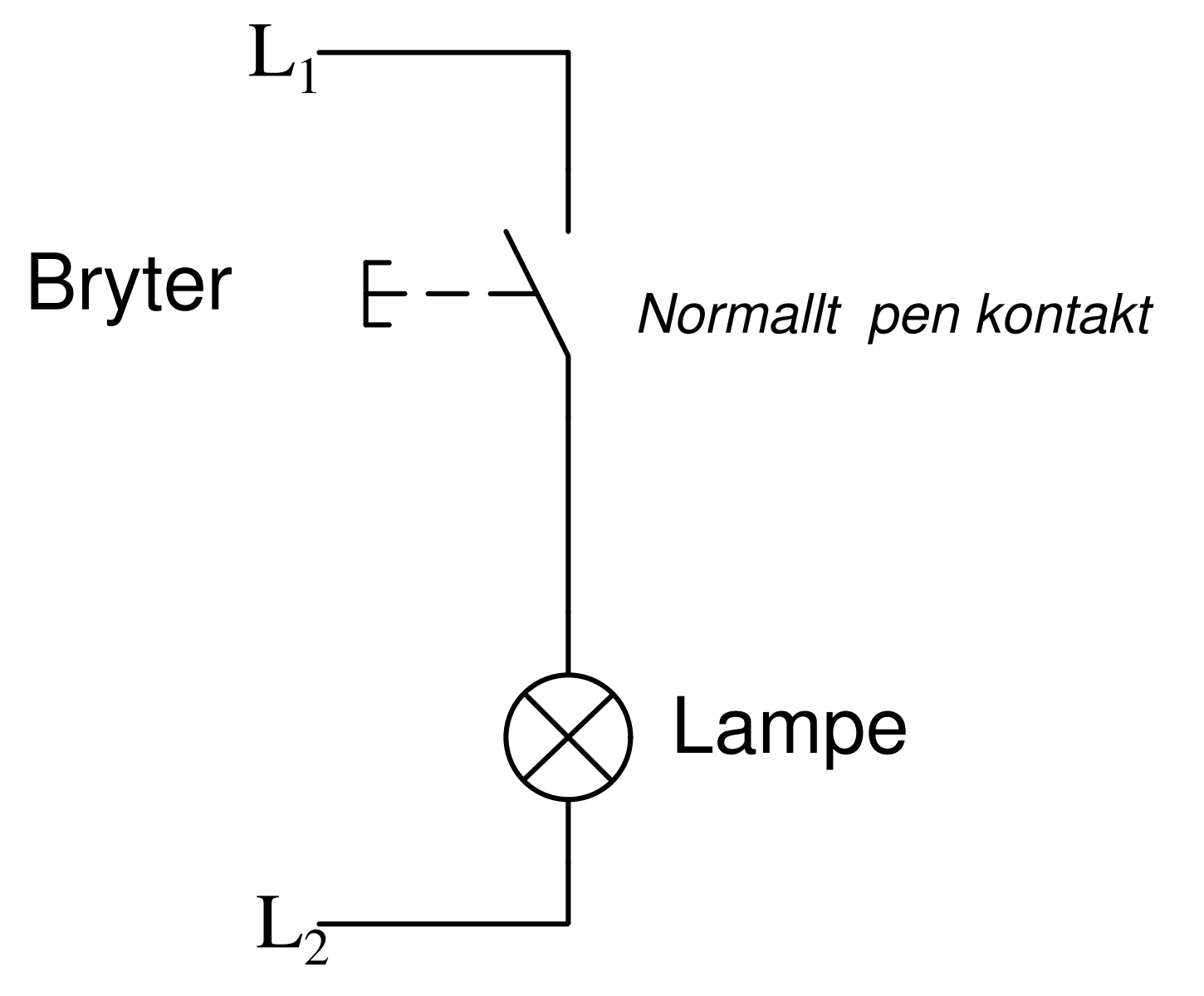
