



# 3030-S21, 3030-L21, 3030-HTB, 3090-A, 3090-AL

## **Magnetic Pickoff Sensors for PD Meters**

### **Description**

Magnetic pickoff sensors are devices which sense the rotation of the magnets in the tips or faces of the Flow Technology positive displacement flowmeter's impellers, and typically produce a low-voltage sine-wave signal whose frequency and amplitude is proportional to the rotational velocity of the impellers. The magnetic pickoff sensor acts essentially like a small generator, producing a current as lines of magnetic flux are cut. These magnetic pickoff sensors are non-powered devices.

### **3030-S21/3030-L21**

Low-drag magnetic pickoff sensor. Supplied with 12-inch integral pigtail signal cable leads. Recommended primarily where close-coupling to a transmitter or local display is required. The 3030-L21 is a longer version of the 3030-S21 pickoff.



### **3030-HTB**

Uses an amphenol quick disconnect for coupling to a separate signal cable. Recommended for operating temperatures from 250° F to 450° F (121° C to 232° C).



### **3090-A/3090-AL**

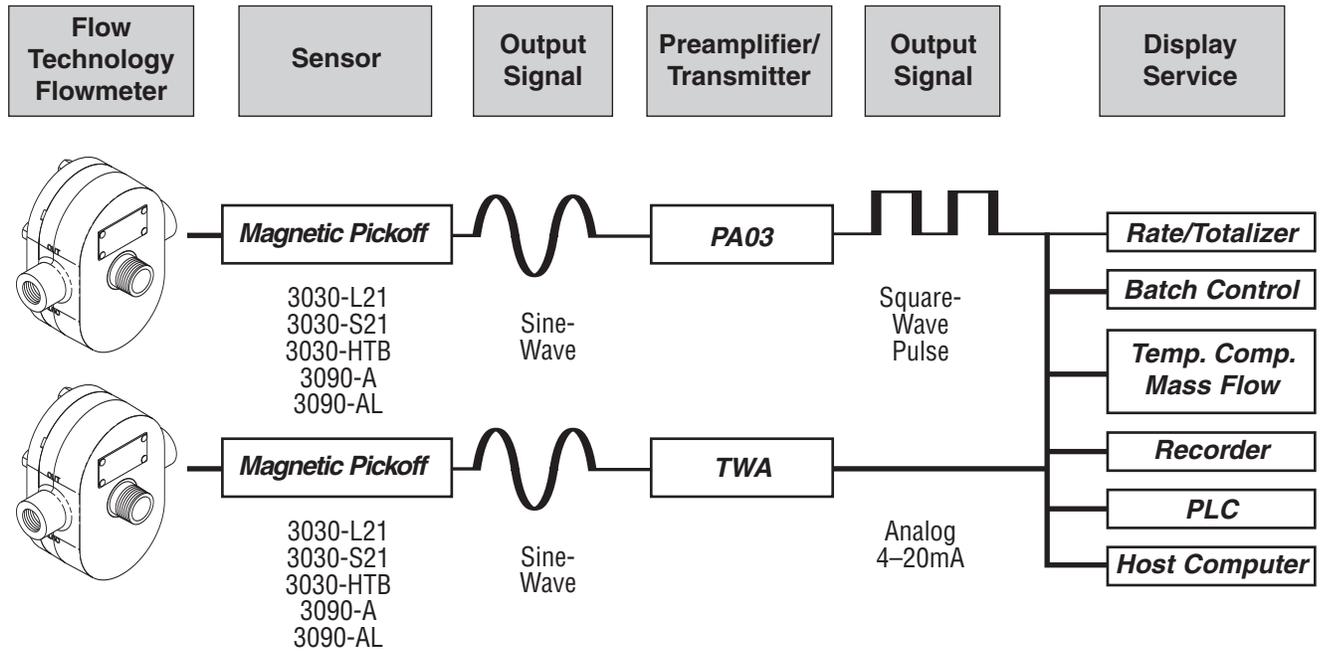
Supplied with an integral 10-foot signal cable. UL-listed and CSA-approved as explosion-proof for Class I, Div. 1, Groups A, B, C & D and Class II, Groups E, F & G. Recommended for applications in hazardous environments and is generally the preferred sensor for the AP-I series flowmeters in hazardous environments.



