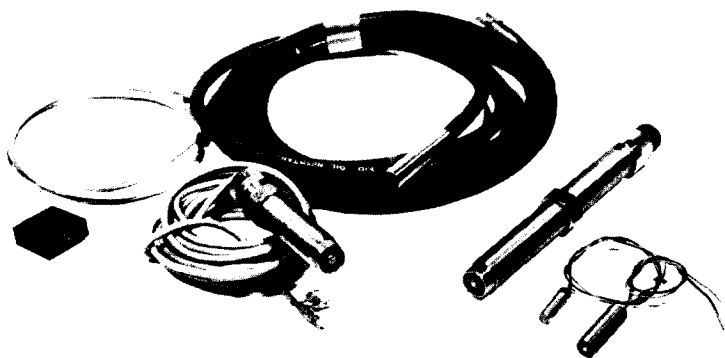
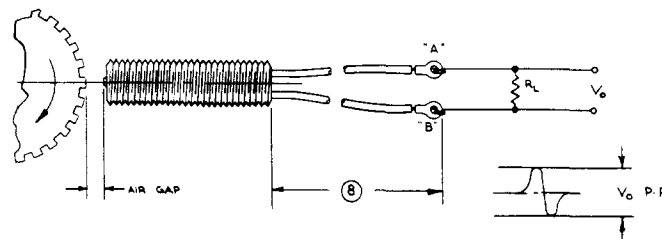
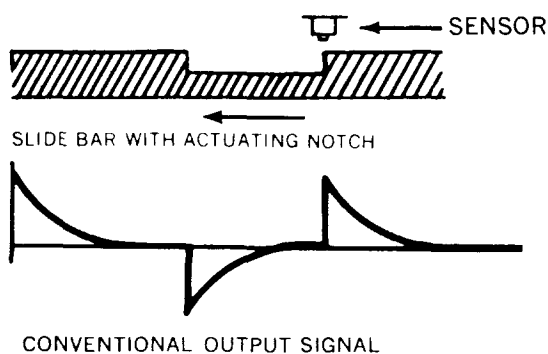
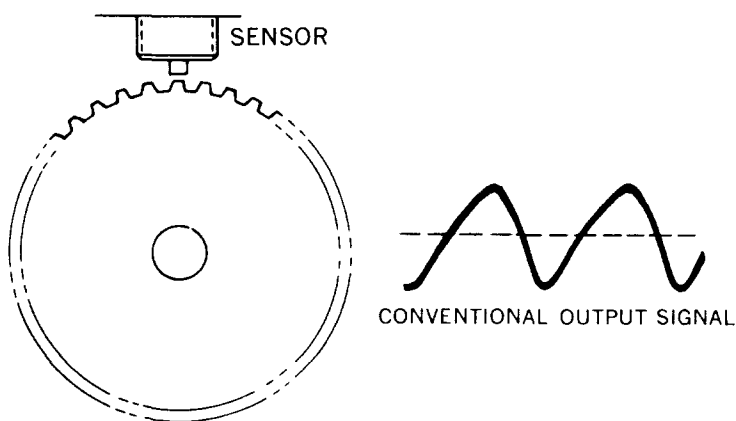


# T S I

**TRANSDUCER SYSTEMS, INC.**



The various models of magnetic pickups produced by TSI have been listed on the reverse side of this sheet along with their performance characteristics. We strive to produce "standard" units for our many customers so as to keep costs down. We recognize, however, that for various reasons, standard units are not always the optimum solution, so custom shaped cases and pole pieces are available as well as custom lead or terminal configurations. Metal or plastic cases are available. Threads, if required, must be specified. Testing details must also be provided by customer for inspection and testing correlation. Applications are varied. Application form should be completed and returned to TSI so we can assist you with your application most efficiently and economically. Applications include speed and over-speed sensing, crank and throttle angle sensing, ignition timing, anti-skid systems, throttle control, fuel control and a variety of diagnostic, industrial and computer peripheral applications. Computer peripheral applications include disc drives, line printers, card punches and readers, printer terminals plus many other specials.



**ELECTROMOT LTD.**  
 315 STAINES ROAD  
 TWICKENHAM TW2 5AU  
 ENGLAND

TEL. 081 894 5540  
 FAX. 081 893 3252

## TRANSDUCER SYSTEMS, INC.

1500 GEHMAN ROAD • P.O. BOX 341 • KULPSVILLE, PA 19443  
 PHONE (215) 256-4611 • FAX (215) 256-4214

Item No.	Model No.	Case size (inches) See note 1	Case threads	Case Mat'l	Pole tip (inches) See note 2	Terminal Configuration	Normal Output @ STC See note 3	Polarity See note 4	Resistance (ohms) ± 10%	Inductance (mH) ± 10%	TSI Identification	REMARKS
1	VR187-500SP-HXB	.87 OD x .500L	NONE	Steel	.060S	28 AWG leads twisted pair PVC	10Vpp	A - Red B - Black	150	12	101-01050	Leads exit radially.
