

PTU15

Compact ultrasonic level transmitter

Technical Data

Enclosure material:	PP
Mechanical installation:	1" BSP
	on request with PP DN100 flange screwed
Mechanical protection:	IP68
Electrical connection:	n.1 output cables (L=3m)
Working temperature:	-25 a +75°C
Pressure:	from 0,5 to 1,5bar (absolute)
Power supply:	24Vdc
Power consumption:	1W
Serial port:	RS485
Max measure range:	12m
[The above distance must be intended from perfect reflecting surfaces]	
Blocking distance:	0.7m
Temperature compensation:	PT100 from -30 to +80°C
Accuracy:	+/- 1% not better than +/-2mm
Resolution:	1mm
Calibration:	by SWING unit
Warm-up:	30 minutes normally
LEDs display:	red LED for supply yellow LED flashing for echo receiving



PTU10 Mechanical installation

Important close to the sensor there is a "blind zone" of 0,7m where the equipment can't measure.

To reach a good and safe measurement, avoiding spurious echo (not reflected from the surface to measure) need to take care about the sensor sensibility volume in the sound path, no obstacles or objects must be present into the sensibility volume (lobe), see fig.3/D/E.

On fig.2 some suggestion:

- 1) Install perpendiculary at the surface, see fig.3/A
- 2) Don't use with foaming products, see fig.3/B
- 3) Avoid installation where the product distance could be less than 0,7m, see fig.3/C
- 4) No obstacles or objects must be present into the sensibility volume, see fig.3/D/E

