



# Centrifugal Compressor Controllers

MAESTRO™ Universal

With a robust feature set and easy-to-use interface, the advanced MAESTRO™ Universal controller will optimize operation for both new and existing compressed air systems.

## Optimize Compressor Performance and Lower Your Costs

MAESTRO Universal is a state-of-the-art air control system for managing centrifugal compressor performance, and the standard controls solution for new MSG® TURBO-AIR® and MSG® centrifugal compressors manufactured by Ingersoll Rand. Our engineering team can design a customized MAESTRO Universal controller upgrade for existing compressed air systems. Unique instrumentation packages and monitoring functions are configured to optimize compressor performance for each installation and, in many cases, existing equipment can be reused to achieve further savings.

### Multiple Compressor Management (MCM)

By connecting and controlling several control panels as a team, MAESTRO Universal can load/unload and start/stop compressors as needed to modulate compressors, maximizing the efficiency of the entire compressed air system.



Maestro Universal Interface



#### Key Features

- Compatible with all makes and models of centrifugal compressors
- Quick set-up, easy configuration
- Robust feature set for total control of your compressed air system
- Alarm and trip e-mail alerts
- Selectable home page
- Event history and diagnostics
- Auto start/stop
- Expandable IO (show IO channel counts for up to 3 modules)
- Cooling water control
- Integrated TDP control
- Easy-to-read, easy-to-use color LCD interface supports over 30 languages
- Remote monitoring with built-in web server
- USB Port for access to software upgrades, event history and data logging for diagnostics

Features	
Category	Description
<b>Operator Interface</b>	10" 640x480 color LCD display
	Support 30+ languages
	Numeric and operational direction keys
	Local/remote selection keys
	Auto/unload selection keys
	Acknowledge and reset buttons
<b>Communications</b>	Remote monitoring with built-in web server
	MODBUS protocol interface
	RS-485 serial port
	Ethernet (MODBUS TCP) port
	PROFIBUS protocol gateway
	USB interface
<b>Extended Operations &amp; Options</b>	Ethernet interface
	Condensate valve control
	Oil heater interlock and control
	Motor bearing/stator temperature monitoring
	Additional vibration and RTD channels
	Differential oil pressure across oil filter
	Differential air pressure across inlet filter
	Oil level switch
	Common alarm/trip dry contacts
	Temperature compensated flow
	Surge detection and count
	Surge test tools for start-up and commissioning
	Two process control functionality
	Turbine driver compatible
HIC control mode capable	
<b>Certifications</b>	UL, CSA, CE
	NEMA Type 4X (IP66) hazardous environment applications Class 1 Div 2 Groups A, B, C and D (when mounted in a NEMA Type 4X-rated enclosure)



## CARE Maintenance Programs | RELIABILITY FOR LIFE

Compressed air is critical to your operation. A proper maintenance strategy is crucial to avoiding unplanned, unbudgeted downtime and production interruptions. By choosing an Ingersoll Rand CARE maintenance service program — from full risk transfer to routine maintenance or parts coverage — you are investing in your future with a trusted global partner.



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