

GENERAL CHARACTERISTICS



Measure of the level and distance with ultrasonic technology, based on the principle of proportionality between the propagation time of the signal and the distance from the obstacle.

No contact between the sensor and the monitored product, both liquid and solid or granular.

The analog signal is proportional to the volume of the product. The absence of moving parts offers a system that does not require particular maintenance.

- **Measuring ranges from 30 ... 350 mm to 600 ... 8000 mm**
- Resolution 0,18 mm
- Repeatability $\pm 0,15\%$
- Programming via 2 push-buttons and visualization on 3 digit LED display.
- Additional Teach-in function.
- Measuring units programmable in mm, cm, or %
- Signal indication with 2 three-color LED.
- PNP output with short-circuit protection programmable NO or NC.
- 0 ÷ 10 V or 4-20mA analog output.
- Operating temperature range -25/+70°C.
- Degree of protection IP67



DATI TECNICI

Tab.1

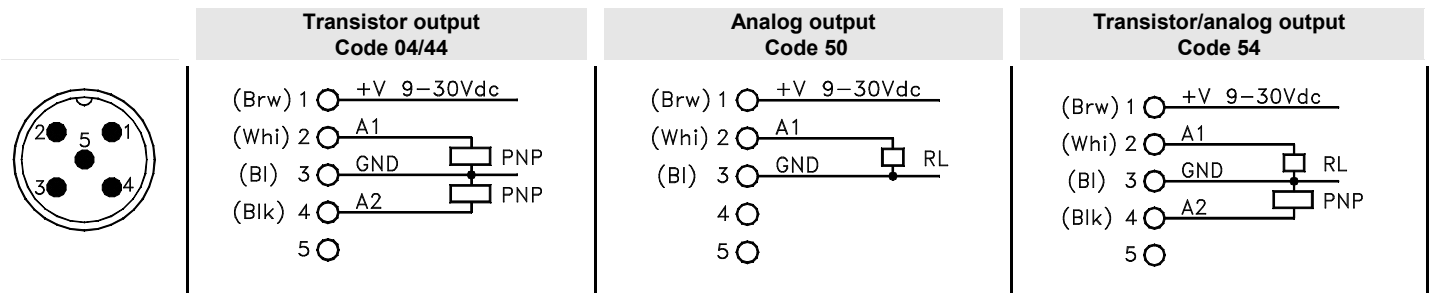
Description		Type – Code				
		VLS-01	VLS-02	VLS-03	VLS-04	VLS-05
Minimum measuring value	mm.	30	60	200	350	600
Optimal measuring value		250	350	1300	3400	6000
Maximum measuring value		350	600	2000	5000	8000
Resolution		0,18	0,18	0,18	0,18	0,18
Hysteresis – factory set		2,5	5	20	50	100
Accuracy – thermal drift	%	0,17/K	0,17/K	0,17/K	0,17/K	0,17/K
Repeatability		$\pm 0,15$	$\pm 0,15$	$\pm 0,15$	$\pm 0,15$	$\pm 0,15$
Frequency	kHz	320	400	200	120	80
Sampling frequency	Hz	11	8	6	3	2
Current consumption – without load	mA	≤ 80	≤ 80	≤ 80	≤ 80	≤ 80
Response time	ms	50	70	110	180	240
Stand-by time		< 300	< 300	< 300	< 300	< 300

