

WT-S-401, WT-S-426 (Standard)

Features

- Self Contained
- Sensing Range 100-1000mm, 200-2000mm
- Narrow Sensing Beam
- High Frequency
- LED Strength Indicator
- Range & Hysteresis Controls
- Reverse Polarity Protected
- Short Circuit Protected
- Operates in Hostile Environments
- Operating Voltage 20-30VDC
- Analog Current & Voltage Outputs (Suffix A, Ex. 401A, 426A)
- Isolated N.O. N.C. Solid State Relays
- WT-S-401 in Plastic Housing
- WT-S-426 in Stainless Steel Housing

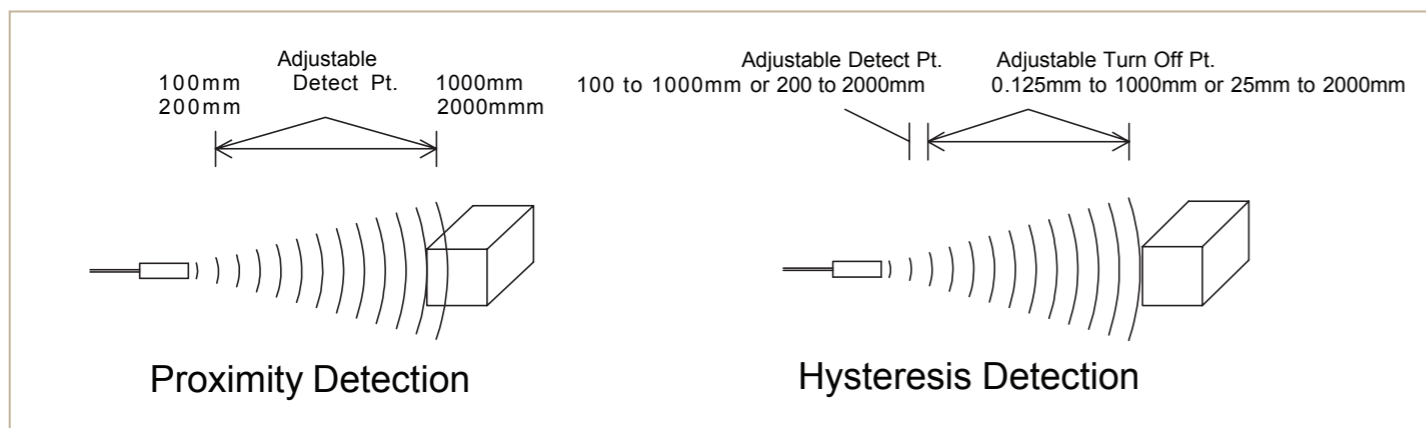
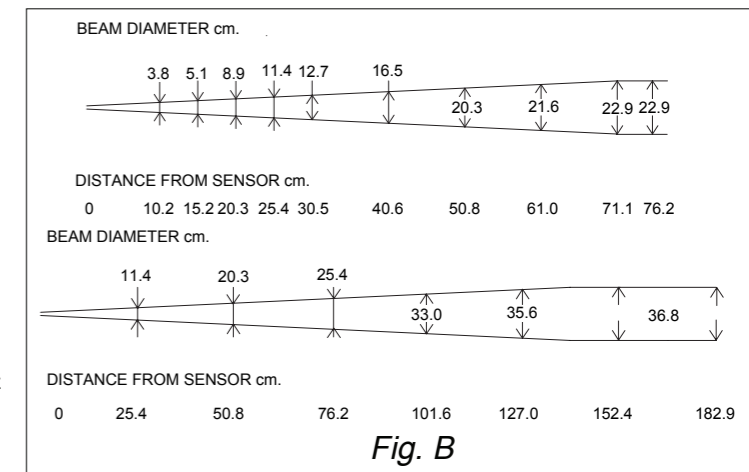
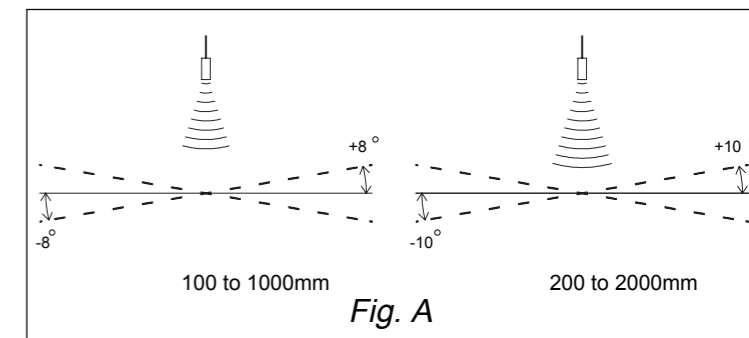


