Pneumatic Receiver-Controller Catalog Page

LIT-1921460

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Description

The T-5800 Pneumatic Receiver-Controller is designed for use with remote temperature, humidity, or pressure transmitters that are connected to a control variable (CV) input. The controller provides precise control of pneumatic devices. The T-5800 is capable of providing restricted supply air to low volume remote transmitters, reducing the number of air line connections needed between instruments to only one line. The “CV” input accepts the transmitted output of any pneumatic device with a calibrated output of 3 to 15 psig (21 to 105 kPa).

Refer to *T-5800 Pneumatic Receiver-Controller Product Bulletin (LIT-7171310P)* for important product information.

Figure 1: T-5800-4 Dual Input Receiver-Controller



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Figure 2: T-5800-100 Time Delay

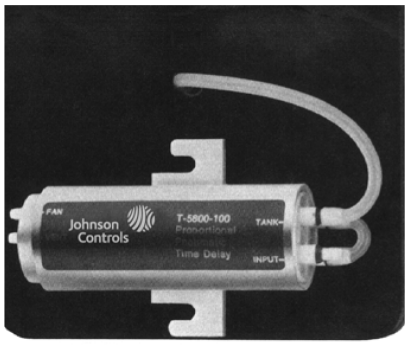
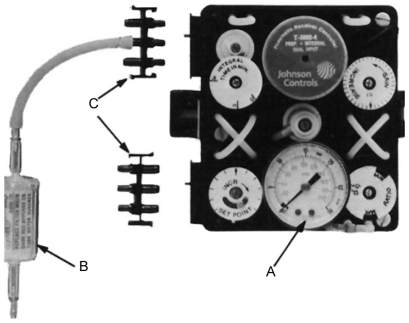


Figure 3: T-5800 Maintenance Parts



Features

- available as single or dual input models with proportional or proportional plus integral (PI) control
- adjustments for gain, local set point, ratio, master input balance, and integral time are located on the controller face
- provided with hypodermic needle test points for pressure checks
- designed for surface mounting
- action and readjustment are field selectable
- air lines connect to the unit through two detachable connectors, with barbed fittings for 1/4 in. O.D. polytubing
- a clear cover protects the components from dust and dirt, and discourages tampering
- output pressure gauge

Repair Information

If the T-5800 Pneumatic Receiver-Controller fails to operate within its specifications, replace the unit. For a replacement controller, contact the nearest Johnson Controls® representative.

Applications

- T-5800-1 and T-5800-3 Proportional-Only Control is an accepted means of controlling variables such as:
  - discharge air temperature
  - humidity
  - water temperature
  - pressure
- T-5800-2 and T-5800-4 Proportional Plus Integral (PI) Control is an accepted means of controlling variables such as closed-loop arrangements utilizing modulating control devices where the control point offset associated with proportional-only control is undesirable.

  Applications include:
  - static pressure of return fans
  - return fan volume control
  - chilled water temperature control
- T-5800-100 Time Delay provides adjustable times in order to allow the system to approach the proportional control point before the integral function of the T-5800 is initiated. The PI function takes over when the pressure of the time delay signal is approximately 0.5 PSI (3.5 kPa) below the integral supply pressure (9 psig).
- optional time delay available for use with the built-in automatic control cutout feature of the T-5800 Series PI Receiver Controllers.

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Selection Chart

Table 1: T-5800 Pneumatic Receiver-Controller

Code Number	Description
T-5800-1	Single Input, Proportional
T-5800-2	Single Input, Proportional Plus Integral
T-5800-3	Dual Input, Proportional
T-5800-4	Dual Input, Proportional Plus Integral

Table 2: Accessories and Maintenance Parts for T-5800

Code Number	Callout	Description
T-5800-100	---	Time Delay
JC 5361	---	Hypodermic Needle Test Probe
JC 5383A	---	Calibration Kit
G-2010-5	**A**	Gauge, 0 to 30 psig (0 to 210 kPa)
A-4000-1037	**B**	Oil Indicating Filter Assembly
T-5800-600	**C**	Connectors, Input and Output

Technical Specifications

Table 3: T-5800 Series Pneumatic Receiver-Controller technical specifications

Specification		Description
Action	T-5800-1, -2, Single Input Models	Direct or Reverse Acting, Field Selectable
	T-5800-3, -4, Dual Input Models	Direct or Reverse Acting with Direct or Reverse Readjustment, Field Selectable
Set Point Adjustment		Factory Set Local at Approximately 9 psig (63 kPa), Field Selectable Local or Remote
Gain	T-5800-1, -3 (Proportional-Only Models)	Adjustable From 0.5:1 to 15:1, Factory Set at Approximately 10:1
	T-5800-2, -4 (Proportional Plus Integral Models)	Adjustable From 0.5:1 to 15:1, Factory Set at Approximately 5:1
Ratio (T-5800-3, -4 Only)	Jumper 1:1	Variable From 0.1:1 to 2.5:1, Factory Set at Approximately 1:1
	Jumper 3:1	Variable From 0.1:1 to 6:1, Factory Set at Approximately 3:1
Integral Time (T-5800-2, -4 Only)		Adjustable From 0.01 to 30 Minutes (Per Repeat), Factory Set at Approximately Three Minutes
Supply Pressure		18 to 22 psig (126 to 154 kPa), Nominal 20 psig (140 kPa) Air Supply Must Be Clean, Dry, and Oil-Free
Air Consumption (Does Not Include Air Consumption for Transmitter Restrictors)	T-5800-1	45 scim (12 mL/s)
	T-5800-2	60 scim (16 mL/s)
	T-5800-3	60 scim (16 mL/s)
	T-5800-4	75 scim (20 mL/s)
Output Capacity		1000 scim
Materials	Body	Glass-Reinforced Polypropylene
	Cover	Clear Acrylic Thermoplastic
Mounting		Surface
Air Connections		Two Detachable Connectors with Barbed Fittings for 1/4 in. O.D. Polytubing
Ambient Operating Limits	Temperature	50 to 120°F (10 to 49°C)
	Humidity	10 to 90% RH at Maximum Dew Point or 85°F (29°C)
Ambient Storage Temperature Limits		-20 to 150°F (-29 to 66°C)

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