

CONTROL SYSTEMS HP350 Discharge Controller



For Transcritical CO2 Gas Cooler and Valve Control

- Stand alone or networked
- Variable speed fan control
- Floating head pressure control
- High pressure valve control
- Adiabatic cooling
- IP communications



PRODUCT DATA

Condenser
Control

Controls gas cooler fans and transcritical CO2 valves.

Alarms

The HP350 monitors and alarms on 2 pressure inputs, 2 temperature inputs and 4 digital inputs, for high pressure, fans healthy, adiabatic system healthy, auto/manual control switch. Alarm can be displayed locally and announced through the JTL Network.

Display

The HP350 drives display detailing operation pressures and alarm

messages.

Remote Access If operating within a JTL Network, alarm parameters and alarm settings

can be viewed and adjusted remotely.

Transcritical Operation

The HP350 controller switches between subcritical and supercritical control using the current ambient temperature conditions.

HP valve Control

In subcritical mode optimum control is achieved with the floating head

control.

In supercritical mode the pressure is controlled to a setpoint dependent

on the ambient temperature.

Fan speed Control In subcritical mode the control maintains the liquid at the cooler exit at an appropriate subcooled level.

In supercritical mode the control maintains the cooler exit temperature at

a fixed offset to the ambient temperature.

Adiabatic Cooling The HP350 enables adiabatic cooling when required to keep to exit

temperature at setpoint.

RODUCT DATA

HARDWARE

Pressure transducer inputs (4-20 mA) 2
Pressure display drives 1

Display types LCD10, LCD14

Temperature inputs (5k thermistor)

Voltage-free contact outputs

4

Voltage-free inputs

4

Analogue output (4-20 mA)

1

Analogue output (0-10 V)

1

TECHNICAL SPECIFICATION

Pressure input 1 Cooler exit pressure Pressure input 2 Inlet pressure

Temperature input 1 Cooler exit temperature Temperature input 1 Cooler air on temperature Analogue output 1 (0-10 V) Gas cooler fan speed control

Analogue output 2 (4-20 mA) HP valve control

Output 1 Enable Adiabatic cooling
Output 2 Enable HP valve control

Output 3 Watchdog

Output 4 High discharge pressure safety Interlock

Relay output rating 2 A resistive (240 V max)

Input 1 Auto/manual control switch Input 2 Adiabatic cooling healthy Input 3 Fans healthy

Input 4 Valve faulty

Communications port RS485 2 wire

Communications data rate 4800 baud

Communications protocol JTL Jnet zone protocol

Ethernet Port 10/100 Base T

Unit dimensions boxed (L x W x H 105 x 120 x 79 mm

Unit weight boxed 0.35 kg

Power supply (standard) 85-265 Vac (47-440 Hz)

85-265 Vdc (optional) 24 V

ORDERING INFORMATION

HP350 Controller

Power Supply Options:

For 24 V append-24 to order code

CE

This unit conforms with the relevant EU standards when fitted in accordance with its installation instructions.

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