ULTRASONIC LEVEL TRANSMITTER MICROFLEX-D

The **Microflex-D** from **Hycontrol** is a compact, non-intrusive, loop-powered ultrasonic level transmitter for continuous measurement of liquids. Microflex-D does not compromise on quality and provides effortless and intuitive operation together with easy and flexible mounting.

Microflex-D's high chemical compatibility and measuring range of either 8 metres (**Microflex-D**) or 12 metres (**Microflex-D ER**) makes it appropriate for applications in a wide range of industries.

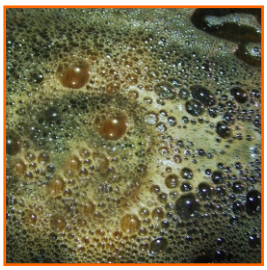
The Microflex-D emits an ultrasonic pulse which is reflected from the surface of the liquid being measured. The reflected signal is processed using specially developed software to enhance the correct signal and reject false echoes. An automatic sensitivity control allows the unit to dynamically adjust and improve the received echoes to achieve the best possible measurement accuracy.

WIDE RANGE OF LIQUID-BASED APPLICATIONS

- River level
- Wet wells
- Inlet screens
- Tanks
- Sumps
- Pump stations
- Water towers
- Dams
- Basin levels
- Ink levels
- Diesel tanks
- Slurry levels
- Fuel storage
- Tide levels
- Chemical storage

MICROFLEX-D'S KEY FEATURES INCLUDE

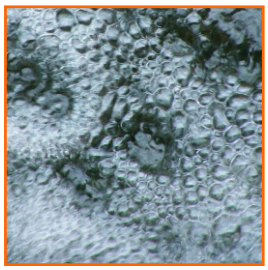
- Two-wire 4-20 mA with HART connectivity
- Simple programming via built-in LCD display
- Ranges of up to 12 metres (40 ft)
- Non-contact measurement
- Low overall cost of ownership
- Ingress protection class IP67, NEMA 4x
- Adaptive sensitivity control
- Volume linearization with 32-point table
- Automatic temperature compensation
- Chemical-resistant PVDF transducer
- Simple installation



Waste

Oils

Water



Chemicals

Slurry

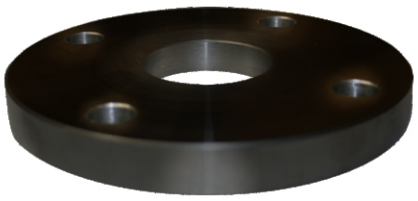
TECHNICAL DATA

TYPE	MICROFLEX-DB	MICROFLEX-DN	MICROFLEX-DBER	MICROFLEX-DNER
Maximum Range	8 metres (26 ft)		12 metres (40 ft)	
Operating Voltage	7 - 28VDC at the terminal (residual ripple no greater than 100mV)			
Power Consumption	500mW @ 24VDC			
Analog Output	4-20mA modulating output module with HART (Recommended 250 Ohm @ 24VDC)			
Analog Resolution	14 bits			
Communications	4-20mA with HART			
Blanking Distance	250 mm (10 inch)			
Frequency	50 KHz			
Resolution	1 mm (0.04")			
Electronic Accuracy	+/- 0.5% of maximum range		+/- 0.25% of maximum range	
Operating Temperature	-40°C to 60°C			
Maximum Operating Pressure	-0.5 to 3 bar (0 - 44 PSI)			
Automatic Temperature Compensation	Yes			
Beam Angle	7°			
Materials	Transducer: PVDF Housing: Powder coated aluminium			
Display	4-line graphic display			
Keypad	4 keys = CAL, RUN, UP, DOWN			
Memory	>10 years data retention			
Enclosure Sealing	IP67			
Cable Entries	M20 cable glands			
Mounting	2" BSPT Thread	2" NPT Thread	2" BSPT Thread	2" NPT Thread
Typical Weight	1kg (2.2 pounds)			
Volume	Pre-set common vessel shapes 32 point programmable linearization table Requires PC connection with Vision System II software			

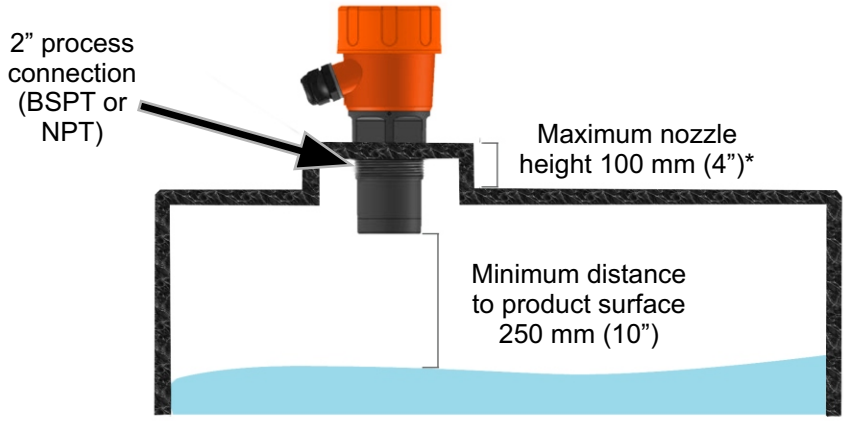
OPTIONAL ACCESSORIES

- 2" ANSI Flange for BSPT threaded units
- 2" ANSI Flange for NPT threaded units
- Minilink-MiniUSB - PC connector for Vision System II

Please consult a Hycontrol representative for flange order codes.



