

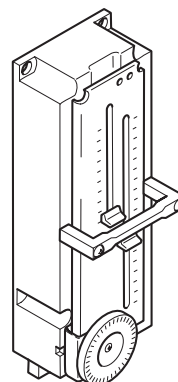
P541 Series (2341-5xx Series)

PNEUMODULAR[®] Receiver Controller

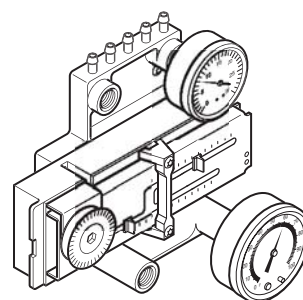
The receiver controllers are used with remote pneumatic transmitters to provide proportional control in pneumatic control systems. They are designed primarily for use with pneumatic transmitters; however, they may be used with any pneumatic device having an output of 3 to 15 psig, such as thermostats or humidistats. Both direct and reverse acting models are available and each device is of the dual-input type, with remote setpoint capability. These devices may be used as single input devices by using only the desired input.

Features:

- Nozzle and flapper relay- type receiver-controller; linear, stable and responsive. Three inputs for primary, reset, and remote control point adjustment (may be used with one or two inputs).
- Slide-type throttling range and authority adjustments are easy to use, require no tools. Easy setpoint calibration.
- Five barbed connections for 1/4 in. O.D. plastic tubing.
- Setpoint dials available to match transmitter ranges.
- Available in direct-acting and reverse-acting models.
- Direct-acting models have a built-in low-limit feature. Reverse-acting models have a built-in high-limit feature.
- Designed for mounting on PNEUMODULAR Socket MCS-S; may be mounted as stand-alone controller with K504 Mounting Bracket or P541-BASE.



Receiver-Controller



Receiver-Controller Mounted on Base
(gauges ordered separately)

Model Chart

Kits.

Model No.	Wholesale Model No.	Action	Description
P541	2341-501	Direct	Direct Acting Receiver Controller only
P541-RA	2341-502	Reverse	Reverse Acting Receiver Controller only
P541-DA-B	2341-521	Direct	Direct Acting Receiver Controller (P541) mounted to a Base P541-BASE
P541-RA-B	2341-522	Reverse	Reverse Acting Receiver Controller (P541-RA) mounted to a Base P541-BASE
P541-BASE	—	Not applicable	Mounting Base, Gasket and Mounting Screws

Setpoint Dial Labels (order separately).

Model No.	Wholesale Model No.	Fahrenheit	Model No.	Wholesale Model No.	Celsius
300-25	21-450	0 to 100°F	300-37	—	-18 to 38°C
300-26	21-451	-40 to 160°F	—	—	—
300-27	21-452	40 to 140°F	300-39	—	4 to 60°C
300-28	21-453	40 to 240°F	300-38	—	4 to 116°C
300-29	21-454	50 to 90°F	300-41	—	10 to 32°C
300-31	21-456	-25 to 125°F	—	—	—

Setpoint Dial Labels (order separately, continued).

Model No.	Wholesale Model No.	Range	Model No.	Wholesale Model No.	Range
300-33	21-458	0 to 2 in. W.C.	300-58	21-884	0 to 300 psig
300-34	21-459	0 to 7 in. W.C.	300-70	21-889	0 to 50 psig
300-35	21-460	30 to 80% R.H.	300-71	—	0 to 100 psig
300-46	21-790	-0.5 to +0.5 in. W.C.	300-72	21-890	0 to 100% R.H.
300-95	—	0 to 1.0 in. W.C.	300-80	21-891	0 to 2000 FPM
300-47	21-791	0 to 3 in. W.C.	300-81	—	0 to 3000 FPM
300-48	21-792	0 to 10 in. W.C.	300-82	—	0 to 4000 FPM
300-52	21-793	30 to 80°F	300-83	21-894	0 to 5500 FPM
300-54	21-881	-0.05 to +0.2 in. W.C.	300-84	—	0 to 3.45 Bar
300-56	—	-10 to 40 psig	300-86	—	50 to 100°F
300-57	—	0 to 150 psig			

