FULLKON

Measuring principle

The ultrasonic level transmitter operates based on the principle of ultrasonic reflection. By measuring the time taken for the echo to return from the liquid surface, the distance and corresponding liquid level are determined.

Recorder Flow Temp Analyzer Level Pressure

Special characteristics

- Non-contact measurement technology with high reliability and cost-effectiveness
- Suitable for liquid and solid material level measurement in various industrial environments
- Excellent long-term stability with automatic temperature

Features

- High accuracy: ±0.5%FS
- Wide measuring range options: (0 ~ 5)m / (0 ~ 10)m
- Multiple output options: (4 ~ 20)mA, RS485 (Modbus-RTU), 2-way relay alarm (optional)
- Wide operating temperature range: (-20 ~ 60)℃ for instrument, (-20 ~ 80)℃ for probe

The FK-WSU180 Ultrasonic Level Meter is a non-contact, highly reliable, and cost-effective level measurement solution designed for liquid and solid material level monitoring. Featuring easy installation and low maintenance, it is widely used in municipal, chemical, storage, and transportation industries. It provides accurate and stable level measurement for applications such as rivers, tanks, reservoirs,

Preferred areas of use are

Widely used for accurate level measurement of liquids and solid materials in municipal, chemical, storage, and transportation industries,

Material and test

CE PA ISO

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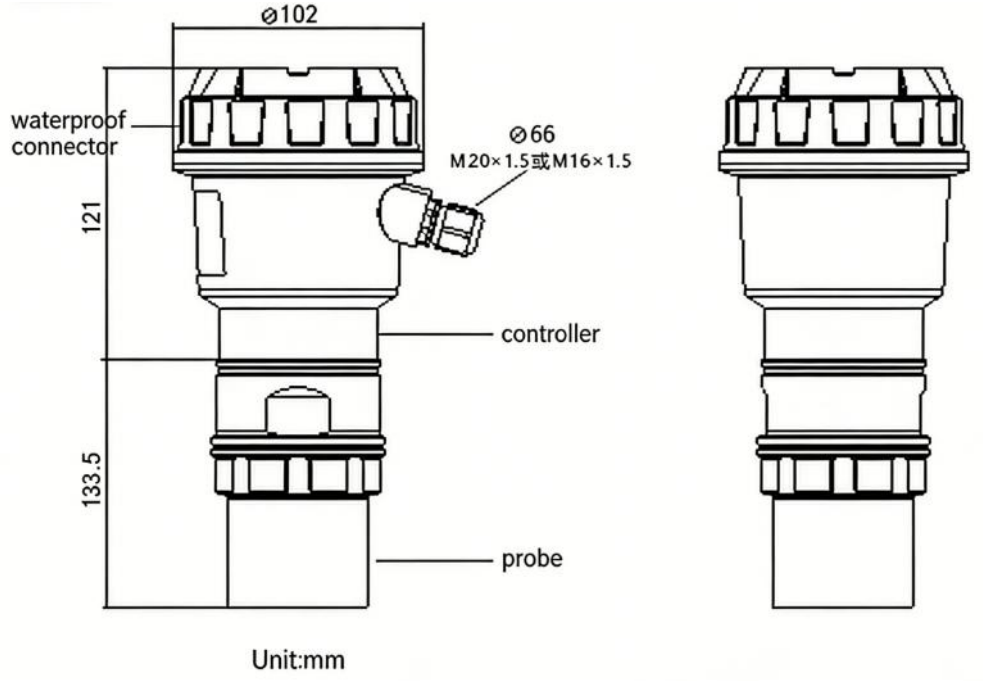
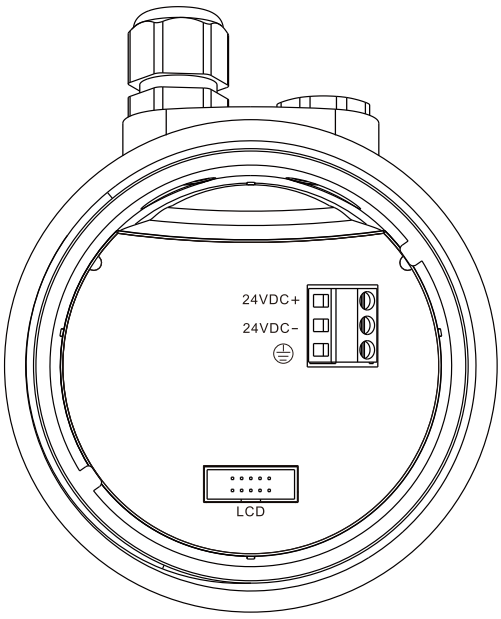
Parameters

