

MAGNETOSTRICTIVE LEVEL TRANSMITTER



PRODUCT SPECIFICATIONS

Parameters	Specifications
LEVEL OUTPUT	
Measured variable:	Level and Interface
Output signal / Protocol:	4 to 20 mA with HART®
Order length:	Rigid pipe: 508 mm (20 in.) to 3658 mm (144 in.) § Δ Δ Contact factory for longer lengths. § Order length equals the measurement range plus the inactive zone.
Non-linearity:	0.02% F.S. or 0.794 mm (1/32 in.)* * Whichever is greater
Repeatability:	0.01% F.S. or 0.381 mm (0.015 in.)* (any direction) † Contact factory for alternative materials.
COMPATIBILITY	
BAMR3/4 chamber compatibility:	Compatible with all reputed manufacturers
ELECTRONICS	
Input voltage:	10.5 to 36.1 Vdc, 28 Vdc maximum for I.S. approval
Fail safe:	High (21.4 mA), or Low (3.8 mA)
Reverse polarity protection:	Series diode
Lightning/ Transient protection:	Stage 1: Line-to-ground surge suppression; IEC 61000-4-5 Stage 2: Line-to-line and line-to-ground transient suppressors; IEC 61000-4-4

Parameters	Specifications
CALIBRATION	
Zero adjust range:	Anywhere within the active length
Span adjust range:	Full scale to 152 mm (6 in.) from zero
ENVIRONMENTAL	
Enclosure rating:	NEMA Type 4X
Humidity:	0 to 100% relative humidity, non-condensing
Operating temperatures:	E l e c t r o n i c s : -40 °C (-40 °F) to 71 °C (160 °F) Sensing element: -40 °C (-40 °F) to 125 °C (257 °F) ◇ ◇.Contact factory for specific temperature ranges.
FIELD INSTALLATION	
Housing dimensions:	Single cavity: 127 mm (5 in.) by 133 mm (5.25 in.) 123 mm (4.84 in.) O.D.
MOUNTING	
Rigid pipe:	Hose clamp to chamber
WIRING	
Connections:	2-wire shielded cable twisted pair,
ELECTRICAL CONNECTIONS	
Single Cavity:	¾ in. conduit opening, M20 for ATEX / IEC version
DISPLAY	
Measured variables:	Product level
Size:	13 mm (0.5 in.)
Number of digits:	16

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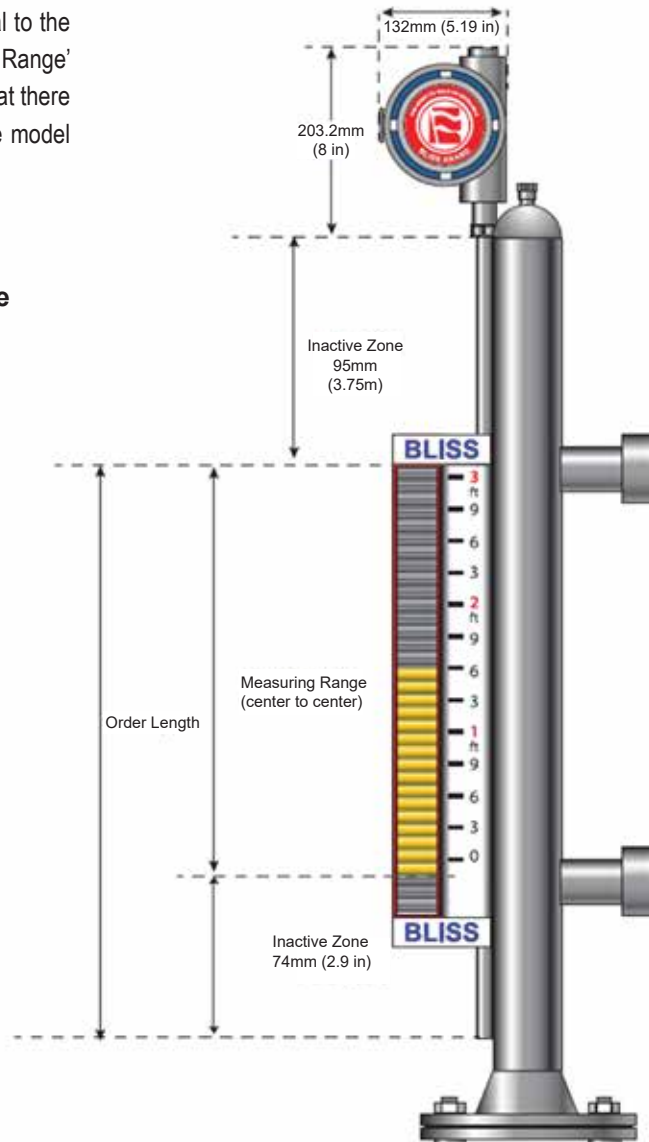


PRODUCT DIMENSIONS AND MOUNTING

Bliss offers the Level Plus Model BAMR3/4 transmitter configured for external mounting to most Magnetic Level Gauges (MLG) (see 'Figure 1'). The model BAMR can be ordered with the standard 5/8 inch OD pipe or the optional 1/2 inch OD pipe from 508 mm (20 in.) to 3658 mm (144 in.). Stainless steel hose clamps are typically used to secure the model BAMR to the MLG.

