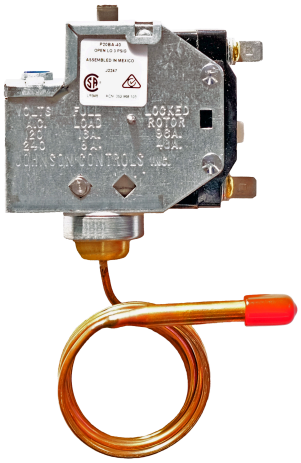
P20 Series Air Conditioning Cutout Controls Catalog Page

2024-05-20

LIT-1927180

Description

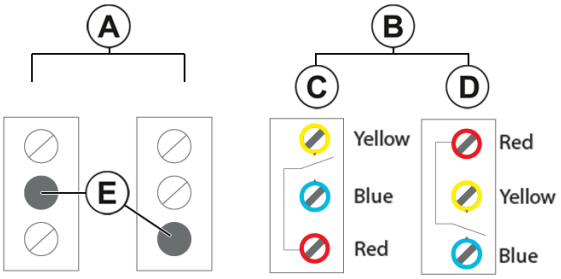
Figure 1: P20DB-1 Air Conditioning Cutout Controls



The P20 Series are field replacement high and low pressure controls for noncorrosive refrigerants. The pressure controls include a dust-tight contact unit with quick-connect terminals, and a 36 in. or 42 in. capillary with 1/4 in. sweat section, depending on the model number. The setpoint is screwdriver adjustable.

Refer to the *P20 and P21 Series Air Conditioning Cutout Controls Product Bulletin (LIT-125415)* for important product application information.

Figure 2: Terminal constructions



Callout	Description
A	Single-pole, single-throw (SPST) construction
B	Single-pole, double-throw (SPDT) construction
C	Low range terminal
D	High range terminal
E	Seal

The control action of each switch is identified by a colored plug or terminal markings:

- White: open low control
- Red: open high control

Features

- Accurate repeatability
- Compact size
- Trip-free manual reset

Applications

- Air conditioning high or low pressure control
- Refrigeration high or low pressure control
- Head pressure control

Selection chart

Table 1: P20 selection chart

Product code number	Pressure connections	Switch action	Range, psig (kPa)	Differential, psig (kPa)	Factory setting, psig (kPa)		Maximum bellows pressure, psig (kPa)	Replaces
					Opens	Closes		
P20BB-1C	36 in. capillary 1/4 in. sweat tube	SPST, open on fall	7 to 150 (48 to 1,034)	Manual reset	40 (276)	Lockout	250 (1,724)	Ranco® G20-4412; Robertshaw® 3126-216, 3160-212
P20DB-1C	36 in. capillary 1/4 in. sweat tube	SPST, open on rise	100 to 425 (690 to 2,930)	Manual reset	400 (2,758)	Lockout	450 (3,103)	Ranco G23-5253; Robertshaw 3127-220, 3161-205; Honeywell® P430X-1250, 1268, 1292, 1300
P20GB-1C	48 in. capillary 1/4 in. sweat tube	SPDT	100 to 425 (690 to 2,930)	Manual reset	360 (2,482)	Lockout	450 (3,103)	
P20EB-1C	36 in. capillary 1/4 in. sweat tube	SPDT	7 to 150 (48 to 1,034)	30 (172) fixed	40 (276)	70 (448)	250 (1,724)	Ranco G20-4050; Robertshaw 3126-116, 3160-012, 3160-014, Honeywell P431X-1092, 1100
P20EB-2C	36 in. capillary 1/4 in. sweat tube	SPDT	100 to 425 (690 to 2,930)	75 (483) fixed	400 (2,758)	324 (2,275)	450 (3,103)	Ranco G23-5052; Robertshaw 3127-140, 3127-414, 3161-009, Honeywell P430X, 1235, 1243, 1276, 1284

Note:

- Mounting brackets are supplied with all models.
- The maximum operating temperature for all models is 140°F (60°C).

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Terminal cover accessory

Table 2: Accessory

Product code number	Description
210-604R	Black phenolic resin spring clip snap-on insulated terminal cover

Conformity information

Table 3: Conformity information

Information	Description	
Purpose of control	High and low pressure control	
Method of mounting the control	Direct by two 6-32 tapped holes on 11/16 in. centers	
Method of earthing the control	-	
Maximum ambient temperature	140°F (60°C)	
Type 1 or Type 2 action	P20DA, P20GA Manual reset	Type 2.BJ micro-disconnection
	P20CA, P20CE, P20EA Automatic reset	Type 2.B micro-disconnection
	All other models	Type 1.B micro-disconnection
External pollution situation	Pollution degree 3	
Rated impulse voltage	4,000 VAC	

Electrical ratings

Table 4: P20 electrical ratings

Description	Volts AC 60 Hz			
	120	208	240	277
Full load amps	16.0	9.2	8.0	7.0
Lock rotor amps	96.0	55.2	48.0	42.0
Resistive amps	16.0	16.0	16.0	–
Pilot duty	125 VA at 24 VAC, 720 VA at 120 VAC to 277 VAC			

Repair information

If the P20 Series Air Conditioning Cutout Controls fail to operate within specifications, replace the unit. For a replacement control, contact the nearest Johnson Controls® representative.

Product warranty

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

Johnson Controls

Single point of contact

APAC	EU	UK	NA/SA
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Contact information

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