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Wash Down Duty Non-Contact Sensor

Models WDDC1-XXX; WDDC2-XXX;
WDDV1-XXX; WDDV2-XXX

The Carotron Wash Down Duty Non-Contact Sensor Models WDDC1-XXX and WDDV1-XXX (without limit switches) and WDDC2-XXX and WDDV2-XXX (with limit switches) are designed for use in harsh environments where equipment wash down, corrosion resistance and very long equipment life are important.

Our Wash Down Duty Sensor housing is constructed from stainless steel and is rated to NEMA 4X specifications. The high quality analog proximity sensor has no moving parts, senses the position of a cam and gives an output signal proportional to the angular position of the shaft.

The no-maintenance bearings are made from Freelon®, an exceptionally long life material. The stainless steel shaft is faced to aid the installation and mechanical connections. Quick release modular cabling is included with the unit and comes in five lengths ranging from 20 feet to 100 feet. This eliminates the need for connecting to terminal blocks inside the Non-Contact Sensor.

Limit switch models (WDDC2-XXX and WDDV2-XXX) contain two high quality normally closed limit switches and two adjustable cams to set extreme travel limits. Ruggedness, superior performance, dependability, and long life characterize the Wash Down Duty Non-Contact Sensor.

Applications include:

- Dancer Position
- Rider Arm Position
- Level Sensing
- General Position Sensor

Standard Features

(Models WDDC1-XXX and WDDV1-XXX)

- No potentiometer to wear out
- NEMA 4X enclosure to provide protection from washing & corrosion
- Stainless Steel Construction
- External mounting feet
- Quick connect cable in 5 lengths for easy wiring



- 1/2-inch diameter faced sensor shaft for easy mechanical connections
- Heavy Duty bearings and seals for long life and reliability

(Models WDDC2-XXX and WDDV2-XXX)

- No potentiometer to wear out
- NEMA 4X enclosure to provide protection from washing & corrosion
- Stainless Steel Construction
- External mounting feet
- Quick connect cables in 5 lengths for easy wiring
- 1/2-inch diameter faced sensor shaft for easy mechanical connections
- Heavy Duty bearings and seals for long life and reliability
- Two normally closed limit switches to indicate rotational travel limit extremes
- Two adjustable cams to change counter clockwise (CCW) and (CW) limit settings

Specifications

Sensor

Specification	MODELS	MODELS
	WDDC1-XXX WDDC2-XXX	WDDV1-XXX WDDV2-XXX
Supply voltage	15-30 VDC	14-30 VDC
Max supply current	35 mA	20 mA
Max power rating	1.05 watts	0.6 watts
Output range	4-20 mA	1-9 VDC
Min load resistance	NA	1000 ohms
Max load resistance for 20mA output	@ 15 VDC = 470 ohms @ 25VDC = 1000 ohms	NA

Resolution: Infinite

Rotation:

Mechanical; Continuous

Electrical; 310° +/-1%

Linearity tolerance: +/-0.9%

Power Rating: <1W@30VDC input

Temperature Range: 0 - +60°C

Connections made by NEMA 4X rated connector & shielded cable (included). Power supply inputs have reverse polarity protection and output is short circuit protected to common.

Limit Switches

(WDDC2-XXX and WDDV2-XXX only)

Ampere rating: 5 Amps

Voltage rating: 250 VAC

Connections made by a 2nd NEMA 4X rated connector & cable (included).

Enclosure

Construction: 16 ga. Stainless Steel

Finish: Mill finish gray

Industry standard: NEMA 4X

Overall Size: Box-W=4.25"; L=7.25"; H=4.4"

With Mounting Feet: L=8.39"

Mounting Hole Pattern: 2" x 7.64"

Mounting Hole diameter: 0.31"

Sensor Shaft

Construction: Stainless Steel

Diameter: 1/2-inch with flat

Mechanical Characteristics

Mechanical Angle: Continuous

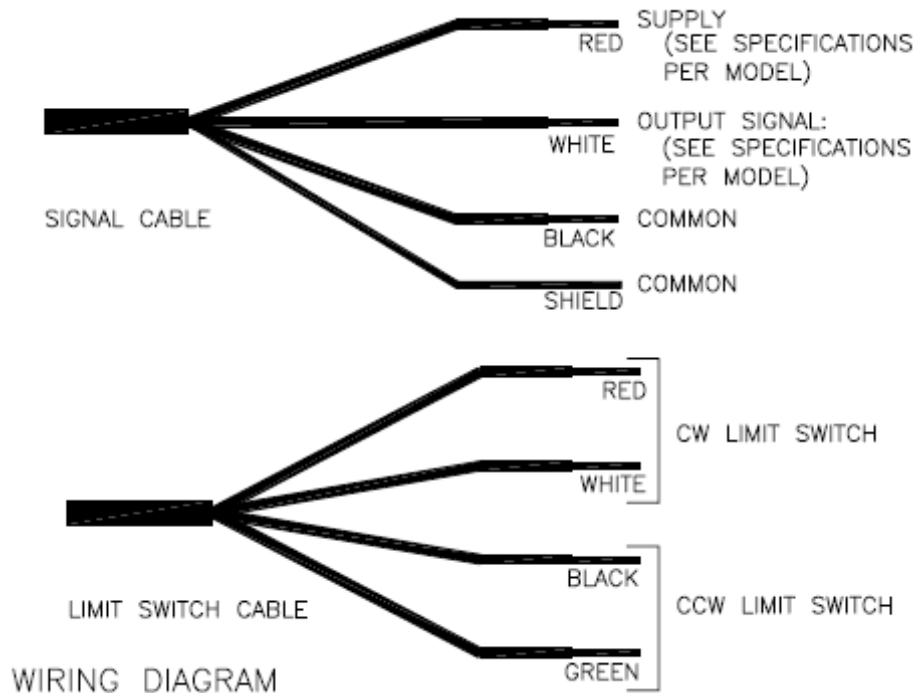
Torque, Starting and Running:

WDD01-XXX – 3.0 oz.-in. Typical

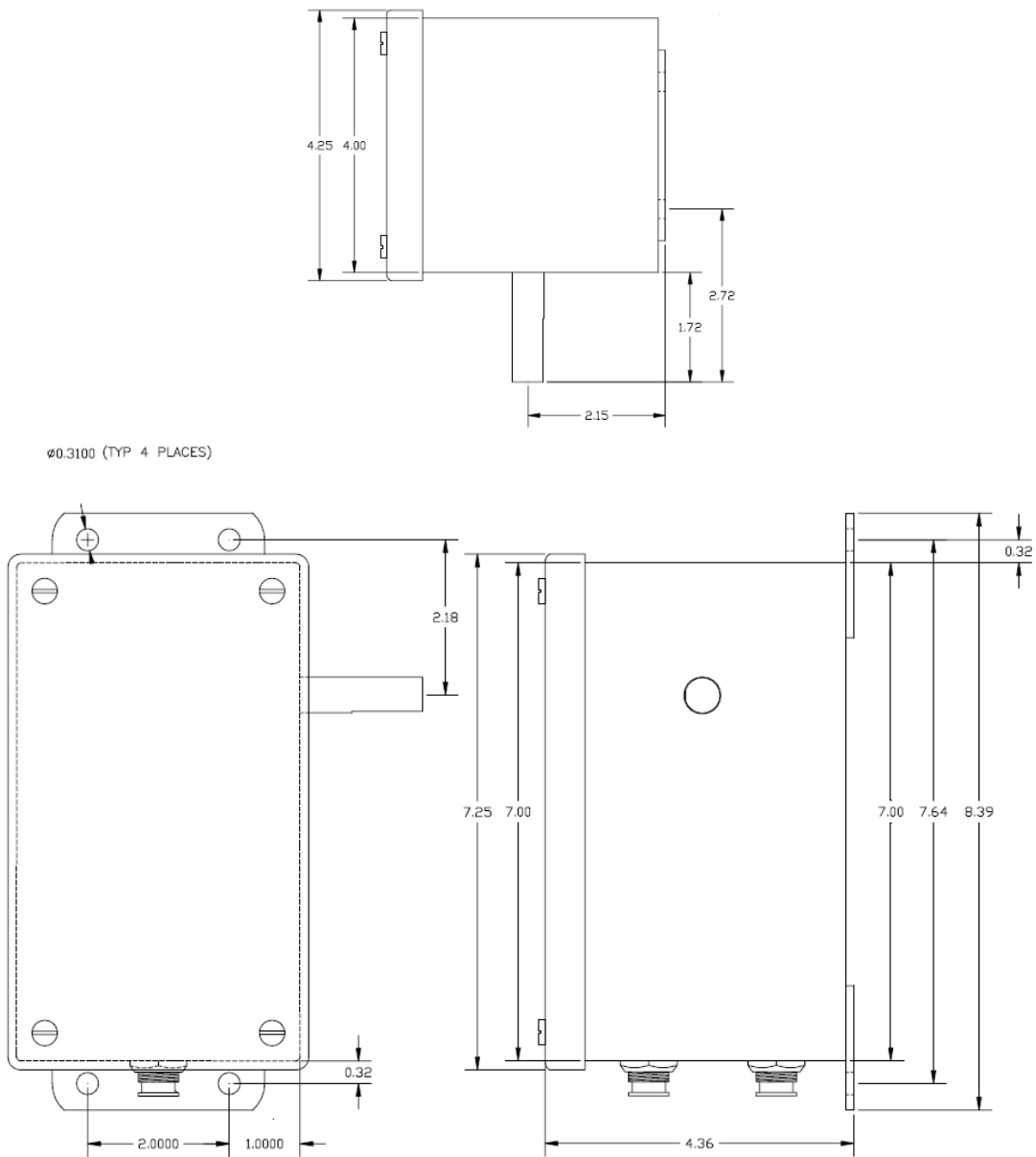
WDD02-XXX – 6.0 oz.-in. Typical

Note: Clockwise rotation (facing shaft) gives increasing output. Output can be made "decreasing" by removing sensor cam and reversing it on the shaft.

Connections

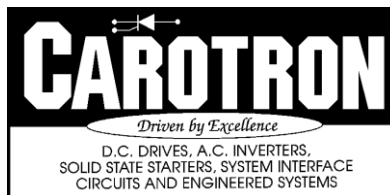


Dimensions



Wash Down Duty Non-Contact Sensor
Models WDDC1-XXX; WDDC2-XXX; WDDV1-XXX; WDDV2-XXX

View or download the complete Instruction Manual (MAN 1046-00) from www.carotron.com .



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