2	VR187-500SP-HXC	.87 OD x .50L	NONE	Steel	.060 OD x .020 C	28 AWG leads twisted pair PVC	10Vpp	A - Red B - Black	150	12	101-40018	
3	VR187-500ST	.87 OD x .50L (1)	10-32 UNF-2A	Steel	.050S	28 AWG leads twisted pair PVC	10Vpp	A - Red B - Black	150	12	101-01007	(1) Case threaded full length
4	VR187-875SP-XRE	.87 OD x .875L	NONE	Steel	.015C	26 AWG PVC	8Vpp	None (see remarks)	150	12	101-01064	Both leads are white
5	VR187-875SP	.87 OD x .875L	NONE	Steel	.060S	28 AWG twisted pair	10Vpp	A - Red B - Black	150	12	101-01021	Another version available with black and white leads Black pos. with respect to white
6	VR187-1000SP	.87 OD x 1.0L	NONE	Steel	.060S	28 AWG twisted pair	10Vpp	A - Red B - Black	150	12	101-01001-01	
7	VR250-600PP	250 OD x .600L	NONE	Plastic	.040C	28 AWG twisted pair PVC	12Vpp	A - White B - Black	130	7	101-40020	
8	VR250-620PP	250 OD x .620L	NONE	Plastic	.060 OD x .020C	28 AWG leads twisted pair PVC	250 mV pp (3)	A - White B - Black	130	12	101-01011	(3) Measured sensing a slot .020" wide, 2" long, 1" deep moving at 450 IPS at .015" air gap
9	VR250-620SP-XEMM	250 OD x .620L	NONE	Steel	.015C	30 AWG 2C shielded cable PVC	see Remarks	A - White B - Black	330	35	EX 1741	150 mV output P-P at the following conditions: detect slot in alum. wheel. Slot width .020", surface speed 550 IPS, air gap .012", load none. Shield is common to the case
10	VR250-800PP	250 OD x .800L	NONE	Plastic	.060 OD x .020C	24 AWG leads PVC	10V	A - Red B - Black	130	12	101-01038	
11	VR250-850PT-1	250 OD x .850L	1/4-28 UNF-2A	Plastic	.015C	28 AWG PVC twisted pair	10Vpp	A - Red B - Black	130	14	101-01062	Full thread .620 long, remainder is knurled.
12	VR250-850PT-2	250 OD x .850L	1/4-28 UNF-2A	Plastic	.060 OD x .020C	Pins .040" dia .25" long, .16" separation center to center	10V	A - not marked B - blue dot mark	130	12	101-01091	
13	VR250-850PT-XC	250 OD x .850L	1/4-28 UNF-2A	Plastic	.060 OD x .020C	24 AWG 2C shielded cable	12Vpp	A - Red B - Black	130	12	EX 1561	Conductors and drain wire are exposed at the case exit for a length of .75". Shield not common to the case. Thread length is .62".
<b>VR 250 .850 ST.XRS (RS COMPONENTS) STEEL CASE, THREADED (STEEL NO. 304 .166)</b>												
14	VR250-850ST-XX	250 OD x .850L	1/4-28 UNF-2A	Steel	.060 OD x .020C	28 AWG leads with connector Eldema #Q-083-5K	10V	A - White/Red B - White/Black	130	12	101-01056	Leads terminated with pins AMP #88048-4.
15	VR250-850ST-XD	250 OD x .850L	1/4-28 UNF-2A	Steel	.060 OD x .020C	28 AWG leads with connector Eldema #Q-083-5K	10V	A - Red B - Black	130	12	101-01061	An option is available for plastic case.
16	VR250-850ST-XW	250 OD x .850L	1/4-28 UNF-2A	Plastic	.015C	28 AWG PVC twisted pair	10Vpp	A - Red B - Black	130	14	101-01063	Full thread .620 long, remainder is knurled.
17	VR250-850ST-XU	(1) 250 OD x .850L	1/4-28 UNF-2A	Steel	.060 OD x .020C	28 AWG leads with connector Eldema #Q-083-5K	10V	A - Red B - Black	130	12	101-01026	(1) Thread length is .62", rest is knurled. Case dia. at sensing end is .195 for a length of .03". Two other versions of this unit are available as follows: no connector 101-01027, with pins (Amp 41663) as 101-01033
18	VR250-850ST-XDP	250 OD x .850L	1/4-28 UNF-2A	Steel	.060 OD x .020C	28 AWG leads with connector Eldema #Q-083-5K	10V	A - White B - Orange	130	12	101-01012	Several lead length options are available
19	VR250-875SP	250 OD x .875L	NONE	Steel	.060S	26 AWG 2 leads PVC	10Vpp	A - Black B - Red	130	12	101-01016	
20	VR250-875SP-XTC	250 OD x .875L	NONE	Steel	.060S	26 AWG PVC 2 leads	10Vpp	A - Red B - Black	130	12	101-01067	
21	VR250-937ST	250 OD x .937L	1/8-28 UNF-2A	Steel	.060 OD x .020C	28 AWG 2 leads PVC twisted pair	10Vpp	A - Black B - Red	130	12	101-01087	
22	VR250-1000PP-1	250 OD x 1.0L	NONE	Plastic	.062 OD x .015 C	26 AWG PVC twisted pair	see Remarks	A - White B - Black	145	18	101-40023	100 mV P-P minimum output detecting slots .016" wide, 100 long in a disc .010" thick, 400SS, at 140 IPS 10K OHMS load
23	VR250-1000PP-2	250 OD x 1.0L	NONE	Plastic	.060 OD x .020C	24 AWG 2 leads PVC twisted pair	12Vpp	A - White B - Black	130	12	101-01001-01	An identical version is also available in steel case as 101-01001-02 (VR250-1000SP)
24	VR250-1000PP-XTI	250 OD x 1.0L	NONE	Plastic	.015C	26 AWG PVC twisted pair	see Remarks	A - White B - Black	130	9	EX 1689	Output 20mV PP using gear 1 0" dia .96 pitch, 96 teeth, 416SS mat'l, at 7 IPS
25	VR250-1000PP-XATP	250 OD x 1.0L	NONE	Plastic	.060S	26 AWG leads PVC twisted pair	10Vpp	A - White B - Black	130	18	101-01022-02	
26	VR250-1000PP-3	250 OD x 1.0L	NONE	Plastic	.060 OD x .020C	28 AWG leads PVC twisted pair	12Vpp	A - White B - Black	130	12	101-01066	
27	VR250-1000PP-XEMM	250 OD x 1.0L	NONE	Plastic	.060 OD x .015C	26 AWG PVC leads twisted pair	12Vpp	A - White B - Black	130	10	AEX 1690	
28	VR250-1000PT-1	(1) 250 OD x 1.0L	1/4-28 UNF-2A	Plastic	.060 OD x .020C	Pins .040" dia .25" long, .16" separation center to center	10V	A - not marked B - marked terminal	130	12	101-01009	(1) Thread length .62", rest is knurled
29	VR250-1000PT-2	(1) 250 OD x 1.0L	1/4-28 UNF-2A	Plastic	.060 OD x .020 C	28 AWG 2 leads PVC twisted pair	600 mVpp (3)	A - Red B - Black	130	12	101-01010-01	(1) Thread length is .62", rest is knurled. (3) Measured sensing a bar .020" wide at .005" air gap at 198 IPS with 10K OHMS load. Identical unit also available in steel case as VR250-1000ST (101-01010-02)
30	VR250-1000SP-1	250 OD x 1.0L	NONE	Steel	.062 S	22 AWG PVC shielded cable	10Vpp	A - Red B - Black	130	18	101-01052	Unit also available in a plastic holder as 101-01006
31	VR250-1000SP-2	250 OD x 1.0L	NONE	Steel	.060 OD x .040 C	26 AWG 2C PVC shielded cable	5Vpp	A - Red B - Black	100	8	101-01035	(1) Shield is not common to the case
32	VR250-1000ST-1	(1) 250 OD x 1.0L	1/4-28 UNF-2A	Steel	.060 S	26 AWG 2 leads PVC	600 mVpp (3)	A - Red B - Black	130	12	101-01008	(1) Thread length is .62", rest is knurled. (3) Measured sensing a bar .020" wide at .005" air gap at 198 IPS with 10K OHMS load.
