WATER TREATMENT

ONE-STOP SOLUTION

ONE-STOP SERVICE

LEVEL MEASUREMENT

HUNAN MACSENSOR COMPANY LIMITED

MQ1000 Radar Level Sensor





Characteristics

☆ High accuracy of ±5mm
☆ Non-contact measurement, without cleaning and maintenance difficulty
☆ Little impact by condensation, rain, steam, and corrosion
☆ Compact size, suitable for space-limited applications
☆ Wide measuring range and wide voltage
☆ Low power consumption
☆ High sensitivity, lightweight, and easy to integrate

Applications

★ Water Treatment
★ Sewage treatment
★ Power generation
★ Process control
★ Well level measurement and control
★ Oil and fuel tanks
★ Pharmaceutical industry
★ Refining process vessels

Ⅰ. Profiles

MQ1000 radar distance/level sensor is developed by millimeter-wave radar detection technology. It has the characteristics of high measurement accuracy and low power consumption of pulse radar. It is stable and reliable, not affected by dust, smoke, light, temperature, gas and other environmental conditions. On-site installation does not require calibration. The protection level of the main structure is IP67, with standard M30/M39 thread and M12 4pin waterproof connector design. It's small in size, convenient for users to install and fix in various measurement environments.

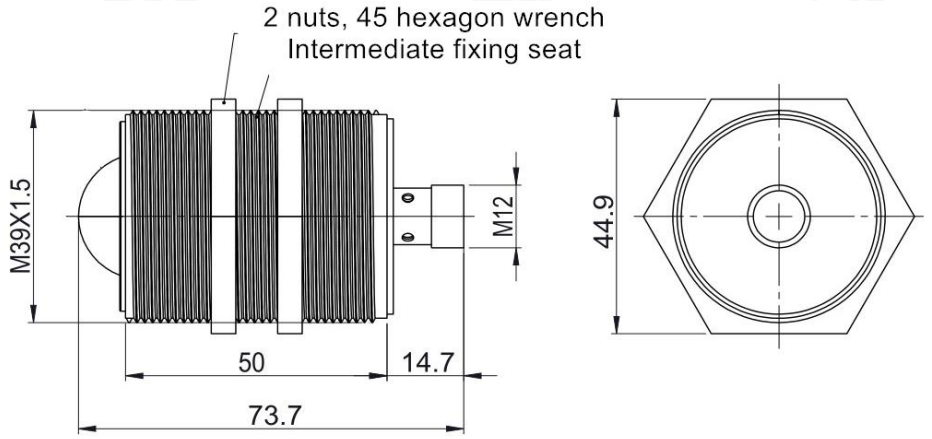
MQ1000 can be used for measurement of liquids, and distance, process control and other fields.