The Model BAMR transmitter 'Measuring Range' is equal to the 'Order Length' minus the 'Inactive Zone'. The 'Measuring Range' should equal the measuring range of the MLG. Ensure that there are no obstructions that will limit the ability to mount the model BAMR on the MLG.

Figure 1. Bliss MLT mounting, bottom flange





MAGNETOSTRICTIVE LEVEL TRANSMITTER

PRODUCT DIMENSIONS AND MOUNTING

Bliss offers the Level Plus Model BAMR3/4 transmitter configured for external mounting to most Magnetic Level Gauges (MLG) (see 'Figure 2'). The model BAMR can be ordered with the standard 5/8 inch OD pipe or the optional 1/2 inch OD pipe from 508 mm (20 in.) to 3658 mm (144 in.). Stainless steel hose clamps are typically used to secure the model BAMR to the MLG.

The model BAMR offers an optional 90 degree fitting for an MLG with both top and bottom flanges. The 90 degree fitting allows the electronic head of the Model BAMR to be positioned to the side of the pipe allowing for simpler mounting.

The Model BAMR transmitter 'Measuring Range' is equal to the 'Order Length' minus the 'Inactive Zone'. The 'Measuring Range' should equal the measuring range of the MLG. Ensure that there are no obstructions that will limit the ability to mount the model BAMR on the MLG.

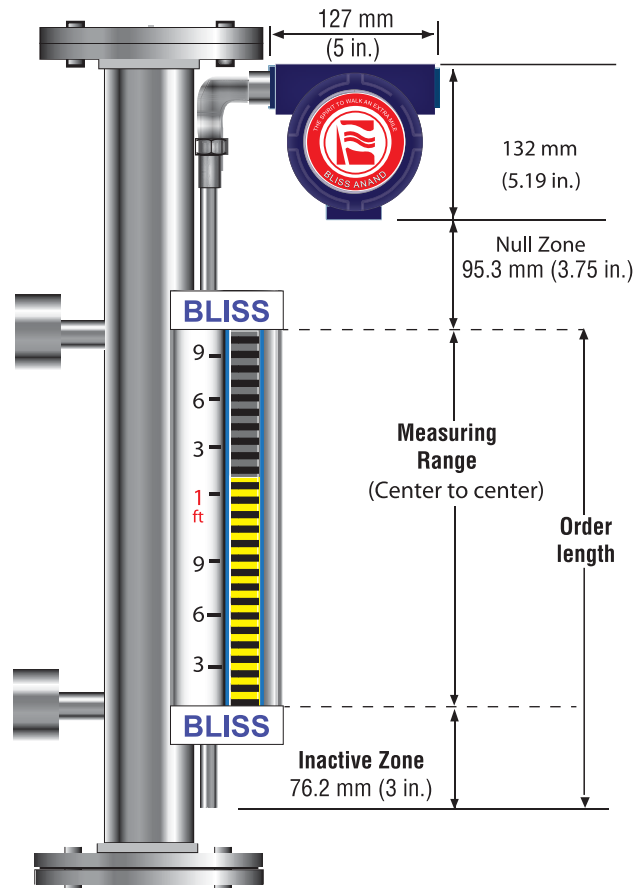


Figure 2. BLISS MLT mounting, top and bottom flange

Bliss Anand - Magnetostrictive Level Transmitter Selection Guide

Ordering information for ATEX and IECEx Approval

Selection	Suffix Codes															Description		
Bliss Anand MLT	BA																	
A Transmitter Model	M																	Magnetostrictive transmitter
B Type		R																Analog output liquid-level transmitter
C Approval Agency			E															ATEX
			H															IECEx approval
			P															CCoE approval
			X															Other approval (Specify)
D Output				3														4-20 mA Single loop with display
				4														4-20 mA Single loop no display
E Housing Type					B													Single cavity (Flameproof IIB) & IP-66
					D													Single cavity with display (Flameproof IIB) & IP-66
					G													Single cavity (ATEX Ex ia IIA) & IP-66
					J													Single cavity with display (ATEX Ex ia IIA) & IP-66
					R													Single cavity (ATEX Ex ia IIB) & IP-66
					T													Single cavity with display (ATEX Ex ia IIB) & IP-66
F Electronics Mounting						1												Integral electronics
						3												90° fitting housing top left (Flameproof only)
						4												90° fitting housing top right (Flameproof only)
						5												90° fitting housing bottom left (Flameproof only)
						6												90° fitting housing bottom right (Flameproof only)
G Transmitter Pipe							B											Industrial pipe, 5/8 in. OD
							R											Industrial pipe, ½ in. OD
H Material of Construction (Wetted Parts)								1										SS 316
								X										Other (contact factory)
I Process Connection Type									X									Clamp
J Process Connection Size										X								Level Gauge Chamber
K Temperature											0							None
L Unit of Measurement												M						Metric (mm), %
												U						US Customary (inches)
M Length													XXXXX					Order Length
N Special														S				Standard product
														E				Engineering special (not affecting agency controlled parts or features)

Note : Other Information as per data sheet.

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PROGRAMMING AND HARDWARE ACCESSORIES

Programming Accessories	Part Number
BA-Series Model BAMR3/4 PC setup software on CD
BA-Series Model BAMR3/4 PC setup software on CD Includes HART adapter, part no. 380068
HARDWARE	
HART to RS-232 adapter (SMAR H1-311)

All specifications are subject to change. Contact Bliss Anand for specifications and engineering drawings that are critical to your application. Drawings contain in this document are for reference purpose only.



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