The WT-S-401 and 426 are stud-mounted, completely self-contained, 20-30VDC powered ultrasonic sensors. A sealed transducer provides protection in hostile environments. The sensor can be operated in two modes proximity and a hysteresis mode, described below. The frequency of operation for the WT-S-401 is 212kHz for the 100 to 1000mm and 150kHz for the 200 to 2000mm. The WT-S-426 has a 200 to 2000mm range and operates at a frequency of 150kHz. These sensors also have built-in short circuit protection for the outputs as well as reverse polarity protection on the input.

The construction of the WT-S-401 sensor is Plastic Valox and the WT-S-426 is Stainless Steel. A barrel housing is used 30mm in diameter by 100mm in length. For set up purposes an LED indicator is provided. When not detecting the LED will illuminate green and when detecting the LED will illuminate red. The outputs consist of two solidstate relays N.O. N.C. which can switch 2-130VAC or VDC up to 100mA DC or 50mA AC continuous. The relay outputs are short circuit protected and isolated up to 1500volts rms. A standard 1829mm cable is provided. An optional quickdisconnect plug is available.

Specifications:

Operational Range:	WT-S-401	Adjustable 100 to 1000mm
	WT-S-426	Adjustable 200 to 2000mm
Power Input:		20 - 30VDC Reverse Polarity Protected
Input Current:		50 Milliamps
Ambient Temperature:		0°C to 60°C or 32°F to 140°F
Humidity		0 - 95% Non-Condensing
WT-S-401 Housing:		420D valox plastic with a silicon rubber sensing face.
WT-S-426 Housing:		303 Grade Stainless Steel with a 316 Grade Stainless Steel sensing face.
Output:		2 Solid State Relays N.O. N.C. Isolated 1500 Vrms
Current Sourcing Analog Output 4 - 20mA Inverted & Non-Inverted Analog Voltage Output 0 - 10 volts Inverted & Non-Inverted (Suffix A, Ex. 401A, 426A)		2 - 130VAC or VDC 100mA DC or 50mA AC Continuous Short Circuit Protected
Transducer Frequency:	100 to 1000mm WT-S-401: 212kHz	200 to 2000mm WT-S-401: 150kHz WT-S-426: 150kHz
Response Time:	100 to 1000mm 30mS	200 to 2000mm 50mS
Weight:		312g



Proximity Detection

Proximity detection is the detection of an object at a given distance. The detection range of the WT-S-401,426 is controlled by the "Range Control" potentiometer. Any object within the desired range is detected, while objects out of range are ignored. The range of the WT-S-401 is either 100 to 1000mm or 200 to 2000mm. The range of the WT-S-426 is 200 to 2000mm only. This means that in the proximity mode the object will be detected from whatever de-tect point is set to the minimum sensing range of the sensor either 100mm or 200mm. The hysteresis control needs to be off by turning the potentiometer fully counterclockwise.

Hysteresis Detection

The WT-S-401, 426 is furnished with Hysteresis Control by means of a second potentiometer. This control allows you to adjust the turn-off point while the range control adjusts the turn-on point. (Example: Range pot set for 250mm, Hysteresis pot set for 500mm. With these settings the sensor will detect when the target reaches 250mm and stays on as the target moves away to 500mm.) This Hysteresis can be adjusted from .125mm to 1000mm from the detect point with the 1000mm sensor and 25 to 2000mm with the 2000mm sensor.