MOUNTING

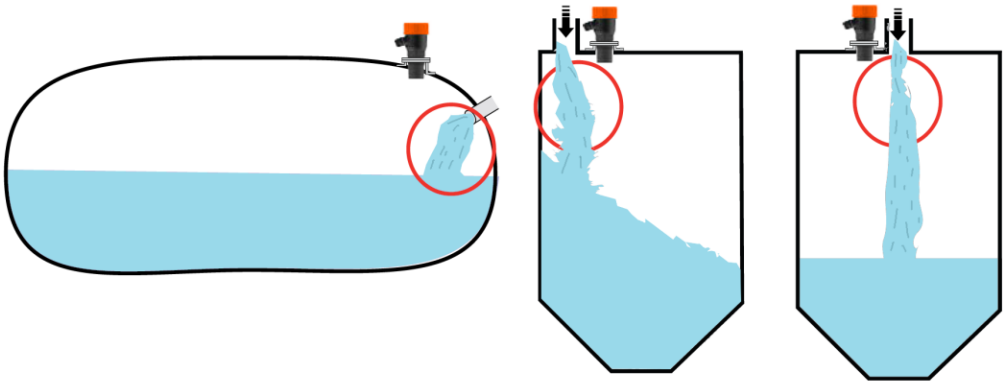


** Please note that nozzle heights exceeding this value may disrupt the transmitted signal and interfere with level measurement.*

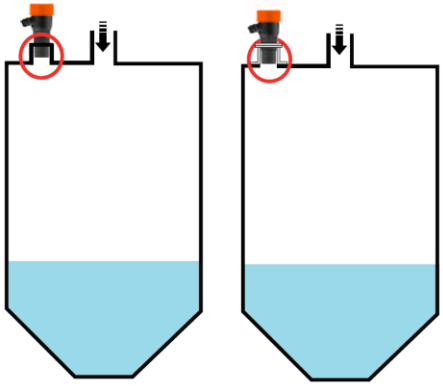
- Sensor should be mounted 1/3 the diameter of the vessel from the vessel wall
- Unit should never be closer than 250mm (10") to the liquid surface
- Do not mount over or near objects which can interfere with the unit measurement
- Do not mount in the centre of a curved roof to avoid the potential of parabolic echoes
- Avoid mounting in direct sunlight

The following are examples of common **INCORRECT** mountings which can prevent the unit from operating correctly:

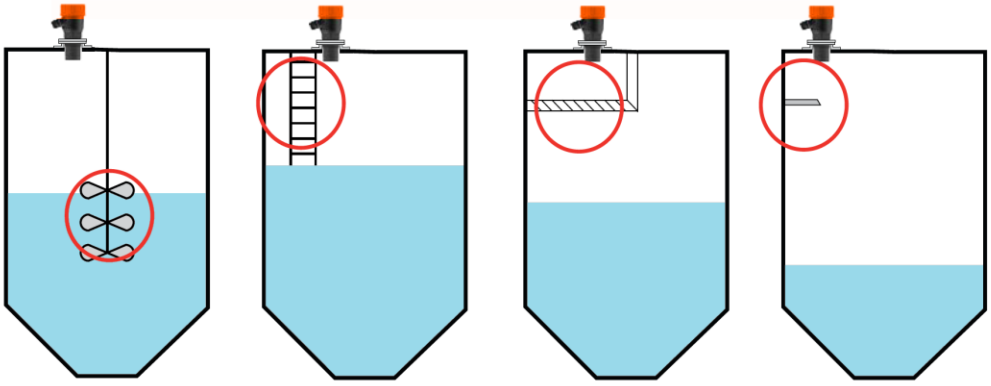
- Do **NOT** mount near infeed



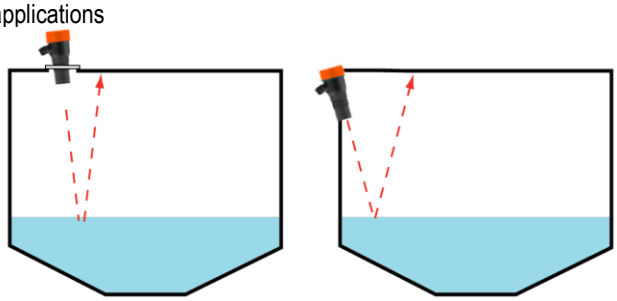
- Do **NOT** mount cone or transducer face above roofline



