



R400

Control System

Reliable control system technology is a critical component to any compressed air solution, and at FS-Elliott, our Regulus control systems have evolved in step with the latest innovations technology has to offer. Featuring the most powerful processors in the industry, the Regulus line offers unrivaled compressor control, providing reliable, efficient operation and substantial energy savings at facilities around the globe.

A member of the Regulus engineered series, the R400 is the control system of choice for applications requiring an extremely customized solution. The R400's standard features and available options make it easily adaptable to any compressed air application.

STANDARD FEATURES

ENCLOSURE

- 12" Comfort HMI Touchscreen Display
- NEMA 4 – Carbon Steel
- Panel Mounted Buttons, Lights & Horn
- Emergency Stop Button
- Alarm Light & Trip Lights
- Stainless Steel Tubing & Fittings
- Pressure & Temperature Transmitters (Unit Mounted or Instrument Rack)
- Resistance Thermometer Detectors or Temperature Transmitters
- UL Compliance – Underwriters' Laboratories
- Electrical Characteristics: 1kVa, Single Phase, 120 VAC+/- 10%, 50/60 Hz

HARDWARE

- Siemens S7-400 Series PLC
- Memory Flash Card
- USB Port
- Input / Output Modules & Sensing Devices
 - Analog Inputs 48
 - Analog Outputs 2+
 - Digital Inputs 24+
 - Digital Outputs 16+

CONTROL MODES

- Constant Pressure
- Suction Throttle

DIAGNOSTICS

- Trending
- PLC Fault
- Transmitter Fault
- Software "Keyed" By-Pass of Sensing Devices for Field Testing
- Redundancy
 - PLC
 - Communication Modules (Modbus Communication)
 - Power Supplies



REGULUS

CONTROL PANEL

STANDARD MONITORING FUNCTIONS

	INDICATION	ALARM	TRIP
PRESSURE			
Air Discharge	•		
Lubricant Supply	•	•	•
TEMPERATURE			
Lubricant Supply	•	•	•
Final Air Discharge	•		
VIBRATION			
Low & High-Speed Pinion	•	•	•
STATUS			
Processor / PLC Fault	•	•	•
Transmitter Fault	•	•	•
Seal Air Pressure	•	•	
Compressor Surge	•	•	
Compressor Running	•		
Compressor Running Time	•		
Inlet & Discharge Valve Position	•		
Auxiliary Oil Pump	•		
OTHER			
Motor Driver Current	•	•	•

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The following optional features are available to provide added flexibility and accommodate specific site requirements.

OPTIONAL FEATURES

ENCLOSURE

- 15" Graphical TFT Color Touchscreen HMI Display
- NEMA 4X – Stainless Steel
- Additional Panel Mounted Buttons & Lights as Required
- Panel Purge for Hazardous Environments (Z-Purge)
- Panel Cooling
 - Vortex
 - Dual Vortex
 - Air Conditioned
- Panel Heater
- Compliance
 - CSA – Canadian Standards Association
 - CE – European Conformity

HARDWARE

- Client-Defined Transmitters
- Dry Contacts for Remote Start, Remote Stop & Remote Unload
- Dry Contacts for Remote Alarm & Trip
- Multiple Language Screen Displays
- Interstage Temperature Control
- Stainless Steel Tubing & Fittings
- Panel On / Off Switch
- Auxiliary Oil Pump On / Auto Switch
- Flashing Alarm Beacons
 - Hazardous Area
 - Safe Environment

- Processing Units – PLC's
 - Allen Bradley Compact Logix
 - Allen Bradley Control Logix
 - Allen Bradley Flex Logix
 - Modicon Quantum
- Remote HMI
- Input / Output Modules & Sensing Devices – as Required
- Redundancy
 - I/O Modules
 - Hot Standby
 - Fail Safe
 - Voting Schemes

CONTROL MODES

- Intermittent
- Auto / Dual (Combination Mode)

COMMUNICATION PACKAGES

- Modbus® Protocol
- Profibus Protocol
- LAN Linked Ethernet
- WEB Based Ethernet
- Teleservice Modem / Software

Modbus® is a registered trademark of Schneider Automation, Inc.



OPTIONAL MONITORING FUNCTIONS

	INDICATION	ALARM	TRIP
PRESSURE			
Air Filter Differential	•	•	
Oil Filter Differential	•	•	
Cooling Water	•	•	
Interstage Air (1st & 2nd Stage Discharge)	•		
TEMPERATURE			
All Pinion & Bull Gear Lubricant Returns	•	•	•
Interstage Air (2nd Stage Inlet)	•	•	•
Oil Reservoir	•	•	•
Driver Bearing (Metal Temperature)	•	•	
Motor Driver Stator Windings	•	•	•
Interstage Air (Aftercooler Discharge)	•	•	
Cooling Water	•	•	
VIBRATION			
Driver	•	•	•
STATUS			
Unit Ready to Auto Start	•		
OTHER			
Inlet Air Density	•		

Note: Additional indication, alarm, and trip functions can be provided with the R400 based on client specifications.



Leading the Way

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