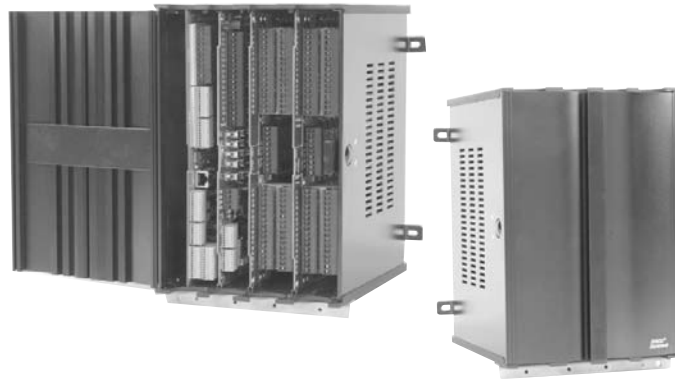


MACO[®] Compact PLC

MODEL



Controller Specification Sheet

- **Tightly integrated multiple processor architecture**
- **Built-in diagnostics and process monitoring**
- **Online RLD diagnostics via the internet**
- **16 bit analog I/O**
- **High performance Ethernet communications**
- **Patented and proven IMPACT™ II closed loop process control**
- **24V dc powered**

The MACO Compact is a cost competitive, application specific, programmable logic controller with the advantages of integrated, total machine control in a compact package. It is an expandable system, available with different options to meet OEM and end-user application requirements. Equipped with Ethernet communications, the MACO Compact delivers seamless connection to plant wide systems.

A tightly integrated multiple processing architecture, utilizing DSP technology provides <1msec loops. Typical ladder logic execution is less than 0.5msec. High performance Ethernet communications is provided for interfacing with the HMI or other devices. The controller also features built-in diagnostic and process monitoring for multiple shot monitoring, shot to shot repeatability data storage, "reference/signature" shot and "snapshot" functions. Additionally, online RLD diagnostics allow troubleshooting logic and machine operation with web browsing capability via the internet.

A typical system would consist of the following:

Slot 1: High speed analog and logic processing with dual DSPs

6 analog inputs (voltage or current) and 3 excitation supplies for up to 6 inputs (isolated as a group)

4 DC logic inputs (includes tachometer interface capability)

4 DC logic outputs (low current)

4 analog outputs with linearization (isolated as a group)

2 daughter board slots for optional encoder, strain gauge or digital I/O cards (consult factory for availability)

The MACO Compact supports either open or closed loop (IMPACT II) injection process control. Run the machine for a few cycles, and IMPACT II creates a theoretical model of the process. It uses this model along with hundreds of rules to automatically optimize the process to compensate for short and long term deviations in the injection molding process. Injection control features velocity or pressure controlled fill with ramping for up to 10 steps. Transfer mode is user selectable and there are multiple steps of pack and hold, as well as synchronized back pressure and RPM control of up to 10 steps.

Slot 2: T/C-Analog, power supply board

8 thermocouple inputs (type J or K)

16 DC outputs (low power)

24V dc power supply interface (for system)

Eight isolated temperature control loops with the industry-best auto tune algorithm, a full complement of built-in alarm functions, with auto-compensation available for sensor break. There is also an optional 12 zone T/C-Analog card available.

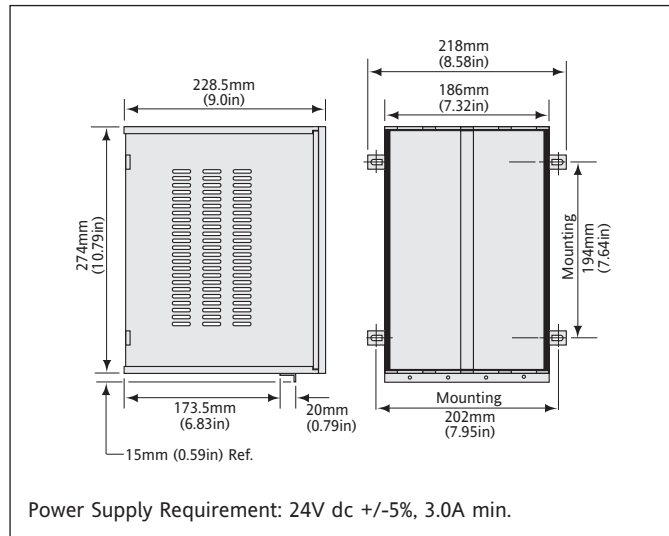
Slot 3: Digital I/O

32 (2 Amp) digital outputs
32 (24V dc) digital inputs

A standard 3 card version provides a total of 52 digital outputs and 36 digital inputs. Adding optional I/O cards to fill the 4 slot chassis expands the I/O to 100 digital outputs and 68 digital inputs. Six and eight slot chassis, as well as multiple chassis systems will also be available.

Control data can be viewed on this new line of flexible high speed Windows CE based 12.1 inch TFT displays from Eurotherm. These displays are equipped with two USB ports (the front port is typically utilized with memory sticks for recipe transfers) and a compact flash interface (for data storage). Recipes, SPC data, screen captures and logging functions can be stored and loaded from various memory devices. The control is also compatible with our family of OPTIMA Touch PC based operator stations using Wonderware® InTouch™ software based applications and plant wide integration capabilities.

