

## PRODUCT DESCRIPTION

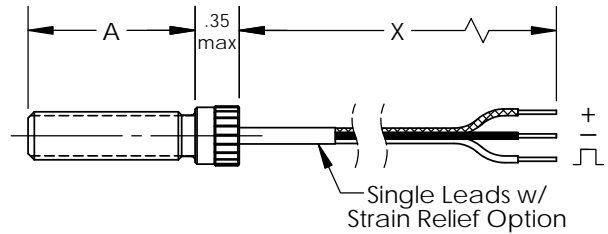
SPECTEC's Proximity/Zero Speed sensors are designed to switch in the presence of a magnetic or a low magnetic field. Omni-polar (north and south activation) is standard. Uni-polar (single pole activation) and Bi-polar latching (alternating pole activation) are also available. Various output options are available and provided to suit all interface requirements.

The standard output is NPN Supply Tracking 0-Vs, provided from a 3k Ohm internal pull-up resistor to a collector, which can sink 25 mA. The output is normally high with no target present. Other output signal options are available; please see Page 2 for details.

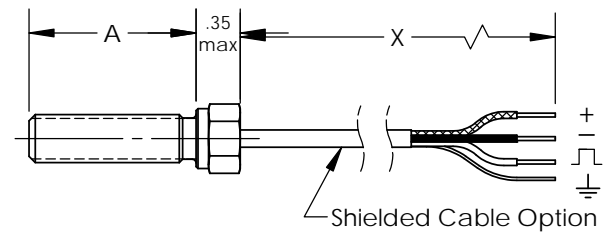
## SPECIFICATIONS

<b>Vs, Supply Voltage</b>	4.0 to 30 VDC at ≤ 18 mA No Reverse Polarity Protection
<b>Vo, Signal Out:</b>	Output signal is typically 'Normally High', except for PNP output which is 'Normally Low'
<b>Operating Freq.:</b>	Standard: 0 to ~20 kHz (for precision position applications) High Speed: 0 to ~100 kHz (for high speed only)
<b>Air Gap:</b>	≤ .160" Typically ≤ 1" using extra strong 5K Gauss mags
<b>Rise/Fall Time:</b>	0.10 μs to 2 μs *Dependent of configuration
<b>Temperature Range:</b>	2TE: -40° to 221°F (-40° to 105°C) *May be reduced based on configuration 3TE: -40° to 300°F (-40° to 150°C) *May be reduced based on configuration
<b>Transmit Distance:</b>	1500' (~500m) max.
<b>Construction:</b>	300 Series Stainless Steel Housing Solid Encapsulation Epoxy sealed sensing tip
<b>Connectors &amp; Pin Assignments:</b>	See Page 2 All have gold plated contacts
<b>Lead Wire Assignments:</b>	2TE: PVC 26-28 AWG (105°C) 3TE: TFE 26-28 AWG (150°C) Red: Supply (+) Black: Common (-) White/Green: Signal Out Bare: Cable Shielding
<b>CE-Compliance:</b>	EN55011, EN50082-2

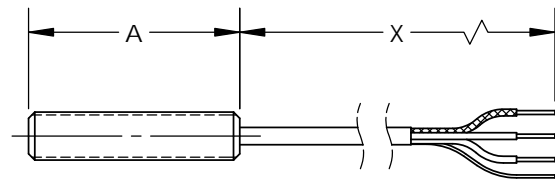
0155K 1/4-40 UNS  
 0155KB 1/4-28 UNF  
 0155KM M6 x 0.75



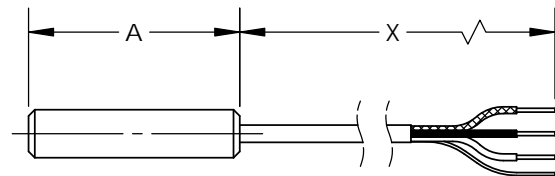
0155H 1/4-40 UNS  
 0155HB 1/4-28 UNF  
 0155HB M6 x 0.75



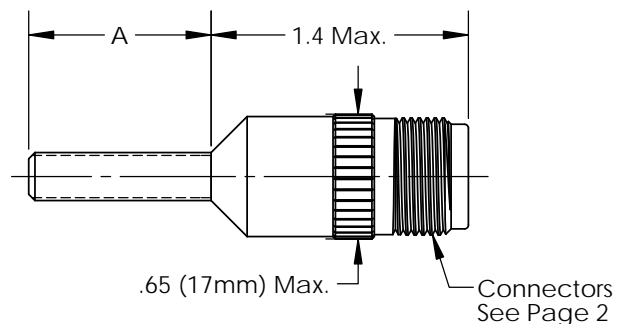
0155A 1/4-40 UNS  
 0155AB 1/4-28 UNF  
 0155AM M6 x 0.75  
 0155AM8 M8x 1.0



0155S Ø1/4" (6.4 mm)  
 0155S8 Ø5/16" (8.0 mm)



0155 1/4-40 UNS  
 0155B 1/4-28 UNF  
 0155M M6 x 0.75

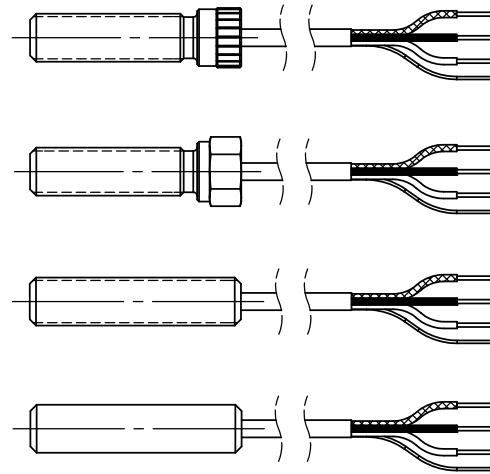


## OPTIONS

Custom configurations, thread sizes (including metric), special materials of construction, special output circuits (including short circuit protection), temperature probes (NTC10, RTD100, or others) are also available positioned near the face of the sensor.