Performance parameters	Measurement Variables		Level/Liquid Level
	Measuring Range		(0～5)m / (0～10)m
	Dead Band		5m range: ≤0.3m; 10m range: ≤0.4m
	Accuracy		±0.5%FS
	Resolution		1mm or 0.1%FS (whichever is greater)
	Ingress Protection		Instrument: IP65; Probe: IP68
Output Signals	Analog Output		(4～20)mA, accuracy 0.2%FS
		Two-wire Load	(U-18V)/0.02A, U=supply voltage
		Four-wire Load	(U-14V)/0.02A, U=supply voltage
	Alarm Output		2-way SPST (four-wire optional), 250VAC/3A
	Communication		RS485 (four-wire optional), Modbus-RTU
Power Supply	Supply Voltage		(18～28)VDC
	Power Consumption		Two-wire: Max 0.48W Four-wire (no relay, no output): Max 0.4W Four-wire (1 relay, no output): Max 0.5W Four-wire (2 relays, no output): Max 0.7W Four-wire (no relay, with output): Max 0.8W Four-wire (1 relay, with output): Max 0.9W Four-wire (2 relays, with output): Max 1.1W
	Electrical interface		M20×1.5
Process conditions	Process pressure		0.3MPa
Environmental conditions	Operating Temperature		Instrument: (-20 ~ 60)℃ Probe: (-20 ~ 80)℃
	Storage Temperature		(-20 ~ 80)℃
	Humidity		10% ~ 85%

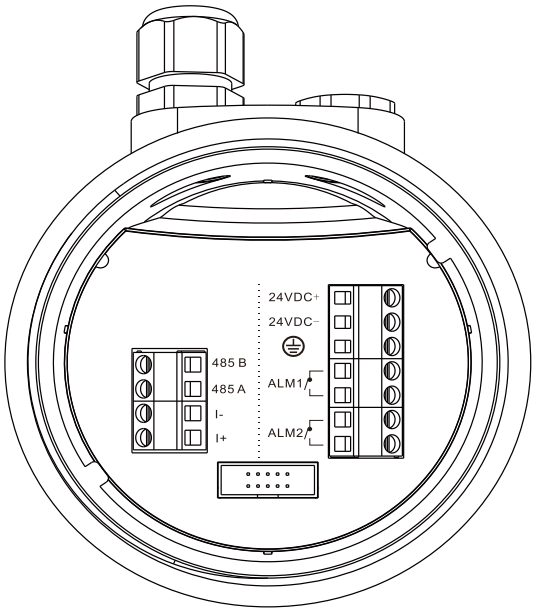
Dimension



Product dimension diagram for 5m/10m (G2 thread)



Two-wire terminal block diagram



Four-wire terminal block diagram

Ordering Code

FK-WSU180-C-NR-K-A1-WE-EA															Description
WSU180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Integrated Ultrasonic Level Transmitter
Measuring range and process connection	C														5m, G2 thread
	D														10m, G2 thread
Probe material		NR													Engineering plastics (ABS/PC)
Accuracy			K												Level 0.5
Output and power supply				A1											Two-wire 4-20mA
				SA											4-20mA, 24VDC
				SP											4-20mA+dual SPST+RS485, 24VDC
				SG											4-20mA+dual SPST, 24VDC
				SE											4-20mA+RS485, 24VDC
Electrical interface, housing material and protection level					WE										M20×1.5 cable gland, plastic ABS, IP65
Accessories					EA										L-shaped stainless steel mounting bracket 0.8m
					EC										Polycarbonate PC protective cover
					RA										HG20539 PN3 DN65 PPH
					RB										HG20539 PN3 DN80 PPH
					RC										HG20539 PN3 DN100 PPH
					RD										HG20539 PN3 DN150 PPH
					RE										HG20539 PN3 DN200 PPH