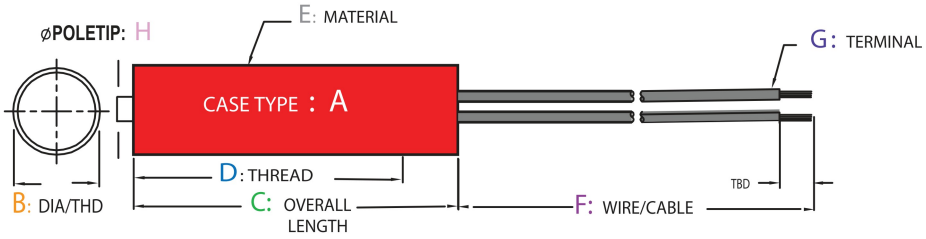
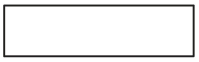
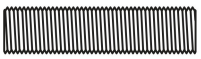
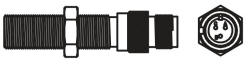
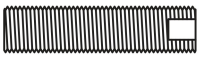
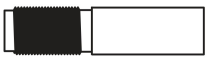
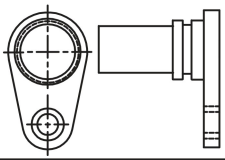
VR Part Number Nomenclature

The standard part number includes the sensor type, case type, case diameter, terminal type as well as any special modifications.
Please contact Sensoronix if you need more detailed information.



CASE TYPES	DESCRIPTION	A
	SMOOTH	0
	ALL THREAD	1
	HEX HEAD	2
	KNURL HEAD	3
	CONNECTOR HEAD	4
	WRENCH FLAT HEAD	5
	SMOOTH / THREAD	6
	WITH FLANGE	7

VR X X X - X X 0

- VR: Variable Reluctance Speed Sensor
- X X X: Case Type / Case Diameter "B"
- X: Terminal "G"
- X: Vary With Special Modifications
- 0: Fixed Number (0)

Case Diameter "B"		METRIC	
1/4" (0.250")	2X	M-8	08
3/8" (0.375")	3X	M-12	12
15/32" (0.468")	4X	M-16	16
1/2" (0.500")	5X	M-18	18
5/8" (0.625")	6X	M-20	20
3/4" (0.750")	7X	M-22	22
7/8" (0.875")	8X		
Others	9X		

Terminal "G"	
Connector	0
Conn. & Wire	1
Conn. & Cable	2
Lead Wires	3
Cables	4

AS9100 CERTIFIED ISO 9001

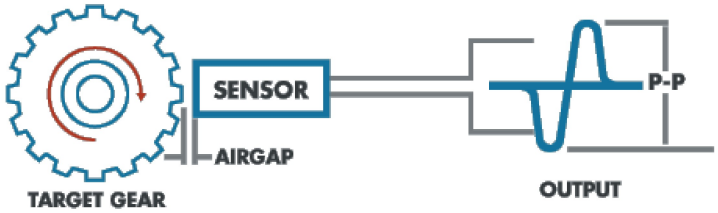
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Variable Reluctance Speed Sensor (VR)



The collapse of magnetic field due to the interruption by a ferrous gear tooth provides an analog signal output (sine wave) that does not require an outside power source. Variable reluctance sensor or Mag-pickup is suitable for speed sensing with a range from 30 to 1000 inches per second with a target gear from one tooth per revolution to 32 pitch gear.



Target: Ferrous Material Gear Tooth w/ range of Min. 1 tooth or slot to 32 Gear Pitch

$$P = \frac{N + 2}{OD}$$

P = Gear Pitch
N = Num. of Teeth
OD = Outside Diameter

Surface Speed (IPS) = $\frac{RPM \cdot \pi \cdot D}{60}$

0 to Peak Voltage = Peak to Peak X 0.5

RMS = Peak to Peak X 0.35

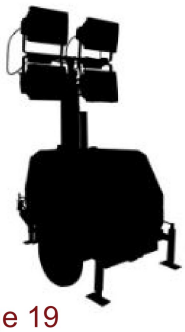
Output Type: Analog (Sine Wave)



Example of Common Applications

Power Generation, Automotive, Aerospace, Railroad & Mining

Applications: Wind Turbine Speed, Flow Meter, Race Car, Airplane, Truck Transmission, Motorcycle Speed, Helicopter, Crankshaft, Transmission, Generator, Engine Speed, Tractors, Hydraulics, Windmills, Power Turbines, Locomotive, Golf Carts, Off Road Equipment.



