

Micropulse® BTL7 TA12 Explosion Proof Linear Position Sensors

HAZARDOUS AREA LINEAR POSITION SENSOR WITH NEW FEATURES, IMPROVED PERFORMANCE

The Micropulse® TA12 linear position sensor is now available with Generation 7 technology. This new platform brings added features and improved performance to the TA12 linear position sensor, while maintaining backward compatibility to the existing BTL5 TA12.

Key Features and Benefits








- Non-contact magnetostrictive technology provides long-term reliability
- Measuring ranges up to 7620 mm (300")
- USB configuration capability for simple in-application customization (PLUS version)
- Dual-position magnet capability allows monitoring of two independent motions (PLUS version)
- Field-replaceable electronics module for fast, easy in-cylinder repairs
- Wide operating temperature range
 - Standard: -40°C to +80°C (-40°F to +176°F)
 - Extended low temperature operation: -50°C (SA418 option, consult factory)
- Available interfaces: Analog voltage/current, Synchronous Serial Interface (SSI)
- Worldwide hazardous area approvals extend global reach
- Rugged, corrosion-resistant 316L stainless steel housing

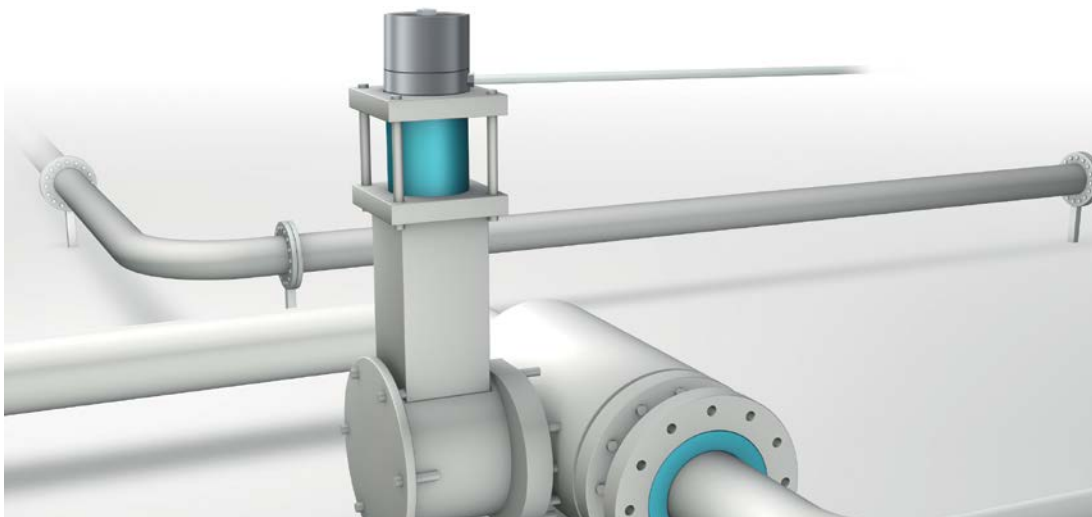
Applications

- Position feedback on hydraulically-actuated valves
- Position feedback in hydraulic cylinders in hazardous locations
- Level monitoring and control
- Turbine speed control applications



Approvals

 C US CSA15.2411253X	Class I Zone 1 AEx d IIC T* Ga/Gb T6 Ta -50° to 70°C, T5 Ta -50° to 80°C Class I Zone 1 Ex d IIC T* Gb T6 Ta -50° to 70°C, T5 Ta -50° to 80°C Class I, Division 1, Groups A,B,C,D Class II, Division 1, Groups E,F,G; Class III T6 Ta -50° to 70°C, T5 Ta -50° to 80°C Type 4X/6P; IP68 SIRA 11ATEX1104X IECEx SIR 11.0048X		
	 	II 1/2GD Ex d IIC T* Ga/Gb Ta -50° to 70°C (T6) -50° to 80°C (T5) Ex t IIIC T85/T100°C Da IP68 Ta -50° to 70°C (T85) -50° to 80°C (T100) CE 0518  (manufactured in the USA) CE 0102  (manufactured in Germany and Hungary)	
  RU C-DE.MI062.B.03686	<table border="0"> <tr> <td> 1 Ex d IIC T6 Ga/Gb X Ex ta IIIC T85°C Da X IP68 -50°C≤Ta≤+70°C </td> <td> 1 Ex d IIC T5 Ga/Gb X Ex ta IIIC T100°C Da X IP68 -50°C≤Ta≤+80°C </td> </tr> </table>	1 Ex d IIC T6 Ga/Gb X Ex ta IIIC T85°C Da X IP68 -50°C≤Ta≤+70°C	1 Ex d IIC T5 Ga/Gb X Ex ta IIIC T100°C Da X IP68 -50°C≤Ta≤+80°C
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HOW TO ORDER:

BTL7 Analog Interface (Standard Version)

BTL7-__0-M__-J-M01-TA (replacement electronics module only, no pressure housing)
 BTL7-__0-M__-J-DEXC-TA12 (complete linear position sensor)



Output signal	Operating voltage	Signal characteristics	Standard nominal stroke [mm]	Connection
A 0...10 V and 10...0 V	5 10...30 V	1 Rising and falling (output types A and G only).	0025...7620 mm in 1 mm increments	TA12 Internal thread modified 1/2" 14 NPT
G -10...10 V and 10...-10 V		0 Rising output only. Minimum output at connector end (output types C and E only).		
E 4...20 mA or 20...4 mA		7 Falling output only. Maximum output at connector end (output types C and E only).		
C 0...20 mA or 20...0 mA				

Programming tool for null point and end point **BTL7-A-EH03**

BTL7 Analog Interface (Plus Version, USB configurable)

BTL7-__501-M__-J-M01-TA (replacement electronics module only, no pressure housing)
 BTL7-__501-M__-J-DEXC-TA12 (complete linear position sensor)



Output signal	Standard nominal stroke [mm]	Connection
A 0...10 V and 10...0 V	0025...7620 mm in 1 mm increments	TA12 Internal thread modified 1/2" 14 NPT
E 4...20 mA and 20...4 mA		

Programming tool for null point and end point **BTL7-A-EH03**

BTL7-S Synchronous Serial Interface (Standard Version)

BTL7-S5__-M__-J-M01-TA (replacement electronics module only, no pressure housing)
 BTL7-S5__-M__-J-DEXC-TA12 for asynchronous operation (complete linear position sensor)
 BTL7-S5__-B-M__-J-DEXC-TA12 for synchronous operation (complete linear position sensor)



Output format	Resolution	Standard nominal stroke [mm]	Connection
0 Binary code rising (24 bit)	1 1 µm	0025...7620 mm	TA12 Internal thread modified 1/2" 14 NPT
1 Gray code rising (24 bit)	2 5 µm		
6 Binary code rising (25 bit)	3 10 µm		
7 Gray code rising (25 bit)	4 20 µm		
A Binary code rising (26 bit)	5 40 µm		
B Gray code rising (26 bit)	6 100 µm		
	7 2 µm		
	8 50 µm		

BTL7-S Synchronous Serial Interface (Plus Version, USB configurable)

BTL7-S__-M__-J-M01-TA (replacement electronics module only, no pressure housing)
 BTL7-S510 -M__-J-DEXC-TA12 for asynchronous operation (complete linear position sensor)
 BTL7-S510B -M__-J-DEXC-TA12 for synchronous operation (complete linear position sensor)



Standard nominal stroke [mm]
 0025...7620 mm in 1 mm increments on request