33	VR250-1000ST-2	(1) 250 OD x 1.0L	1/4-28 UNF-2A	Steel	.060 OD x .020 C	28 AWG 2 leads PVC twisted pair	10Vpp	A - White B - Black	130	12	101-01017	(1) Thread length is .62" - rest is knurled
34	VR250-1000ST-3	(1) 250 OD x 1.0L	1/4-28 UNF-2A	Steel	.060 OD x .020 C	28 AWG 2 leads PVC twisted pair	10Vpp	A - Red B - Black	130	12	101-01034	(1) Thread length is .62" - rest is knurled

Item No.	Model No.	Case size (inches) see note 1	Case threads	Case Mat'l	Pole tip (inches) see note 2	Terminal Configuration	Normal Out-put @ STC see note 3	Polarity see note 4	Resistance (ohms) ± 10 1/2	Inductance (mH) ± 10%	TSI Identification	REMARKS
35	VR250-1000ST-4	(1) 250 OD x 1 0 L	1 4-40 NS-2A	Steel	.060 OD x .020 C	28 AWG leads PVC twisted pair	10Vpp	A - Red B - Black	130	12	101-01051	(1) Thread length is .62" - rest is knurled. Unit supplied with a hex nut.
36	VR250-1000ST-5	(1) 250 OD x 1 0 L	1 4-28 UNF-2A	Steel	.060 OD x .020 C	28 AWG PVC leads twisted pair	10Vpp	A - Red B - Black	130	12	101-01085	(1) Thread length is .62" - rest is knurled.
37	VR250-1000ST-6	(1) 250 OD x 1 0 L	1 4-28 UNF-2A	Steel	.060 OD x .020 C	Pins .040" dia 25" long. 160" separation	10Vpp	A - Unmarked pin B - pin near blue mark	130	12	101-01088	(1) Thread length is .62" - rest is knurled.
38	VR250-1020XP	(1) 250 OD x 1 02 L	NONE	Plastic	.060 OD x .020 C	24 AWG PVC leads twisted pair	2Vpp (3)	A - Black B - White	130	12	101-01015	(1) Housing has mounting flanges 6" long, 1 1/2" wide tip to tip. Flanges have slotted holes for mounting. (3) Measured sensing a slot .060" x .060" at .015" air gap at 900 IPS.
39	VR250-1170ST-XBT-2	(1) 250 OD x 1 17 L	1 4-40 UNS-2A	Steel	.060 OD x .025 C	24 AWG PVC leads	7Vpp	A - Red B - Black	130	12	BEX 1805	(1) Thread length is .75". Knurled at rear of case. 2" long. .312" dia. The sensing end is provided with a magnetic shield.
40	VR250-4500SP-XC	250 OD x 4 5 L	NONE	Steel	.093 S	22 AWG 2C shielded cable PVC	See Remarks	A - Red B - Black	260	32	EX 1693	Output voltage 450 mVpp sensing 5 1/6" dia. hole in a gear face moving at 122 IPS (no load). Shield not common to case. Air gap .062"
41	VR300-1750SP-XC	300 OD x 1 75 L	NONE	Steel	.060 S Tip recessed .005	22 AWG 2C Shielded cable	5Vpp (3)	A - Red B - Black	130	11	EX 1666	Cable protected with flexible armor cable 13" long upon exit from case. Shield is common to the case. (3) Output can be doubled if pole tip is not recessed but rather flush with the case.
42	VR305-2312SP-XKE	305 OD x 2 31 L	NONE	Steel	.060 S Flush with case	22 AWG 2 C Shielded Cable	See Remarks	A - Red B - Black	130	14	101-01071	Output voltage 500mVpp sensing a notch .040" dp x .060" wd moving at 212 IPS at .020" air gap with 10K OHMS load. Cable protected with flex armor cable 15" long. Case length includes a shoulder .375" long and .375" dia.
43	VR309-2437SP-XKE	309 OD x 2 437 L	NONE	Steel	.060 S Flush with case	22 AWG 2 C Shielded Cable	See Remarks	A - Red B - Black	130	14	EX 1824	Specification identical to Item #15. Case fits inside an adapter bushing 2.0" long with a shoulder .375" long and .500" OD. Construction identical to Item #15 except for cable length.
