



PRODUCT DESCRIPTION

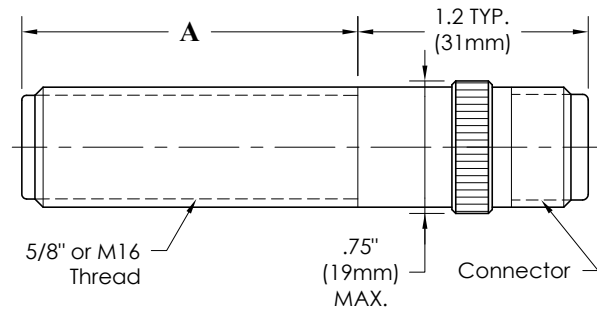
SPECTEC's digital output linear and angular position sensors are offered in a wide variety of configurations as outlined on page 2. Custom sensors can also be created to meet specific needs.
 For wire or cable version refer to 0221.
 These sensors are designed to sense continuous variations in magnetic field and convert field strength to a proportional voltage. The output voltage produced for zero magnetic field is nominally 2.5V, with a standard transfer function of $\pm 5\text{mV/Gauss}$. Magnetic sensitivity is in one axis only. Several units can be combined to measure (X, Y, Z) magnetic field vectors.

SPECIFICATIONS

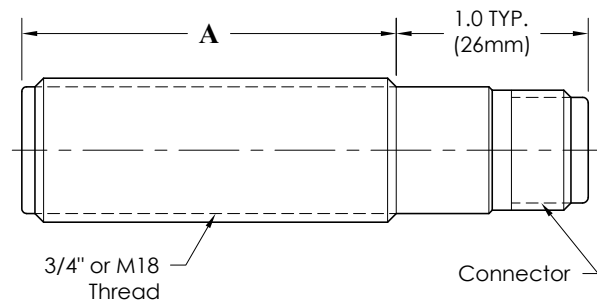
- Supply Voltage:** 8 to 30 Vdc @ $\leq 8\text{ mA}$
- Output Range:** Voltage
 $< 0.5\text{V}$ to $> 4.5\text{V}$
 (0.06 - 4.95V typical)
 Current
 -1.0mA (source) Max.
 10.0mA (sink) Max.
- Quiescent Output Voltage:** $\pm 0.075\text{V}$
 (2.425 to 2.575V at zero field)
 $\pm 30\text{ Gauss}$ equivalent
 (R Load $\geq 1\text{M}\Omega$ for stated accuracy and output)
- Output Resistance:** $100\ \Omega$ typical
- Frequency Range:** Zero to $\sim 30\text{ kHz}$
- Resolution:** $\pm 5\text{mV/Gauss}$ Standard
 See Page 2 for additional options
- Sensing Orientation:** No Magnet stabilizes at 2.5V
 North shifts toward 0V (-5mV/Gauss)
 South shifts toward 5V ($+5\text{mV/Gauss}$)
- Sensing Distance:** 0 to $> 1.0''$
 $\text{@ } 3000\text{ Gauss}$ typical
- Temperature Range:** -40° to $+250^\circ\text{F}$ (-40° to $+125^\circ\text{C}$)
- Connection:** Connector
 See page 2 and at right for details
- Construction:** 300 Series Stainless Steel
 Solid Epoxy Encapsulation

For mating connector/cable assemblies refer to respective bulletins: 3000 for MO, 3001 for B, 3004 for MC, and 3005 for MD.

