



*Manual for
MiniOCS and MiniRCS*

Mini I/O Modules

PREFACE

This manual explains how to use Mini I/O Modules.

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ABOUT PROGRAMMING EXAMPLES

Any example programs and program segments in this manual or provided on accompanying diskettes are included solely for illustrative purposes. Due to the many variables and requirements associated with any particular installation, Horner APG cannot assume responsibility or liability for actual use based on the examples and diagrams. It is the sole responsibility of the system designer utilizing the Mini I/O Module to appropriately design the end system, to appropriately integrate the Mini I/O Module and to make safety provisions for the end equipment as is usual and customary in industrial applications as defined in any codes or standards which apply.

Note: The programming examples shown in this manual are for illustrative purposes only. Proper machine operation is the sole responsibility of the system integrator.

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* Not available as a MiniRCS model.

CHAPTER 1: INTRODUCTION

1.1 Scope

This manual contains I/O data sheets for MiniOCS and MiniRCS Modules. Module-specific information is provided in the I/O data sheets. To check for updates and new Mini releases, refer to Section 1.3.

Note: Effective Spring 2003, Mini I/O data sheets are no longer contained in the *Mini Hardware Manual* (MAN0305). The data sheets are published individually and are published as a group in *the Mini I/O Manual* (MAN0581).

Table 1.1 – Mini OCS and Mini RCS Modules		
DIGITAL INPUT AND OUTPUT COMBINATION MODULES		
Mixed DC I/O	8 Channel, 12/24VDC In, (Isolated) Digital In, Positive/Negative Logic 8 Channel, 10-28VDC (Sourcing) Out, Positive Logic (.5A)	HE500OCS031 HE500OCS061 HE500RCS061
Mixed DC I/O	8 Channel, 12/24VDC (Isolated) Digital In, Positive/Negative Logic, 8 Channel, 24VDC Out, Negative Logic (.5A)	HE500OCS032 HE500OCS062 HE500RCS062
Mixed I/O	8 Channel, 12/24VDC (Isolated) Digital In, Positive/Negative Logic, 6 Channel, 3A Relay Out	HE500OCS035 HE500OCS065 HE500RCS065
Mixed I/O	8 Channel, 120VAC In, Positive Logic 8 Channel, 80-240VAC Out, Positive Logic	HE500OCS036 HE500OCS066 HE500RCS066
Mixed I/O	8 Channel, 120 VAC In Positive Logic 6 Channel, 3A Relay Out	HE500OCS037 HE500OCS067 HE500RCS067
Mixed I/O Module	14 Channel, 12/24 Vdc In, Positive/Negative Logic 10 Channel, 3A Relay Out	HE500OCS045 HE500OCS075 HE500RCS075
AC Input /AC Output	8 Channel, 120 / 240 VAC In, Positive Logic 8 Channel, 80-240 VAC Out, Positive Logic	HE500OCS038 HE500OCS068
AC Input /AC Output	14 Channel, 120 VAC In, Positive Logic 10 Channel, 3A Relay Out	HE500OCS047 HE500OCS077 HE500RCS077
Mixed DC I/O	16 Channel, 12/24VDC In (Isolated) Digital In, Positive/Negative Logic 12 Channel, 10-28VDC (Sourcing) Out, Positive Logic	HE500OCS041 HE500OCS071 HE500RCS071
Mixed DC I/O	16 Channel, 12/24 VDC In, Positive/Negative Logic 12 Channel, 24 VDC Out, Negative Logic	HE500OCS042 HE500OCS072 HE500RCS072
Temperature I/O	2 Channel, Relay 2 Channel, Analog Output 2 Channel,SSR Driver	HE500OCS049 HE500OCS079 HE500RCS079

Table continued on next page

ANALOG / DIGITAL INPUT AND OUTPUT COMBINATION MODULES		
+/-10VDC Analog / Digital I/O	4 Channel, Analog Input, +/-10VDC In 2 Channel Analog Output, +/-10VDC Out 8 Channel, 12 Bit Resolution, 24VDC Bipolar Digital Input 8 Channel, 12 Bit Resolution, 10-28VDC, 0.5 Amp Sourcing Digital Output	HE500OCS052 HE500OCS082 HE500RCS082
4-20mA Analog / Digital I/O	4 Channel, Analog Input, 20mA In 2 Channel Analog Output, 20mA Out 8 Channel, 12 Bit Resolution, 24VDC Bipolar Digital Input 8 Channel, 12 Bit Resolution, 10-28VDC, 0.5 Amp Sourcing Digital Output	HE500OCS053 HE500OCS083 HE500RCS083
24VDC Bipolar Analog / Digital I/O	2 Channel, Analog Input, 20mA In 2 Channel Analog Output, 20mA Out 8 Channel, 24VDC Bipolar Digital Input 8 Channel, 24VDC Sinking Digital Output	HE500OCS055 HE500OCS085 HE500RCS085
24VDC Bipolar Analog / Digital I/O	4 Channel, Isolated Analog Input, 20mA In 2 Channel Isolated Analog Output, 20mA Out 8 Channel, 10-30VDC Bipolar Digital Input 8 Channel, 10-30VDC Sourcing Digital Output	HE500OCS057 HE500OCS087 HE500RCS087

SPECIALTY MODULES		
High Speed Counter Product also has a detailed Supplement (SUP0265) which is ordered separately.	High Speed Counter Inputs, Sourcing Pulse Outputs Pulse Width Modulation High Speed Counter Inputs, Sinking Pulse Outputs	HE500OCS033 HE500OCS063 HE500RCS063 HE500OCS034 HE500OCS064 HE500RCS064

1.2 Additional References

For further information regarding products covered in this manual, refer to the following references:

- Mini Hardware* (MAN305) – Covers hardware topics affecting all Mini modules including wiring diagrams, specifications, installation and configuration procedures.
- DeviceNet[™] Implementation Using Control Station Modules* (SUP0326) - Covers the implementation of Control Station products in a DeviceNet network.
- Cscape Reference Manual* (MAN0313) – Contains topics specifically selected to assist you through the programming process.
- Wiring Accessories and Spare Parts* (MAN0347) – Contains a line of wiring accessories available for use with various modules.

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