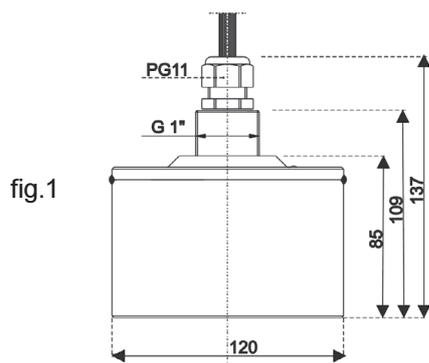


fig.1

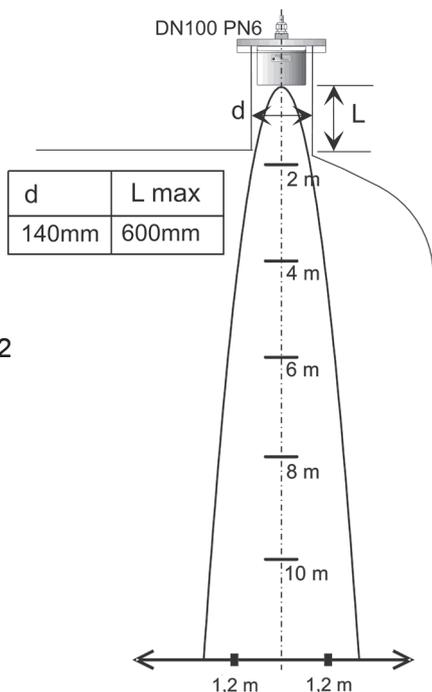


fig.2

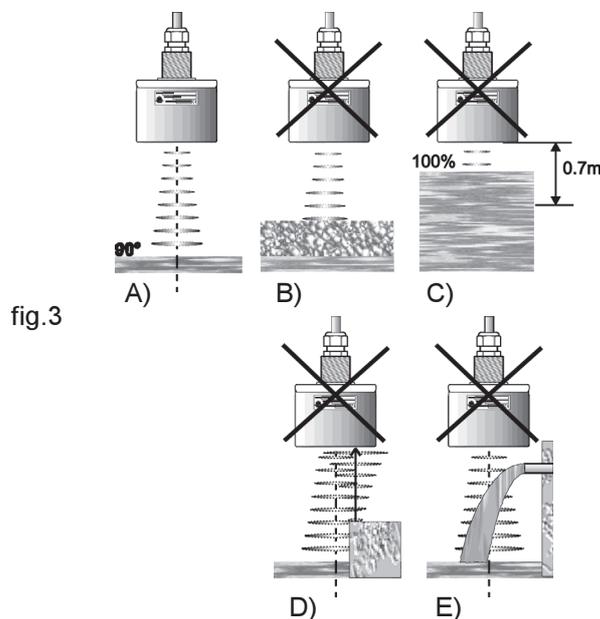


fig.3



LEKTRA

applied solutions for the application

PTU15 Electrical Connections

Electrical connection must be made with a multi-wires round cable of proper diameter, otherwise the seal of the cable gland may be impaired. No special cable or coax-cable are requests, and no practice distance limits. For the PTU15 sensor take in consideration that the negative of the power supply is electrically connected to the negative output current. A special J-box (fig.4) with P1 and P2 calibration push buttons built-in is available on request (the standard connection cable is 3m length). Available a RS485 serial port to communicate to PC or PLC. On request the "LC" S/ W communication for PC and the RS485/RS232 conversion module are available. "LC" allow a PC PTU15 configuration and calibration, see the relevant documentation.

