

Amplifier Link

Amplified Pickoff for Turbine Flowmeters

Description

FTI's Amplifier Link™, which is compatible with most manufacturers' turbine flowmeters, combines a pickoff with a signal conditioner in one compact, low-weight design. It produces a 0–5 VDC pulse output which can be transmitted over long distances. Either magnetic or modulated carrier (RF) electronics are factory-selectable.

Designed to minimize space and save installation costs, the Amplifier Link™ mounts directly to the turbine flow-meter. Close coupling the amplifier and the flowmeter pickoff reduces the risk of EMI or RFI signal interference.



When configured as a modulated carrier (RF) pickoff, the Amplifier Link™ generates a frequency which is modulated by the

rotating blades of a turbine meter. This eliminates the effects of magnetic drag, and greatly extends the flow range of small size meters. The magnetic configuration of the Amplifier Link™ amplifies the low-level sine wave into a square-wave output. Both configurations may be used with a wide range of power supply voltages, and produce output pulses proportional to the flow rate of the turbine meter. An integrated RTD temperature version is also available.

Capable of operating in temperatures up to 284° F (140° C), the unit also has an ideal operating power range of 8–30 VDC. This wide range accommodates automotive, aerospace and process control power supply requirements of 12, 28 and 24 VDC, respectively.



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Features

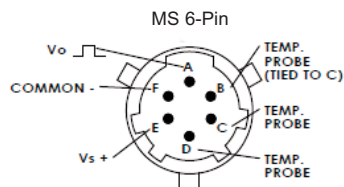
- Combines pickoff and signal conditioner in one compact design
- Mounts directly to flow meter for reduced system size and weight
- Operates from 8 - 30 VDC power
- 5-volt pulse output; frequencies proportional to flow rate
- Compatible with other manufacturers' turbine flow meters
- RF version enhances low-flow performance
- CE per Directive 2014/30/EU
- CSA/ATEX Intrinsically Safe
- Integrated RTD version provides temperature reading

Amplifier Link

Model Numbering System

*Model # Designator	FTI Part Number	Pickoff	Max Temp	Intrinsic Safe	Connector
S1	27-94057-101	MAG	85C	NO	MS 3-Pin
S2	27-94057-102	MAG	85C	NO	Pigtail
S3	27-94057-103	MAG	85C	NO	NPT & Pigtail
S5	27-94057-111	RF	85C	NO	Pigtail
S6	27-94057-112	RF	85C	NO	NPT & Pigtail
H1	27-94057-104	MAG	125C	NO	MS 3-Pin
H2	27-94057-105	MAG	125C	NO	Pigtail
H3	27-94057-106	MAG	125C	NO	NPT & Pigtail
H4	27-94057-113	RF	125C	NO	MS
H5	27-94057-114	RF	125C	NO	Pigtail
H6	27-94057-115	RF	125C	NO	NPT & Pigtail
H7	27-94057-130	RF	140C	NO	MS 3-Pin
H8	27-94057-131	RF	140C	NO	Pigtail
H9	27-94057-132	RF	140C	NO	NPT & Pigtail
I1	27-94057-107	MAG	85C	YES	MS 3-Pin
I2	27-94057-108	MAG	85C	YES	Pigtail
I3	27-94057-109	MAG	85C	YES	NPT & Pigtail
I4	27-94057-116	RF	85C	YES	MS 3-Pin
I5	27-94057-117	RF	85C	YES	Pigtail
I6	27-94057-118	RF	85C	YES	NPT & Pigtail
HR	27-95285-01	RF	140C	NO	MS 6-Pin

*Model number designator to be used in the flow meter model number pickoff code location to call out Amplifier Link.



Pickoff Type	Height (L)	Weight (+/- 0.25 oz.)	Tip Geometry
Mag	3.070"	1.7 oz	steel front
RF	3.445"	1.7 oz	steel front with open potted area for pot core
IS Mag	4.470"	2.4 oz	steel front
IS RF	4.845"	2.4 oz	steel front with open potted area for pot core
HR	2.750"	2.0 oz	steel front with open potted area for pot core

Specifications

Freq. Range

Mag 5-10 kHz
RF 5-5 kHz

Input Power

8-30 VDC

Input Power (I.S. version)

13-28 VDC

Operating Temperature

Standard -40 °F to +185 °F (-40 °C to +85 °C)
High Temp -40 °F to +257 °F (-40 °C to +125 °C)
Ultra High Temp -40 °F to +284 °F (-40 °C to +140 °C)

Storage Temperature

-85°F to +302 °F (-65 °C to +150 °C)

Body Material

303 series SS

Mating Connectors

3-Pin MS3106A10SL-3S
FTI p/n: 15-89515-102
6-Pin / Clamp & boot MS-3116F10-6S/MS3057-6A
FTI p/n: 15-92656-01/15-12097-02

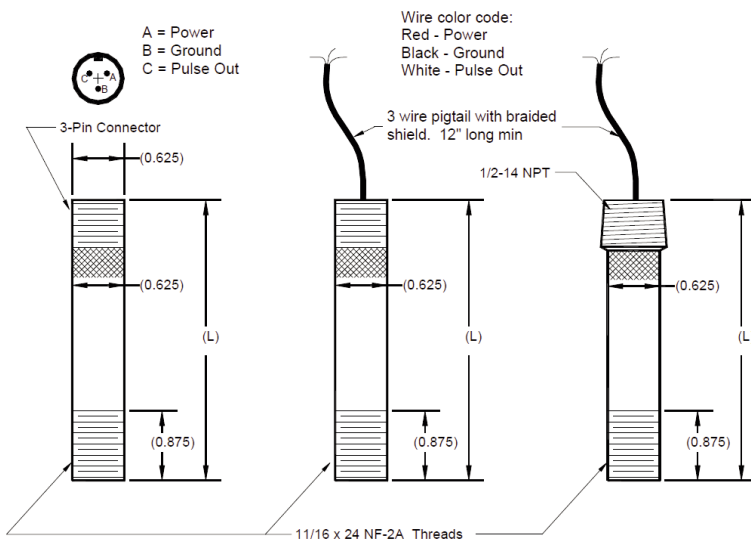
Approvals (Intrinsically Safe Pickoffs as shown in table)

CSA Intrinsically Safe
Ex ia IIC: Class I, Zone 0, T4
Class I, Groups A, B, C and D:
Class II, Groups E, F and G: Class III
LCIE (ATEX Intrinsically Safe)
Ex II 1 G
II 1 G Ex ia IIC T4 or T2

Approvals (CE Compliant per Directive 2014/30/EU)

HR Only EN 55011, EN 55022-2
All Except HR EN 61000-6-3, EN 61000-6-2

Mechanical Dimensions



Specifications are for reference only and are subject to change without notice.



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