INSTRUCTIONS

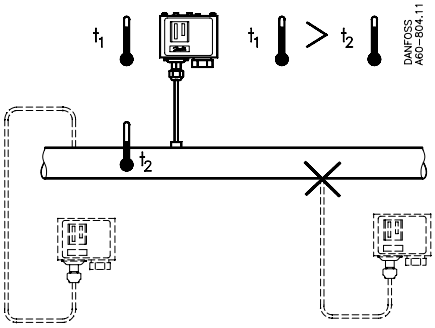
KP 1A, KP 2A, KP 5A

060R9751

Refrigerants

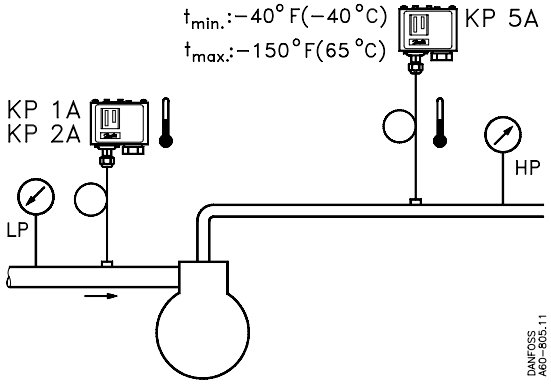
The ammonia controls can be used with R 711 (NH_3) refrigerants.

Mounting requirements

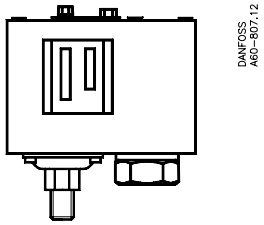


CAUTION: Do not mount the control in a position where dirt, sediment, or oil will affect the operation of the control.

Ambient temperatures

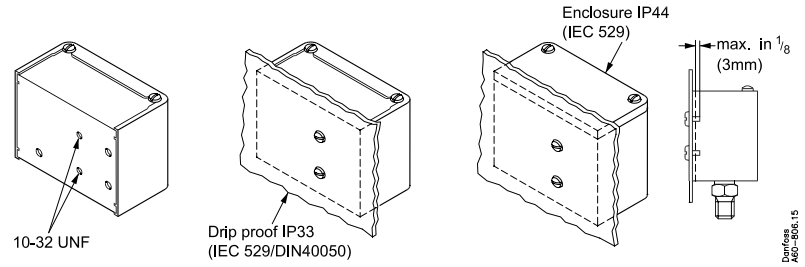


Test pressure (p_{TEST})



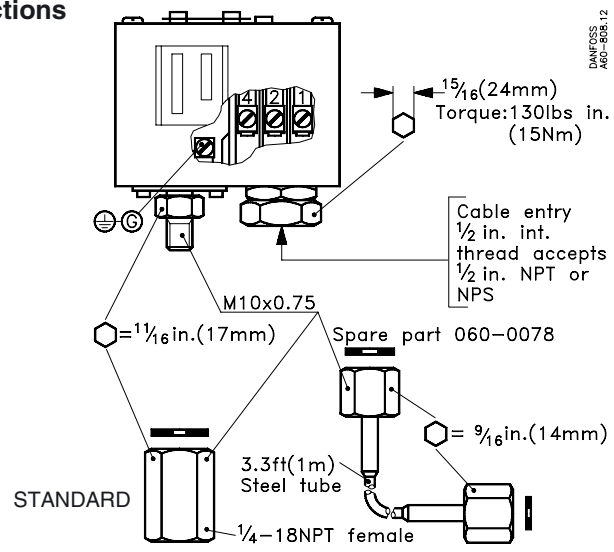
p_{test} max.
KP 1A, 2A: 285 psig (20 bar p_e)
KP 5A: 505 psig (35 bar p_e)

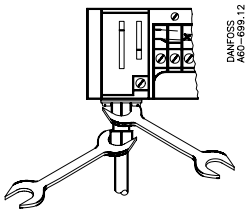
Enclosure



CAUTION: The mounting panel must be plane to avoid damage of control.

