

Absolute Encoder Interface Board CQM1H-ABB21

The Absolute Encoder Interface Board is an Inner Board that allows position data to be directly input from absolute rotary encoders.

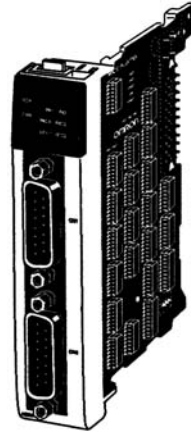
Absolute High-speed Counter

The Absolute Encoder Interface Board reads binary gray codes (inverted binary codes) input from an absolute encoder at a maximum counting rate of 4 kHz, and can perform interrupt processing according to the input values.

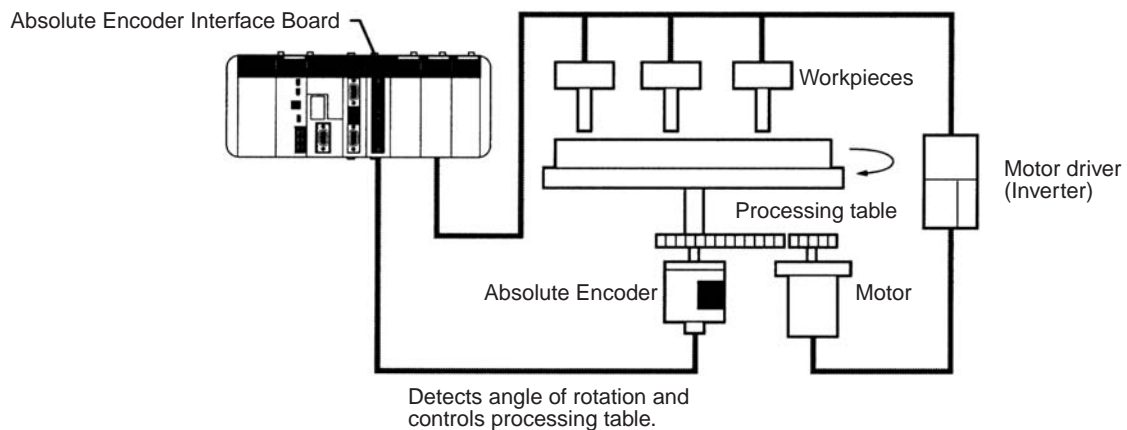
Interrupts

An interrupt subroutine can be executed when the PV (present value) of the absolute high-speed counter matches a specified target value (target value comparison) or falls within a specified comparison range (range comparison.)

Note: When an absolute encoder is used the position data can be retained even during power interrupts, so it isn't necessary to perform an origin return when power is returned. In addition, the origin compensation function allows the user to specify any position as the origin.



Example System Configuration



Specifications

Item	Specifications
Name	Absolute Encoder Interface Board
Model number	CQM1H-ABB21
Applicable CPU Units	CQM1H-CPU51/61
Unit classification	CQM1H-series Inner Board
Mounting locations and number of Boards	1 Board can be mounted in slot 2.
Absolute Encoder inputs	2 inputs
Current consumption (Supplied from Power Supply Unit)	5 V DC, 150 mA max.
Dimensions	25 × 110 × 107 mm (W × H × D)
Weight	90 g max.
Standard accessories	Plugs:XM2D-1501 (OMRON) x 2 Hoods:XM2S-1511 (OMRON) x 2

■ Absolute Encoder Input Specifications

Item	Specifications	
Number of inputs	Two inputs	
Input code	Binary gray code	
Operating modes	BCD Mode or 360° Mode (Set in PLC Setup.)	
Resolutions	8-bit, 10-bit, or 12-bit (Set in PLC Setup.)	
Origin compensation	Supported. (Current position can be designated as origin). Compensation is set in PLC Setup.	
Counting rate	4 kHz max.	
Control methods	Target value comparison	Register up to 48 target values and interrupt subroutine numbers.
	Range comparison	Register up to 8 upper limits, lower limits, and interrupt subroutine numbers.

■ Pulse Inputs

Item	Specifications
Input voltage	24 V DC +10%, -15%
Input impedance	5.4 kΩ
Input current	4 mA typical
ON voltage	16.8 V DC min.
OFF voltage	3.0 V DC max.