

### UM2000 - Ultrasonic Level Meter

- ▶ 2-wire 4...20mA/3-wire 0...10V output
- ▶ Liquid level / distance measuring mode programmable
- ▶ Applicable to liquid and solids
- ▶ Narrow-beam
- ▶ Optional intrinsically safe model

UM2000 contains an ultrasonic transmitter and an electronic module, the transmitter transmits ultrasonic pulses towards the level surface. The period during individual pulses spread towards the level and back was obtained and subsequently converted by the electronic module to an output current 4-20 mA or voltage 0-10V. Measuring range can be set through two keys.



### Specifications

<b>Measuring Range</b>	0.1...1m/0.25...2m/ 0.25...6m/0.5...10m/0.5...20m
<b>Applicable Medium</b>	Liquid
<b>Acoustic wave</b>	For details please see 'Technical Data'
<b>Accuracy</b>	
UM2000-06/10/20	≤0.2% F.S.
UM2000-01/02	≤0.3% F.S.
<b>Resolution</b>	<1mm
<b>Power Supply</b>	18...36Vdc, 18...30Vdc(ex-proof model)
<b>Current Analog Output</b>	
Output	2-wire 4...20mA
Load RA	RA≤270Ω
<b>Voltage Analog Output</b>	
Output	3-wire 0...10V
Load RA	RA>1KΩ
<b>Temperature</b>	
UM2000-02/06	-30...+70°C
UM2000-10/20	-30...+60°C
<b>Material</b>	
Housing	Plastic
Sensor	PVDF
<b>Protection Class</b>	IP67
<b>Electrical Connection</b>	Solenoid plug
<b>Process Connection</b>	G External thread, Flange

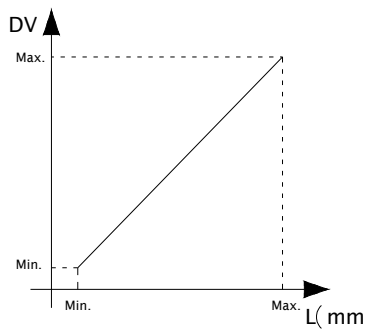
### Applications

- ▶ Food/pharmaceutical industry
- ▶ Power plant
- ▶ Plastics processing
- ▶ Papermaking
- ▶ Water treatment

### Flow Range Technical Data

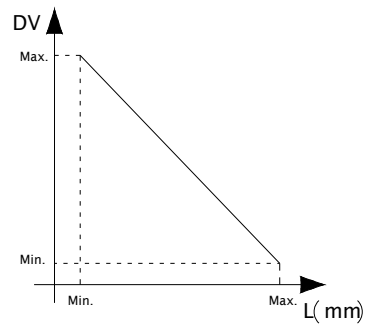
Measuring Range(m)	0.25-2 (UM2000-02)	0.25-6 (UM2000-06)	0.5-10 (UM2000-10)	0.5-20 (UM2000-20)
Acoustic wave	10°	14°	10°	12°
Measuring Period(s)	0.6s	1.0s	1.8s	5.0s

Working Mode



L: distance from sensor to objective surface  
DV: display value

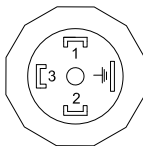
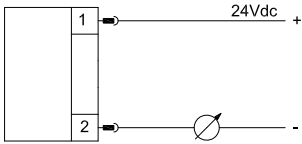
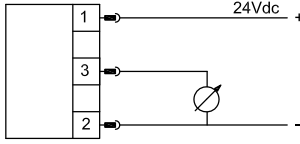
**Distance measuring mode :** The further distance between sensor and objective surface, the larger value displayed, and vice versa.



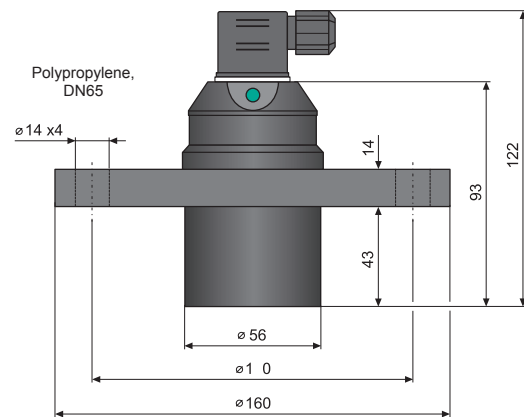
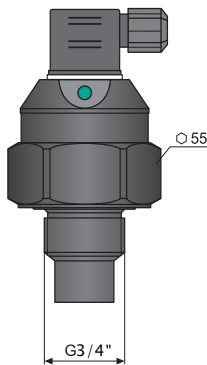
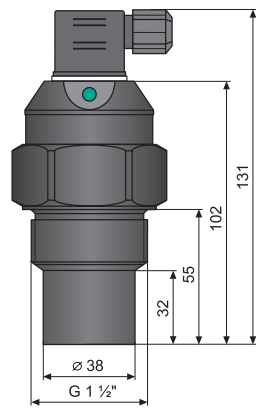
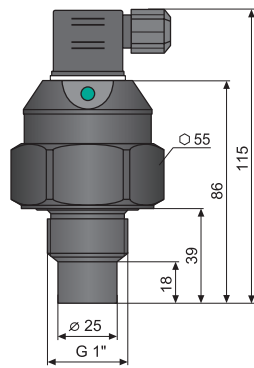
L: distance from sensor to objective surface  
DV: display value

**Level measuring mode :** The further distance between sensor and objective surface, the larger value displayed, and vice versa.

Wiring

Wiring	2-wire 4...20mA Output	3-wire 0...10V Output								
<div><p>Solenoid plug</p><table><tr><th>Signal</th><th>Plug</th></tr><tr><td>U+</td><td>1</td></tr><tr><td>U-</td><td>2</td></tr><tr><td>(Signal)</td><td>3</td></tr></table></div>	Signal	Plug	U+	1	U-	2	(Signal)	3	<div></div>	<div></div>
Signal	Plug									
U+	1									
U-	2									
(Signal)	3									

Dimensions in inches (mm)



### Model Number

OrderNO.	Type	Range m	Process Connection	Output type mA/V
UM2001	UM2000-01/42G34HN	0.1...1	G3/4	Current Analog Output 2-wire 4...20mA
UM2002	UM2000-02/42G1HN	0.25...2	G1	
UM2006	UM2000-06/42G2HN	0.25...6	G1-1/2	
UM2010	UM2000-10/42G2HN	0.5...10	G1-1/2	
UM2020	UM2000-20/42FHN	0.5...20	Flange	
UM2101	UM2000-01/01G34HN	0.1...1	G3/4	Voltage Analog Output 3-wire 0...10V
UM2102	UM2000-02/01G1HN	0.25...2	G1	
UM2106	UM2000-06/01G2HN	0.25...6	G1-1/2	
UM2110	UM2000-10/01G2HN	0.5...10	G1-1/2	
UM2120	UM2000-20/01FHN	0.5...20	Flange	
UM2201	UM2000-01/__G34HN	0.1...1	G3/4	RS485 Mod bus
UM2202	UM2000-02/__G1HN	0.25...2	G1	
UM2206	UM2000-06/__G2HN	0.25...6	G1-1/2	
UM2210	UM2000-10/__G2HN	0.5...10	G1-1/2	
UM2220	UM2000-20/__FHN	0.5...20	Flange	