44	VR3095-4000SP-XCT	3095 OD x 4 00 L (3095 OD x 1 5 L and remainder 250 OD)	NONE	Steel	.125 S	26 AWG 2 C	See Remarks	A - Red B - Black	170	55	EX 1934	Output voltage 130mVpp sensing a notch .25" wide x .28" deep moving at 22 IPS with .060" air gap with 10K OHMS load.
45	VR3100-4000SP-XCT	309 OD x 4 00 L	NONE	Steel	.094 S	22 AWG 2 C Teflon	See Remarks	A - Red B - Black	200	35	EX 1603	Output voltage 150mVpp sensing a notch .25" wd x .28" dp moving at 22 IPS. Case is .309" OD for a length of 1.31" and the remainder is .248"
46	VR312-1750SP-XKM	312 OD x 1 75 L	NONE	Steel	.060 S	22 AWG 2 C Shielded Cable	10Vpp	A - Red B - Black	60	8	101-01055	Cable protected with flexible armor cable for 18" upon exit from the case. Case has a groove .205" dia. .53" long located .25" from sensing end.
47	VR312-1750SP-XHT	312 OD x 1 75 L	NONE	Steel	.060 S recessed .015"	22 AWG 2 C Shielded cable	See Remarks	A - Pin C B - Pin B	60	8	101-01059	Output voltage 100mVpp min. sensing a notch .060" dp x .060" wd at zero air gap and 30 IPS with 20K OHMS load. Case has a groove .250" dia. .045" long located .37" from sensing end.
48	VR3100-4500SP-XCT	3100 DC x 4 5 L	NONE	Steel	.150 S	22 AWG leads Teflon twisted pair	250 mVpp (3)	A - Red B - Black	190	42	EX 1936	(3) Measured sensing a hole 5 1/6" dia at 120 IPS with .060" air gap with 10K OHMS load.
49	VR319-1220PP	(1) 319 OD x 1 22 L	NONE	Plastic	See (2) Remarks 107X	22 AWG 2 leads PVC	See Remarks (3)	A - White B - Black	330	100	101-01053	(1) Case has orientation tab in the rear. .056" high x .190" long. (2) Pole tip extends .10" beyond the case. It is .072" wide and has a notched step .054" x .050". (3) Output voltage 13Vpp sensing a notch .086" x .180" at 516 IPS with 400K OHMS load. A unit without a notch in the tip. 16Vpp. EX 1633 available.
50	VR375-760PP-XDP	(1) .375 OD x .760 L	NONE	Plastic	.093 OD x .033 C	Pins exiting radially from rear of unit located 180" apart	24Vpp (3)	A - Marked pin B - pin not marked	400	61	BEX 1465	(1) Pins length is .25"; they are located .05" from rear of the unit. (3) Measure at .010" air gap.
51	VR375-805PP-XDP	(1) .375 OD x .805 L	NONE	Plastic	.093 OD x .033 C	Pins exiting radially from rear of unit located 180" apart	10Vpp (3)	A - Marked pin B - pin not marked	75	9	BEX 1311	(1) Two flanges extend at the sensing end to aid in installing the unit. Pins length is .25". (3) Measured at .010" air gap.
52	VR375-1250PT-XBT	.375 OD x 1 25 L	3/8-24 UNF-2A	Plastic	.093 S	24 AWG PVC leads	17-34 Vpp	A - Red B - Black	100	16	101-01003-01	Case threaded full length. Unit supplied with a hex nut.
53	VR375-1250SP-XAC	.375 OD x 1 25 L	NONE	Steel	.093 S	22 AWG Teflon leads	70 Vpp	A - White B - Black	650	130	101-01066	
54	VR375-1250ST-XDS-1	(1) .375 OD x 1 25 L	3/8-24 UNF-2A	Steel	.093 S	Molex connector #1625-3	17-34 Vpp	A - Pin 2 B - Pin 1	100	10	101-01069	(1) Thread length is .812", remainder is .437" dia knurled. Leads are covered with shrink tubing between knurl and connector. Unit supplied with 2 hex nuts, 2 shoulder fiber washers and one lock washer.
55	VR375-1250ST-XDS-2	.375 OD x 1 25 L	3/8-24 UNF-2A	Steel	.093 S	24 AWG PVC leads	17-34 Vpp	A - White B - Black	100	16	101-01003-03	Case threaded full length. Unit supplied with a hex nut.
56	VR375-1250ST-XBT	.375 OD x 1 25 L	3/8-24 UNF-2A	Steel	.093 S	24 AWG PVC leads	17-34 Vpp	A - Red B - Black	100	16	101-01003-02	Same as above.
57	VR375-1250ST-XP	.375 OD x 1 25 L	3/8-24 UNF-2A	Steel	.093 OD x .015 CH	26 AWG PVC twisted pair	80 Vpp	A - White B - Black	650	130	EX 1308	Case threaded full length.
58	VR375-1250ST-XDP-2	(1) .375 OD x 1 25 L	3/8-24 UNF-2A	Steel	.093 S	22 AWG 2 C Shielded cable	17-34 Vpp	A - White B - Black	100	16	101-01044-1	(1) Thread length .965", remainder is .44" OD knurled.
59	VR375-1250ST-XDP-3	(1) .375 OD x 1 25 L	3/8-24 UNF-2A	Steel	.093 OD x .033 C	22 AWG 2C Shielded cable	7-22 Vpp	A - White B - Black	100	16	101-01044-2	(1) Same as above.