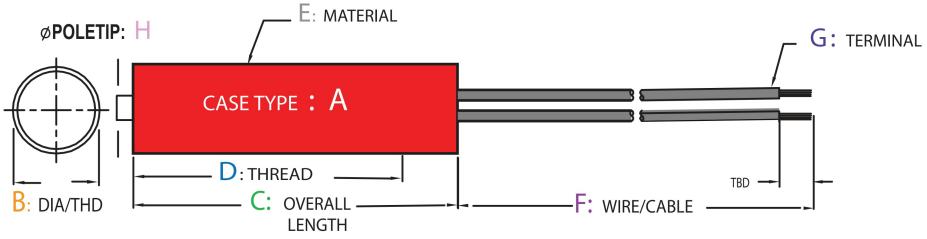






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Standard (VR) Products Available



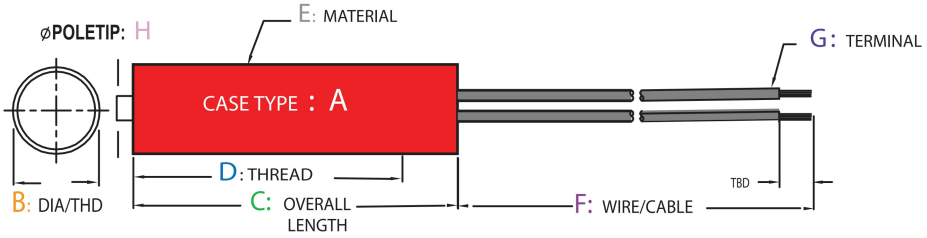
Please contact Sensoronix for more detailed information on the standard sensors listed below.
All products are custom designed to meet your exact specification requirements.

