PCT-100Ri

DIGITAL PRESSURE CONTROLLER

Ver.05

1. DESCRIPTION

The **PCT-100Ri** is a pressure controller that is easy to install and use. Designed for systems that require effective pressure control.

2. APPLICATION

Controls suction or discharge in cooling systems, air compressor control.

3. TECHNICAL SPECIFICATION

<u>Controller</u>
- Power supply: PCT-100Ri: 115 or 230 Vac ±10% (50/60 Hz)
   PCT-100RiL: 12 or 24 Vac/dc
- Control Pressure: 0 to 500 psi
- Resolution: 1 psi
- Maximum current: 16(8)A / 250Vac 1HP
- Dimensions: 71 x 28 x 71 mm
- Operating temperature: 0 to 50 ºC
- Operating humidity: 10 to 90% RH (without condensation)

<u>Transducer (SB49 -500V)</u>
- Power supply: 5 Vdc
- Range: 0 to 500 psi
- Operating temperature: -40 to 125°C
- Output signal: 0.5 to 4.5 Vdc
- Compatibility: Cooling fluids (including ammonia), compressed air, water

3.1 - Control presssure adjust (SETPOINT)

- Press SET for two seconds and $5P$ will appear.
- Wait two seconds and the adjusted control pressure will appear
- Use SET to modify the value.
- Wait 4 seconds to record and return to normal operation.

4. PARAMETERS TABLE

Function	Description	Min.	Max.	Unit	Estandard
OP	Operating mode	0-depres	1-pres	-	1-pres
dF	Differential (hysteresis)	1	500	psi	20
dL	Minimum delay to connect the output	0	999	sec.	0
OF	Offset (local calibration)	-50	50	psi	0
Lo	Minimal adjustment allowed to the final user	0	500	psi	0
Hi	Maximum adjustment allowed to the final user	0	500	psi	500

OP This function allows configuration of the operating mode for the instrument (depressurization or pressurization);

dF Is the pressure difference (hysteresis) between ON and OFF for the "OUTPUT" control;

dL This is the minimum temperature output for the controller will remain off. This delay starts to be conunted when the output is turned off.

OF Is the indication offset. Allows the compensation of any deviations in the pressure reading

Lo Range allowed to the final user to allow adjustments to the setpoint (minimum limit)

Hi Range allowed to the final user to allow adjustments to the setpoint (maximum limit)

5. PARAMETERS ALTERATION

The parameters are protected by an access code, (except the setpoint), which should be inserted in order to make the alterations.

To enter with the access code:
- Press SET for ten seconds and Cd will appear.
- Wait 2 seconds and 000 will appear.
- Use the key SET to insert code 23 (twenty-three). This operation should be performed within four seconds, else the indication of the pressure returns automatically.

After inserting the access code:
- Press SET as many times as necessary, until accessing the desired parameter.
- Wait two seconds then the configured value will appear.
- Use the SET key to modify the value.
- Wait four seconds for the new value to be recorded, and the instrument returns to normal operations (pressure indication).
- To exit the parameters, wait the controller to show Cd on the display.

NOTE: After inserting the access code, take special care to not leave the key SET idle (without being pressed) for more than fifteen seconds between the alteration of one parameter and another.
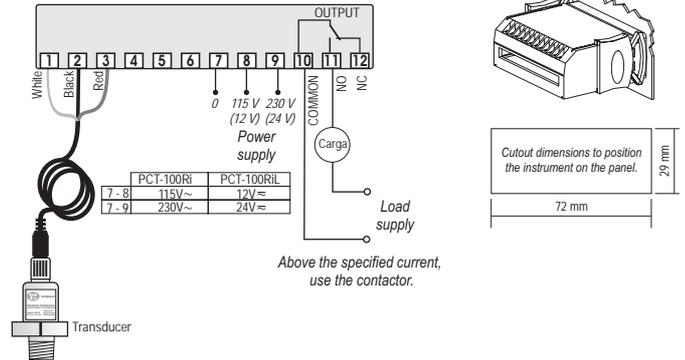If it appears rapidly Cd and the access to the adjustments is blocked automatically, sking for the code to be entered once again.

6. SIGNALLING

If the sensor is disconnected or the pressure is outside of the specified range, Err will appear on the display.

OUTPUT - NO contact closed

7. WIRING DIAGRAM

	PCT-100Ri	PCT-100RiL
7 - 8	115V~	12V≈
7 - 9	230V~	24V≈

Above the specified current, use the contactor.

Cutout dimensions to position the instrument on the panel.
72 mm / 29 mm

SCHEMATIC FOR TRANSDUCER
Red: 5Vdc
Black: Ground
White: Output

1/4 NPT

IMPORTANT

Attention on transductor installation, do not turn on the terminals on reverse position, it can damage totally the transductor.
According to the chapters of norm IEC 60364:
1: Install <u>protector against overvoltage</u> on the power supply.
2: Sensor cables and signal cables of the computer may be joined, but not in the same electric conduit through which the electric input and the activation of the loads run.
3: Install transient suppresor (RC filter) parallel to the load as to increase the product life of the relays.
For more information, please contact our Technical Support by e-mail: support@fullgauge.com or by phone +55 51 3475.3308

Schematic for the connection of supresors to contactors

A1 and A2 are the contactor coil terminals.
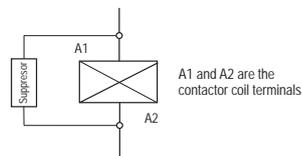
Schematic for the connection of supresors to direct activation loads

For direct activation the maximum specified current should be taken into consideration.

PROTECTIVE VINYL:

This adhesive vinyl (included inside the packing) protects the instruments against water drippings, as in commercial refrigerators, for example.
Do the application after finishing the electrical connections.

Remove the protective paper and apply the vinyl on the entire superior part of the device, folding the flaps as indicated by the arrows.