Dimensions



Eurotherm: International sales and service

For more information: Please contact your local Eurotherm office or use the contacts details below.

AUSTRALIA Sydney
Eurotherm Pty. Ltd.
T (+61 2) 9838 0099
F (+61 2) 9838 9288
E info.au@eurotherm.com

AUSTRIA Vienna
Eurotherm GmbH
T (+43 1) 7987601
F (+43 1) 7987605
E info.at@eurotherm.com

BELGIUM & LUXEMBOURG Moha
Eurotherm S.A./N.V.
T (+32) 85 274080
F (+32) 85 274081
E info.be@eurotherm.com

BRAZIL Campinas-SP
Eurotherm Ltda.
T (+5519) 3707 5333
F (+5519) 3707 5345
E info.br@eurotherm.com

DENMARK Copenhagen
Eurotherm Danmark AS
T (+45 70) 234670
F (+45 70) 234660
E info.dk@eurotherm.com

FINLAND Abo
Eurotherm Finland
T (+358) 22506030
F (+358) 22503201
E info.fi@eurotherm.com

FRANCE Lyon
Eurotherm Automation SA
T (+33 478) 664500
F (+33 478) 352490
E info.fr@eurotherm.com

GERMANY Limburg
Eurotherm Deutschland GmbH
T (+49 6431) 2980
F (+49 6431) 298119
E info.de@eurotherm.com

HONG KONG & CHINA
Eurotherm Limited North Point
T (+85 2) 28733826
F (+85 2) 28700148
E info.hk@eurotherm.com

Guangzhou Office
T (+86 20) 8755 5099
F (+86 20) 8755 5831
E info.cn@eurotherm.com

Beijing Office
T (+86 10) 6567 8506
F (+86 10) 6567 8509
E info.cn@eurotherm.com

Shanghai Office
T (+86 21) 6145 1188
F (+86 21) 6145 1187
E info.cn@eurotherm.com

INDIA Chennai
Eurotherm India Limited
T (+91 44) 24961129
F (+91 44) 24961831
E info.in@eurotherm.com

IRELAND Dublin
Eurotherm Ireland Limited
T (+353 1) 4691800
F (+353 1) 4691300
E info.ie@eurotherm.com

ITALY Como
Eurotherm S.r.l.
T (+39 31) 975111
F (+39 31) 977512
E info.it@eurotherm.com

KOREA Seoul
Eurotherm Korea Limited
T (+82 31) 2738507
F (+82 31) 2738508
E info.kr@eurotherm.com

NETHERLANDS Alphen a/d Rijn
Eurotherm B.V.
T (+31 172) 411752
F (+31 172) 417260
E info.nl@eurotherm.com

NORWAY Oslo
Eurotherm A/S
T (+47 67) 592170
F (+47 67) 118301
E info.no@eurotherm.com

POLAND Katowice
Invensys Eurotherm Sp z o.o.
T (+48 32) 2185100
F (+48 32) 2177171
E info.pl@eurotherm.com

SPAIN Madrid
Eurotherm España SA
T (+34 91) 6616001
F (+34 91) 6619093
E info.es@eurotherm.com

SWEDEN Malmo
Eurotherm AB
T (+46 40) 384500
F (+46 40) 384545
E info.se@eurotherm.com

SWITZERLAND Wollerau
Eurotherm Produkte (Schweiz) AG
T (+41 44) 7871040
F (+41 44) 7871044
E info.ch@eurotherm.com

UNITED KINGDOM Worthing
Eurotherm Limited
T (+44 1903) 268500
F (+44 1903) 265982
E info.uk@eurotherm.com
www.eurotherm.co.uk

U.S.A. Leesburg VA
Eurotherm Inc.
T (+1 703) 443 0000
F (+1 703) 669 1300
E info.us@eurotherm.com
www.eurotherm.com

ED53

Specialist Plastics Partners:

AUSTRALIA
Remtron Pty Ltd
T (+61 3) 9587 1233
F (+61 3) 9587 4244

CHINA
Gary-Harford
T (+86) 765 7725538
F (+86) 765 7725568

KOREA
MACOSys Company, Ltd
T +82 (0)2 529 3078
F +82 (0)2 3462 3078

© Copyright Eurotherm Limited 2007

Invensys, Eurotherm, the Eurotherm logo, Chessell, EurothermSuite, Mini8, Eycon, Eyris and Wonderware are trademarks of Invensys plc, its subsidiaries and affiliates. All other brands may be trademarks of their respective owners.

All rights are strictly reserved. No part of this document may be reproduced, modified, or transmitted in any form by any means, nor may it be stored in a retrieval system other than for the purpose to act as an aid in operating the equipment to which the document relates, without the prior written permission of Eurotherm limited.

Eurotherm Limited pursues a policy of continuous development and product improvement. The specifications in this document may therefore be changed without notice. The information in this document is given in good faith, but is intended for guidance only.

Eurotherm Limited will accept no responsibility for any losses arising from errors in this document.

