



# Model RW720-2 LOOP POWERED 4-20mA MODULATED CARRIER OUTPUT AMPLIFIER



The RW720 Modulated carrier amplifier and analog transmitter is a meter mounted device designed to combine the advantages of the modulated carrier principle with the convenience of an analog output in a single assembly. It is a 2-wire Loop Powered Output system with RF

Coil Input. The RW720 linearly converts the detected carrier frequency shift rate to an equivalent analog output. When incorporated with a Precision Turbine Flowmeter, a current or voltage representation proportional to flow is obtainable. Data transmission in a current format exhibits excellent noise immunity and the capability of long transmissions.

The RW720 produces a carrier frequency in conjunction with an RF pickup coil, detects the shift in the carrier frequency (modulation) that occurs with the passage of magnetic material and linearly generates an analog output that is proportional to the rate of modulation. The sensitivity adjustment establishes the generated field strength thus

determining the proximity of the magnetic device to the pickup coil to produce a detectable shift in the carrier frequency.

The RW720 produces a 4 - 20 mA analog output. A full scale frequency range of 60-3500Hz is jumper selectable. The span adjustment establishes the frequency point at which the full scale output is achieved.

The modulated carrier principle introduces no drag on the passing magnetic device. Therefore, when utilized with a turbine flowmeter, extension of the flowmeters' nominal linear range at the low end of the flow spectrum is realized. This parameter is particularly useful when measuring a low mass gas at the flowmeter's low end flowrate.

## Model RW720-2 Specifications

### Power input:

12-18VDC  
Observe polarity  
Other input voltages available: contact factory

### Flowmeter input:

Frequency: 0-3500Hz with 50KHz carrier  
(requires pick up coil : 1-1.3mH)  
Sensitivity field adjustable

### Analog output:

4mA @0Hz, 20mA @desired full scale frequency  
Full scale range 60Hz-3500Hz switch selectable  
Other ranges available: contact factory  
Response time: 95% of change in 1s  
Minimum load resistance: 250 Ohms

### Accuracy:

Linearity 0.3%  
Tempco <2% of reading over entire temperature range

### Indicators:

Red LED for power indication

### Temperature:

Operating: 40-121°F(40-85°C)  
Storage: 85-257°F(65-125°C)

### Enclosure:

FM Approved, CSA Certified  
Class I, Division 1, Groups B, C, & D  
Class II, Division 1, Groups E, F, & G  
Weight: 1.7lbs.  
Mounts directly on flowmeter

## Dimensions

