



ULTRASONIC LEVEL TRANSMITTERS



FEATURES, FUNCTIONS, QUALITY AND VALUE



MJK's Shuttle® measures, displays, transmits and controls levels for about the same price as the competitors' stripped-down transmitters, plus you get the high quality product you expect from MJK. With MJK's cabled sensor it is easy to locate the display, where it can be useful, and the large display allows viewing from a distance. It has a one-step measurement start-up procedure that is easy to follow and easy to modify set-up of all functions, controls and signal management features. The advanced on-board software ensures accurate and reliable operation even in difficult applications.



ADAPTABLE WHEREVER LEVEL IS MEASURED

MJK's Shuttle® has a high power function that allows steady, reliable level measurements in turbulent, high solids/pollution content or lightly foamy waters. And of course, MJK's application experience is available for you to get the most out of your level measurement application.

Typical applications are measuring and controlling level

- Tanks in stormflow installations
- Lift stations
- Tanks at sewage plants
- Tanks in drinking water facilities
- Tanks and basins in process and food industries
- Sluge containeres
- Many types of solids levels
- Level measurement in open channels, flumes and weirs



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MATCH SENSORS TO APPLICATIONS



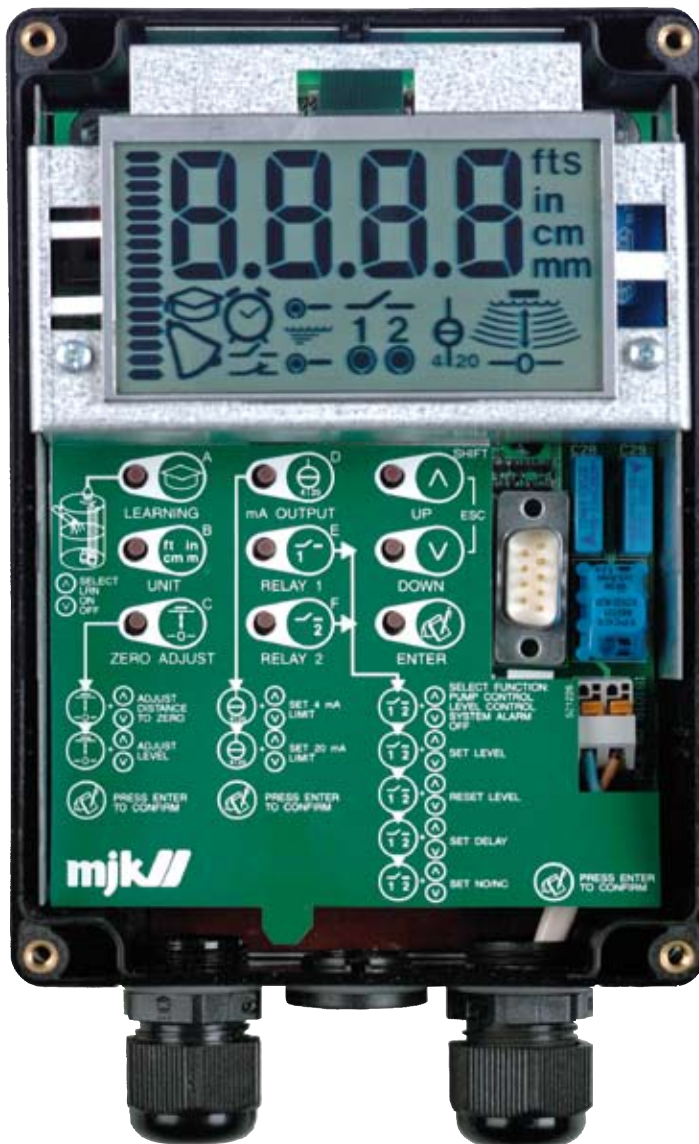
Whether it is the level in a small weir, a hopper full of sludge, a wet well or a reservoir, MJK has the sensor for the application. Shuttle® systems can measure ranges as small as 0 to 10 m / 0 to 4 in. up through ranges as large as 0 to 24 m / 0 to 80 ft. MJK's sensor with a 3° beam spread concentrates power to handle turbulence and surface debris, and allows installation



in crowded wet wells or on sidewalls. MJK's broader beam sensors have their application advantages in solids level measurement and long distances. MJK's Shuttle® sensors are available with FM or ATEX approvals for use in explosion hazard areas. Also, MJK offers chemically resistant models for chemical storage tank applications.



NOTHING IS LEFT OUT



- Completely self-contained with built-in keypad and large 4 digit LCD with 18 status indicators, including a signal strength indicator, so you can do all the setting-up and modifications without additional equipment.
- Two relays for level set points, alternating pump control or alarms are included.
- The Shuttle® has a dual power supply allowing the user to power it with 10 - 30 V DC or 230 / 115 V AC. The mA output has user selectable system values.
- High resolution Learning function is included to eliminate false echoes and reading errors. Extensive self-diagnostics and signal management options are included to pinpoint settings for accurate and reliable operation.



Shuttle® Sensor	
Range	In liquids: 0 - 10 cm to 0 - 25 m / 0 - 4 in. to 0 - 80 ft. In solids: 0 - 4 m to 0 - 10 m / 0 - 4 in. to 32 ft.
Frequency	30 kHz, 40 kHz or 50 kHz
Temperature range	-20 to +60° C / -4° to +140° F
Temperature compensation	Built-in -20 to +60° C / -4° to +140° F
Spread	3°, 6° or 7°
Materials	Depends on the sensor model, see data sheet 2.1
Enclosure	IP 68 / NEMA 6P (submersible to 10 m / 30 ft. of water)

Shuttle® Converter	
Measuring accuracy	Better than 0,2%
Input	From ultrasonic sensor
Analog output	Active 4-20mA galvanically isolated, max. loop resistance 500 Ohms
Digital output	Two SPDT electromechanical relays. (max 50V DC / 1 A)
Set-up and adjustment	From keypad behind the front cover
Indication	Extra large 4 digit LCD with 18 additional status indicators
Power supply	230/115 V AC, 50 / 60 Hz ± 10 % and 10 - 30 V DC Consumption max. 2 W
Cabinet materials	Glass reinforced polycarbonate
Enclosure rating	IP 65 / NEMA 4X

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