



Class I, Div. 1 on DST-1002



■ Operational Description

DST sensors are used in conjunction with the DCR controllers. These sensors use ultrasonic technology to provide a non-contact method of detecting level, presence/absence, volume, proximity and distance measurements. This versatility makes ultrasonics ideal for a variety of applications.

Ultrasonic sensors transmit pulsed waves of high frequency sound. If the sound wave meets a reflective object, such as liquid, it bounces back toward the sensor. The sensor records the time required for the sound wave to travel to the target and return. Using the speed of sound, which is a well-known variable, the sensor calculates the distance to the object.

Until recently the many factors that influence the speed of sound created inaccurate readings. Now with low cost microprocessor technology, many of these variables can be factored into the equation and eliminated. Temperature change is one such variable. The DST sensors use internal temperature compensation.

The transmit and receive circuit is built into the sensor and digitally communicates the detected distance to the DCR controller. This allows the sensor to be separated from the DCR controller by up to 2000 ft. (650 m) with no signal loss.

DST

Ultrasonic Sensors

- Maximum range to 50 ft. (15 m)
- Self-contained sensors
- Works on solids or liquids
- APG's AutoSense software provides hassle-free setup
- Temperature compensated to maintain accuracy
- Controller and sensor can be separated up to 2000 ft. (650 m)
- Maintenance free
- Works with any of the DCR controllers

POB 1778 Greer, SC 29652
414 West Poinsett Street Greer, SC 29650
mtrask@bellsouth.net

Ph: 864-848-3993

www.traskinstrumentation.com

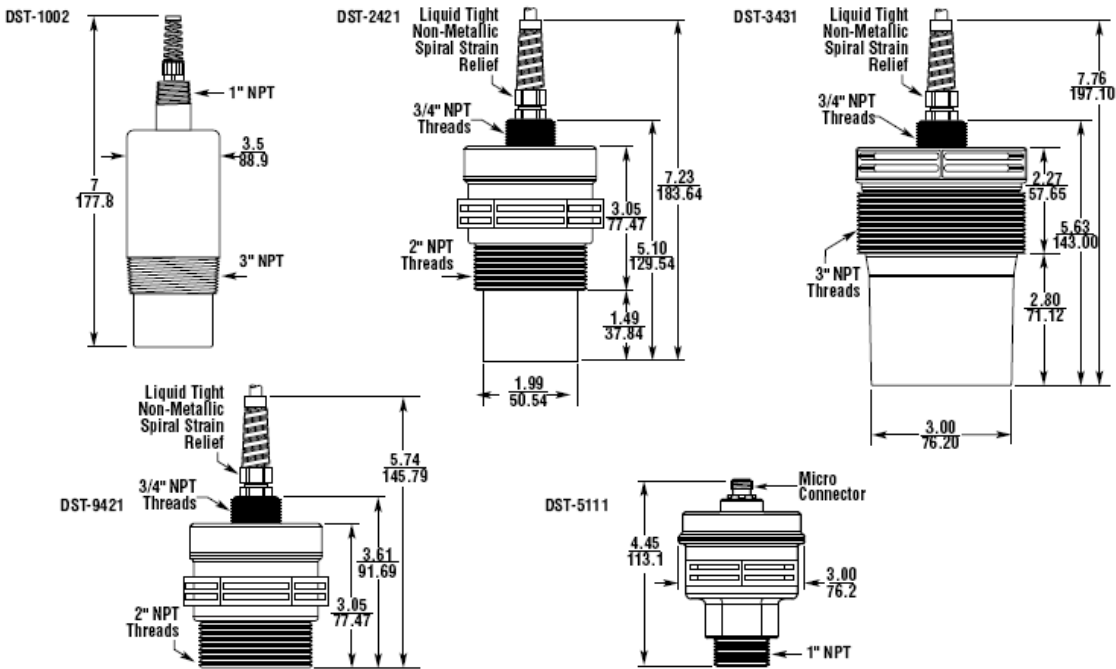
Fax: 864-848-9569

■ **Specifications**

	DST-1002	DST-2421	DST-3431	DST-5111	DST-9421
Application:	wet corrosive	wet corrosive	wet corrosive	wet corrosive	dry stable
Operating Range:	1.5 to 35 ft. (0.5 to 11 m)	1 to 25 ft. (0.3 to 7.6 m)	1.25 to 50 ft. (0.4 to 15.2 m)	4 to 72 in. (102 to 1829 mm)	0.5 to 35 ft. (0.2 to 10.7 m)
Housing:	PVC	PC/PET blend	PC/PET blend	PC/PET blend	PC/PET blend
Transducer Type:	ceramic, PVC faced	PVDF-faced ceramic	polycarbonate/PET blend	PVDF faced	electrostatic
Ratings:	NEMA 6P, IP65	NEMA 4X	NEMA 4X	NEMA 6P, IP65	NEMA 12
Approvals:	FM Class I, Div. 1	CSA/US Class I, Div. 2 (pending)	CSA/US Class I, Div. 2 (pending)	CSA/US Class I, Div. 2 (pending)	CSA General Purpose (pending)
Operating Temp:	-22 to 140°F (-30 to 60°C)	-40 to 140°F (-40 to 60°C)	-40 to 140°F (-40 to 60°C)	-22 to 140°F (-30 to 60°C)	-40 to 140°F (-40 to 60°C)
Temp Compensation:	internal	internal	internal	internal	internal
Accuracy (with no temp gradient):	0.25% of range	0.25% of range	0.25% of range	0.25% of range	0.25% of range
Beam Pattern:	9° off axis	9° off axis	9° off axis	9° off axis	9° off axis
Cable:	10 ft. (3 m) RG-6 coaxial standard; or two conductor shielded option	10 ft. (3 m) two conductor shielded standard; RG-6 coaxial or micro connector option	10 ft. (3 m) two conductor shielded standard; RG-6 coaxial or micro connector option	10 ft. (3 m) two conductor shielded standard; RG-6 coaxial or micro connector option	10 ft. (3 m) two conductor shielded standard; RG-6 coaxial or micro connector option

Specifications are subject to change without notice.

■ **Dimensions — in./mm**



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