

9360

Single and Dual Output Rotary Position Sensor

The 9360 Series rotary sensor is a rugged, is a Hall effect device, featuring a standard 360-degree sensing angle. This design combines the advantages of potentiometers (simple construction and minimal components) with the superior reliability and durability of non-contacting technology.

Unlike most similar products, the sensor provides full redundancy with two independent Hall detectors housed within the same package. These detectors are rigidly supported to meet the severe durability requirements that are typical in off-highway and agriculture environments.

The device contains two Hall effect sensors that can be configured to suit a wide variety of application needs. It comes in a compact package that includes an integral, sealed connector.



- Redundant
- Programmable output signal
- IP67 and IP69K per DIN 40050-9
- Extended temperature range

Electrical	
Active Electrical Angle	15° to 360° in 15° increments (no spring option). 15° to 165° in 15° increments (spring option).
Input Voltage	5.0 V±0.25V DC
Overvoltage Protection	20V
Reverse Polarity Protection	Yes
Short Circuit Protection	10VDC
Output Signal	5% to 95% Analog Ratiometric/PWM*
Resolution	12 Bit
Accuracy	±0.6% of full scale at room temperature ±0.9% of full scale over operating temperature range
EMC	100 V/m (14 kHz-1 GHz range)
ESD	8kV
Input Current	18mA maximum per output 36mA maximum total (both channels)

* Different outputs and mechanical range(s) available

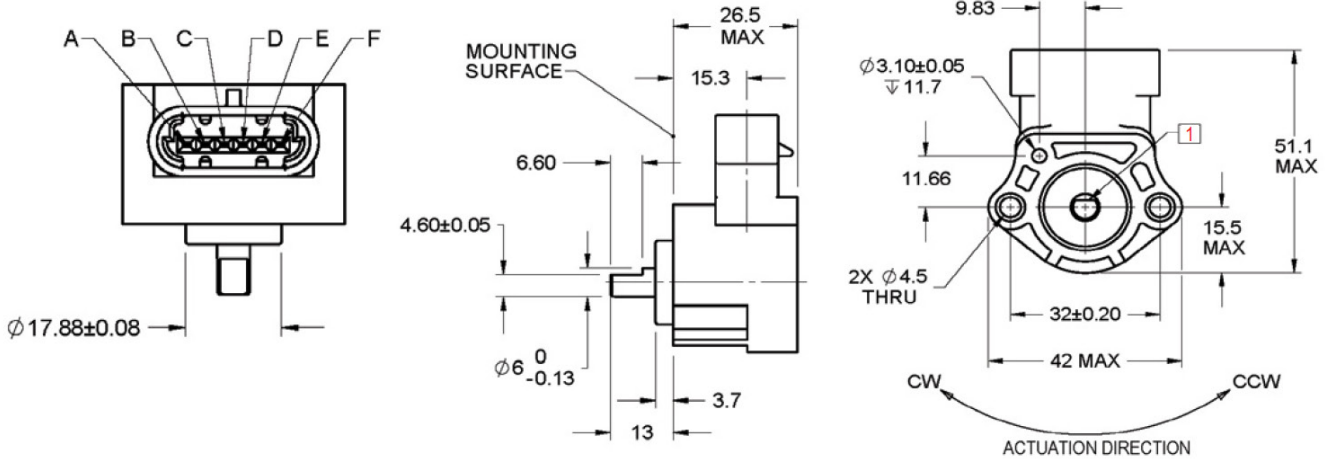
Mechanical	
Range	0° to 360° with no stops/no spring, allowing for continuous rotations*
Spring/Rotor Return Direction Options	0° to 180° with spring return options 1 & 2; 0° to 360° with no spring option 3
Mounting	2 x 4.5mm Ø on 32mm centers
Shaft	6mm Ø with 4.6mm flat
Termination	Metri-Pack or Ampseal
Housing	Glass filled PBT (Polybutylene terephthalate)
Life	35 M cycles; 1 M cycles w/1kg side load
Frequency Response	1 kHz minimum
Rotational Torque	0.025 - 0.110 N-m
Weight	35 grams (approx.)

Environmental	
Sealing	IP67 and IP69K per DIN 40050-9
Vibration	10G peak, 20 - 2,000 Hz
Humidity	95% RH @ 40° C
Liquid Exposure	Salt water, cola, motor oil, ethylene glycol, paint, diesel fuel
RoHS	1000 x R _t
Operating Temperature Range	-40°C to +125°C
Storage Temperature Range	-40°C to +125°C
Shock	50Gs, half-sine pulse, 5 msec duration

