



RPL81
Radar level transmitter

Level measurement without contact for liquids

Range 20m

Radar pulses 80GHz

IP67/IP68 (Sensor) - IP68 opt.

4÷20mA output

2 configurable relays

Remote control via Smartphone

Compact unit for level measurement of liquids and RPL81 is unaffected by temperature fluctuations, high pressure and condensation.

Thanks to his precise signal focusing it provides a reliable and accurate measurement. RPL81 can be easily configured by: on-board push buttons (IP67 version only); VL620/621, “display/programming module”; MODBUS RTU s/w; BLUETOOTH + SGM Level APP.

4-20mA and MODBUS outputs enable the continuous transmission of the measurement to analogical and digital acquisition systems. Two configurable relays can be used as local alarm threshold and pumps drive/control. One relay can be programmed as operating alarm, making RPL81 suitable for unattended applications. Constructed entirely in PP, RPL81 is particularly indicated in presence of corrosive media (acid vapors) and therefore in storage tanks. Typical applications include water lifting and treatment plants as well as sea and rivers level monitoring.

Technical Feature

Housing / sensor material

PP

Mechanical installation

Threaded 2 “G; flange in PP optional

IP rating

IP67 - IP68 opt.

Electrical connection

Terminal blocks or waterproof connector IP68 (opt.)

Working temperature

-20° ÷ +60°C

Pressure

max 3bar

Power supply

20÷30Vdc; 12Vdc

Power consumption

5W max; 2,5W average

Analog output

4...20mA, max 750ohm

Relays output

n°2 3A 230Vac (n.a.) resistive

Digital communication

MODBUS RTU

Max measure range

0.05 ÷ 20mt

In case of non perfectly reflecting surfaces, the maximum distance value will be reduced

Blind distance

min 0,05m (suggested 0,1m)

Accuracy

measurement deviation ± 5mm (if distance <250mm ± 10mm)

Resolution of digital measurement

2mm.

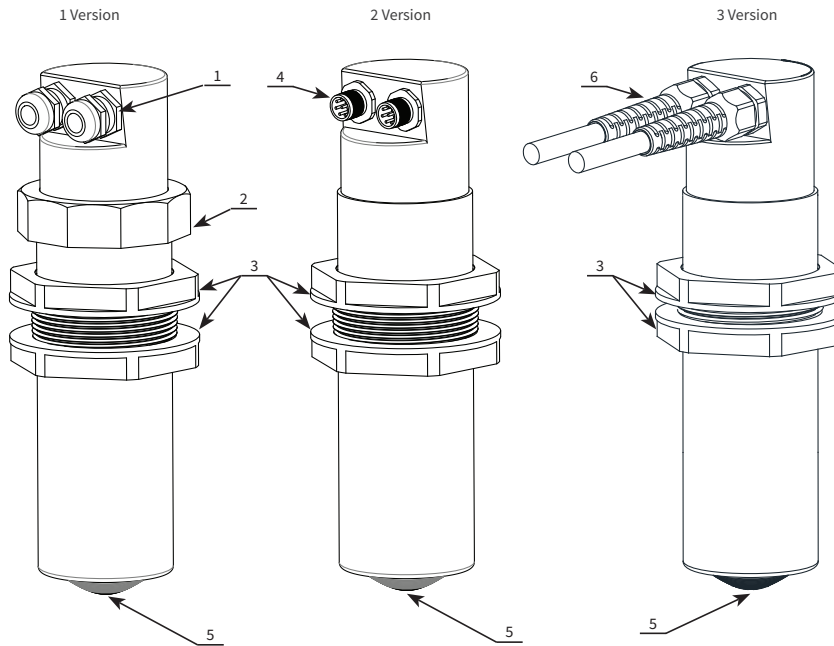
Calibration

vers. IP67 display opt. - 2 buttons - modbus/bluetooth

vers. IP68 modbus/bluetooth

Display

VL620/1 module (opt.) with 4 keys and LCD



- 1. Skintop M16
- 2. Head fixing bolt
- 3. Fixing bolt
- 4. Watertight connector M12
- 5. Sensor
- 6. 10m integrated cables

RPL81

Radar level transmitter

Micro-waves FMCW
 For liquids max 20m
 Output: 4÷20mA + RS485 MODBUS
 2 relays for alarms or pump control
 G 2"/PP threaded connection + nr 2 2" BSP/PP fixing bolts
 Working temperature: -20° ÷ +60°C

Version	
1	IP67 - calibration by 2 push-buttons, via MODBUS RTU, by VL620 (opt.), or via BLUETOOTH (opt.)
2	IP67 with male connectors - calibration via MODBUS RTU, by VL621 (opt.), or via BLUETOOTH (opt.)
3	IP68 with 10m integrated cables - calibration ONLY via MODBUS RTU or BLUETOOTH (opt.)
9	Special
Housing material	
B	Polypropylene (PP)
Z	Special
Power supply	
4	20÷30Vdc
5	12Vdc
Accessories	
A	None
B	BLUETOOTH
C	DN80 PN6 UNI 1092-1 flange in PP (600J001T)
D	VL620 keyboard/display programming module with 1 m cable - for version 1
E	Mounting bracket in PP (835B026Z)
F	VL621 keyboard/display programming module with 1 m cable - for versions 2
J	Nr. 2 Junction box in PC 6 way IP65 (490B074C) - for version 3
S	S/W for MODBUS communication (010F105A)
T	Couple of 5m cables with IP67 female connector (for versions 2)
U	Couple of 10m cables with IP67 female connector (for versions 2)
V	Couple of 15m cables with IP67 female connector (for versions 2)
W	Couple of 20m cables with IP67 female connector (for versions 2)
Z	Special