PART #	MECHANICAL SPECIFICATIONS								ELEC. SPEC.	ENVIROMENT		
	A	B	C	D	E	F	G	H	COIL RESISTANCE (Ohm)	TEMP RANGE (°C)	PROTE -CTIONS	FRONT SEALED
3/8" Diameter Series												
VR130-300	1	3/8 - 24	1.25	1.25	303 S.S.	34 ± .25	18 AWG, POLYETHYLENE TYPE XLP RATED AT 125C WIRES	.040	670 ± 20%	-40 to 125	IP65	Epoxy
VR130-400	1	3/8 - 24	1.25	1.25	303 S.S.	25 ± 1	22 AWG, 2 CON. CBL. W/ SHLD PVC INS.	.040	650 ± 100	-40 to 125	IP65	Epoxy
VR330-400	3	3/8 - 24	2.70	2.27	303 S.S.	6	22 AWG, 2 CON. CBL. W/ SHLD PVC INS.	.093	670 ± 20%	-40 to 105	IP65	Epoxy
VR530-300	5	3/8 - 24	1.75	1.50	303 S.S.	24 ± 1	20 AWG, SINGLE STRAND SILVER PLATE COPPER RAYCHEM SPEC 55	.092	800 ± 20%	-40 to 105	IP65	Epoxy
VR530-400	5	3/8 - 24	4.00	3.55	303 S.S.	73 ± 3	22 AWG, 2 CON. CBL. W/ SHLD PVC INS.	.093	800 ± 20%	-40 to 105	IP65	Epoxy
VR530-410	5	3/8 - 24	2.70	2.25	303 S.S.	73 ± 3	22 AWG, 2 CON. CBL. W/ SHLD PVC INS.	.093	672 to 928	-40 to 105	IP65	Epoxy
VR530-420	5	3/8 - 24	1.70	1.25	303 S.S.	73 ± 3	22 AWG, 2 CON. CBL. W/ SHLD PVC INS.	.093	800 ± 20%	-40 to 105	IP65	Epoxy
1/2" Diameter Series												
VR050-000	0	1/2	2.17	-	Plastic	-	THERMOSET PLASTIC HOUSING	.106	1200 ± 20%	-53 to 107	IP66	Epoxy
VR150-300	1	1/2 - 20	1.25	1.25	Alum.	8 ± .50	18 AWG, LEAD WIRE.	.040	650 ± 20%	-40 to 105	IP66	Epoxy
VR450-000	4	1/2 - 20	5.00	3.50	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.125	650 ± 20%	-40 to 125	IP66	Epoxy
5/8" Diameter Series												
VR160-100	1	5/8 - 18	3.125	3.12	303 S.S.	2 ± .50	20 AWG, TEFF. INS WIRES W/ METRI PACK CONN: 12066016	.187	180 ± 20%	-40 to 105	IP65	Epoxy
VR160-200	1	5/8 - 18	1.75	1.75	303 S.S.	21 ± 1	18/22 AWG, WIRE W/ METALIC BRAIDED SHLD. TURCK CONN KBE 2T-X	.187	180 ± 20%	-40 to 105	IP66	Epoxy
VR160-220	1	5/8 - 18	1.75	1.75	303 S.S.	21 ± 1	18/22 AWG, CBL. W/ METALIC BRAIDED SHLD. TURCK KBE 2T-"X"	.187	180 ± 20%	-40 to 105	IP66	Epoxy
VR160-300	1	5/8 - 18	3.12	3.12	303 S.S.	8	20 AWG, LEAD WIRES W/ TEFF. INS.	.187	180 ± 20%	-40 to 105	IP65	Epoxy
VR160-310	1	5/8 - 18	3.12	3.12	303 S.S.	12	20 AWG, LEAD WIRES W/ TEFF. INS.	.106	2000 ± 20%	-54 to 107	IP66	Epoxy
VR160-320	1	5/8 - 18	3.12	3.12	303 S.S.	12 ± .25	20 AWG, LEAD WIRES W/ TEFF. INS.	.187	180 ± 20%	-65 to 107	IP66	Epoxy
VR160-330	1	5/8 - 18	5.00	5.00	303 S.S.	12 ± .25	20 AWG, LEAD WIRES W/ TEFF. INS.	.187	180 ± 20%	-40 to 105	IP66	Epoxy
VR160-340	1	5/8 - 18	2.37	2.37	Alum.	12 ± .25	16 AWG, LEAD WIRES	.187	180 ± 20%	-40 to 105	IP66	Epoxy
VR460-000	4	5/8 - 18	4.25	3.12	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.187	180 ± 20%	-54 to 107	IP65	Epoxy
VR460-010	4	5/8 - 18	2.62	1.48	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.187	144 to 198	-54 to 107	IP65	Epoxy
VR460-020	4	5/8 - 18	2.62	1.48	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.106	40 to 85	-54 to 107	IP65	Epoxy
VR460-030	4	5/8 - 18	2.62	1.48	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.106	1200 ± 10%	-54 to 107	IP65	Epoxy
VR460-040	4	5/8 - 18	5.13	4.00	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.106	1200 ± 10%	-54 to 107	IP65	Epoxy
VR460-050	4	5/8 - 18	6.12	5.00	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.187	180 ± 20%	-54 to 107	IP65	Epoxy
VR460-060	4	5/8 - 18	4.25	3.12	303 S.S.		2 PINS AMPHENOL CONN: MATE W/ MS3106A	.187	913 ± 20%	-40 to 105	IP65	Epoxy
VR460-080	4	5/8 - 18	2.25	1.13	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.106	1500 ± 20%	-101 to 49	IP65	Epoxy
VR560-110	5	5/8 - 18	3.25	2.75	303 S.S.	6 ± .25	16 AWG, SXL LEAD WIRES AND DEUTSCH CONN: DT04-2P	.187	1000 ± 20%	-40 to 125	IP65	Epoxy
VR560-120	5	5/8 - 18	3.25	2.75	303 S.S.	6 ± .25	16 AWG, SXL LEAD WIRES AND DEUTSCH CONN: DT04-2P	.187	180 ± 20%	-40 to 105	IP65	Epoxy
VR560-300	5	5/8 - 18	3.86	3.49	Alum.	12 ± .50	16 AWG, SXL INS LEAD WIRES	.187	180 ± 20%	-40 to 105	IP65	Epoxy

ADDITIONAL PARTS LISTED ON NEXT PAGE

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Standard (VR) Products Available



Please contact Sensoronix for more detailed information on the standard sensors listed below.
All products are custom designed to meet your exact specification requirements.