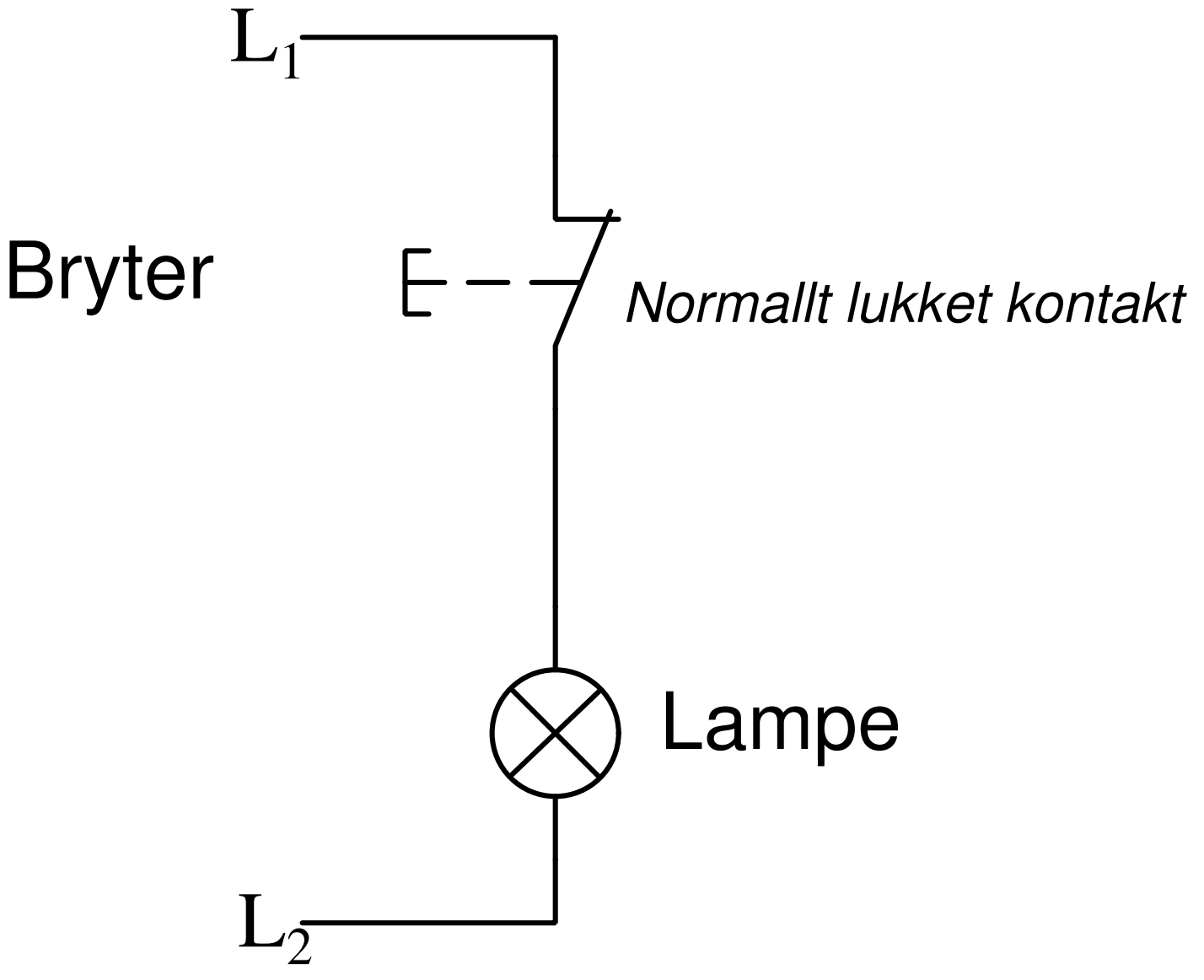
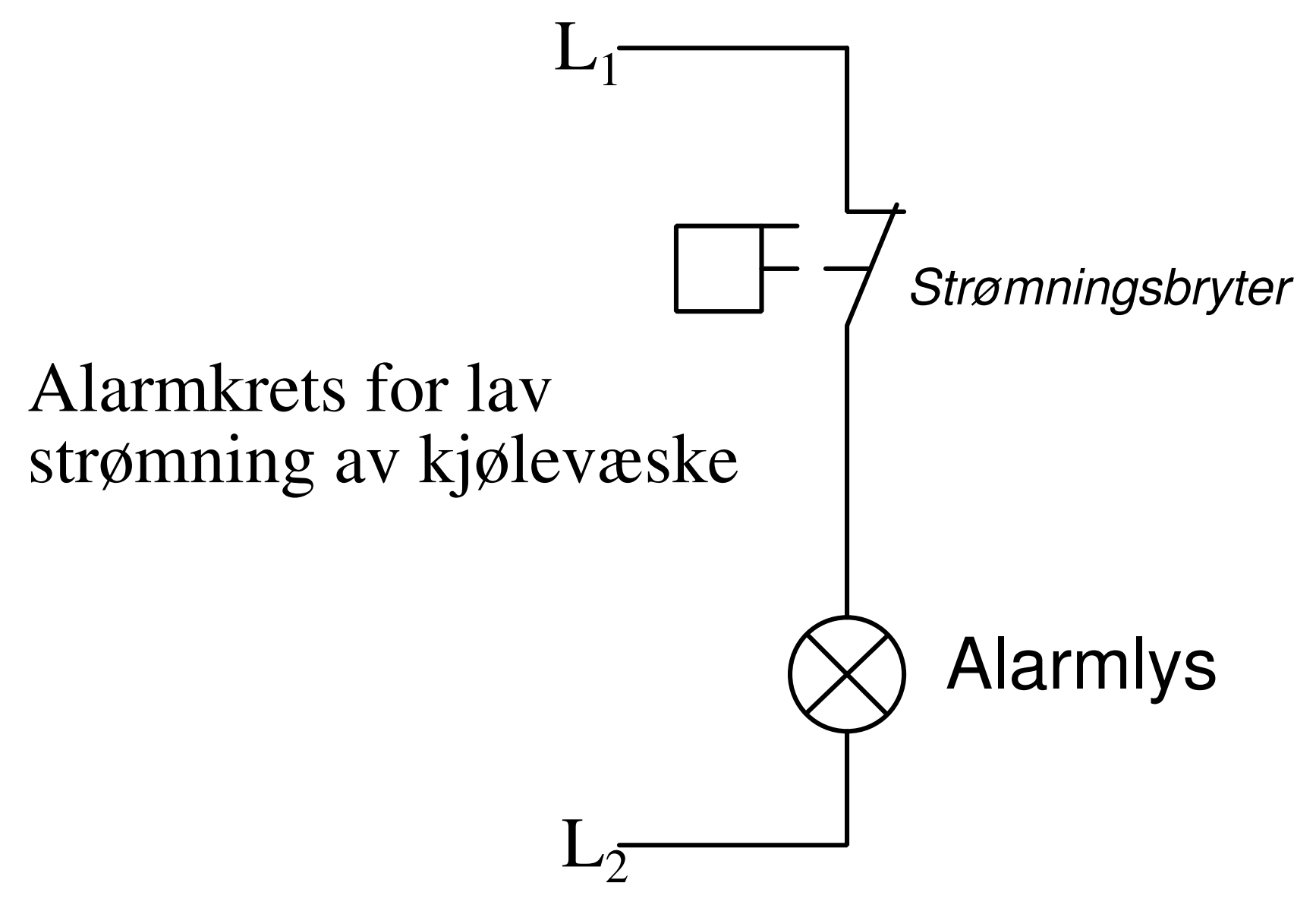
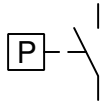