Item No.	Model No.	Case size (inches) See note 1	Case threads	Case Mat'l	Pole tip (inches) See note 2	Terminal Configuration	Normal Out-put @ STC See note 3	Polarity See note 4	Resistance (ohms) $\pm 10\%$	Inductance (mH) $\pm 10\%$	TSI Identification	REMARKS
60	VR375-1250ST -XDP-1	(1) .375 OD x 1.25 L	3-8-24 UNF-2A	Steel	.093 OD x .010 C	22 AWG 2C Shielded cable PVC	See Remarks (3)	A - White B - Black	100	16	EX 1284	(1) Thread length .965" remainder is .44" OD knurled. Sensing end of unit has a magnetic shield with a center hole for the pole piece (3) Output voltage 450mVpp sensing a bar .011" high .010" wide at .005" air gap moving at 160 IPS and 10K OHMS load Hex nut provided with unit
61	VR375-1250ST -XBC	(1) .375 OD x 1.25 L	3-8-24 UNF-2A	Steel	.093 S	26 AWG 2 leads PVC	34 Vpp	A - White B - Black	640	207	101-01058	(1) Thread length is .812" remainder is .437 dia knurled. Unit supplied with one hex lock nut
62	VR375-1250ST -XP-1	(1) .375 OD x 1.25 L	3-8-24 UNF-2A	Steel	.093 OD x .040 C	26 AWG PVC twisted pair	11.3 Vpp (3) See Remarks	A - White B - Black	670	145	101-01029	(1) Case threaded full length (3) Output measured at .010" air gap
63	VR375-1250ST -XX	(1) .375 OD x 1.25 L	3-8-24 UNF-2A	Steel	.093 S	26 AWG PVC leads with Molex connector	34 Vpp	A - Pin 1 B - Pin 2	640	207	101-01036	(1) Thread length is 1.00" Unit supplied with a hex jam nut Leads are encased in 5" PVC shrink tubing
64	VR375-1250ST -XV	(1) .375 OD x 1.25 L	3-8-24 UNF-2A	Steel	.093 OD x .032 C	24 AWG PVC leads	17-34 Vpp	A - Red B - Black	100	16	101-01039	(1) Thread length .812" remainder is .437 dia knurled
65	VR375-1250ST -XMP	(1) .375 OD x 1.25 L	3-8-24 UNF-2A	Steel	.093 S	24 AWG PVC leads	17-34 Vpp	A - Red B - Black	100	16	101-01077	(1) Case has 2 parallel flats notched into it. Flats are .312" apart Notches are located .060" from sensing end. Unit is provided with a hex nut. Unit is threaded full length
66	VR375-1250ST -XP-2	.375 OD x 1.25 L	3-8-24 UNF-2A	Steel	.093 OD x .015 Ch	26 AWG PVC twisted pair	80 Vpp	A - White B - Black	650	130	EX 1308	Case threaded full length. There are 2 color dots on back of the unit to chisel orientation
67	VR375-1250ST	(1) .375 OD x 1.25 L	3-8-24 UNF-2A	Steel	.093 OD x .031 C	2C Shielded cable terminated with size 6 lugs	7-22 Vpp	A - White B - Black	100	16	101-01045	(1) Thread length is .96" Rear of unit is knurled .44" dia. 2" long Unit supplied with hex jam nut
68	VR375-1355ST	(1) .375 OD x 1.355 L	3-8-24 UNF-2A	Steel	.100 S	26 AWG 2C Shielded cable termination Brundy connector	50 Vpp	A - Pin 1 B - Pin 2	360	90	101-01018	(1) Thread length is 1-3-16" remainder .445" OD knurled Unit provided with locknut
69	VR375-1370SP -XDP-1	(1) .375 OD x 1.37 L	NONE	Steel	.093 OD x .015 C (2)	22 AWG 2C Shielded cable - shield not common to case	1 Vpp (3)	A - White B - Black	200	64	101-01057	(1) Case has a magnetic shield at the sensing end. (2) Pole tip flush with sensing surface (3) Measured with trigger bar .012" high .012" wide moving at 160 IPS at .005" air gap and 2.2K OHMS load
70	VR375-1450ST	(1) .375 OD x 1.45 L	3-8-24 UNF-2A	Steel	.093 OD stepped to .032 OD	22 AWG 2C PVC shielded cable. Shield not common to case	3 Vpp (3)	A - White B - Black	100	16	101-01065	(1) Thread length is .68" Sensing end of case provides a magnetic shield. Rear of case, .48" long, is hexagonal configuration 3.8" flat to flat. A braided shield covers the cable exit and it is secured to the case with conductive epoxy. Case is provided with a self-locking element. (3) Measured with trigger bars .026" high x .030" wide separated by .046" moving at 200 IPS at .002" air gap with 10K OHMS load
71	VR375-1531ST	(1) .375 OD x 1.53 L	3-8-24 UNF-2A	Steel	.093 S	24 AWG PVC leads	17-34 Vpp	A - Red B - Black	100	16	101-01072	(1) Case has 2 parallel flats .312" apart at leads end. Flats are .25" long. Unit supplied with a hex nut
72	VR375-2000PT	(1) .375 OD x 2.0 L	3-8-24 UNF-2A	Plastic	.093 S	24 AWG PVC leads	17-34 Vpp	A - Red B - Black	100	16	101-01037	(1) Unit threaded full length. Unit supplied with a hex nut
73	VR375-2000ST	.375 OD x 1.99 L	3-8-24 UNF-2A	Steel	.093 S	24 AWG PVC leads	17-34 Vpp	A - Red B - Black	100	16	101-01048	(1) Case is threaded in the rear of the unit. Thread length is .625"
74	VR375-2000ST -XOC	.375 OD x 2.00 L	3-8-24 UNF-2A	Steel	.093 S	24 AWG PVC leads with spade lugs	17-34 Vpp	A - White B - Black	100	16	101-01079	Case threaded full length. Unit is provided with a HEX locknut