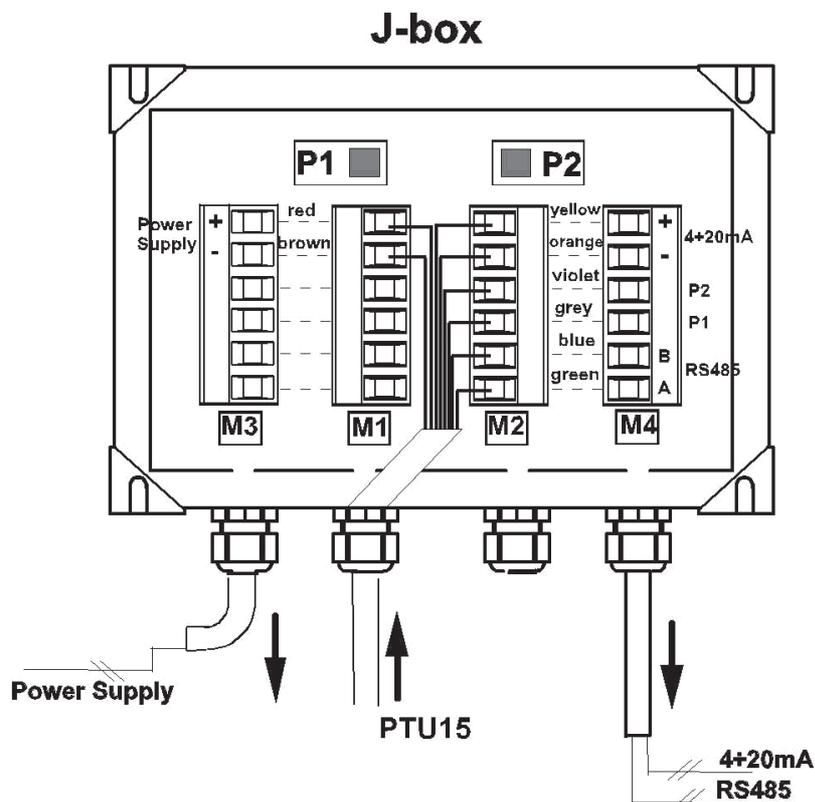


fig.4

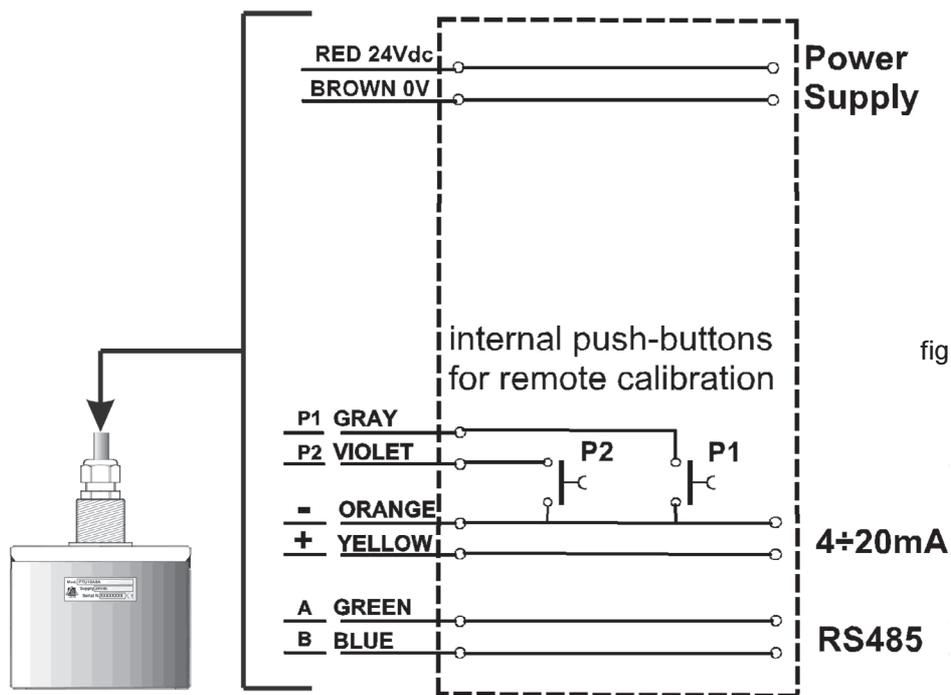


fig.5

The PTU10 calibration can be done in two different ways:

- a) By means the P1 and P2 push-buttons.
- b) With PC or PLC soft. communication with RS485 port.

a) By means the P1 and P2 push-buttons

To calibrate by-means 2 push-buttons P1 and P2 (see figure 6), needs to put the "PTU15" respectively at the distance refers to 0% and 100% level, in order to memorise the relevant distance electronically. In the condition of normal working the PTU15 shows led flashing (when echo is received).

To calibrate 4mA needs to put the PTU15 at the distance at which you want 4mA output current. Wait till the led is flashing than: press simultaneously P1 and P2, release them and verify that led will stay fix lightened. Press two times P1, release it and wait until led is flashing again before move the sensor. The distance has been memorised and associated to 4mA output.

To calibrate 20mA needs to put the PTU15 at the distance at which you want 20mA output. Wait till the L3 is flashing than: press simultaneously P1 and P2, release them and verify that L3 will be fix lightened. Press two times P2, release it and wait until led is flashing again before move the sensor. The distance has been memorised and associated to 20mA output.

