

M-6088-32

32-channel PWM Output Module

Features

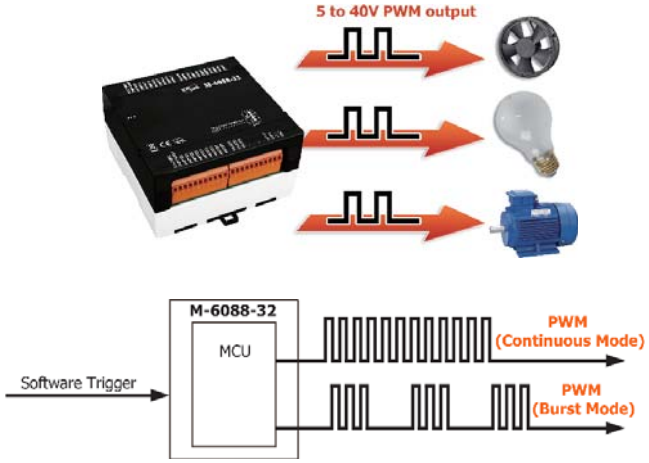
- 32-channel PWM Output
- Burst Mode and Continuous Mode for PWM Output
- Individual and Synchronous PWM Output
- Supports DCON and Modbus RTU Protocols
- Embedded Dual Watchdog

Introduction

The M-6088-32 provides 32-channel PWM (Pulse Width Modulation) Output, and can be used to develop powerful and cost-effective analog control systems. PWM is a powerful technique for controlling analog circuits that uses the Digital Output to generate a waveform with a variable duty cycle and frequency which can then be used to control an analog circuit in applications such as controlling the position or speed of motors, the brightness of lamps, or the speed of fans, etc. Either burst mode or continuous mode can be used for the PWM output depending on the application. When required, communication with the M-6088-32 can be programmed based on the Modbus RTU and the DCON protocol, with the added benefit that different addresses can be configured via hardware to allow for Modbus RTU communication.

Applications

- Heating system in buildings
- Ventilation system
- Controlling Fan Speed



System Specifications

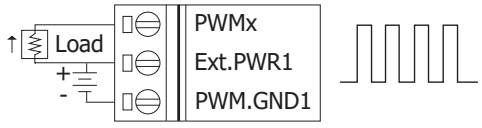
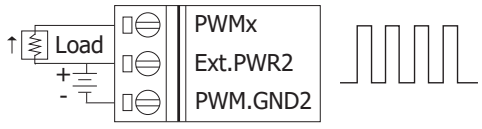
CPU Module	
Watchdog Timer	Module, Communication (Programmable)
Isolation	
Intra-module Isolation	2500 VDC
EMS Protection	
EFT (IEC 61000-4-4)	±4 kV for Power Line
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal
Surge (IEC 61000-4-5)	±2 kV for Power Line
LED Indicators	
Status	1 x Power and Communication
COM Ports	
Ports	1 x RS-485
Baud Rate	1200 to 115200 bps
Data Format	(N, 8, 1) (N, 8, 2) (E, 8, 1) (O, 8, 1)
Protocol	Modbus RTU, DCON
Bias Resistor	No. Usually supplied by the RS-485 Master also add an optional tM-SG4 or SG-785
Power	
Reverse Polarity Protection	Yes
Input Range	+10 ~ +48 VDC
Consumption	1.0 W Max.
Mechanical	
Dimensions (mm)	116 x 120 x 64 (W x L x H)
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +80 °C
Humidity	10 ~ 95% RH, Non-condensing

