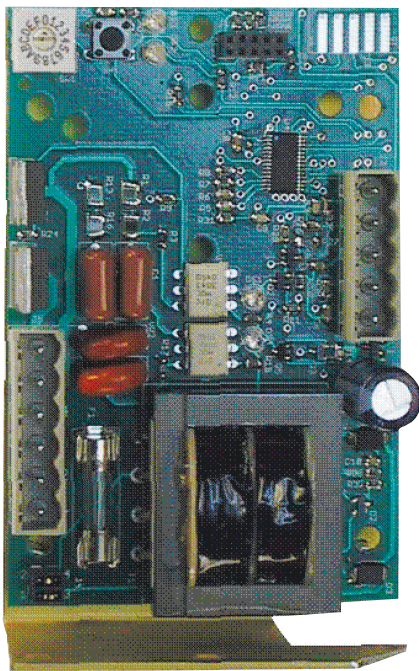


Modbus® Control Logic Card



Models

mAC165
115 Volt A.C. Actuators

Features

- High resolution position input for up to 0.1% accuracy.
- 4-120/240VAC inputs for open and closed limit switches and 2 general purpose inputs.
- Simple 4-wire Modbus®-485 communication network includes supervisory power.
- Robust communication, up to 500m cable length.
- Pluggable terminal strips for easy field installation.
- Direct mounting within the actuator.
- Low power consumption; does not require ventilation.
- Electronic overload protection with built-in current monitoring optional.
- High power outputs can directly drive small motors.
- LED indicators on inputs, outputs and communication channel.
- Automatic calibration using local push button or remote command.
- Multi-vendor PLC support through the standard Modbus® communication module.

Specifications

Actuator

Voltage	120/240VAC 1Ø
Current	4A (2 minute 25% duty-cycle)
Fuse	GMA 4 replaceable

Supervisory

Voltage	10 to 25VDC
Current	30mA @ 24VDC

Auxiliary Inputs

Voltage	120/240VAC
Current	min 10mA / max 20mA

Communication

Standard	Modbus®-RS485 differential
Distance	500m (1,640ft.)
Input Load	12K ohm, standard
Termination	120Ω balanced line

Position

Resolution	12 bit (1 part in 4096)
Accuracy	0.1% full scale
Potentiometer	1000 Ω typical (500 to 10k Ω)
Quadrature Optical Encoder	1000 to 4096 pulses

Environment

Temperature	-40°C to +70°C (-40°F to +158°F)
Relative Humidity	0 to 95% non-condensing

Dimensions

Length	96mm (3.75 in)
Width	70mm (2.75 in)
Height	36mm (1.40 in)

Typical Applications

- Blending of bulk materials.
- Petroleum products and other liquids flow control.
- Level control for maintaining process supply.

Accessories

mBA085 Bus Arbiter:

Connects a maximum of 100 mA C165's, on up to 8 drops, to a RS232 Modbus® Master RS232 process controller. Includes redundant power supply input and drop fault alarms.

Commands, Process Values and Configurable Parameters

Commands:

Seek To Position
Full Open
Full Close
Stop
Calibrate
Remote Reset
Initiate Re-close
Default Parameter Reload
Parameter Protect On
Parameter Protect Off

Process Values:

Current Position
Average Load
Peak Load (optional)
Idle Load (optional)
Raw Position
Raw Load (optional)
Last Seek Value
Current Jog On Time
Software Revision Code

Configurable Parameters:

Zero Offset
Span
Open Setback
Close Setback
Seek Tolerance
Open Limit Tolerance
Close Limit Tolerance

Calibrate To
Max Load
Idle Load
Com Fault Position
Jog Move Tolerance
Load Zero Offset (optional)
Load Span (optional)
Update Time
Turn Around Time
Command Fault Time
Com Fault Timeout
Jog Wait Time
Jog Open Time
Run Load Fault Time (optional)
Idle Load Fault Time (optional)
Run Past Close Time
Re-close at Time
Serial Port Speed
Minimum Jog On Time
Maximum Jog On Time
Input 1 Setup
Input 2 Setup
Input 3 Setup
Input 4 Setup
Encoder Options
Pseudo Limit Options
Force Options
Seek Options

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