

# RPL59

## Radar level transmitter

**Continuous level measurement without contact for liquids, solids and powder**

**Range 15 m on solids; 30 m on liquids**

**Process pressure 40 bar**

**2 /4 wires technology**

**Pulse Radar at 26 GHz (K-band)**

**ATEX**

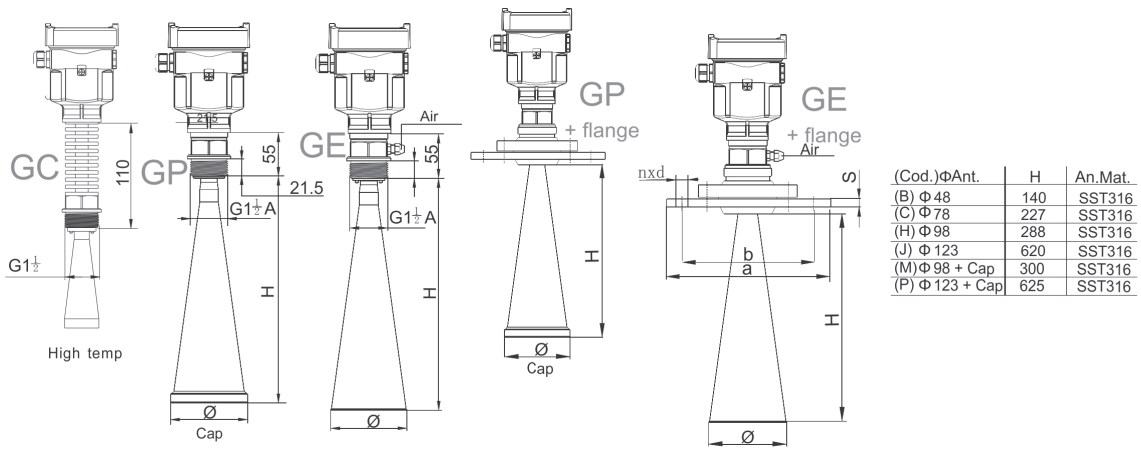
RPL59 is a radar sensor for bulk solids materials continuous measurement. Suitable for application in silos, also in hard working conditions. Suitable for level measurement in tanks with 1 ½ “G threaded or flanged connection. The different antenna models and the wide temperature and pressure range make the RPL59 radar sensor the optimal solution for nearly all kinds of application.

## Technical Feature

**Frequency**
K group (26GHz)
**Housing / Antenna material**
aluminum / SS316L; PTFE
**Mechanical installation**
threaded G1”½ ; flange DN 50; 80; 100; 150; 200; 250
**IP rating**
IP67/IP68 (Sensor)
**Electrical connection**
Terminals
**Working temperature**
-40° ÷ +130°C / -60° ÷ +250°C

**Pressure**
-1 a 40 bar
**Power supply**
24Vdc; 230Vac
**Certification**
ATEX
**Analog output**
4÷20mA
**Digital communication**
HART / MODBUS
**Measure range**
15 m on solids; 30 m on liquids

**Accuracy**
±10mm
**Resolution**
1mm.
**Calibraton**
4 buttons or via HART / MODBUS
**Warm up**
5 minutes
**Display**
Plug-in display/keyboard 4 buttons matrix LCD




| (Cod.)ΦAnt. | H | An.Mat. |
|---|---|---|
| (B) Φ 48 | 140 | SST316 |
| (C) Φ 78 | 227 | SST316 |
| (H) Φ 98 | 288 | SST316 |
| (J) Φ 123 | 620 | SST316 |
| (M) Φ 98 + Cap | 300 | SST316 |
| (P) Φ 123 + Cap | 625 | SST316 |

**RPL59** Radar level transmitter

Micro-waves pulse 26GHz group K
For liquids, bulk solids and powders applications
Max distance: 30m (liquids) 15m (solids/powders)
Accuracy: ±10mm
Process pressure: -1÷40bar

| | |
|---|---|
| **Version** | |
| **I** | ATEX II 1 G/D Ex ia IIC T6...3 Ga / Ex ia IIIC T76°C...T146°C Da - only with G housing and B electronic |
| **P** | Standard |
| **Antenna shape / Material** | |
| **B** | Horn antenna Ø48mm / SS316L |
| **C** | Horn antenna Ø78mm / SS316L |
| **H** | Horn antenna Ø98mm / SS316L |
| **J** | Horn antenna Ø123mm / SS316L |
| **M** | Horn antenna Ø98mm / SS316L with PTFE cap |
| **P** | Horn antenna Ø123mm / SS316L with PTFE cap |
| **Q** | Parabolic horn Ø198mm / SS316L |
| **R** | Parabolic horn Ø246mm / SS316L |
| **Z** | Special |
| **Process connection / Material** | |
| **GC** | Thread G 1" ½ with cooling fin / SS316L (-60° ÷ +250°C) |
| **GE** | Thread G 1" ½ / SS316L with blowing in connection (-40° ÷ +130°C - 0÷5bar) |
| **GP** | Thread G 1" ½ / SS316L (-40° ÷ +130°C) |
| **ZZ** | Special |
| **Additional flange (DN / Material)** | |
| **FA** | DN50 / PP |
| **FB** | DN50 / PTFE |
| **FC** | DN50 / SS316 |
| **GA** | DN80 / PP |
| **GB** | DN80 / PTFE |
| **GC** | DN80 / SS316 |
| **HA** | DN100 / PP |
| **HB** | DN100 / PTFE |
| **HC** | DN100 / SS316 |
| **HE** | DN100 / SS316 + aiming device |
| **JA** | DN150 / PP |
| **JB** | DN150 / PTFE |
| **JC** | DN150 / SS316 |
| **JE** | DN150 / SS316 + aiming device |
| **KA** | DN200 / PP |
| **KB** | DN200 / PTFE |
| **KC** | DN200 / SS316 |
| **KE** | DN200 / SS316 + aiming device |
| **LA** | DN250 / PP |
| **LB** | DN250 / PTFE |
| **LC** | DN250 / SS316 |
| **LE** | DN250 / SS316 + aiming device |
| **OO** | None |
| **ZZ** | Special |
| **Seal / Process temperature** | |
| **2** | Viton / -40÷130°C |
| **3** | Kalrez / -60÷250°C |
| **Electronic preamplifier** | |
| **A** | None |
| **B** | 4÷20mA HART (2-wire); 24Vdc - mandatory for ATEX version |
| **C** | 4÷20mA HART (4wire); 24Vdc |
| **D** | 4÷20mA HART (4-wire); 230Vac |
| **R** | 10÷30 Vdc MODBUS RTU |
| **Housing / Housing protection / Antenna protection** | |
| **D** | Aluminum 2 chambers (for 4-wire versions) / IP67 / IP68 |
| **G** | SS316L / IP67 / IP68 - mandatory for ATEX version |
| **U** | Aluminum with transparent cap / IP67 / IP68 |
| **Z** | Special |
| **Cable entry** | |
| **M** | M20x1,5 |

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|---|---|
| **Keyboard/display programming module VL602** | |
| **A** | Yes |
| **X** | No |