# ORDER INFORMATION

Style:	Options:	Threads/Dia.:
0155K	- [ ] [ ] [ ] [ ] [ ]	1/4-40 UNS
0155KB	- [ ] [ ] [ ] [ ] [ ]	1/4-28 UNF
0155KM	- [ ] [ ] [ ] [ ] [ ]	M6x0.75
0155H	- [ ] [ ] [ ] [ ] [ ]	1/4-40 UNS
0155HB	- [ ] [ ] [ ] [ ] [ ]	1/4-28 UNF
0155HM	- [ ] [ ] [ ] [ ] [ ]	M6x0.75
0155A	- [ ] [ ] [ ] [ ] [ ]	1/4-40 UNS
0155AB	- [ ] [ ] [ ] [ ] [ ]	1/4-28 UNF
0155AM	- [ ] [ ] [ ] [ ] [ ]	M6x0.75
0155AM8	- [ ] [ ] [ ] [ ] [ ]	M8x1.0
0155S	- [ ] [ ] [ ] [ ] [ ]	1/4" Smooth
0155S8	- [ ] [ ] [ ] [ ] [ ]	5/16" Smooth

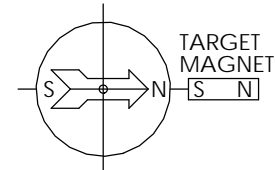


Above illustrations are shown with shielded cable.

Thread Length(A):	Temperature Range:
0 - 0.75" (19mm)	0 - 2TE: -40° to 221°F (-40° to 105°C)
1 - 1.0" (25mm)	5 - 3TE: -40° to 302°F (-40° to 150°C)
2 - 1.5" (38mm)	
3 - 2.0" (50mm)	
4 - 3.0" (75mm)	

Vo, Signal Out:
1 - 0-Vs, NPN w/internal 3k Ohms pull-up [Normally High]
2 - 0-Vs, NPN OC (Open Collector) [Normally High]
3 - 0-Vs, PNP OC [Normally Low]
5 - 0-5V, NPN (TTL) [Normally High]

Sensor Type*:
1 - Hs, Unipolar (South Pole Activated)
2 - H, Bipolar Latch (South High : North Low, Alternating pole)
3 - Hn, Unipolar (North Pole Activated)
4 - Ho, Omni-polar (Activated by either South or North Pole)
7 - Hcs, Unipolar High Speed Type (North Pole Activated)
8 - Hc, Bipolar Latch High Speed Type
9 - Hco, Omni-polar High Speed Type



\* A South pole activated sensor is triggered by the south pole of a magnet. Using your compass as a reference, the needle pointer will point to the south pole of the magnet.

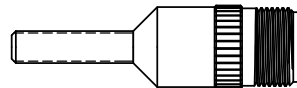
Lead Wire(X):
2 - 2' (0.6m) Single Leads (Shield is NOT connected to sensor shell,
7 - 3' (1.0m) Shielded Cable and is intended to be connected to
9 - 10' (3.0m) Shielded Cable instrument panel ground.)

0155	Options:	Threads/Dia.:
0155B	- [ ] [ ] [ ] [ ] [ ]	1/4-40 UNS
0155M	- [ ] [ ] [ ] [ ] [ ]	1/4-28 UNF
	- [ ] [ ] [ ] [ ] [ ]	M6x0.75

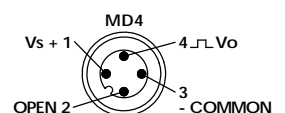
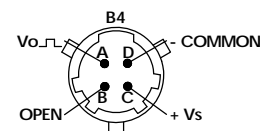
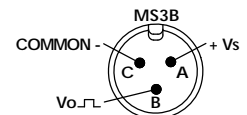
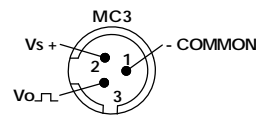
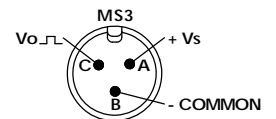
Thread Length(A):
1 - 1.0" (25mm)
2 - 1.5" (38mm)
3 - 2.0" (50mm)
4 - 3.0" (75mm)

SAME AS ABOVE

Connector:
1 - MS3: 3 Pin MS3102-10SL-3P (see Bulletin 3000)
2 - MC3: 3 Pin MICRO C (see Bulletin 3004)
3 - MS3B: 3 Pin MS3102-10SL-3P (see Bulletin 3000)
4 - B4: 4 Pin BAYONET MS3113-H8A4P (see Bulletin 3005)
6 - MD4: 4 Pin MICRO DIN (see Bulletin 3005)



## CONNECTOR PINOUTS



**Note:** A Normally Low output signal is available for the NPN output signal option (TTL, Supply Tracking and Open Collector) by adding '-NL' to the end of the part number.

Similarly, a Normally High output signal is available for the PNP output signal option by adding '-NH' to the end of the part number.