

<b>Model DTI</b>	<b>Digital Transmitter Interface</b>	<b>Technical Brief</b>
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## DESCRIPTION

**APPLICATION:** The Model DTI Digital Transmitter Interface is designed for use with competitive transmitters to provide output compatible with ORION® remote and pit transmitters, Itron® remote and pit transponders, and TRACE® remote and pit transponders. There are three product versions depending on the type of transmitter used.

The B interface is used with the Badger Fire Service Reed Switch Transmitter.

The K interface is used with the Kent RS Pulser and Schlumberger Tricon S transmitter.

The H interface is used with the Hersey ER1.

**OPERATION:** The DTI is designed to condition a transmitter signal so it is acceptable as input to ORION pit and remote transponders, TRACE transponders, and Itron modules.

**MOUNTING:** The DTI is prewired to the Badger Meter reading device wire and connects to the transmitter via a two-wire lead. For Badger Fire Service meters, the DTI can be ordered prewired to both the transmitter and the Badger Meter reading technology.

**CONSTRUCTION:** The housing is constructed of high strength, corrosion-resistant polycarbonate. Internal construction materials are plastics and corrosion resistant fasteners, selected to insure long operating life.

**TEMPERATURE:** Operating range is 0° C to 60° C (32° F to 140° F). The water meter should not be subjected to temperatures below freezing.

**MOISTURE:** The DTI is water resistant and designed for use in 0% to 100% relative humidity.

**ELECTRONICS:** The circuit board is completely sealed against moisture by being potted in place to assure protection from humidity.

**ELECTRICAL:** The electronic circuitry is designed to provide immunity to electrical surges and transients.

**OPERATING CHARACTERISTICS:** The DTI has an output with the characteristics of an Open Drain FET. Each signal has a duration of 15 to 75 milliseconds at ambient temperature. Pulse duration is 8 to 75 milliseconds over the entire temperature range. On state resistance is 100 ohms. Off-state impedance is an open circuit. The DTI has a maximum rating of 4 VDC @ 1 mA (@ 25° C).



## SPECIFICATIONS

<b>Humidity</b>	0% to 100% Condensing
<b>Operating Temperature</b>	0° C to 60° C (32° F to 140° F)
<b>Output Signal Characteristics</b>	Open Drain (FET)
<b>Resolution</b>	Equal to Input Transmitter
<b>Typical Signal Duration</b>	15 to 75 (ms) @ 25° C (77° F) 8 to 75 ms over operating temperature range
<b>On State Resistance</b>	100 Ohms @ 1 mA @ 25° C (77° F)
<b>Off State Impedance</b>	Open Circuit
<b>Power Source</b>	External
<b>Maximum Switching</b>	4.0 V @ 1 mA @ 25° C
<b>Maximum Rate</b>	1 Hz

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