

Rapidlogger Systems

Using Rapidlogger with Endress-Hauser passive outputs

This tech note describes the process to connect an Endress Hauser Promag 400 flow meter transmitter with a Rapidlogger system. The Promag 400 has passive frequency outputs which sometimes cause confusion as to the proper connection technique when interfacing with the Rapidlogger System.



The Frequency outputs on the Endress Hauser Promag 400 are of the passive type. What this means is that they do not generate any voltage on their own but rather interrupt the flow of voltage being passed through them.

The flow rate output of the Endress Hauser unit is generally configured to be on its Frequency output. On the Endres Hauser the measured variable that is assigned to the frequency output should be "Volume Flow". The pulse/pause ratio should be setup to the default value "1:1". The output frequency should be set to the default value of "10000Hz". The dampening should be set to the default value of "1sec".

If the user wants to feed the E-H frequency signal to the Rapidlogger Units Frequency input then the connection should be wired as shown in Table 1.

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EH Wire Terminals		Rapidlogger Wire Terminals	
24	Passive Frequency +	TB1-3	24V DC out
25	Passive Frequency -	TB1-20	Frequency 1 Input
2	Ground	TB1-8	DC Ground

Table 1: Promag 400 wired to Rapidlogger Frequency Input

If the user wants to feed the E-H frequency signal to the Rapidlogger Quadrature input then the connection should be wired as shown in table 2.

EH Terminal		Rapidlogger Terminal	
24	Passive Frequency +	TB1-16	Q1A Input
25	Passive Frequency -	TB1-8	DC Ground
2	Ground	TB1-8	DC Ground
1	Power In	TB1-3	24 DC out
Pull Up Resistor Wiring			
		TB1-16	2K ohm resistor Term 1
		TB1-3	2K ohm resistor Term 2

Table 2: Promag 400 wired to Rapidlogger Quadrature Input