Connections

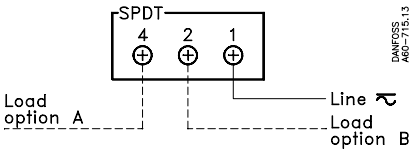




Wiring

CAUTION: Disconnect power supply before wiring connections are made to avoid possible electrical shock or damage to equipment.
All wiring should conform to the National Electrical Code and local regulations.

Terminal block



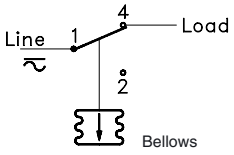
CAUTION: Use terminal screws furnished in the contact block.
Use tightening torque 20 lb. in (2.3 Nm).
Use copper wire only.

Contact load ratings

120 V a.c.	16 FLA, 96 LRA
240 V a.c.	8 FLA, 48 LRA
240 V d.c.	12 W pilot duty

Load Option A

CUT-OUT on pressure drop
Wire terminals 1-4:
CUT-IN = High Set Point (HSP)
see "Setting"
CUT-OUT = Low Set Point (LSP)
see "Setting"



Terms 1-4 close on pressure rise
Terms 1-4 open on pressure drop

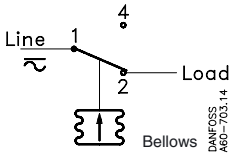
Example: CUT-IN = 30 psig
CUT-OUT = 10 psig

This means CUT-IN = HSP = 30 psig
and CUT-OUT = LSP = 10 psig

Note:
= Bellows movement on pressure rise
¬ = Bellows movement on pressure drop
The free terminal can be used for signal purpose.

Load Option B

CUT-OUT on pressure rise
Wire terminals 1-2:
CUT-IN = Low Set Point (LSP)
see "Setting"
CUT-OUT = High Set Point (HSP)
see "Setting"



Terms 1-2 close on pressure drop
Terms 1-2 open on pressure rise

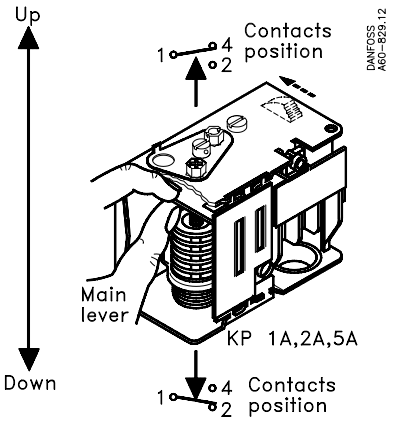
Example: CUT-IN = 250 psig
CUT-OUT = 350 psig

This means CUT-IN = LSP = 250 psig
and CUT-OUT = HSP = 350 psig

Manual tripping

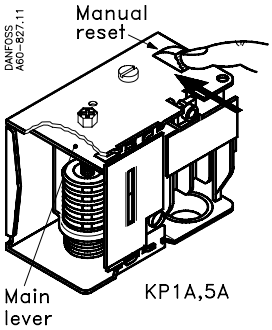
(Electrical contacts/wiring test)

TRIP (main lever)
use FINGERS ONLY!
(Do NOT use screwdriver)



Note:
KP 1A and KP 5A w/man. reset:
Push manual reset knob during manual tripping.

Manual reset

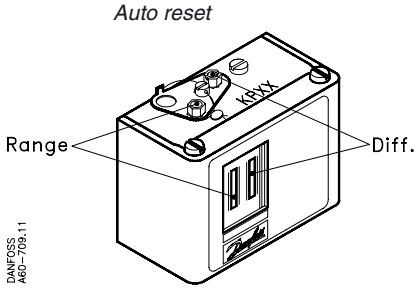


To resume control operation after safety cutout, push reset knob as indicated.

Note:
KP 1A, man. reset is possible only after a pressure rise of 10 psi (0.7 bar).
KP 5A, man. reset is possible only after a pressure drop of 43 psi (3.0 bar).

