Water level sensor (submersible)



- Different ventilated submersible cable lengths for pressure compensation
- Analogue output: 4...20 mA
- Wide thermal compensation, up to 70 °C

Piezometric submersible sensors designed for continuous level measurement in water applications. The sensor has a stainless-steel housing and a flush ceramic diaphragm which prevents the accumulation of material through time and makes it easy to clean. The piezoelectric element detects the pressure difference between its location and the atmospheric pressure on the surface. This pressure difference is proportional to the water level above the sensor. A special (ventilated) cable connects the sensor sensing element with the surface.

Technical Specifications

PN	DQC001.15	DQC001.30	DQC001.50	DQC001.80
Submersible cable	L= 15 m	L= 30 m	L= 50 m	L= 80 m

Common Technical Specifications

Water level	Principle	Piezometric (Pressure) submersible type
	Type	Ceramic thick film sensor
	Range	0...10 m
	Accuracy	0.25% Full Scale (FBFSL) < 0.5% Full scale (IEC60770)
	Long term stability	0.5% Full Scale
	Thermal drift	<0.2% Full scale/10K
	Thermal compensation	0...70 °C
	Resolution	Infinite (analog transmitter)
	Over pressure	2 bar (up to 10 m.w.g.)
	Damage max pressure	4 bar (up to 10 m.w.g.)
	Power supply	12...36 V DC
	Power consumption	Max 20 mA
	Output	4...20 mA (two wires)
	Material	Body: stainless steel Sensor: ceramic, seals FKM Cable: PVC
	Cable specification	PVC grey. Capacitance 160 pF/m. Inductance: 1µH/m
	Weight / Dimensions	0.25 kg (without cable) / Ø = 27 mm, L=109.6 mm
	Operative temperature	-10...70 ºC

Water level (radar)



- Non-contact measurement even in harsh environments
- IP68 housing
- Maintenance-free operation through non-contact measuring principle
- High stability also in situations when high and sudden temperature variations occur
- Unaffected by condensation and dust

Radar sensor for continuous measurement of non-contact liquid level. A series of extremely short microwave pulses are irradiated by the sensor towards the surface of the water from which they are reflected and then newly received by the receiving system. The signal return time is proportional to the distance between the sensor and the water surface. These models are more suitable than the submersible type, when the installation is made difficult due to strong currents, possible overflows and edges of the inaccessible water basins.

Technical Specifications

PN	PRLVA3001	PRLVA3002	PRLVA3003 PRLVA3201
			
Measurement range	0...8 m	0...15 m	0...30 m
Accuracy	±5 mm	±2 mm	
Beam angle	8°	10°	4°
Operative temperature	-40…60 °C	-40...80 °C	

Common Technical Specifications

Water level	Principle	Radar (W band)
	Frequency	80 GHz
	Output	4...20 mA (PRLVA3001-3002-3003) SDI-12 (PRLVA3201)
	Resolution	1 mm
	Warm-up time	1 min
	Power supply	12...35 V DC (reverse voltage protection), < 20 mA during measurement
	Material	PVDF
	Weight	1.7 kg (with 10 m cable)
	Protection	IP66/68 (3 bar)
	Cable	10 m

Accessories

	**DYA044.2**	Lateral support for PRLVA300x sensors to poles Ø 45...65 mm. Outreach L= 800 mm

Water conductivity, temperature and level



- Titanium construction resists corrosion, ideal for coastal, remediation, waste plants and mine water monitoring projects
- All titanium electrodes and housing
- Flexible communication protocols: 4...20 mA, SDI-12, RS-485
- Full range conductivity with optimum accuracy 0...100000 µS/cm

Extremely robust sensor for measuring water conductivity and water temperature. DQA420 can also measure water level. Thanks to the four resistant and integrated titanium electrodes technology and shatterproof body, this sensor can be used in severe applications such as in purification plants and landfills.

Technical Specifications

PN	DQA410	DQA420
		
Measure	Water Conductivity +Temperature	Water Conductivity+Temperature+Level

Common Technical Specifications

Conductivity	Principle	N.4 electrodes (additional N.2 electrodes for measurement control)
	Measurement range	5...100000 µS/cm
	Accuracy	<80000 µS/cm: ± 0.5% VL + 1 µS/cm >80000 µS/cm: ± 1% VL
	Resolution	0.1 µS/cm
	Temperature compensation	Yes
	Calibration	1 year, when used in clear water
	Parameters (Programmable multiple outputs using RS485 Modbus, SDI-12 signal outputs. Only one selectable output using 4...20 mA signal output)	• Conductibility • Specific conductibility (against reference temperature) • Salinity: 0...42 PSL • Total Dissolved Solids (TDS): 0...82 PPT • Resistivity (reverse of Conductibility): 0...200000 Ohm • Water Density (DQA420 only): 0,98. 1.14 g/cm3
Temperature	Measurement range	-5...50 °C
	Accuracy	±0.1 °C
	Resolution	0.01 °C

Level (DQ420 only)	Measurement range	0...11 m
	Accuracy	±0.05%
	Resolution	0.005% FS
	Long term stability	<0.1% FS
General	Material	Sensor body: Titanium Cone: Delrin Conductivity cell: PVC
	Weight	0.5 kg
	Output	RS485/Modbus, SDI12, 4...20 mA (only one parameter)
	Power supply	8...36 V DC (15 mA), Battery 3.6 V
	Battery duration	5 years
	Connector	MG2410 (to be purchased with the cable)

Accessories

	CCISA0115	Cable for DQA410 sensor, L=15m
	CCISA0130	Cable for DQA410 sensor, L=30m
	CCISA0150	Cable for DQA410 sensor, L=50m
	CCISA0170	Cable for DQA410 sensor, L=70m
	CCISA0215	Cable for DQA420 sensor, L=15m
	CCISA0230	Cable for DQA420 sensor, L=30m
	CCISA0250	Cable for DQA420 sensor, L=50m
	CCISA0270	Cable for DQA420 sensor, L=70m
	CCISA0280	Cable for DQA420 sensor, L=80m
	DYA440	Cap support for well head Φ 54mm
	SVCKA2002	Calibration kit for conductivity sensors. 500 ml bottle with solution 1.41 mS @ 25 °C

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