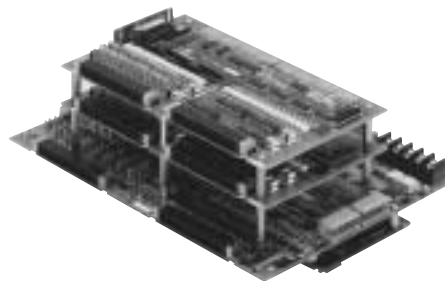


MX50

Multi-Channel Communication Type Board Machine Controller

The MX50 is a high-speed sequence controller with serial or upper communication channels in the processor. Programming is performed using both ladder logic and MCL (Machine Control Language).

Features include large capacity data register, large capacity programming and ultra-high speed command processing, communication channels (RS-232C, RS-485) and low cost. A special ROM can be applied to programless communications with DigitroniK temperature controllers.



Specifications

| Item | Without high-speed counter function | With high-speed counter function |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| Power supply voltage | 24Vdc ± 10% | |
| Current consumption | 250mA max. | |
| Ambient temperature | 0 to 55°C | |
| Ambient humidity | 30 to 90%RH (no condensation allowed) | |
| Weight | Approx. 0.6kg (basic board only) | |
| Control mode | Stored program | |
| I/O control mode | Cyclic scan | |
| Program type | Ladder diagram/mnemonic | |
| Instruction type | Basic instruction: 11 types; Application instruction: 148 types | |
| Internal I/O | 320 inputs, 320 outputs | 256 inputs, 256 outputs |
| External I/O | 160 inputs, 160 outputs | 160 inputs, 160 outputs |
| Relay I/O for high speed counter (optional) | - | 64 inputs, 64 outputs |
| I/O for OP link | 160 inputs, 160 outputs | |
| Auxiliary relays | 1440 points | |
| Holding relays | 800 points | |
| Special relays | 160 point | |
| Register | Input: 20 words, Output: 20 words | Input: 12 words, Output: 12 words |
| I/O register for high speed counter | - | Input: 8 words, Output: 8 words |
| Special register | 100 words, 16 bits/word | |
| Timer/counter | 256 points Timer setting time: 0.01 to 99.99s, 0.1 to 999.9s, 1 to 9.999s Counter setting range: 1 to 99,999,999s | |
| Data register | 4500 words | |
| Link register | 4000 words | |
| Allowable power failure | 20ms | |
| Memory data backup | Built-in lithium battery (life: 5 years at 25°C, backup guaranteed when battery is removed for 10 min.) | |
| Self-diagnostics | System program ROM sum check, internal RAM read/write check, user program sum check and others | |

Selection Guide

| Type | Model No. | Program Capacity | High speed counter | CBL communication |
|----------------------------------------------------------|----------------|---------------------------------------------------------------------------------|--------------------|-------------------|
| Basic board | MX050FT14141HX | 31K bytes | Yes | None |
| | MX050FT14141HT | | | Electric type |
| | MX050FT14141HP | | | Optical type |
| | MX050FT14141NX | | No | None |
| | MX050FT14141NT | | | Electric type |
| MX050FT14141NP | Optical type | | | |
| Mother board: Interface of I/O board for basic board | MX050EB00002XX | 2 expansion boards mountable | | |
| | MX050EB00004XX | 4 expansion boards mountable | | |
| Expansion board: Mixed mounting to mother board possible | MX250RC44G | Maximum total external I/O 320 points (160 inputs/160 outputs) | | |
| | MX250RP21G | 32 DC input points, 32 DC output points | | |
| Library ROM | MX200LB01 | 16 relay points | | |
| | | Communication ROM for Yamatake temperature controllers (SDC 10/20/21/30/31/40A) | | |

Optional Devices

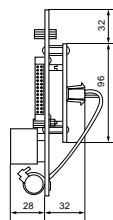
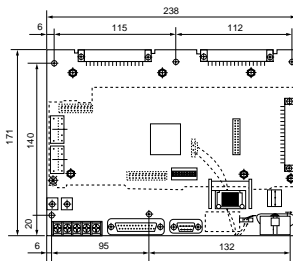
| Option | Model No. | Description |
|-----------------------------------------------|--------------|-----------------------------------------------|
| Personal computer loader (for MX20/30/50/200) | MX200SW01 | 3.5" FD for NEC PC98 series |
| | MX200SW01EX | English version 3.5" FD for IBM PC/AT |
| RS-232C cable (for MX20/30/50/200) | CBL232AFT02 | 25P (male) - 9P (female) 2m |
| | CBL-RS232P02 | 25P (male) - 25P (female) 2m for handy loader |
| | CBL-RS232T02 | 25P (male) - 25P (male) 2m |
| | CBL-RS232T08 | 25P (male) - 25P (male) 8m |
| Lithium battery | MX100BT01 | Memory backup battery |

Note: These optional devices are commonly applicable to the MX20, 30, 50 and 200 models.

Dimensions

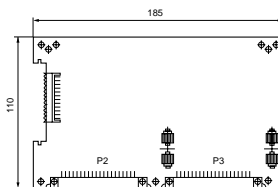
(unit:mm)

- MX050FT14141 □ □

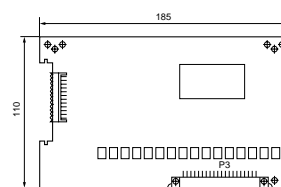


Expansion board

- MX250RC44G

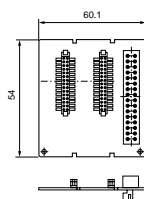


- MX250RP21G



Mother board

- MX050EB00002XX (For 2 boards)



- MX050EB00004XX (For 4 boards)