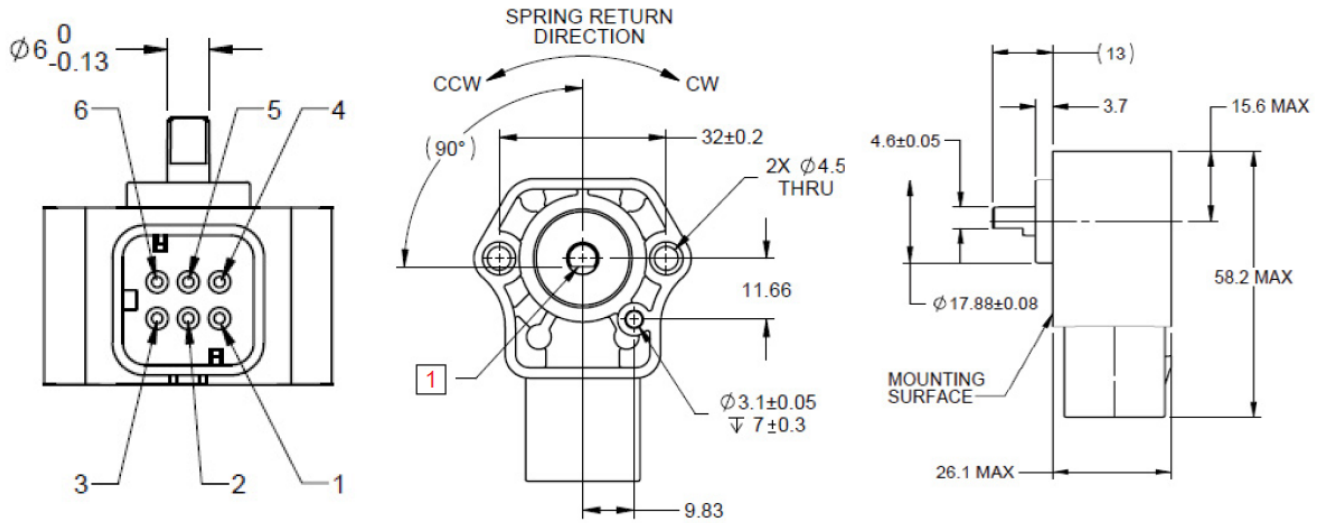
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MetriPack Connector (9360, 9361 & 9362 Option)



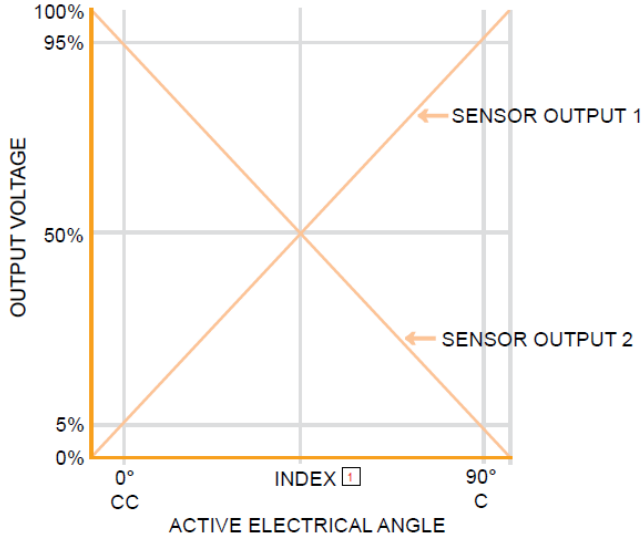
Dimensions (mm) - Ampseal Connector (9360A Option)



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Output Signal 9360

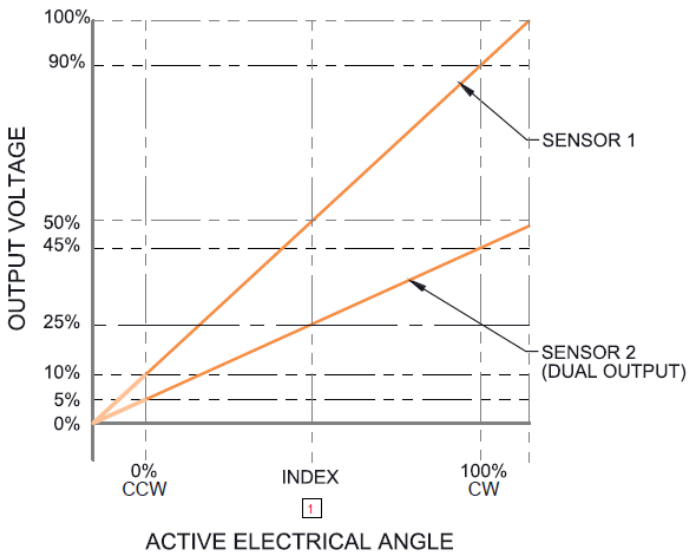


Connector Pin Outputs 9360

	METRI-PACK		AMPSEAL	
	SENSOR 1	SENSOR 2	SENSOR 1	SENSOR 2
Vs	F	B	1	4
OUTPUT	C	D	2	5
GROUND	E	A	3	6

1 Shaft flat is shown with sensor at 50%±3% voltage (index)

Output Signal 9361 and 9362



Connector Pin Outputs 9361 and 9362

	METRI-PACK	
	SENSOR 1	SENSOR 2
Vs	F	B
OUTPUT	C	D
GROUND	E	A

1 Shaft flat is shown with sensor 1 at 50%±3% voltage (index)
Shaft flat is shown with sensor 2 at 25%±3% voltage (index)

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Order Information

9360-X-000-X

1 2 3 4

1	FAMILY	9360 9361 9362	Dual Channel - Inverse Outputs Single Channel Dual Channel - Direct Outputs
2	TERMINATION	Blank A	Metri-Pack Ampseal 16 - 6 position (for 9360 only)
3	STANDARD ELECTRICAL ANGLES	015 030 045 060 Etc 360	+/- 7.5° +/- 15° +/- 22.5° +/- 30° Up to 360 +/- 180° <i>Note. Other angles available, consult Regal Components</i>
4	SPRING/ROTOR RETURN DIRECTION	1 2 3	Counter Clockwise Spring Return Clockwise Spring Return No Spring, Continuous Rotation <i>*Spring return: Available for active electrical angles 15° to 165° only</i>

Example Code 1: 9361-A-015-1

Example Code 2: 9361-015-1

Order Notification

Contact Regal Components for custom option requests.

Notes

Important Notice

The specifications in this document are for reference purposes only and are subject to change without notice. Consult Regal Components for the latest specifications.
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