal / Process temperature</b>							
	2	Viton / -40+130°C							
	3	Kalrez / -20+130°C							
	4	Viton / -40+200°C with radiator fins							
	5	Kalrez / -20+200°C with radiator fins							
	<b>Code</b>	<b>Electronic preamplifier</b>							
	A	4+20mA 2-wire; 24Vdc							
	B	4+20mA HART (2-wire); 24Vdc							
	C	4+20mA 20+72Vdc / 20+250Vac 4-wire							
	D	4+20mA 20+72Vdc / 20+250Vac HART (4-wire)							
	<b>Code</b>	<b>Housing / Protection /Antenna protection</b>							
	S	PBT / IP65 / IP67							
	<b>Code</b>	<b>Cable entry</b>							
	M	PG13,5							
	<b>Code</b>	<b>Programming display</b>							
	A	Yes							
	X	No							
RPL53	P	E	A	FC	2	B	S	M	A

## RPL54 Ordering Codes

RPL54	Code	Version
	I	Intrinsically safe (PENDING)
	P	Standard
	<b>Code</b>	<b>Antenna shape / Materiale/ Process temperature</b>
	F	Hom Ø150mm / AISI316L
	G	Hom Ø200mm / AISI316L
	H	Hom Ø120mm / AISI316L
	<b>Code</b>	<b>Antenna extension</b>
	A	None
	B	200mm
	C	500mm
	<b>Code</b>	<b>Process connection / Material</b>
	FB	DN150 PN16 AISI316L flange
	FC	DN200 PN16 AISI316L flange
	FD	DN250 PN16 AISI316L flange
	<b>Code</b>	<b>Seal /Process temperature</b>
	2	Viton / -40+130°C
	3	Kalrez / -20+130°C
	4	Viton / -40+200°C with radiator fins
	5	Kalrez / -20+200°C with radiator fins
	<b>Code</b>	<b>Electronic preamplifier</b>
	A	4+20mA 2-wire; 24Vdc
	B	4+20mA HART (2-wire); 24Vdc
	C	4+20mA 20+72Vdc / 20+250Vac 4-wire
	D	4+20mA 20+72Vdc / 20+250Vac HART (4-wire)
	<b>Code</b>	<b>Housing / Protection/ Antenna protection</b>
	S	PBT / IP65 / IP67
	<b>Code</b>	<b>Cable entry</b>
	M	PG13,5
	<b>Code</b>	<b>Programming display</b>
	A	Yes
	X	No
<b>RPL54</b>	<b>P</b>	<b>H</b>
	<b>A</b>	<b>FD</b>
	<b>2</b>	<b>B</b>
	<b>S</b>	<b>M</b>
	<b>A</b>	



These products comply with current European Directives