

Pulse Rate Monitor v5 6 PRM180

DESCRIPTION

The ÓPRM180 converts slow speed pulse or frequency signals to an isolated process signal. The ÓPRM180 can accommodate pulse rates of 1 pulse per hour with a response time that is equal to the pulse rate. Maximum input is 100 p/sec. A pulse via the input trigger circuit starts a time count, which is terminated and restarted, on the next pulse. The period is determined and scaled over the range from the nominated upper and lower frequencies. Frequencies above the full scale being considered the same as the full scale frequency, and those below the zero scale frequency considered the same as the zero scale frequency. Thus the analogue output varies linearly over the range from the lower frequency ("0" scale) to the upper frequency (full scale). The output accuracy is derived from the inherent characteristics of an 8-bit D/A converter (typically 0.4%). The calibration parameters are factory programmed. RF and power transients protection are also standard as with all OCEQ modules. Various power supply choices are available varying from 240Vac down to 8Vdc, all provide power isolation.



+24V

General Specifications

- Size:	52 W x 70 H x 110 D (mm).	Block Diagram
Mounting:	DIN-Rail, gear plate.	supply
Housing material:	ABS.	1 2 3 Poffs
Termination:	Screw terminals on front.	
Protection class:	IP40.	≂∕ – +24V
Weight:	0.300 kg.	
Combined linearity/drift error:	0.Í % of span.	
Temperature effect:	0.01% per °C.	8044
Input types:	Externally sourced pulse (5 – 30Vdc/10mA),	
	Open collector transistor NPN or PNP	in F
	NAMUR proximity sensor,	9 (span
	Low level sine signals,	<u>+</u>
	Contact (N/O or N/C).	
Input range-ability:	Min 1 pulse/60 mins Max 100Hz.	
Output loop drive:	20mA into 0 - 900Ω.	
Output load change effect:	less than 0.2% up to maximum load.	
Minimum load for		
voltage outputs:	50kΩ at 10V.	
Front 'OFFS' adjust:	±5% typical.	
Front 'SPAN' adjust:	±5% typical.	
Power requirements:	3W.	
Power supply isolation:	2kV rms.	
Electromagnetic compatibility:	ÁÔÒÊЮÞÁ €€Ì FËFÊЮÞÁ €€Ì GËGÊЮÞÁ F€F€ËFÊA	S/NZS 4251.1

For input / output combinations refer to TYPE NO. DESIGNATION overleaf.



BPRM180-X XX X X X

TYPE NO. DESIGNATION

Power	Supply
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Power Supply:	
1 = 90-280Vac 50/60Hz (65-280Vdc). *) 3 = 16-48Vac 50/60Hz (10-60Vdc)	 *) 6 = 8 - 60Vdc. *) 9 = Other specify.
Input:	
01 = Sine or saw-tooth (200mV- 20Vpp). 02 = 24Vdc pulse ext. source (0.2-50Vdc). 03 = NAMUR prox sensor or contact (8V). 04 = 3-wire NPN prox sensor 15V auxiliary.	 *) 05 = 3-wire PNP prox sensor 15V aux. *) 06 = 3-wire NPN prox sensor 24V auxiliary. *) 07 = 3-wire PNP prox sensor 24V auxiliary. *) 08 = 2-wire 24V DC/AC proximity sensor. *) 09 = Other specify.
Output:	
1 = 0 - 5V (50kΩ min). 2 = 0 - 10V (100kΩ min). 3 = 0 - 20mA (900Ω max). 4 = 4 - 20mA (900Ω max). 5 = 0 - 50mA (360Ω max).	6 = 10 - 50mA (360Ω max). 7 = 0 - 10mA (1.8kΩ max). 8 = 1 - 5V (50kΩ min). *) 9 = Other specify.
Action:	
1 = Direct.	2 = Reverse.
Options:	
0 = None	*) 9 = Other specify.

*) = Price Extra.

Ordering Information

In addition to above specify the input frequency range and the turn down frequency. When the input goes below the turn down frequency the output will go to zero. The minimum turn down frequency is the minimum frequency of the range.

Ordering Example:

Low level sine.
5 to 20Hz.
6Hz.
4-20mA.

Connections



In the interest of development and improvement, BASI reserve the right to amend, without notice, details contained in this publication. BASI will accept no legal liability for any errors, omissions or amendments

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