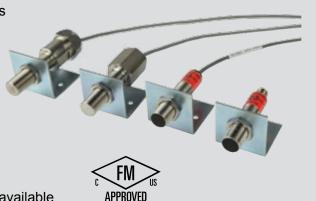


Features

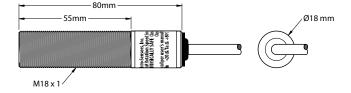
- Square-wave pulse frequency output, zero speed operation
- NPN or PNP output (open-collector or terminated) options
- Single channel or bidirectional (quadrature) signaling options
- 10-26 VDC powered
- Hall Effect or Magnetoresistive sensing options
- Standard and wide temperature options
- Rugged M18x1 stainless steel sensor housing
- · Four housing options:
 - Basic (corded)
 - M12 Eurofast Connector
 - 1/2" NPT female conduit port (corded)
 - 1/2" flexible, liquid-tight conduit fitting (corded)
- · Optional EZ-18mm mounting bracket and mounting magnet available



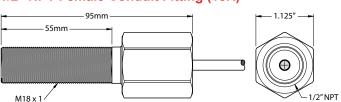
Description

Series 18 shaft speed sensors detect passing magnets of a shaft-mounted pulser disc or pulser wrap and output a voltage pulse frequency directly proportional to the shaft rotation speed. All models work with all Electro-Sensors pulser targets (discs and wraps) and operate down to zero speed. All models have rugged stainless steel M18x1 housings that are epoxy-filled and sealed against liquids/dust and come with two stainless steel hex jam nuts and a bracket.

Basic Housing (18B)



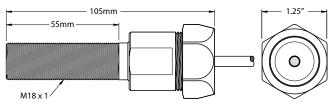
1/2" NPT Female Conduit Fitting (18R)



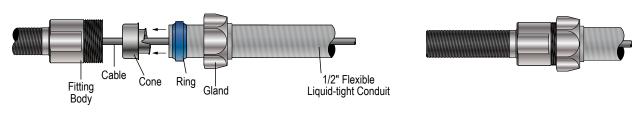
M12 Eurofast Connector (no cable) (18E)



1/2" Flex Liquid-Tight Conduit Fitting (18F)



1/2" Flex Liquid-Tight Conduit Assembly (18F)



Disassembled

Assembled



Specifications

Output Functions	utput Functions		
Hall Effect	f_{pulse} = RPM * PPR / 60 RPM = f_{pulse} * 60 / PPR		
Magnetoresistive	f_{pulse} = RPM * PPR / 30 RPM = f_{pulse} * 30 / PPR		
Notes: f _{pulse} is the pulse output signal frequency (Hz). RPM is the shaft revolutions-per-minute. PPR is the pulser target pulses-per-revolution (number of N/S magnet pairs or 1/2 of total magnets). Magnetoresistive gives 2X the frequency of Hall-Effect. Some pulser target restrictions exist for Magnetoresistive sensing (consult factory). Operational Specifications			
			Sensor Gap
V _{supply}	$10 \rightarrow 26 \text{ VDC}$		
I _{supply} (no I _{out} load)	10 mA (max)		
lout	10 mA (max, NPN sink / PNP source)		

Operating Temperature	$-20 \rightarrow +80$ °C (-4 \rightarrow +176 °F) Standard Option 18B, R, F (not –W)	
Output Frequency	0 → 20 kHz	
Cable - Standard Option 18B, R, F (not –W)		
Туре	Shielded, 24 AWG	
Color code	Red (V+), Blk (Common), Wht (signal A), Grn* (signal B) * Q signal option only	
M12 Eurofast male connector pinout – 18E		
	1 - Shield 2 - V+ (10 - 26 VDC) 3 - Common 4 - Signal (A) 5 - Signal (B) - Q signal option only, else unconnected * 18E housing option only	

Specifications subject to change without notice.

W :wide-temp option (otherwise blank, available for 18B/R/F only) Ordering: 18 Cable length, ft (18B/R/F only, use leading zeros; 18E blank) – 010 is standard Build a model number by filling O: open-collector (un-terminated) output(s) T: terminated output(s) (internal 10kΩ: pull-up for 18***NT, pull-down for 18***PT) in the blanks N: NPN (sinking) output(s) P: PNP (sourcing) output(s) S: single signal (speed only) Q: quadrature signal (Signal A, Signal B; 18*HQ** only): speed and direction H: Hall Effect sensing (one signal pulse per pulser target N-S magnet pair) **M**: Magnetoresistive sensing (one signal pulse per pulser target magnet) **B**: M18x1 housing (basic) - E: M18x1 housing with 5-pin male M12 (Eurofast) connector – no cable R: M18x1 housing with 1/2" NPT female conduit port F: M18x1 housing with 1/2" (Flexible) liquid-tight conduit fitting

Series 18 EZ Mounting Options

Option	Part Number
EZ-18mm Mounting Bracket Assembly	810-000042
MM-1.25 Mounting Magnet (Must be used with EZ-18mm)	810-000060







MM-1.25 Mounting Magnet Option (must be used with EZ-18mm)

Additional Information

See the Series 18 Installation and Operating Manual for complete details, specifications, and programming instructions.

Approval Ratings

Intrinsically Safe:

Class I, II, III, Division 1, Groups A, B, C, D, E, F, G AEx/Ex ia IIC

Install for I.S. per the Series 18 I.S. Control Drawing 990-006100 $Ta \le 85 \,^{\circ}C \, (18B^{****}-^{***}-W, 18R^{****}-^{***}-W, 18F^{****}-^{***}-W)$

T5 Ta ≤ 80 °C (All Others)

IP65



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