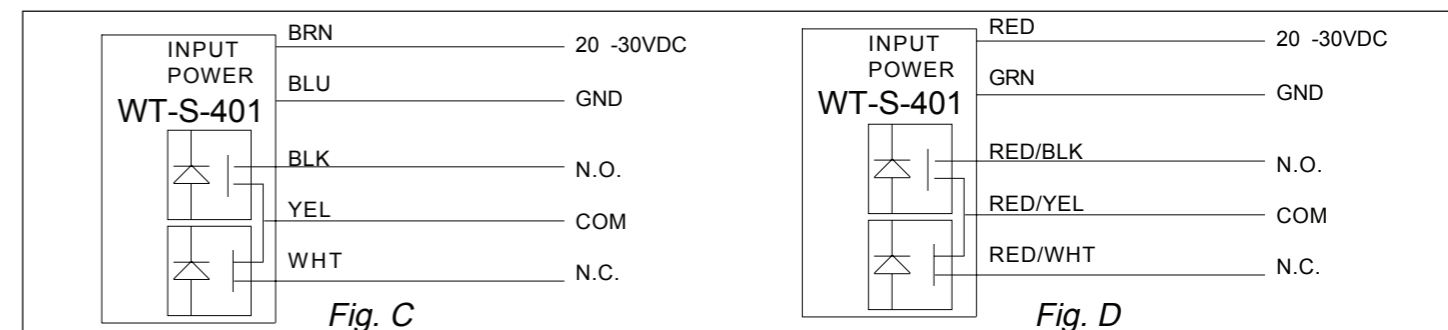
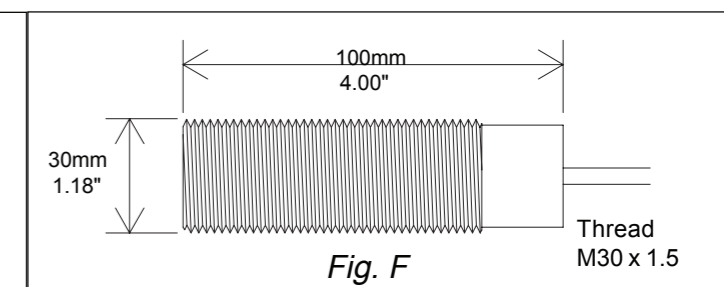
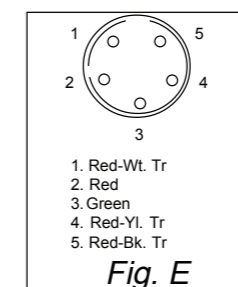


Figure:

- A - Angle of Tilt
 - B - Beam Spread
 - C - Wiring Diag. with Potted in Cable
 - D - Wiring Diag. with Quick Disconnect
 - E - "QD" Connector Option (Male View)
 - F - Mounting Dimensions
- For Optional ON/OFF Delays Consult Factory. "QD" cables are sold separately.



PART NUMBER	RANGE	OUTPUT
WT-S-401-1000	100 to 1000mm	2 Solid State Relays N.O. N.C.
WT-S-401-2000	200 to 2000mm	2 Solid State Relays N.O. N.C.
WT-S-401-2000P	200 to 2000mm	2 Solid State Relays N.O. N.C. -P-PVC Housing, Level Control, Industry
WT-S-401-1000QD	100 to 1000mm	2 Solid State Relays N.O. N.C. -QD-Quick Disconnect
WT-S-401-2000QD	200 to 2000mm	2 Solid State Relays N.O. N.C. -QD-Quick Disconnect
WT-S-426-2000	200 to 2000mm	2 Solid State Relays N.O. N.C.
WT-S-426-2000QD	200 to 2000mm	2 Solid State Relays N.O. N.C. - Quick Disconnect
5000116-2		1829mm Cable for "QD" Option
5000116-4		6096mm Cable for "QD" Option