75	VR375-2345SP -XTIC	(1) .375 OD x 2.345 L	NONE	Steel	.093 OD x .060 C	22 AWG 2C Shielded cable	600 mVpp (3)	A - Black B - White	1.4K OHMS	500	CEX 1802	(1) Case has hardened tool steel tip .030" thick. Case also has 2 .01" ring grooves. Back of the case is 1.2" OD for a length of 5.8". Cable is protected with flexible armor cable secured to the case (3) Measured sensing a notch .060" wide x .060" deep at 150IPS and .015" air gap or 10K OHMS load
76	VR375-2500SP	.375 OD x 2.5 L	NONE	Steel	.093 S	18 AWG 2C Neoprene jacket cable with #6 spade lug	60 Vpp	A - White B - Black	280	50	101-01054-01	Same unit also available in a 4.5" long case as VR375-4500SP (Ref. 101-01054-02)
77	VR395S-1281PX	(1) .394 x .394 x 1.28 L	NONE	Plastic	.093 OD x .010 CH	26 AWG 2C Shielded cable	2.2 Vpp (3)	A - White B - Black	290	46	101-01014	(1) Unit is square along its length. The chisel tip is parallel to two sides. Color dots at rear of unit designate its chisel tip orientation (3) Measured with a gear 72 pitch, 200 teeth, 2.8" dia at 205 IPS at .004" air gap and 1K OHMS load
78	VR437-700PP-1	(1) .437 OD x .639 L	NONE	Plastic	.093 S	24 AWG PVC leads	40 Vpp	A - White B - Black	500	100	101-01041-00	(1) Case has 2 parallel flats, located .375" flat to flat
79	VR437-700PP-2	(1) .437 OD x .639 L	NONE	Plastic	.093 OD x .080 CH	24 AWG PVC leads	40V pp	A - White B - Black	500	100	101-01041-01	(1) Case has 2 parallel flats perpendicular to chisel tip, at .375" flat to flat. Unit is supplied mounted on a steel bracket
80	VR437-700PP-3	(1) .437 OD x .639 L	NONE	Plastic	.093 OD x .020 CH	24 AWG PVC leads	40V pp	A - White B - Black	500	100	101-01041-02	(1) Case has 2 parallel flats perpendicular to the chisel tip, at .375" flat to flat
81	VR437-1000SP	(1) .437 OD x 1.0 L	NONE	Plastic	.125 OD x .010 CH	28 AWG PVC leads twisted pair	2.5 Vpp (3)	A - White B - Black	625	135	101-01074	(1) Color dot at rear of the case to indicate orientation of the chisel tip (3) Measured with a gear 100 pitch, 450 teeth at 600 IPS, .008" air gap and 100K OHMS load
82	VR437-1250PP	.437 OD x 1.25 L	NONE	Plastic	.093 OD x .035 CH	24 AWG PVC leads	1.2V pp (3)	A - Black B - Yellow	900	300	101-01042	(3) Measured sensing a bar .010" high .010" wide moving at 168 IPS with an air gap of .009" and load of 62K OHMS
83	VR437-1250PT	(1) .437 OD x 1.25 L	7-16-20 UNF-2A	Plastic	.093 S	24 AWG PVC leads	17-34V pp	A - White B - Black	100	16	101-01030	(1) Case has 2 parallel flat full length at .343" flat to flat

Item No.	Model No.	Case size (inches) see note 1	Case threads	Case Mat'l	Pole tip (inches) see note 2	Terminal Configuration	Normal Out-put @ STC see note 3	Polarity see note 4	Resistance (ohms) ± 10%	Inductance (mH) ± 10%	TSI Identification	REMARKS
84	VR437-1250PP	.437 OD x 1.25 L	NONE	Plastic	.093 OD x .040 C	24 AWG 2C Shielded cable	2V pp min. (3)	A - Black B - White	900	250	101-01025	(3) Measured with a gear 48 pitch 72 teeth 1.85" dia at 86 IPS. .008" air gap and 100K OHMS load.
85	VR437-1250PP-XD	(1) .437 OD x 1.25 L	NONE	Plastic	.093 OD x .040 C	24 AWG 2C Shielded cable	2V pp (3)	A - Black B - White	300	47	BEX 1314	(1) Sensing end is covered with potting, the pole tip is recessed .005" below the edge of the case. (3) Measured sensing a gear 72 teeth 48 pitch 1.85" dia at 825 RPM and .008" air gap with 100K OHMS load.
86	VR437-1500PP-XXC	.437 OD x 1.50 L	NONE	Plastic	.093 OD x .025 CH	26 AWG PVC leads	1.5V pp (3)	A - White B - Black	2.5K OHMS	825	EX 1677	(3) Measured with a gear having 96 teeth and 32 diametral pitch rotating at linear velocity at 9.1 IPS and at an air gap of .005" with an external load.
87	VR453-1220PX-XS	(1) .453 H x .472 W x 1.22 L with mounting flanges	NONE	Plastic	.093 OD x .020 X (2)	26 AWG leads Teflon	7V pp (3)	A - White B - Black	93	13	BEX 1484	(1) Mounting flanges are 1.181" tip to tip with mounting slots located on a .866" apart centers. (2) Pole tip is stepped to 2 flats .020 apart. (3) Measured sensing a slot .020" wide .134" deep moving at 720 IPS and .004" air gap with 10K OHMS load.
88	VR475-1800PP-XBR	(1) .850 high x 1.80 long x 1.37 wide	NONE	Plastic	.170 OD x .100 CH	2C Shielded cable	90V pp	A - Red B - Blue	960	280	101-01049	(1) Chisel tip is perpendicular to mounting surface. Unit mounts with 2 slotted wings located at 1.05" center to center.