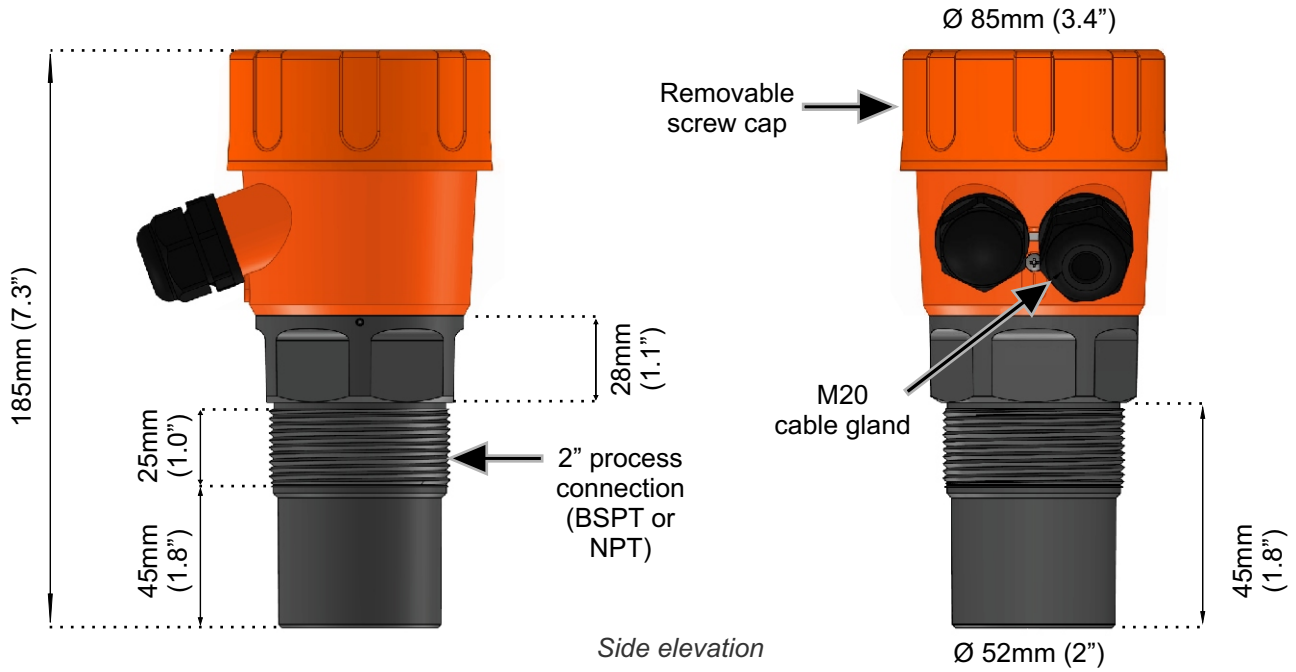
- Do **NOT** mount over or adjacent to any obstacles



- Do **NOT** mount at an angle in liquid applications

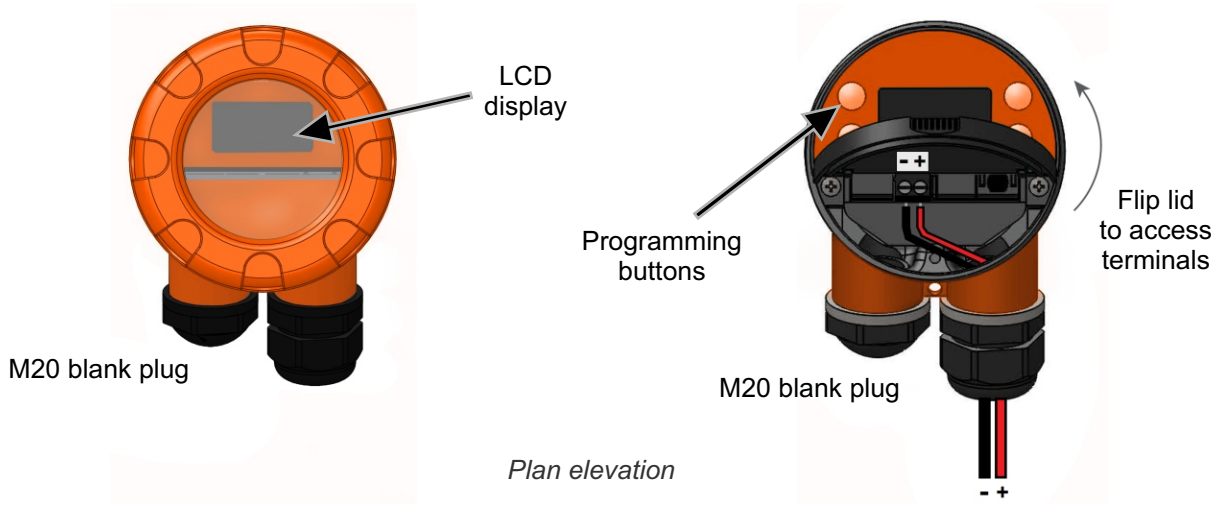


DIMENSIONS



Side elevation

WIRING



Plan elevation

OPTIONAL FLANGE DIMENSIONS