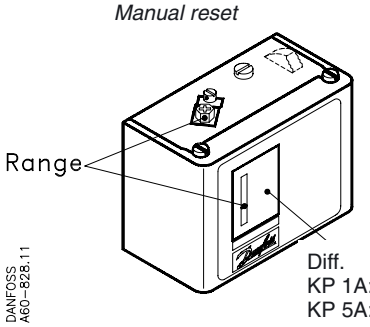
Adjustment spindle(s) location

Auto reset



KP 1A, 2A, 5A

Manual reset



Diff. (fixed)
KP 1A: 10 psi (0.7 bar
KP 5A: 43 psi (3 bar)

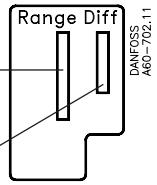
KP 1A, 5A

Setting

(se also “Wiring”)

KP 1A (auto. reset), KP 2A and KP 5A

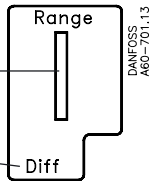
Scale plate



1. Adjust range spindle to desired HIGH SET POINT (HSP)
2. Adjust differential spindle to desired DIFFERENTIAL (DIFF.)

KP 1A (manual reset ONLY)

Scale plate



1. Adjust range spindle to desired LOW SET POINT (LSP)
2. DIFFERENTIAL is fixed. Value printed on scale plate

Note:
KP 5A (manual reset) has fixed diff.
Value printed on scale plate.

HIGH SET POINT minus DIFFERENTIAL equals LOW SET POINT

Example:

HSP	–	DIFF.	=	LSP
30 psig	–	20 psi	=	10 psig
(2.1 bar)		(1.4 bar)		(0.7 bar)

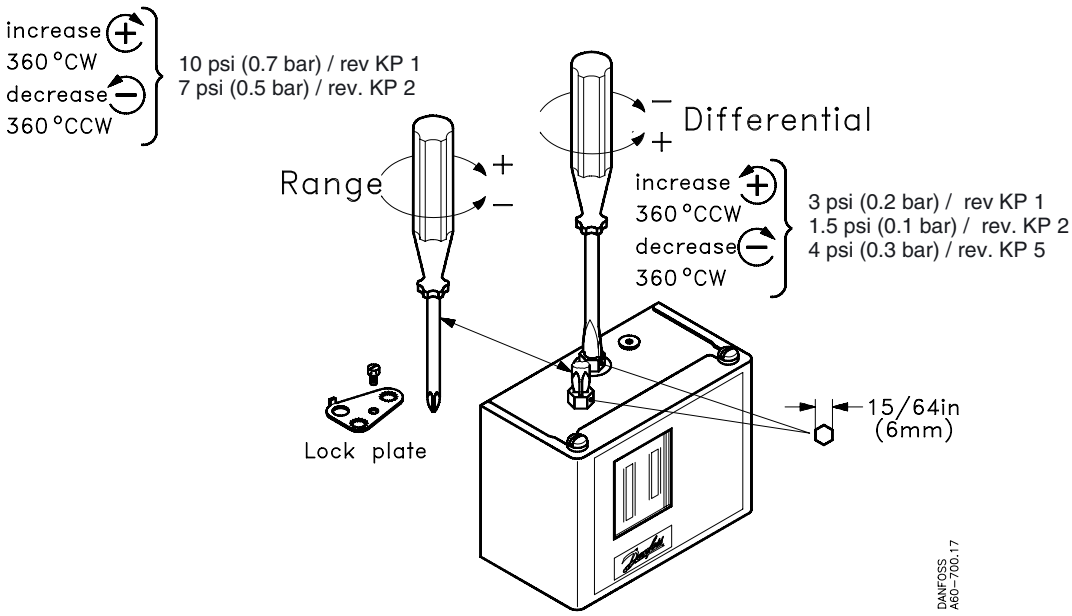
LOW SET POINT plus DIFFERENTIAL equals HIGH SET POINT

Example:

LSP	+	DIFF.	=	HSP
12 psig	+	10 psi	=	22 psig
(0.8 bar)		(0.7 bar)		(1.5 bar)

Adjustment

See instruction printed on top of control



Note:
Remove lockplate before adjustment.
Replace lockplate after adjustment (if desired).