89	VR497-2057-SX-XL	(1) .497 OD x 2.057 L	NONE	Steel	.106 S	Connector Deutsch #DTK 02H-8-33P	1V pp (3)	A - Pin B B - Pin C	235	60	EX 1277	(1) Case has mounting flanges with 1.4" clearance holes located 1.18" apart. Connector is secured to the rear of the case. (3) Measured sensing a gear 16 diametral pitch, 80 teeth at 80 IPS and .020" air gap with 10K OHMS load.
90	VR500-5880SP	(1) .500 OD x 5.88 L	NONE	Steel	.170 OD x .125 step	24 AWG 2C Shielded cable Teflon	90V pp (3)	A - Red B - Black	440	165	EX 1177	(1) Case has a stepped OD at rear of the case. .745" OD and 1.0" long. (3) Measured with a tooth 1.8" x 1.8" x 1/8" moving at 1325 IPS and .020" air gap with 20K OHMS load.
91	VR510-1000SP-XRB	(1) .510 OD x 1.0 L	NONE	Steel	.160 OD x .093 C	22 AWG 2 leads Teflon	1V pp (3)	A - Red B - Black	325	133	EX 1547	(1) Leads exit radially at the rear of the case through a notch in the case. (3) Measured with trigger teeth .24" across .635" long separated by .225", moving at 19 IPS at .020" air gap and no load.
92	VR562-11250ST-XPW	.563 OD x 11.25 L	9/16-18 UNJF-3A	Steel	.170 OD x .106C	Sealtron Connector 8001-10SL-4P-FP-F2	100V pp	A - Pin B B - Pin A	1.4K OHMS	470	EX 1649	Case has external spline located 9.46" from the sensing end. Spline has 17 teeth and major diameter of .895". Sensing end has thread .950" long. Spline length is .365" and OD of case in rear of the spline is .695".
93	VR625-1320ST	(1) .625 OD x 1.32 L	5/8-18 UNC-2A	Steel	.250 OD x .100 C	22 AWG 2 PVC leads	90V pp	A - Red B - Black	1.0K OHMS	200	A 101-40013	(1) Case has a flange in the rear .195" wide and .703" dia. Unit is supplied with 2 locknuts. Thread length is 1.00".
94	VR625-1750PP-XTS	.625 OD x 1.75 L	NONE	Plastic	.170 S	26 AWG 2C Shielded cable or twisted pair	2V pp (3)	A - White B - Black	1.0K OHMS	340	EX 1593	(3) Measured sensing a cylinder target 1.12" dia, rotating radially with 4.3" dia at 4000 RPM at .330" air gap and 2.2K OHMS load.
95	VR625-1820ST-HT-XMP	(1) .625 OD x 1.82 L	5/8-18 UNF-2A	Steel	.170 OD x .106 C	Exposed pins .34" long (modified connector)	26V pp	A - Pin B B - Pin A	80	20	101-01078	(1) Thread length 1.12". Unit supplied with lock nut. This unit is a high temperature design (-300° to +800°F).
96	VR625-2000ST	(1) .625 OD x 2.0 L	5/8-18 UNF	Steel	.106 S	24 AWG 2C Shielded cable	225V pp	A - Red B - Black	1200	425	101-40026	(1) Thread length is 1.425" at sensing end. Rear is knurled .76" dia .37" long. Unit is supplied with hex nut.
97	VR625-2250ST-1	(1) .625 OD x 2.25 L	5/8-18 UNF-2A	Steel	.170 OD x .106 step	MS 3101A10SL-4P connector	190V pp	A - Pin B B - Pin A	1.45K OHMS	440	101-01013	(1) Unit's length includes the connector. .775" OD knurled portion of the case .6" long at the connector end. Several versions of this type of unit are available where the threaded portion of the case is the variable (up to 4.25" long).
98	VR625-2250ST-2	.625 OD x 2.25 L	5/8-18 UNF-2A	Steel	.170 OD x .106 step	MS 3101A10SL-4P connector	70V pp	A - Pin B B - Pin A	200	85	101-01023	(1) Unit's length includes the connector. Case has thread clearance to root dia. .31" long at the sensing end and .775" OD portion .6" long at the connector end. Several versions of this type of unit are available where the threaded portion of the case is the variable (up to 6" long).
99	VRM16-2250ST	(1) .625 OD x 2.25 L	M16 x 1.5-6g	Steel	.170 OD x .106 step	MS 3101A10SL-4P connector	190 V pp	A - Pin B B - Pin A	1.45 K	440	101-01040	(1) Unit's length includes the connector. .775" OD knurled portion of the case .6" long at the connector end. Several versions of this type of unit are available where the threaded portion of the case is the variable (up to 4.25" long).
100	VR625-2250ST-HT-XTD	.625 OD x 2.25 L	5/8-18 UNF-2A	Steel	.170 OD x .106 C	MS 3101A10SL-4P	125V pp	A - Pin B B - Pin A	1.4K OHMS	470	101-01075	(1) Unit's length includes the connector. .775" OD knurled portion of the case .6" long at the connector end. This is a high temperature unit. -100° to 450°F. Unit is supplied with lock nut.
101	VR625-2440ST-XBR-1	(1) .625 OD x 2.44	5/8-18 UNF-2A	Steel	.180 OD x .070 CH	20 AWG 2C Shielded cable	300V pp	A - Red B - Black	1.4K OHMS	400	AEX 1862	(1) Thread clearance to root dia 156" long at sensing end. Unit is supplied with 2 locknuts.

Item No.	Model No.	Case size (inches) see note 1	Case threads	Case Mat'l	Pole tip (inches) see note 2	Terminal Configuration	Normal Output @ STC see note 3	Polarity see note 4	Resistance (ohms) $\pm 10\%$	Inductance (mH) $\pm 10\%$	TSI Identification	REMARKS
102	VR625-2531ST	(1) .625 OD x 2.531 L	5/8-18 UNF-2A	Steel	.187 S	MS 3101A10SL-4P connector	70V pp (3)	A - Pin B B - Pin A	200	65	101-01020	(1) Unit's length includes the connector. Thread length 1.437" knurled portion .6" long .750" OD at connector end. Case has thread clearance to root dia .312" long at sensing end. (3) Measured with 8 pitch 12 teeth gear rotating at 1000 IPS at .005" air gap and 1.25K OHMS load.
