

# CONTROL TECHNIQUES



# REMOTE I/O

RTMoE or MODBUS TCP & EtherCAT  
INDUSTRIAL AUTOMATION CONTROL

**NEW**

**DRIVE OBSESSED**

RTMOE OR MODBUS TCP & ETHERCAT

# THE MOST WIDELY USED NETWORK PROTOCOL

Control Techniques has set the standards in motor control since 1973.

## I/O Modules enable industrial automation control without PLC

Industrial automation control applications often use a PLC system to manage the process, using I/O to communicate with sensors attached to the machines involved.

Now, a series of I/O modules is available for Control Techniques' drives. They are designed to enable applications of moderate complexity to be managed without the need for a PLC system, but directly using the drive itself.



## RTMoE or Modbus TCP Remote I/Os

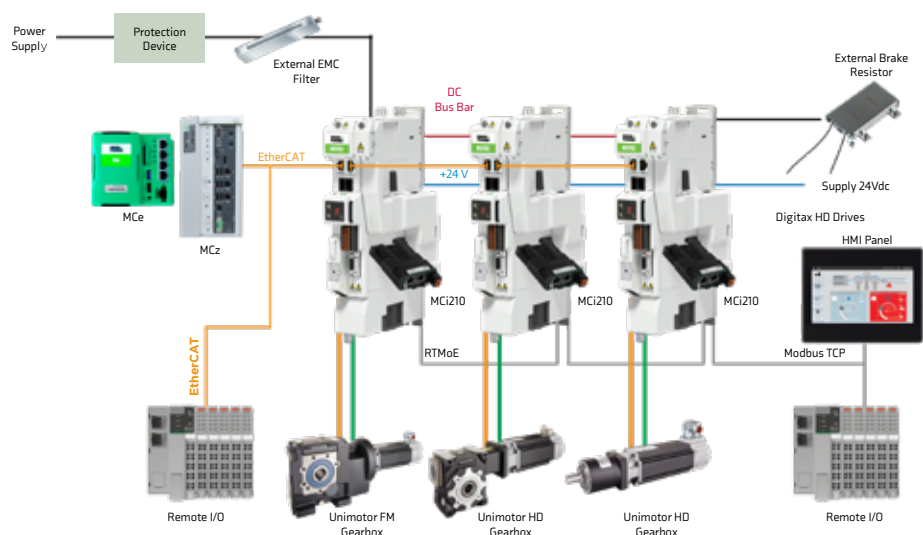
In this configuration, add-on RTMoE or Modbus TCP Remote I/O modules connect directly via the on-board Ethernet port of the M7XX series drives, or via the on-board Ethernet port of the MCI210 Machine Control option modules.

## EtherCAT Remote I/Os

In this configuration, add-on EtherCAT Remote I/O modules connect via the on-board EtherCAT port of the MCE or MCz controllers, or through any EtherCAT port on any PLC or controller.

## Typical Configuration

A typical scalable configuration (as shown below) would feature the EtherCAT Remote I/O module, used together with MCE or MCz controllers, and the RTMoE Remote I/O module used together with MCI2XX Machine Control option modules, Machine Control Studio software and the MCh040/MCh070 HMI Panels. All sensor inputs and outputs can be controlled, including LEDs, pushbuttons, temperature controls, machine status indicators and fluid flow sensors



