# REMIO

EUROTHERM
CONTROLS

**Communicating interface**


CE

**Product data**

# REMIO

## A new communications interface

Allows use of digital communications (Profibus DP, Modbus ®) with the Eurotherm Range of Solid State Relays.

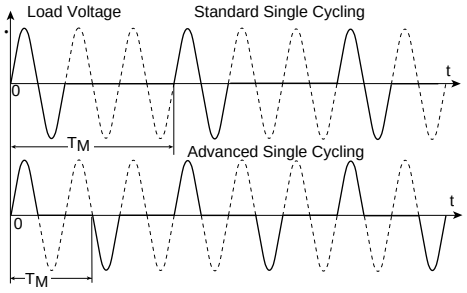
### Reducing your installation costs

Your control cabinet is sited some distance away from your process, and the cost of cabling represents a significant cost -
**REMIO** allows you to distribute your power units, bringing important benefits:

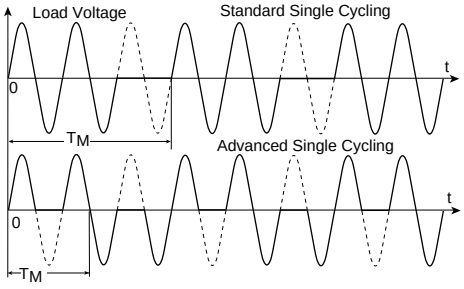
- The length of power bearing cables is reduced
- Only two wires are required to control and operate the power units.

You wish to drive your heating elements using a conduction mode best suited to your application (short wave infra red, for example) -
**REMIO** allows use of several conduction modes for thyristor units, including Advanced Single Cycling, the new conduction mode used in the Eurotherm TE range.

### Fast Cycling = Gains in both time and quality




Example: 33% of Maximum Output




Example: 66% of Maximum Output

You want to extend the life of your heating elements -
**REMIO**, using advanced single cycling, reduces thermal shock to heating elements and thereby lengthens their life.

You need to monitor plant data and diagnostics from devices -
**REMIO** is designed to monitor up to 24 alarm inputs (with additional optional modules). When using Profibus DP, the alarm inputs may be designated as high priority for minimising reaction time.

PLC Digital output modules represent a high proportion of the cost of your system -
Replace them with a Modbus or Profibus module and REMIO units

The REMIO Range comprises 2 types of device:

## TECHNICAL SPECIFICATION

### Digital Interface

Base Digital Module
1 logical Output port (8 Outputs)
1 Configurable Port: 8 Outputs or 8 Inputs or 8 Alarms (Profibus)

Expansion Modules (Maximum of 2)
1st Logic Module, configuration as base module
2nd Logic Module, configuration as base module, but without alarms
Alarm Module - 8 contact closure inputs (Profibus Only)

Digital Output, Digital Input or Alarm Inputs:
20VDC Modulated, internal 10mA current limit
8 Bit resolution
Contact Closure Alarm
+20VDC common, 10mA maximum
Conduction Mode: On/Off

### Time Proportioning Output Unit (TPO)

Base TPO Module:
2 ports - 16 time proportioned outputs

Expansion Modules (Maximum of 2)
Each with 2 ports, as Base Module (16 outputs).

TPO Output:
20VDC Modulated with time proportioned output variable between 0 and 100% internal 10mA current limit
8 bit resolution
TPO Output Conduction mode
Fast Cycling or Advanced Single Cycle
The choice is made by the power supply type to the REMIO unit:
24VDC : fast cycling (8 periods on + 8 periods off at 50% output)
24VAC : Advanced single cycle

### Common Features

Communication Protocol: Profibus DP or Modbus ®. 2 Wire RS485 Communication Media
Transmission Speed:
Modbus: ® 9600 or 19200 Baud (Configurable)
Profibus DP - up to 1.5Mbaud, with Auto Baud Rate detection
Diagnostics via front panel LEDs or Digital Communications
PSU: 24VAC or 24VDC (24VA Maximum)
User Voltage +24VDC available at all ports (for logic outputs)
Removable Connector Blocks
Configuration via DIN switches.
Configurable Digital Communications address
DIN Rail or back of cabinet mountable
Dimensions: 122mm (H), 92.5mm (D), base modules 52.5mm (W); with 1 expansion 87.5mm(W); with 2 expansions 105mm(W)

## ORDERING CODE - REMIO Communication interface

| Basic product | Base Module | Expansion1 | Expansion 2 | Protocol | Manual Language | |
|---|---|---|---|---|---|---|
| REMIO | | | | | | 00 |

| Module Type | Port Configuration | Base Module | Expansion 1 | Expansion 2 |
|---|---|---|---|---|
| Logic | Outputs/Inputs or Outputs/Alarms | D | - | _- |
| | Outputs/Inputs | D | D | - |
| | Outputs/Inputs and Alarm module | D | D | D |
| | or Outputs/Alarms and Alarm module | | | |
| Time Prop | Time Proportioned Output | TP | - | - |
| Output | | TP | TP | - |
| | | TP | TP | TP |
| | Time Proportioned Output with Logic | TP | TP | D |
| | Inputs/Outputs | | | |

| Protocol | |
|---|---|
| Modbus® | MOP |
| Profibus DP | PFP |

| Manual Language | |
|---|---|
| English | ENG |
| French | FRA |

D: Digital Logic Module with the following configuration:
16 Logic Outputs (20V) or 8 inputs and 8 logic outputs (20v) or in base position and in 1st expansion:
8 logic outputs (20V) and 8 alarm inputs (Profibus DP only, 10 mA maximum)

AL: Alarm module (Profibus DP only comprising 8 contact closure inputs (10mA maximum)
TP: Time proportioned Output module. 16 Time Proportioned Outputs (20V modulating 0 to 100%)

Examples of coding:
Interface between 32 TE10S units and a Profibus DP master control system, 8 alarm inputs, English manual
**REMIO/D/D/AL/PFP/ENG/00**

Time proportioned output for 48 TE10S units and a Modbus ® supervisor, French Manual
**REMIO/TP/TP/TP/MOP/FRA/00**

## CONFIGURATION (By externally accessible DIP switches)

D: Ports are configurable between logic inputs, logic outputs, or alarm inputs (except 2nd expansion module) default configuration: logic outputs
Modbus baud rate 9600 or 19200 baud (default 9600)
Bus termination (by default termination resistors not connected)

TP: Modbus baud rate 9600 or 19200 baud (default 9600)
Bus termination (by default termination resistors not connected)

REMIO address: configured by digital communications. Default 126

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