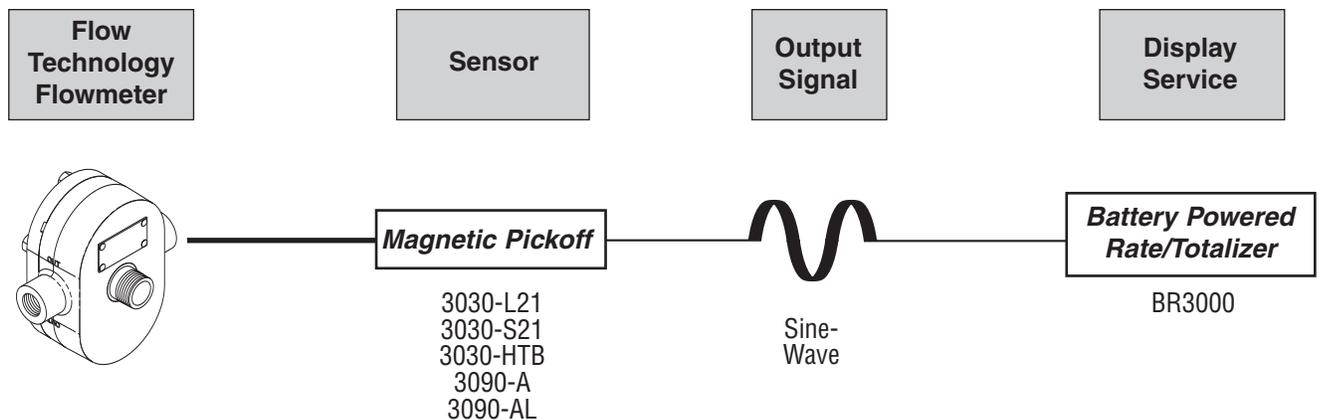
## Specifications

<b>Sensor</b>	<b>3030-S21/3030-L21</b>	<b>3030-HTB</b>	<b>3090-A/3090-AL</b>
<b>Operating Principle</b>	Non-pre-amplified	Non-pre-amplified	Non-pre-amplified
<b>Operating Temperature</b>	-150° F to +330° F -101° C to +165° C	-450° F to +450° F -267° C to +232° C	-67° F to +200° F -55° C to +93° C
<b>Maximum Unamplified Signal Trans. Dist.</b>	10 Feet 3.05 Meters	10 Feet 3.05 Meters	10 Feet 3.05 Meters
<b>Max. Turndown (Over 100cP)</b>	100:1 (with SX1000) 100:1 (with PA03) 125:1 (with BR3000) 10:1 (with TWA)	100:1 (with SX1000) 100:1 (with PA03) 125:1 (with BR3000) 10:1 (with TWA)	100:1 (with SX1000) 100:1 (with PA03) 125:1 (with BR3000) 10:1 (with TWA)
<b>Conditions for Use in Hazardous Areas</b>	NEMA 7 in Explosion-Proof Conduit (required)	NEMA 7 in Explosion-Proof Conduit (required)	UL-listed Explosion-Proof
<b>Output Signal Cable(s) Required</b>	12" Integral Leads	30-XX-CBL 10	10' Integral Cable
<b>Shell Material</b>	Stainless Steel	Stainless Steel	Stainless Steel
<b>Output Voltage mV (P-P) (Sine-Wave)</b>	330	290	60
<b>Resistance ohms (max.)</b>	5000	3000	260
<b>Inductance mH (max.)</b>	2500	1500	115
<b>Amplifier or Signal Conditioner Type</b>	SX1000 PA03 TWA BR3000	SX1000 PA03 TWA BR3000	SX1000 PA03 TWA BR3000

## Application – Standard Magnetic Pickoff to Preamplifier/Transmitter



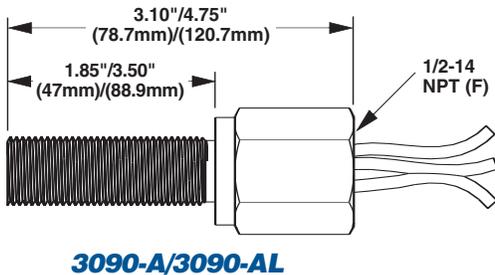
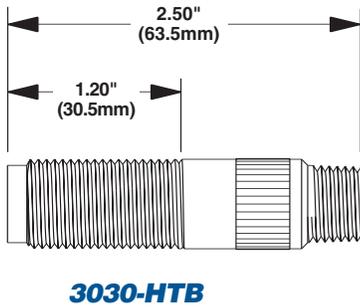
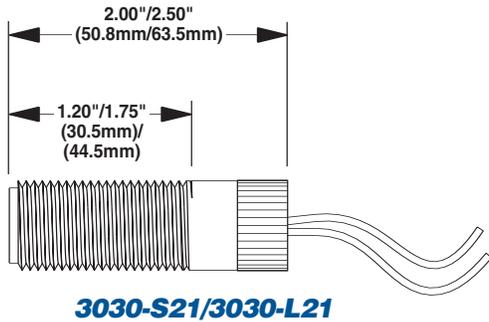
## Application – Magnetic Pickoff to BR3000



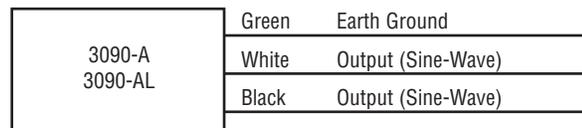
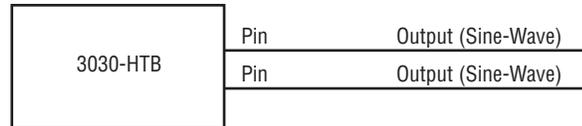
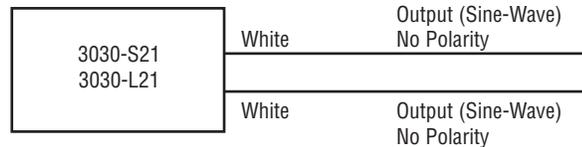
## Model Numbering System

<b>3030-L21</b>	Low-drag sensor with 12" integral cable. For use with BL01Z meter.
<b>3030-S21</b>	Low-drag sensor with 12" integral cable
<b>3030-HTB</b>	Sensor (high temperature) with quick disconnect (cable required)
<b>3090-A</b>	Sensor (explosion-proof, UL-listed) with 10-ft. integral cable
<b>3090-AL</b>	Sensor (explosion-proof, UL-listed) with 10-ft. integral cable. For use with BL01Z meter.
<b>30-XX-CBL 10</b>	10-ft. cable 3030-HTB sensors

## Dimensions



## Installation



All pickoff threads are 5/8-18 UNF

Local Representative:



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