(*) programmable from 1 digit to maximum measuring value

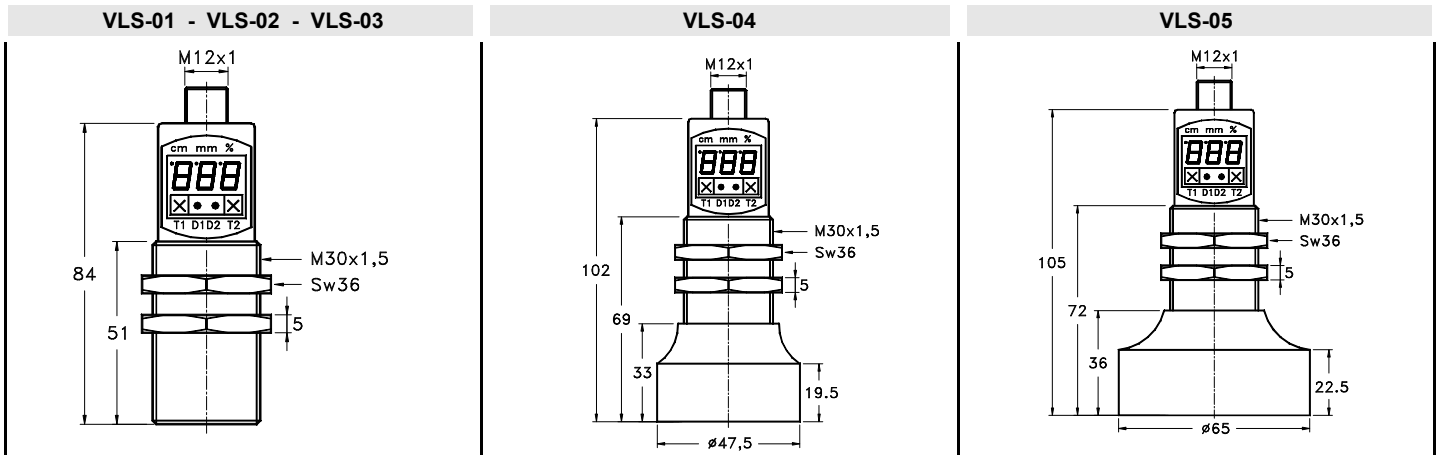
	Code	Data	
Power supply	-	9 ÷ 30 Vdc $\pm 10\%$	
Output	04	1 PNP	max. 200 mA
	44	2 PNP	max. 2x200 mA
	54	1 PNP	4 ÷ 20 mA 0 ÷ 10 VDC
	50	-	4 ÷ 20 mA 0 ÷ 10 VDC
Housing – materials	00	M 30x1,5 - Nickel plated brass	- Plastic
	VA	M 30x1,5 - Stainless steel 1.4571	- Plastic
Electrical connection	-	M 12 x 1 - 5 poles	
Degree of protection	IP67	IP67	

WIRING

Tab.2

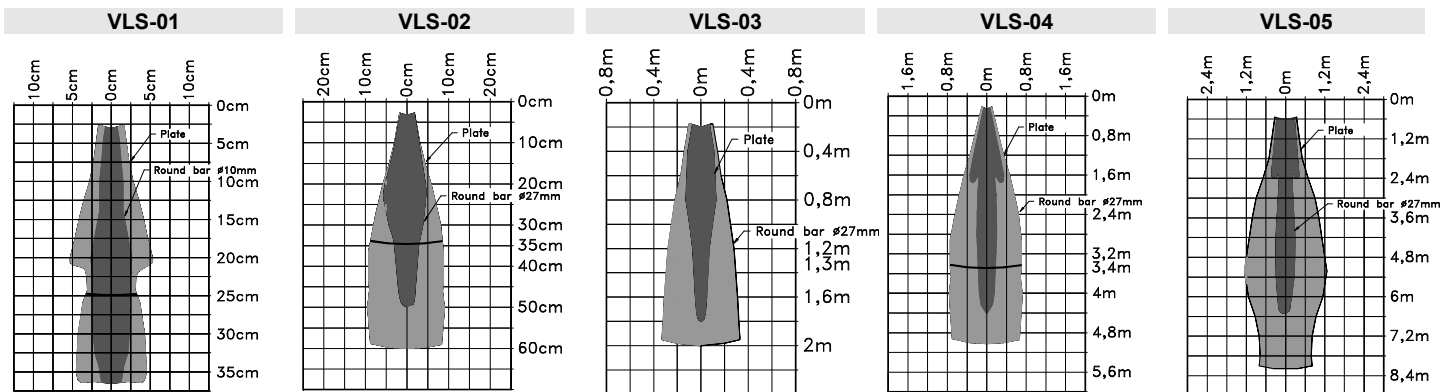


DIMENSIONS mm.



FIELD OF DETECTION

Detection Range: The dark area is determined with a bar of round section (diameter of 10 and 27 mm). The lighter area is determined by a foil of 500 x 500 mm inserted laterally in the beam of the emitted signal. The indicated detection area is defined as the area of operation of the sensor, it is not possible to estimate the accuracy of the system outside of this area.



NOMENCLATURE

VLS	05	54	00	IP67
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SK	M5	E	02	00	Cable 2m. with M12x1 plug – Nickel plated brass	Accessory - option
SK	M5	E	05	00	Cable 5m. with M12x1 plug – Nickel plated brass	Accessory - option
SK	M5	E	02	VA	Cable 2m. with M12x1 plug – Stainless steel	Accessory - option
SK	M5	E	05	VA	Cable 5m. with M12x1 plug – Stainless steel	Accessory - option