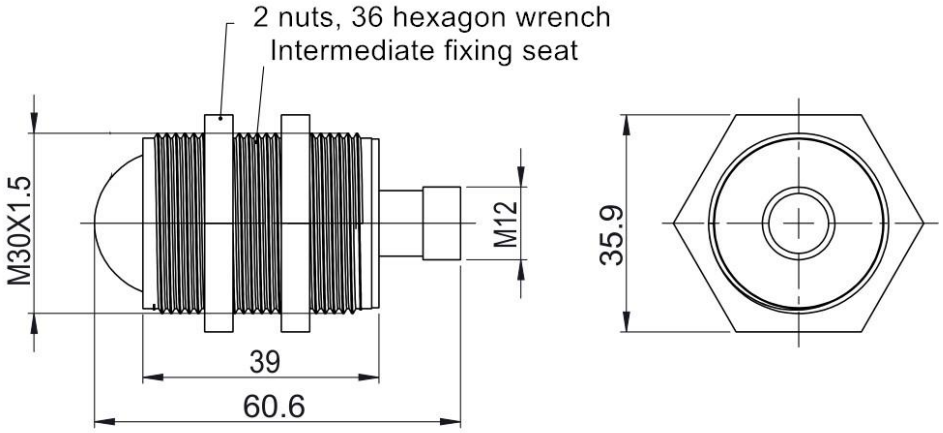
Ⅱ. Specifications

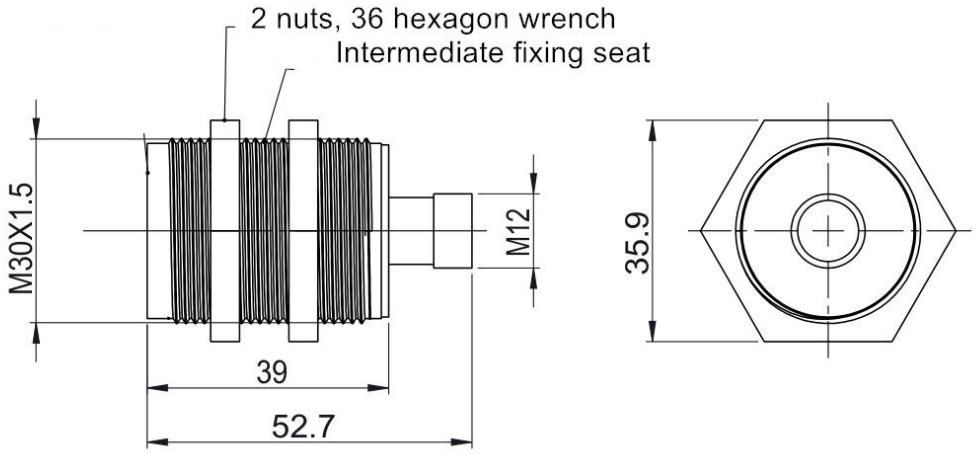
Model No.	MQ1000
Measuring range	Static water surface: 0-12m; Diesel: 0-7m; Gasoline/Chemical solutions: 0-5m
Measurement accuracy	±5mm
Operating Voltage	3.3-5.5V DC(M30) ; 5.5-24V(M39)
Average power consumption	≤35mA
Beam angle	~20°/~10°
Operating temperature	-40°C to +80°C
Temperature compensation	Temperature compensated
Output	TTL, RS485, 0-5V/10V, 0/4-20mA
IP rating	IP67
Housing material	M39: 304 stainless steel & PTFE; M30: PA12/nickel-plated copper

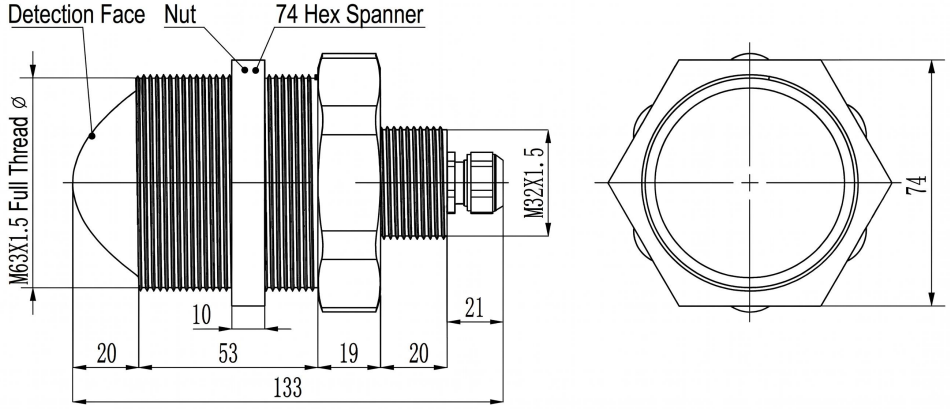
Ⅲ. Dimension and Drawing

Unit, mm

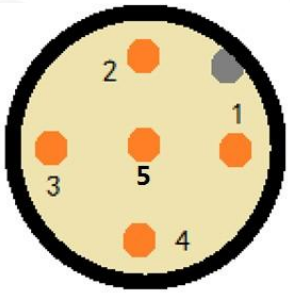








Ⅳ. Electronic Connections

Wire color	Wire name	Wire definition	Diagram
Brown ①	VCC	Sensor power input terminal, power supply voltage, power supply current must be greater than 200mA	
Blue ③	GND	Power ground	
Black ④	TX/A+	Serial port communication, when it is TTL, it is the data sending end, when it is RS485, it is the differential signal A+, with TVS protection	
White ②	RX/B-	Serial port communication, when it is TTL, it is the data receiving end, when it is RS485, it is the differential signal B-, with TVS protection	
Grey ⑤	VIout	Analog voltage or current output, can be configured to 0-5V, 0-10V or 4-20mA output, analog output power supply needs to be 12-24V, this interface only supports M39 shell radar.	

Ⅴ. Order Information

MQ1000 Selection	002	H	E11	S10	5	M39	1

Range	000=0.2-1m 001=0.2-2m 002=0.2-3m 003=0.2-4m 004=0.2-5m 005=0.2-6m 006=0.2-7m 007=0.2-8m 009=0.2-10m 010=0.2-12m X=Customized
Pressure Unit	H=m H_2O (Water, max 12m, chemical, max 5m) M=m Fuel (Diesel, Max 7m; Gasoline, Max 5m)
Signal Output	E63=UART (TTL) E11=RS485 E6=0-5V E7=0-10V E56=0-20mA E5=4-20mA
Power Supply	S56=3.3-5.5V DC(For M30) S66=5.5-24V(For M39)
Accuracy	5=±5mm
Housing material	M39=304 stainless steel & PTFE M30=PA12/nickel-plated copper M10=Full PTFE
Cable Length	1=Cable 1m 2=Cable 2m ... XXX=Cable xxx m

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