# PULS RADAR TYPE (PS60 SERIES) FOR CARGO TANK MONITORING SYSTEM (HANLA-VEGA) Carco Tank Measuring System

# **PULS RADAR TRANSMITTER**



## **GENERAL**

Extremely short microwave inpulses are emitted by the antenna system to the measured product, reflected by the product surface and received again by the antenna system. They spread with ligh velocity and the time from emission to reception of the signals is proportional to the level in the vessel. A special time spreading procedure enables the reliable and precise measurement if the extremely short times.

#### **APPLICATIONS**

Two different emitting frequencies are available for these applications, the compact, high frequency sensors are particulary suitable for applications for whinch high accuracy is reached. Low frequency C band sensors can penetrate foam and strong condensation and are thus particularly suitable for arduous process conditions. Unaffected by steam, gas composition, pressure and temperature changes the sensors detect the product surface of different products reliably.

#### **FEATURES**

- Small housing and small protection collection
- Low cost with high quality
- Two-wire technology loop powered
- Accurate and rugged design
- Adjustment choice

The radar sensors work with low emitted power in the C and K-band frequency range. The proven ECHOFOX signal processing selects the correct level echo reliably from a number of false reflections. An adjustment with empty and full vessel is not necessary.

#### STANDARD MODEL AND SPECIFICATION

Model	-	*	-	-	1	1
	PULS61	PULS 62	PULS 63	PULS 65	PULS 66	PULS 68
Application	aggresive liquids in samll vessels under easy process conditions	storage and process vessels under arduous process conditions	aggresive liquids under arduous process conditions	aggresive liquids under easy process conditions	storage and process vessels under arduous process conditions	large solid vessels under arduous process conditions
Measuring range	up to 35m	up to 35m	up to 35m	up to 35m	up to 35m	up to 75m
Process temperatue	-4080℃	-200450°C	-200200°C	-40150°C	-60400°C	-200450°C
Process pressure	-13bar	-1160bar	-116bar	-116bar	-1160bar	-1160bar
Accuracy	±2mm	±2mm	±2mm	±8mm	±8mm	±2mm

### **COMMUNICATION AND SAFETY UNIT**



# **SPECIFICATIONS**

- Power Supply: 24VDC
- Cargo Tank: Up to 24 (Radar)
- Ballast & Other Tank: Up to 31
- Communication : 1 X RS232 / 485 / 422 (Input)
- 3 X RS232 / 485 / 422 (Output)
- Relay output: 4 X NO / NC
- Protocol : Modbus RTU
- Operating temperature : 0~60°C

# **DECK MOUNTING METHOD FOR RADAR, TEMPERATURE** AND PRESSURE SENSOR