## Supported slices and part numbers

Network Adapter	CT Part Number
RTMoE & MODBUS TCP Network Adapter	IO210-BC
EtherCAT Network Adapter (ID Type)	IO211-BC
Digital Input	CT Part Number
DI 8 PTs, Universal (Sink or Source), 24Vdc, 10RTB	GT-1238
DI 16 PTs, Universal (Sink or Source), 24Vdc, 18RTB	GT-12DF
DI 32 PTs, Universal (Sink or Source), 24Vdc, 40PTs Connector	GT-12FA
DI 4 PTs, 120Vac, 10RTB	GT-1804
DI 4 PTs, 240Vac, 10RTB	GT-1904
Digital Output	CT Part Number
DO 8 PTs, Sink, 24Vdc/0.5A, 10RTB	GT-2318
DO 8 PTs, Source, 24Vdc/0.5A, 10RTB	GT-2328
DO 16 PTs, Sink, 24Vdc/0.3A, 18RTB	GT-225F
DO 16 PTs, Source, 24Vdc/0.3A, 18RTB	GT-226F
DO 16 PTs, Source, 24Vdc/2.0A, 18RTB (non short circuit protection)	GT-228F
DO 32 PTs, Sink, 24Vdc/0.3A, 40PTs Connector	GT-22BA
DO 32 PTs, Source, 24Vdc/0.3A, 40PTs Connector	GT-22CA
DO 8 PTs, Source, 24Vdc/2A, 10RTB	GT-2628
Relay Output 4 PTs, 24Vdc/2A, 240Vac/2A, 10RTB	GT-2744
MOS Relay, 4 PTs, 24Vdc/ac, 2A, 10RTB	GT-2764
Analogue Input	Part Number
AI, 4 CHs, 0~20, 4~20mA, 12Bits, 10RTB	GT-3114
AI, 4 CHs, 0~20, 4~20mA, 16Bits, 10RTB	GT-3154
AI, 8 CHs, 0~20, 4~20mA, 12Bits, 10RTB	GT-3118
AI, 8 CHs, 0~20, 4~20mA, 16Bits, 10RTB	GT-3158
AI, 4 CHs, 0~10, 0~5, 1~5Vdc, 12Bits, 10RTB	GT-3424
AI, 4 CHs, 0~10, 0~5, 1~5Vdc, 16Bits, 10RTB	GT-3464
AI, 8 CHs, 0~10, 0~5, 1~5Vdc, 12Bits, 10RTB	GT-3428
AI, 8 CHs, 0~10, 0~5, 1~5Vdc, 16Bits, 10RTB	GT-3468
AI, 4 CHs, RTD, 10RTB	GT-3704

AI, 4 CHs, Thermocouple, 10RTB	GT-3804
AI, 8 CHs, Thermocouple, 20PTs Connector	GT-3808
Differential type, 4 CHs, 0~20, 4~20, +/-20mA, 12Bits, 10RTB	GT-3914
Differential type, 4 CHs, 0~20, 4~20, +/-20mA, 16Bits, 10RTB	GT-3934
Differential type, 4 CHs, 0~5, 0~10, +/-5, +/-10Vdc, 12Bits, 10RTB	GT-3924
Differential type, 4 CHs, 0~5, 0~10, +/-5, +/-10Vdc, 16Bits, 10RTB	GT-3944
Analogue Output	Part Number
AO, 4 CHs, 0~20mA, 12Bits, 10RTB	GT-4114
AO, 4 CHs, 0~20mA, 16Bits, 10RTB	GT-4154
AO, 8 CHs, 0~20mA, 12Bits, 10RTB	GT-4118
AO, 8 CHs, 0~20mA, 16Bits, 10RTB	GT-4158
AO, 4 CHs, 4~20mA, 12Bits, 10RTB	GT-4214
AO, 4 CHs, 4~20mA, 16Bits, 10RTB	GT-4254
AO, 8 CHs, 4~20mA, 12Bits, 10RTB	GT-4218
AO, 8 CHs, 4~20mA, 16Bits, 10RTB	GT-4258
AO, 4 CHs, 0~10Vdc, 12Bits, 10RTB	GT-4424
AO, 4 CHs, 0~10Vdc, 16Bits, 10RTB	GT-4464
AO, 8 CHs, 0~10Vdc, 12Bits, 10RTB	GT-4428
AO, 8 CHs, 0~10Vdc, 16Bits, 10RTB	GT-4468
AO, 4 CHs, ±10Vdc, 12Bits, 10RTB	GT-4524
AO, 4 CHs, ±10Vdc, 16Bits, 10RTB	GT-4564
System Module	Part Number
Encoder, Input, 2 CHs, 5Vdc, 10RTB	GT-5102
System Module	Part Number
8 Channels, Shield Module, ID Type, 10RTB	GT-7408
8 Channels, Common Module, 0 Vdc, ID Type, 10RTB	GT-7508
1 Channel, Expansion Power, Input 24 Vdc, Output 1.0 A/5 Vdc, ID Type, 10RTB	GT-7511
8 Channels, Common Module, 24 Vdc, ID Type, 10RTB	GT-7518
8 Channels, Common, 0V dc/24 Vdc, ID Type, 10RTB	GT-7588
Field Power Distribution, 5Vdc, 24Vdc, 48Vdc, 110Vac, 220Vac, ID Type, 10RTB	GT-7641



**Nidec**

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