I/O Specifications

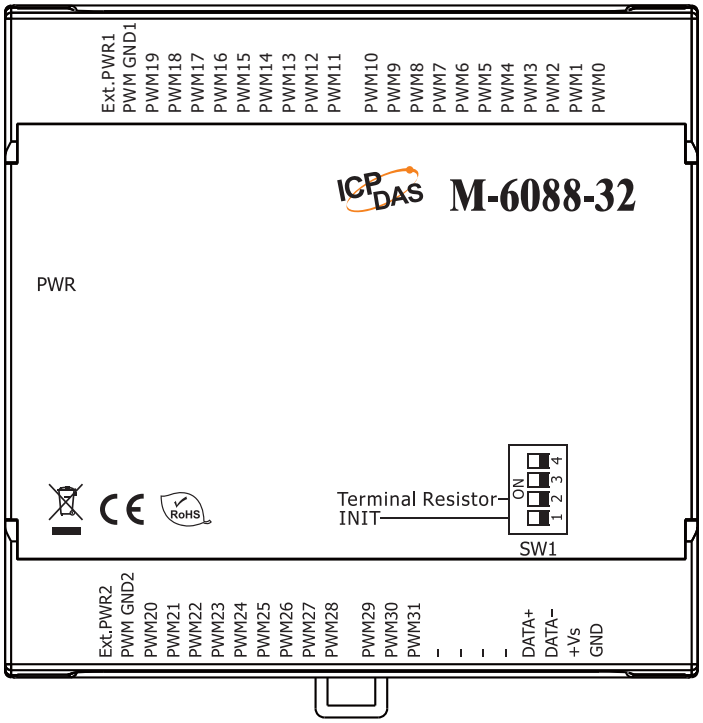
PWM	
Channels	32
Type	Open Collector
Sink/Source (NPN/PNP)	Sink
Load Voltage	+5 ~ +40 VDC
Load Current	200 mA/channel
Frequency	50 Hz
Duty Cycle	0.1 to 99.9%
Mode	Burst, Continuous
Burst Count	1 to 65535
Power-on Value	Yes
Safe Value	Yes

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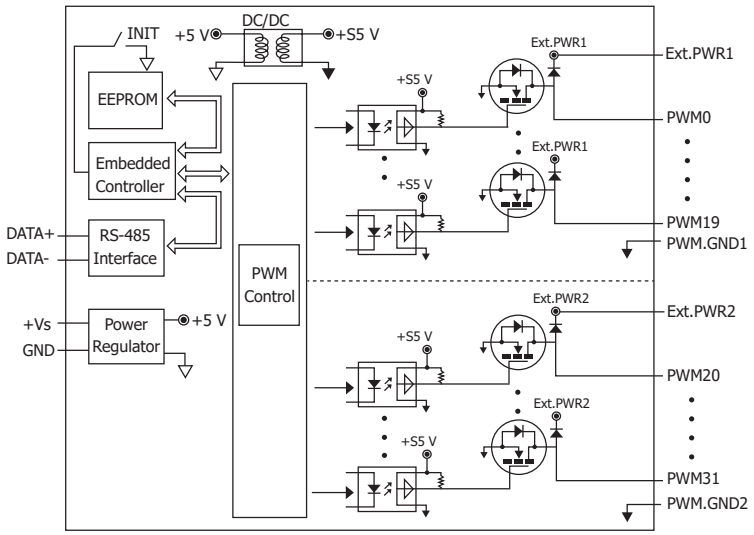
Wire Connections

Group1 PWM0 ~ PWM19 (Sink)
+5 to +40 VDC

Group2 PWM20 ~ PWM31 (Sink)
+5 to +40 VDC


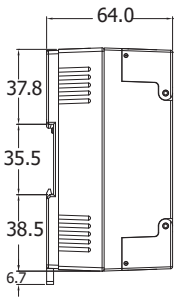
Pin Assignments



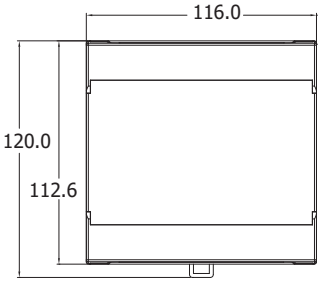
Internal I/O Structure



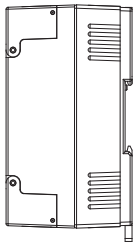
Dimensions (Units: mm)



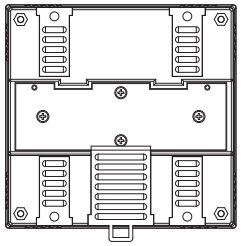
Left View



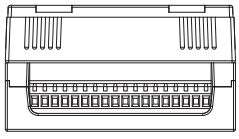
Front View



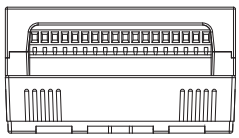
Right View



Rear View



Top View



Bottom View

Ordering Information

M-6088-32 CR	32-channel PWM Output Module using the DCON and Modbus Protocols (RoHS)

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