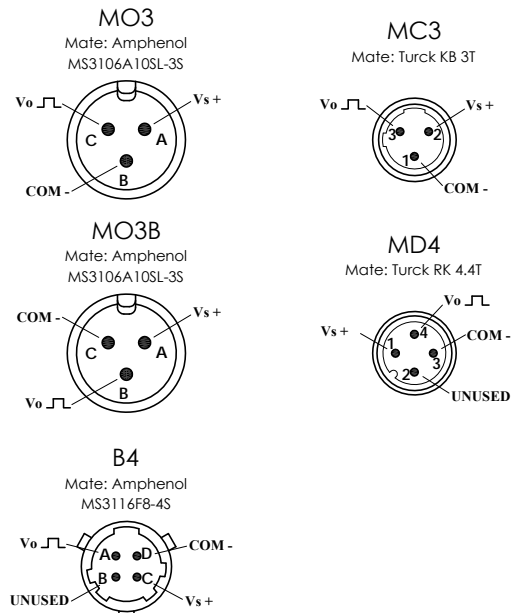
K shell type for 5/8 & M16 Threads



A shell type for 3/4 & M18 Threads



CONNECTOR OPTIONS



PRODUCT DETAILS for 0220

SPECTEC P/N	Shell Type	Thread	Thread Length "A"	Connector	Resolution
0220-xx	K	5/8-18 UNF M16x1.5	0.90" (23mm) 1.2" (31mm) 1.8" (46mm) 2.5" (64mm) 3.0" (76mm) 4.0" (102mm)	MO3 MO3B B4 MC3 MD4 (See Page 1 for details)	High: 5 mV/Gauss (Standard) Medium: 3.125 mV/Gauss Low: 2.5 mV/Gauss
	A	3/4-20 UNEF M18x1.5	0.90" (23mm) 1.5" (38mm) 2.0" (51mm) 2.5" (64mm) 3.0" (76mm) 4.0" (102mm)		

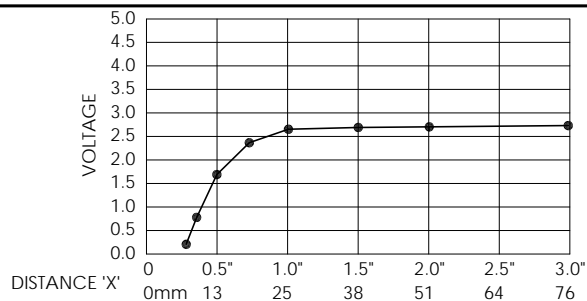
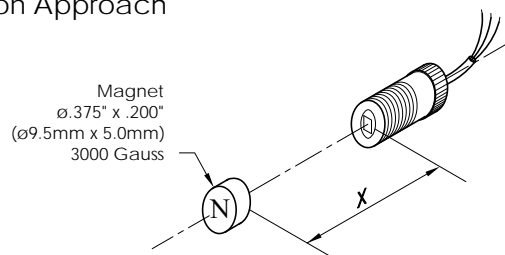
The above features give the range of standard product options available. Some options may not be available in certain combinations. Custom options are also available. Please specify your needs / requirements when contacting sales.

SPECIFIC MODELS

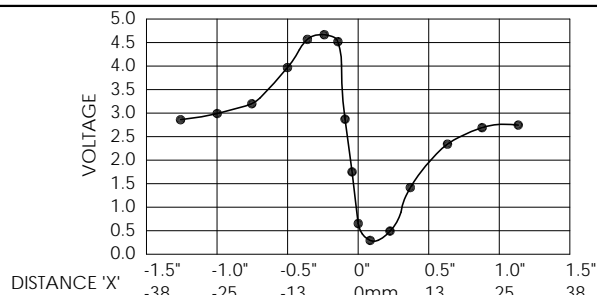
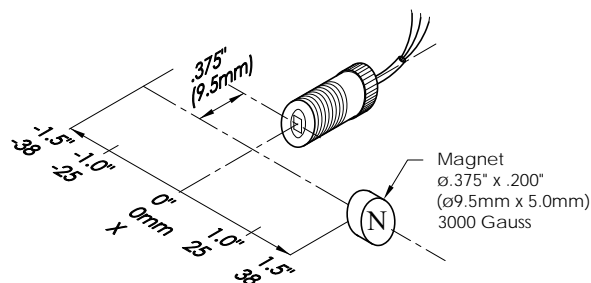
0220-01	K	5/8-18 UNF	1.2" (31mm)	MO3	5 mV/Gauss
0220-02			1.8" (46mm)		
0220-03			2.5" (64mm)		

TYPICAL PERFORMANCE DATA

Head-on Approach



Fly By



Shaft Rotation