103	VR625-2725ST -XRLC	.625 OD x 2.725 L	5/8-18 UNF-2A	Steel	.170 OD x .106 C	24 AWG 2C Shielded cable	190V pp	A - Red B - Black	1.2K OHMS	400	101-01068	(1) Thread length is 2.125". Knurled portion .6" long. .76" OD Unit supplied with locknut.
104	VR625-3125ST -XHB	(1) .625 OD x 3.125 L	5/8-18 UNF-2A	Steel	.187 S	22 AWG 2 leads Teflon	12V pp	A - White B - Black	68	25	EX 1350	(1) Thread full length. Unit supplied with locknut.
105	VR625-3600ST -XCT	(1) .625 OD x 3.6 L	5/8-18 UNF-2A	Steel	.170 S	22 AWG 2C Shielded cable	13V pp (3)	A - Red B - Black	185	55	EX 1935	(1) Thread relief at sensing end .3" long. Knurled portion .6" long at cable end. (3) Measured sensing 8 pitch 12 teeth gear at 600 IPS with .035" air gap and 500 OHMS load.
106	VR687-2925	(1) .687 OD x 2.925 L	11/16-24 UNEF-2A	Steel	.170 OD x .125 step	18 AWG 2 leads PVC 6 spade lugs	150V pp	A - Red B - Black	1.2K OHMS	440	EX 1164	(1) Thread length .75" at the sensing end. Knurled section at leads end .5" long. Between thread and knurl, OD is 1.116"
107	VR750-1250SP -XMF	.750 OD x 1.25 L	NONE	Steel	.220 S	molded automotive male/female connector	200mV pp (3)	A - Male B - Female	620	680	BEX 1727	(3) Measured with timing wheel with teeth .5" long and .56" between teeth. .75" deep. moving at 10 IPS with .060" air gap and 10K OHMS load.
108	VR750-2000ST -XBE	.750 OD x 2.0 L	3/4-16 UNF-2A	Steel	.170 S	22 AWG 2 leads PVC	18V pp (3)	A - Red B - Black	5.9K OHMS	3.5H	AEX 1638	(3) Measured with a timing wheel with teeth .442" long separated by .700" gap .59" deep at .065" air gap and 100 IPS with no load.
109	VR750-2000ST -XE	(1) .750 OD x 2.0 L	3/4-16 UNF-2A	Steel	.170 OD x .106 C	26 AWG 2C Shielded cable	125V pp	A - White B - Black	1450	665	AEX 1636	(1) Thread length is 1.425" at sensing end. Rear is knurled .76" dia. .37" long.
110	VR750-2000PT -XIH	.750 OD x 2.0 L	3/4-16 UNF-2A	Plastic	.170 S	22 AWG 2 leads PVC	18 V pp (3)	A - Red B - Black	5.9 K OHMS	3.5H	AEX 1839	(3) Measured with a timing wheel with teeth .442" long separated by .700" gap .59" deep at .065" air gap and 100 IPS with no load.
111	VR750-2260PP -XJD	(1) .750 OD x 2.26 L	NONE	Plastic	.170 S	2 threaded terminals 10-32 UNF-2A Brass .335" long	7V pp (3)	A - Marked terminal B - Unmarked	1.0K OHMS	290	BEX 1814	(1) .75" dia at sensing end 1.12" long. Rear has a shoulder 1.38" dia 1.14" long. Output terminals are .335" long located on .75" center to center. (3) Measured sensing a bar 1/8" W x 1/2" H x 1/2" L moving at 100 IPS with .020" air gap and 500 OHMS load.
112	VR750-2660AT -XJD	(1) .750 OD x 2.66 L	3/4-16 UNF-2A	Alum.	.170 S	2 threaded terminals .34" long. 8-32 UNC. Brass	40V pp	A - + B - not marked	1K OHMS	165	101-01047	(1) Thread length 1.67". Output terminals are in a raised phenolic pad. 2 other versions of this unit are available where the thread length changes to 3.38" and 5.5"
113	VR900-1500PP	.900 OD x 1.5 L	NONE	Plastic	.170 OD x .125 step	16 AWG 2 leads Hypalon	110V pp	A - Red B - Black	440	175	BEX 1545	(1) .90" OD at sensing end. 655 long followed by a mounting bracket with mounting holes (5/16" OD) separated 1.58" center to center. OD at leads end is .54"
114	VR1250-2500ST -XBE	1.25 OD x 2.5 L	1-1/4"-12 UNF-2A	Steel	.220 S	22 AWG 2 leads PVD	18V pp (3)	A - Red B - Black	2.6K OHMS	4.1H	AEX 1686	(3) Measured with a timing wheel with teeth .442" long separated by .7" gap .59" deep. at .065" air gap and 40 IPS with no load.

#### NOTES

- See REMARKS for special case configuration. .250" diameter units are available in 1/4 - 40 threads at extra charge
- Pole tip identification:  
S = straight  
C = conical  
Ch = chisel  
X = special configuration (see appropriate REMARKS column) Chisel tipped pole pieces available for special applications.
- Standard Test conditions  
Gear: pitch - 20; teeth - 30;  
mat'l - steel (magnetic)  
Air Gap: .005" (0.13 mm)  
Surface speed: 1000 IPS  
Load: 100 K
- With the approach of ferrous metal, the voltage on terminal "A" will be positive with respect to terminal "B".
- Temperature: - 40° to + 225° F.  
(- 40° to + 107° C.) Except where noted differently on specification.  
(Higher temperature units available as special option.)
- Lead lengths per customer specifications.