

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.



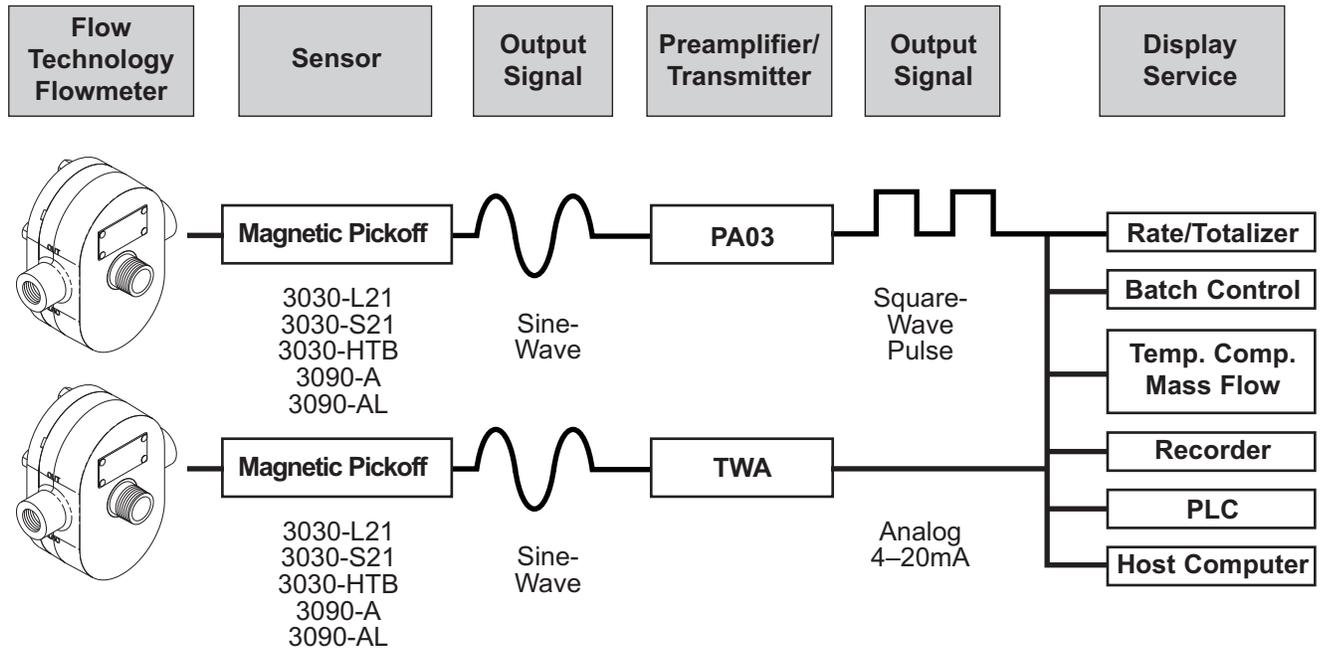
3000 Series

Specifications

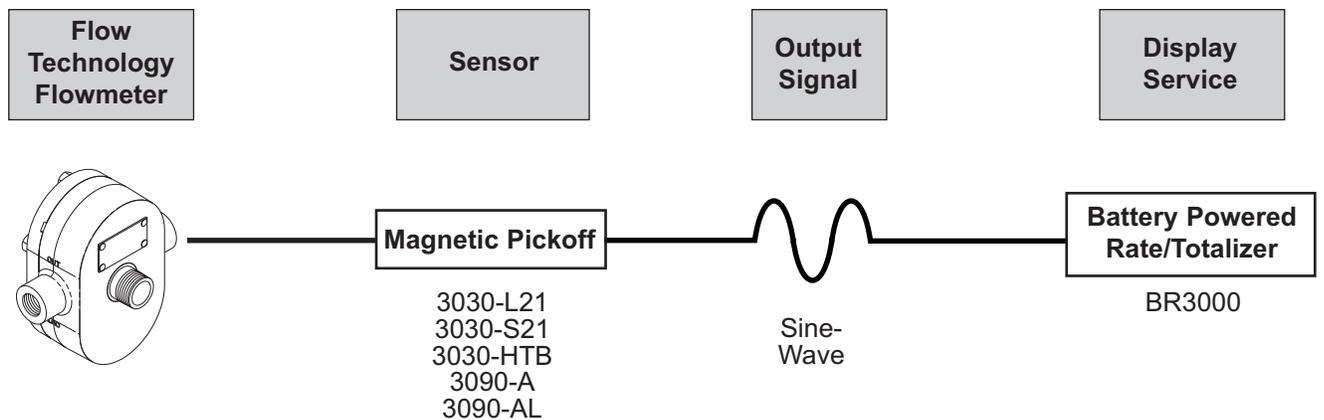
Sensor	3030-S21/3030-L21	3030-HTB	3090-A/3090-AL
Operating Principle	Non-pre-amplified	Non-pre-amplified	Non-pre-amplified
Operating Temperature	-150° F to +330° F -101° C to +165° C	-450° F to +450° F -267° C to +232° C	-67° F to +200° F -55° C to +93° C
Maximum Unamplified Signal Trans. Dist.	10 Feet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

3000 Series

Application – Standard Magnetic Pickoff to Preamplifier/Transmitter



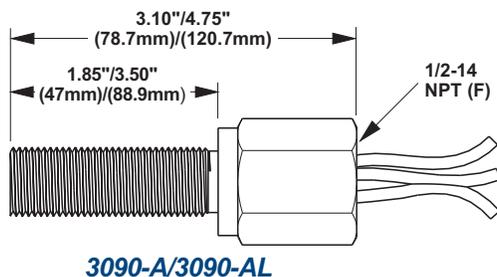
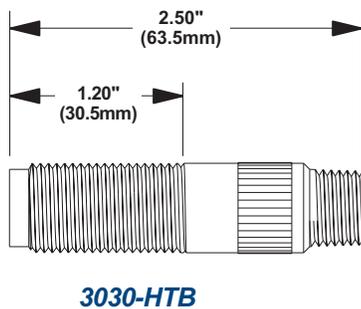
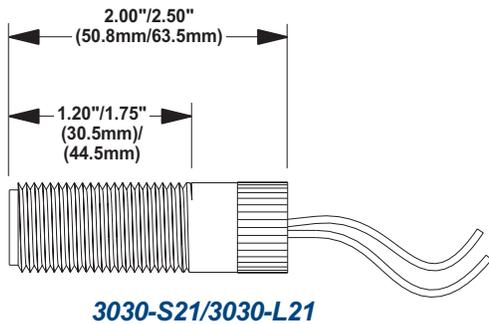
Application – Magnetic Pickoff to BR3000



Model Numbering System

- 3030-L21** Low-drag sensor with 12" integral cable. For use with BL01Z meter.
- 3030-S21** Low-drag sensor with 12" integral cable
- 3030-HTB** Sensor (high temperature) with quick disconnect (cable required)
- 3090-A** Sensor (explosion-proof, UL-listed) with 10-ft. integral cable. For use with BL01Z, BL02Z meters.
- 3090-AL** Sensor (explosion-proof, UL-listed) with 10-ft. integral cable. For use with BL03Z, BL05Z, BL10Z meters.
- 30-XX-CBL 10** 10-ft. cable 3030-HTB sensors

Dimensions



All pickoff threads are 5/8-18 UNF

Installation

