



# Micro-Bore Submersible Level Transmitter

# Microlevel™

**Class-leading 0.63" Outside Diameter**

▶ Ideal for driven well applications

**Built-in surge protection**

▶ Protects against damage due to ground transients

**User-rangeable analog output**

▶ Ensures compatibility as requirements change

**RS485 modified-MODBUS compatible**

▶ Up to 128 transmitters on a single bus

**Dual (analog & RS485) outputs standard**

▶ Simplifies interface to data collection systems



The Microlevel by Keller America is the smallest diameter submersible level transmitter in its class. It provides standard features that far exceed those of higher priced transmitters offered by others, including  $\pm 0.25\%$  FS standard ( $\pm 0.1\%$  optional) Total Error Band over the range of 0 - 50°C. The ability of the Microlevel to achieve this performance day after day, over a wide range of operating conditions, makes it ideally suited to environmental monitoring applications that demand small size and high performance.

Please consult the comparison chart below to determine if the Microlevel is the best solution for your specific application. Datasheets for Levelgage, Acculevel, and other products are available upon request or by visiting our website, [www.kelleramerica.com](http://www.kelleramerica.com).

Product Comparison	Levelgage™	Acculevel™	Microlevel™
Accuracy	$\pm 1$ or $\pm 0.5\%$ FS T.E.B.*	$\pm 0.25$ or $\pm 0.1\%$ FS T.E.B.*	<b><math>\pm 0.25</math> or <math>\pm 0.1\%</math> FS T.E.B.*</b>
Custom Pressure Ranges	Yes	Yes	<b>Yes</b>
Available Pressure Range	0 – 3 thru 0 – 900 ft. WC	0 – 3 thru 0 – 900 ft. WC	<b>0 – 3 thru 0 – 900 ft. WC</b>
Compensated Temp. Range	-10 – 80°C	-10 – 80°C	<b>0 – 50°C</b>
Field Rangeability	No	Yes	<b>Yes</b>
Pressure Output	0 – 5 VDC, 0 – 10 VDC 4 – 20 mA	0 – 5 VDC, 0 – 10 VDC 4 – 20 mA, RS485	<b>4 – 20 mA, RS485</b>
Temperature Output	No	RS485	<b>RS485</b>
Wetted Materials	316L SS, Polyamide, Fluorocarbon	316L SS, Polyamide, Fluorocarbon	<b>316L SS, Polyamide, Fluorocarbon</b>
Electrical Termination	Vented Hytrel Cable	Vented Hytrel Cable	<b>Vented Hytrel Cable</b>
Relative cost	Lowest	Midrange	<b>Highest</b>

\*see reverse, Note 3.

**MADE IN U.S.A.**

Keller America, Inc. is the US home for Keller AG für Druckmesstechnik of Winterthur Switzerland. With over thirty years since its inception, the firm, still under the daily direction of its founder Hans Keller, continues to lead the industry in the development of media-isolated piezoresistive pressure sensors and advanced error correction techniques. At Keller, old-world craftsmanship combines with the latest in microelectronics to produce the best price-performance value in pressure measurement available anywhere in the world.

The products described herein are assembled and tested in the US using the same components and advanced manufacturing techniques in use at the Swiss factory, insuring the uncompromised quality and rapid delivery that our customers have every right to expect.

**KELLER AMERICA, INC.**

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# Microlevel



Specifications	
Level range (user specified) <sub>1,2</sub>	Infinite between 0 – 3 thru 0 – 900 ft. WC
Accuracy, TEB <sub>3</sub>	Standard: ±0.25%      Optional: ±0.1%
Compensated/operating Temp. Range	0 – 80°C / -10 – 80°C
Supply <sub>4,5</sub>	10 – 30 VDC
Output	4 – 20 mA + RS485
Load Resistance (Ω)	mA: < (Supply - 10V) / 0.02A
Wetted Materials	Std. 316L S.S., polyamide, Fluorocarbon
Cable <sub>6</sub>	Hytrek-jacketed, vented & shielded (Optional Tefzel® or Polyethylene jackets)
Surge Protection	Supply and RS485      200A @ 8/20 μS
	GND/Case      2,000A @ 8/20 μS