PART #	MECHANICAL SPECIFICATIONS								ELEC. SPEC.	ENVIROMENT		
	A	B	C	D	E	F	G	H	COIL RESISTANCE (Ohm)	TEMP RANGE (°C)	PROTE -CTIONS	FRONT SEALED
3/4" Diameter Series												
VR270-100	2	3/4 - 16	3.00	2.57	Alum.	3.5 ± .5	16 AWG, PACKARD CONN: 1201 0973	.187	565 ± 20%	-54 to 121	IP66	Epoxy
VR270-300	2	3/4 - 16	2.30	1.87	Alum.	12	18 AWG, SXL INS WIRES	.187	450 ± 20%	-54 to 105	IP66	Epoxy
VR270-320	2	3/4 - 16	4.06	3.63	Alum.	10 ± .5	18 AWG, LEAD WIRES W/ TEFF. INS.	.187	1055 ± 14%	-40 to 105	IP66	Epoxy
VR570-300	5	3/4 - 16	1.47	1.17	303 S.S.	6	18 AWG, SXL INS WIRES	.187	1000 ± 20%	-40 to 105	IP66	Epoxy
M12 Diameter Series												
VR112-300	1	M12 x 1.0	3.00	3.00	303 S.S.	6 ± 1	18 GAUGE LEAD WIRES W/ TEFF. INS.	.125	650 ± 13%	-40 to 125	IP66	Epoxy
VR312-300	3	M12 x 1.0	4.06	3.00	303 S.S.	6 ± 1	18 GAUGE LEAD WIRES W/ TEFF. INS.	.125	650 ± 20%	-40 to 125	IP66	Epoxy
VR312-310	3	M12 x 1.0	3.06	2.00	303 S.S.	59 ± 1	18 GAUGE LEAD WIRES W/ TEFF. INS.	.125	850 ± 13%	-40 to 150	IP67	303 S.S.
VR312-320	3	M12 x 1.0	4.06	3.00	303 S.S.	59 ± 1	18 GAUGE LEAD WIRES W/ TEFF. INS.	.125	850 ± 13%	-40 to 150	IP67	303 S.S.
VR312-330	3	M12 X 1.0	5.06	4.00	303 S.S.	59 ± 1	18 GAUGE LEAD WIRES W/ TEFF. INS.	.125	850 ± 13%	-40 to 150	IP67	303 S.S.
VR312-400	3	M12 X 1.0	2.56	1.80	303 S.S.	18	22 AWG, SHLD CBL. W/ PVC INS.	.125	650 ± 20%	-40 to 105	IP67	Epoxy
VR412-000	4	M12 x 1.25	3.88	2.50	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.093	1600 ± 20%	-28 to 121	IP66	Epoxy
M16 Diameter Series												
VR116-100	1	M16 x 1.5	2.00	2.00	303 S.S.	2 ± .25	18 AWG SXL LEAD WIRES, W/ METRI PACK CONN: 150 SERIES	.187	180 ± 20%	-40 to 125	IP66	Epoxy
VR116-300	1	M16 x 1.5	4.00	4.00	303 S.S.	8 ± .25	18 AWG SXL LEAD WIRES	.106	250 ± 20%	-54 to 107	IP66	Epoxy
VR116-320	1	M16 x 1.5	1.75	1.75	303 S.S.	8 ± .25	18 AWG LEAD WIRES W/ PVC INS.	.187	180 ± 20%	-40 to 125	IP66	Epoxy
VR216-400	2	M16 x 1.5	3.00	2.69	Alum.	6 ± .25	22 AWG CBL. W/ SHLD PVC INS.	.093	1600 ± 20%	-28 to 121	IP66	Epoxy
VR416-000	4	M16 x 1.5	4.25	3.12	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.187	180 ± 20%	-40 to 105	IP66	Epoxy
VR416-010	4	M16 x 1.5	4.25	3.12	303 S.S.	-	2 PINS AMPHENOL CONN: MATE W/ MS3106A	.106	52 ± 20%	-40 to 105	IP66	Epoxy
M18 Diameter Series												
VR118-100	1	M18 x 1.5	2.00	2.00	303 S.S.	2 ± .25	18 AWG SXL LEAD WIRES, W/ METRI PACK CONN: 150 SERIES	.187	180 ± 20%	-40 to 125	IP66	Epoxy
VR118-300	1	M18 x 1.5	3.12	3.12	303 S.S.	8 ± .25	18 AWG LEAD WIRES W/ PVC INS.	.187	180 ± 20%	-40 to 125	IP66	Epoxy
M 20 Diameter Series												
VR120-100	1	M20 x 1.5	2.00	2.00	303 S.S.	2 ± .25	18 AWG, SXL LEAD WIRES, W/ METRI PACK CONN: 150 SERIES	.187	180 ± 20%	-40 to 125	IP66	Epoxy
M22 Diameter Series												
VR122-100	1	M22 x 1.5	3.125	3.125	303 S.S.	12 ± .25	18 AWG, SXL LEAD WIRES, W/ METRI PACK CONN: 150 SERIES	.187	180 ± 20%	-65 to 107	IP66	Epoxy

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