Two-wire Magnetic Flowmeter **ADMAG AXR Series**

The AXR two-wire magnetic flowmeter has been added to the ADMAG series of magnetic flowmeters which were developed on the basis of decades of field experience.

The ADMAG AXR is the world's first two-wire magnetic flowmeter to utilize the dual frequency excitation method, which is unaffected by fluid noise and is highly stable for safe control. The ADMAG AXR can be installed in a two-wire system without any AC power source, thus dramatically reducing the initial instrumentation cost.

Like the AXF four-wire magnetic flowmeter series, the ADMAG AXR has user-friendly functions.

FEATURES

■ High Performance and Excellent Functionality

• Dual Frequency Excitation Method
The dual frequency excitation method combines two strengths: stability of flow measurement due to low frequency excitation and high noise resistance due to high frequency excitation. Accordingly, this method is strong against fluctuations of fluid conditions and is ideal for stable measurement.

• High Accuracy
The ADMAG AXR performs "0.5% of rate" under normal flowrate conditions (equal to the AXF series).

• Electric Noise Resistance
The ADMAG AXR offers electric noise resistance equivalent to the four-wire magnetic flowmeter.

■ User-friendly Functionality

• Electrode adhesion diagnosis function (off-line)
By checking the level of insulating substance on the electrodes, it is possible to determine when maintenance is required.

• Clear and Versatile Indications
The full dot-matrix LCD indicator facilitates various displays such as one to three lines and multi-lingual display. When an alarm occurs, a full description of the countermeasure is displayed.

• Parameter Setting
Magnet switches and push switches are equipped. Magnet switches enable parameters to be set without opening the case cover in hazardous areas.
Parameters can also be set with tools such as a hand-held terminal (HHT) and FieldMate.

■ Reducing the Instrumentation Cost

• Reducing the wiring cost
The two-wire system reduces the wiring cost drastically.

• Direct connection with the DCS
AC power sources are not required. The ADMAG AXR can be connected with almost all distributors, signal conditioner cards, and input modules.

• Energy Saving
Compared with four-wire magnetic flowmeters, the ADMAG AXR can drastically decrease power consumption (just 1 to 4%).

SPECIFICATIONS

For details, see GS01E30D01-01EN.

Structure	Integral flowmeter
Excitation method	Dual frequency excitation
Nominal Pipe Size	25 to 100 mm (approx. 1.0 to 4.0 inches), general-purpose use and explosion proof type
Supply Voltage	Operating voltage range: 14.7 to 35 V DC, two-wire system
Output Signals	Current output, Digital output (One output can be selected from pulse, alarm or status outputs.)
Electrode Material	SUS 316L, Hastelloy C, Tantalum, Platinum-iridium
Fluid Temperature	–40 to 130 °C (–40 to 266 °F) [depends on model type]
Ambient Temperature	–40 to 55 °C (–40 to 131 °F)
Accuracy	0.5% of rate (before shipment) [depends on fluid condition]
Fluid Conductivity	10 μS/cm or larger: A fluid with large flow noise (pure water, pure alcohol or others), or a fluid with low conductivity and low viscosity cannot be measured accurately.
Lining	PFA (Mirror-finished lining surface)
Indicator	Full dot-matrix LCD (1 to 3 display lines)
Operational Switch	4 magnet switches (push switches are embedded inside)
Self Diagnosis	Electrode adhesion diagnosis, coil open diagnosis, etc.
Alarm Message	An alarm message with countermeasure is displayed (English, German, French, Italian, Spanish, Japanese).
Options	Direction-changeable electrical connection, special gaskets, bar-magnet for operating magnet switches, etc.

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