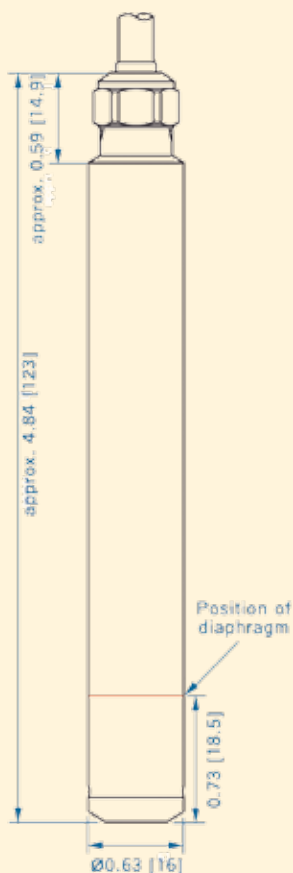
## Notes

- The Microlevel can be provided with custom calibration at no extra cost for fluids other than water, provided the specific gravity is given at the time the order is placed.
- Level range may be specified in units of lb/in<sup>2</sup>(psi), inches WC or feet WC. Keller America uses the International Standard conversion of 2.3067 feet WC/psi.
- TEB: Total Error Band; Includes the combined effects of non-linearity, hysteresis and non-repeatability as well as thermal dependencies, over the compensated temperature range, expressed as a percentage of the Basic Range. All intermediate ranges are realized by deranging from standard Basic Ranges of 30, 100 and 300 ft WC.
- At the transmitter; allow for ~.65V per 1000 ft. voltage drop thru the cable.
- Lower supply operation possible with RS485 output only. Consult factory for details.
- Max. continuous length: 1000 ft.
- The drain / shield is connected to the transmitter housing. For best protection against galvanic corrosion, do not ground.

## Wiring Configuration

Configuration	White	Red	Black	Blue	Yellow
mA+RS485	OUT/GND	N / A	+Vcc	RS485A	RS485B

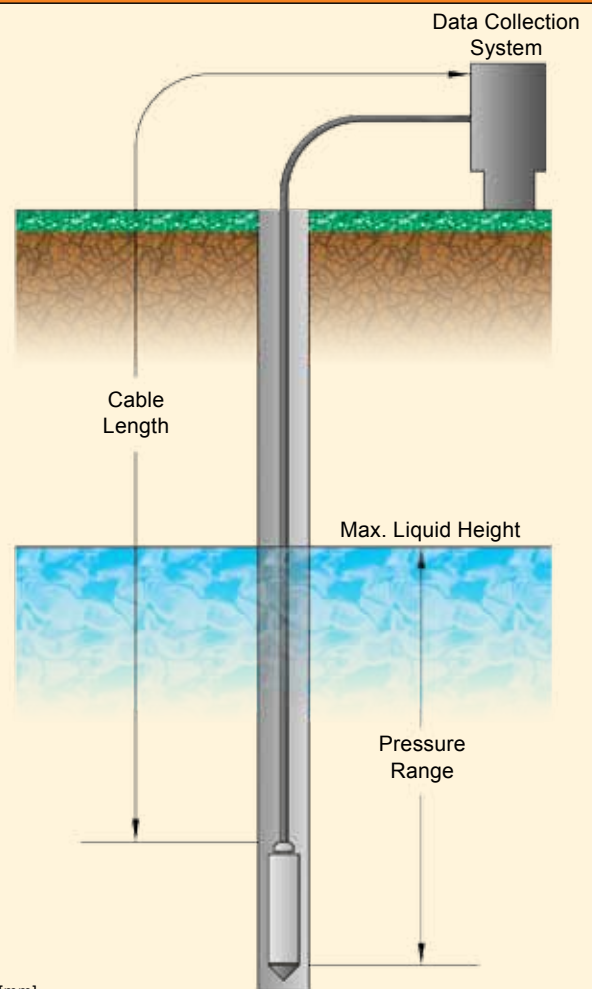
## Dimensions



### How to Order:

Please specify "Microlevel, pressure (or level) range, accuracy, output and cable length".

Dimensions in inches [mm]



Note: Dimensions & specifications are subject to change without notice. For the most accurate and up to date information on all products please visit our website.

Options & Accessories

► Drying Tube Assembly (Desiccant)

► Bellows Assembly

► GSM-1 Remote Data Transmitter Unit

► Termination Enclosure