b) With PC or PLC soft. communication with RS485 port

Refers to the "LC" S/W operating manual

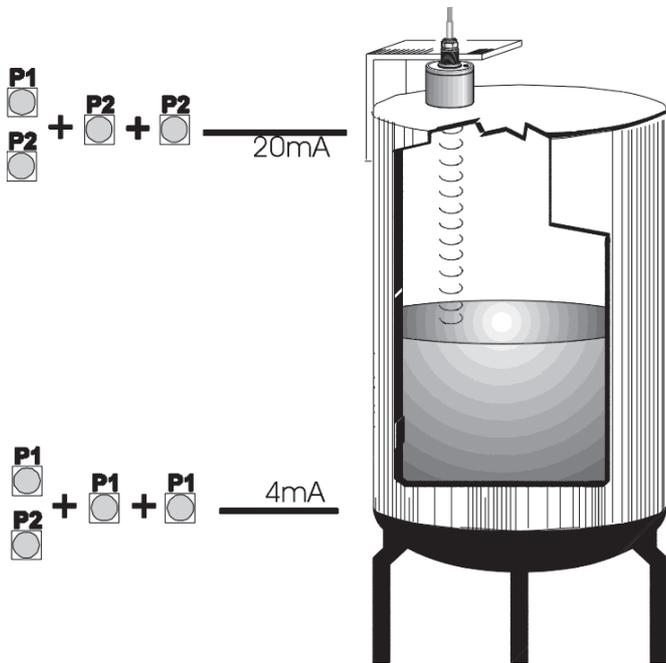


fig.6

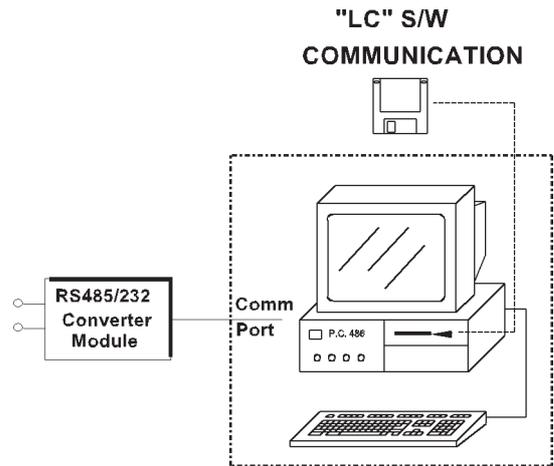


fig.7

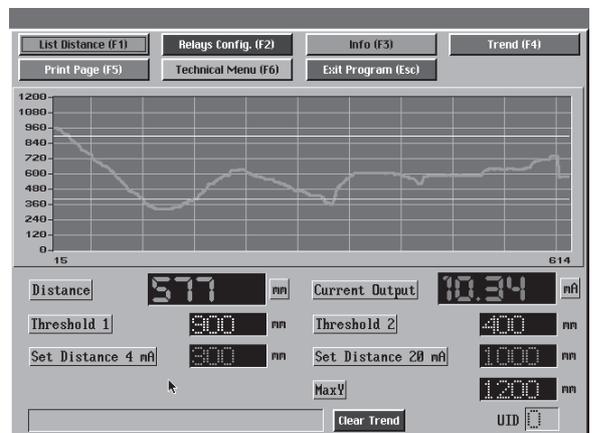


fig.8

PTU15 Warranty

The warranty expires when damages they have provoked from the use not quite or from not correct installations. The warranty is valid for a period of 12 months from the sell behind presentation of this manual. All the reparations in warranty will have realized in our workshop in Rodano (MI), the costs of dismounting and reinstalling of the device and the costs of the transport will be paid by the customer.

PTU15 Factory test certificate

In conformity to the company and ceck procedure I certify that the equipment:

PTU15 Serial n.

is conform to the technical requirements on Technical Data and it is made in conformity to the SGM-LEKTRA procedure

Quality Control Manager

.....

Production and ceck date

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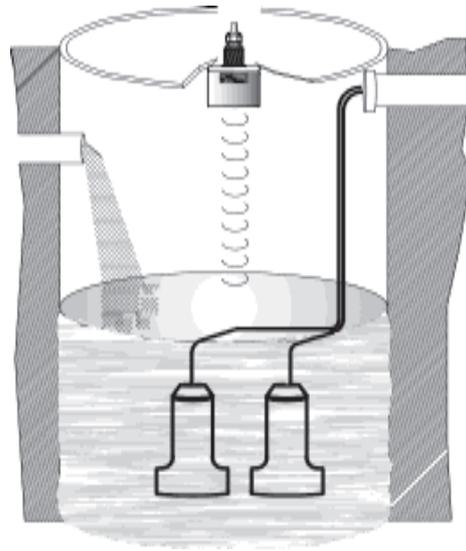
The SGM-LEKTRA, reserves the right to make improvements in the product described in this manual at any time without notice



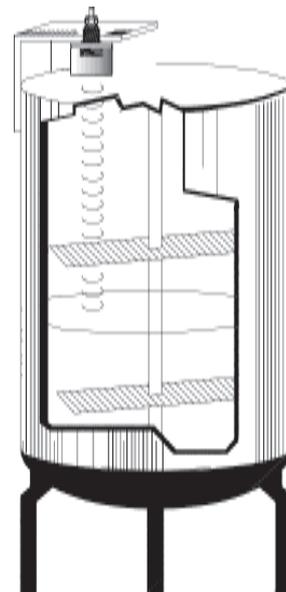
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PTU15 Application



Pump control, compact stand alone unit. The Pump control configuration is made from SWING unit.



Non contact continuous level measurement into tanks with agitator



PTU15 transmitter is indicated for waterway level measurement with SWING unit.