EMBEDDED

GP1 Counter

1-Wire® Battery Backed Counter Interface Module

http://www.EmbeddedDataSystems.com

FEATURES

- 32-bit battery backed counter.
- Unique Network addresses.
- Network powered, battery backed.
- Self-exciting switch closure input.
- Digital Output Data. •
- CRC16 Error Checking On All I/O.
- No External Power Required.
- 10-year battery backed counter.
- Uses 1-Wire Communication Protocol.
- Supported By Onesix DDE Server Software.
- Counter cannot be reset.
- As many as 100 devices
- Up to 1000+ Feet from Host.

DESCRIPTION

The GP1 Counter is designed to count and maintain switch closure pulse outputs from dry contact devices such as relays and magnetic reed switches. A battery backed 32-bit counter which can be read but cannot be reset accumulates the pulse count. The GP1 Counter provides the necessary switch excitation voltage so that no external power source is required. A 6ft cable provides electrical connection to the 1-Wire network. The output of this sensor is digital, all data conversions are done internally. Therefore, distance to the sensor is unimportant for data integrity and it may be placed up to 1000+ feet from the host. In addition all I/O and data communications with the sensor are CRC16 error checked for accuracy.

The GP1 Counter has a built-in multidrop controller (DS2406) and a Battery backed counter (DS2423) which provides two unique 64 bit registration numbers (8-bit family code + 48 bit serial number + 8 bit CRC) assuring error-free selection and absolute identity; no two parts are alike. Unique addressing allows I/O function to be identified absolutely, no more dip switch address confusion. All unique counter identification and calibration data is stored in onboard ROM memory for easy installation and setup.

Because the OneSix DDE Server directly supports all EDS 1-Wire products and handles all the communications with the counter module, you DO NOT have to be a programmer to use this product. Any Windows application that can use DDE can obtain the data from the GP1 Counter module. Examples of such applications include Microsoft Office products like Word & Excel, Wonderware Intouch, National Instruments LabView & LookOut, Capital Equipment Corp. TestPoint, and if you are a programmer development applications like Microsoft Visual Basic and Borland Delphi. The GP1 Counter requires a RS232 to 1-Wire host adapter such as the EDS HA3, HA4, or T8DH.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Network Power Input Voltage		3	network	5.6	
Network Power Supply Current			2		Net loads
Switch Excitation Voltage	Vex	2.5	3.0-	5.5	Volts
Switch Debounce Time	Db	-	300	-	μs
Operating Temperature Range	O _{TR}	-40	-	85	°C
Count Pulse Width	Cpw	500	-	-	MicroSec.
Count Rate	Cr	0	-	100	Hz.

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