Specifications

Construction	Glass-filled nylon.
Control action	Direct acting or reverse acting, determined by model selection.
Supply air pressure	Clean, dry, oil free air required.
Normal	4 to 22 psig (28 to 152 kPa).
Maximum	30 psig (207 kPa).
Air consumption	36 scim (9.8 mL/s), maximum.
Air flow capacity	13824 scim (3774 mL/s).
Connections	Barbed nipples for 1/4 in. O.D. polyethylene or 5/32 in. I.D. polyurethane tubing.
Authority	Adjustable; 10 to 300% of primary signal input.
Reset action	Port R (reset signal) provides reverse reset. To obtain direct reset requires P541-RA with 60% authority and 40% throttling range to reverse the transmitter's 3 to 15 psi signal to 15 to 3 psi.
Throttling range	Adjustable; 2 to 40%/12 psi.
Setpoint	Adjustable; graduated dial with 0.25 psi divisions.
CPA (remote setpoint adjustment)	±10% of primary transmitter span.
Ambient temperature limits	40 to 140°F (4 to 60°C).
Mounting	Designed for use on MCS-S manifold socket. These devices can also be surface mounted by using an optional K504 mounting bracket or by ordering with base option.
Dimensions	
P541	1-63/64 H x 5-25/32 W x 2-1/4 D in. (50 x 147 x 57 mm).
K504	5-1/2 H x 4-1/2 W x 2 D in. (140 x 114 x 51 mm).
P541-BASE & P541-RA-BASE	3-5/8 H x 5-13/16 W x 3-3/4 (136 x 148 x 95 mm).

Accessories

Model No.	Wholesale Model No.	Description
K504	22-152	Mounting bracket.
K541	22-171	Cover.
N2-4	20-881	Calibration wrench.
N100-0010	21-038	Restrictor tee for use with 1/4 in. polyethylene or 5/32 in. polyurethane tubing.
N100-2501	21-153	In-line restrictor.
N100-2597	900-012	Calibration kit.
MCS-GMF	22-139	Gauge mounting fitting (for use with K504 Mounting Bracket).
S510	2390-501	Gradual switch.
S511-5	2390-505	Minimum switch position.
S511-10	2390-510	Minimum switch position.

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Typical Applications

Active Connections.

Port	Connected to
B	Branch output.
M	Main air.
S	Primary signal input.
R	Reset signal input.
C	Control point adjustment.

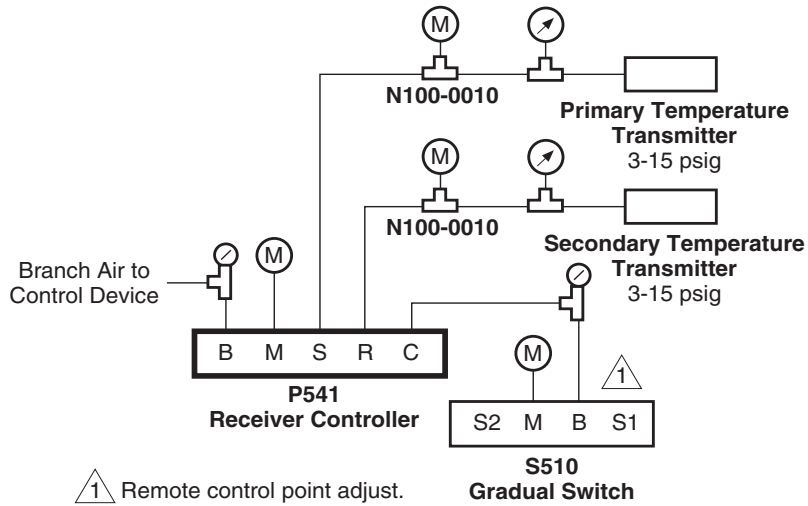


Figure 1 Typical Application.