L1
Bryter
Normallt pen kontakt
Lampe
L2


L_1
Bryter
Normallt lukket kontakt
Lampe
L_2

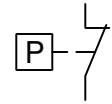

L1
Strømningsbryter
Alarmkrets for lav
strømning av kjølevæske
Alarmlys
L2

NO pressure switch



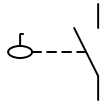
Open when there is zero pressure (minimum stimulus)
Closed when pressure increases beyond threshold

NC pressure switch



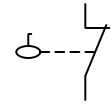
Closed when there is zero pressure (minimum stimulus)
Open when pressure increases beyond threshold

NO level switch



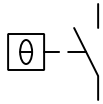
Open when there is zero level (minimum stimulus)
Closed when level increases beyond threshold

NC level switch



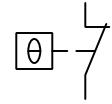
Closed when there is zero level (minimum stimulus)
Open when level increases beyond threshold

NO temperature switch



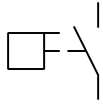
Open when temperature is cold (minimum stimulus)
Closed when temperature increases beyond threshold

NC temperature switch



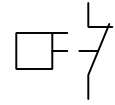
Closed when temperature is cold (minimum stimulus)
Open when temperature increases beyond threshold

NO flow switch

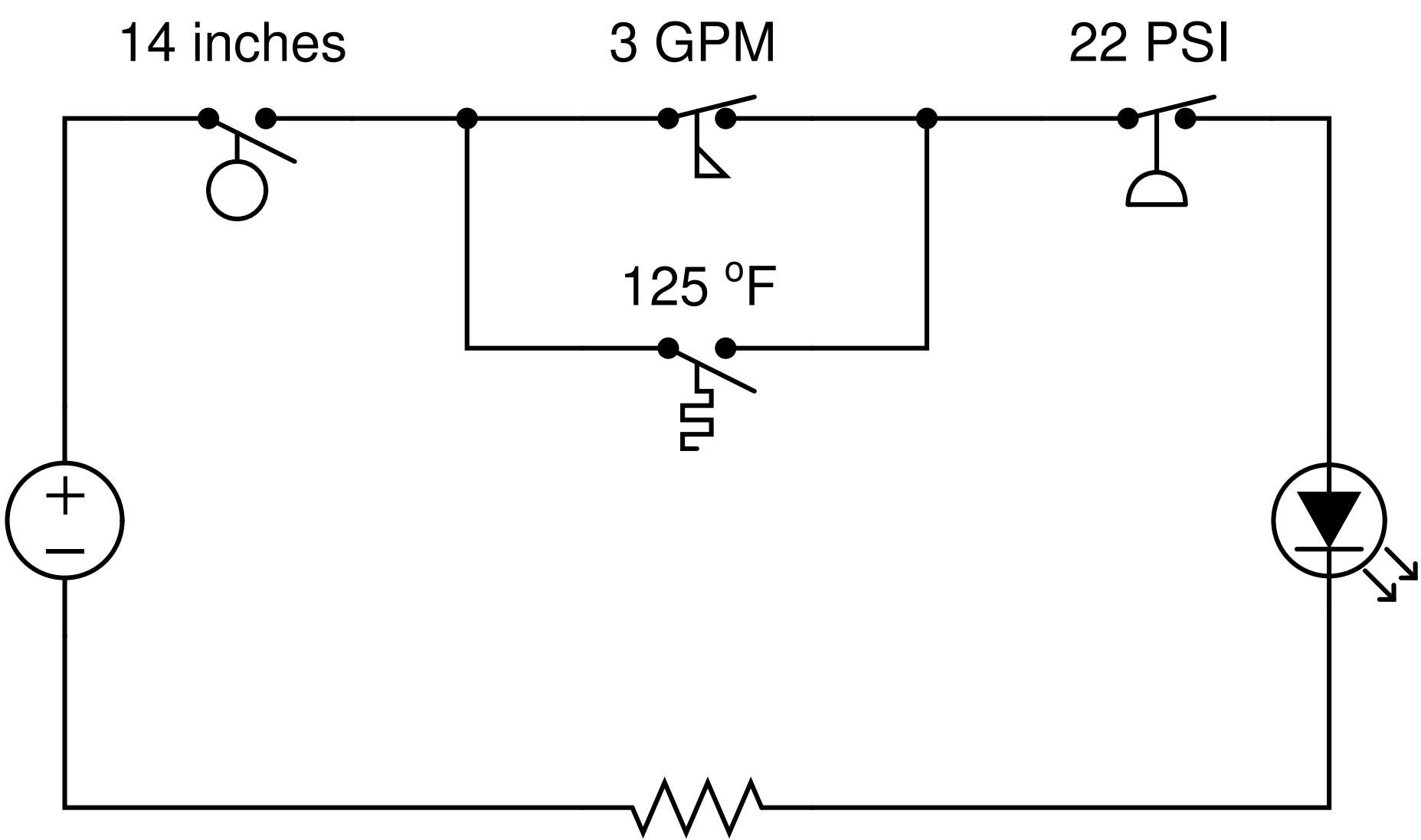


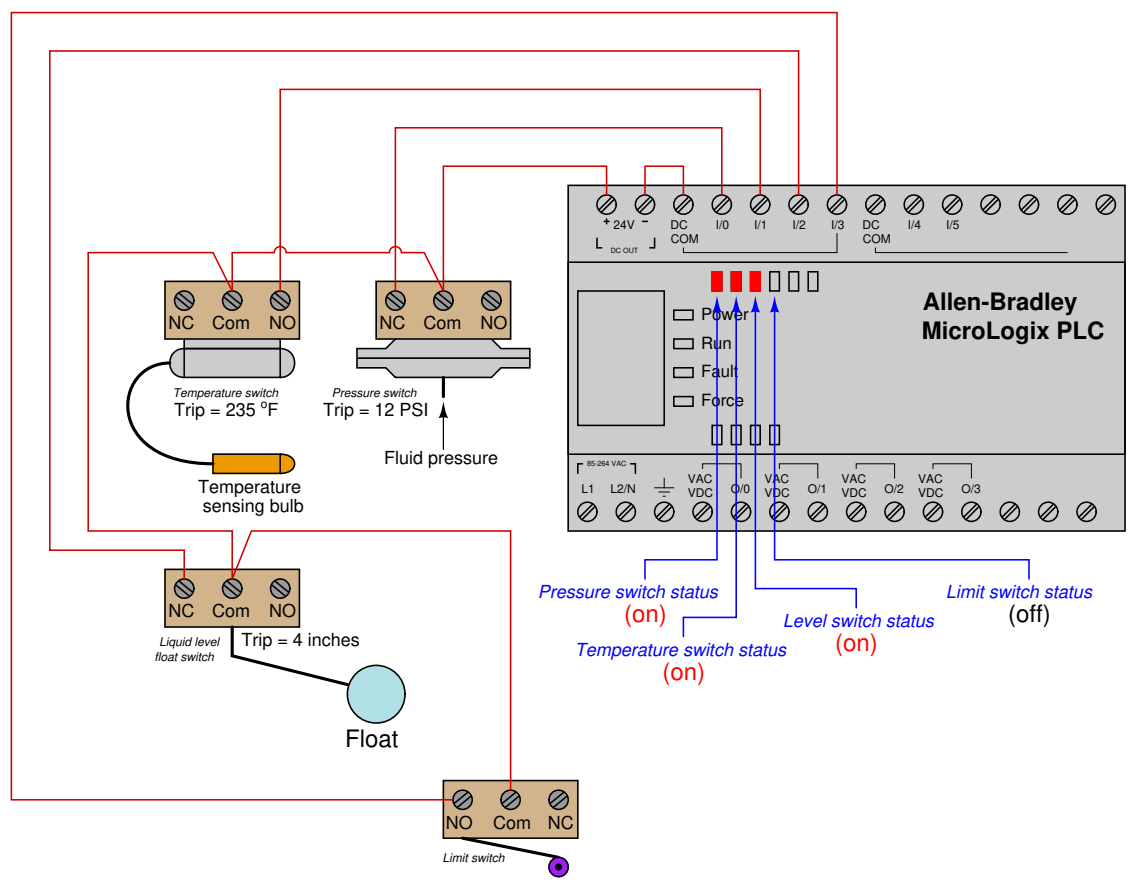
Open when there is zero flow (minimum stimulus)
Closed when flow increases beyond threshold

NC flow switch

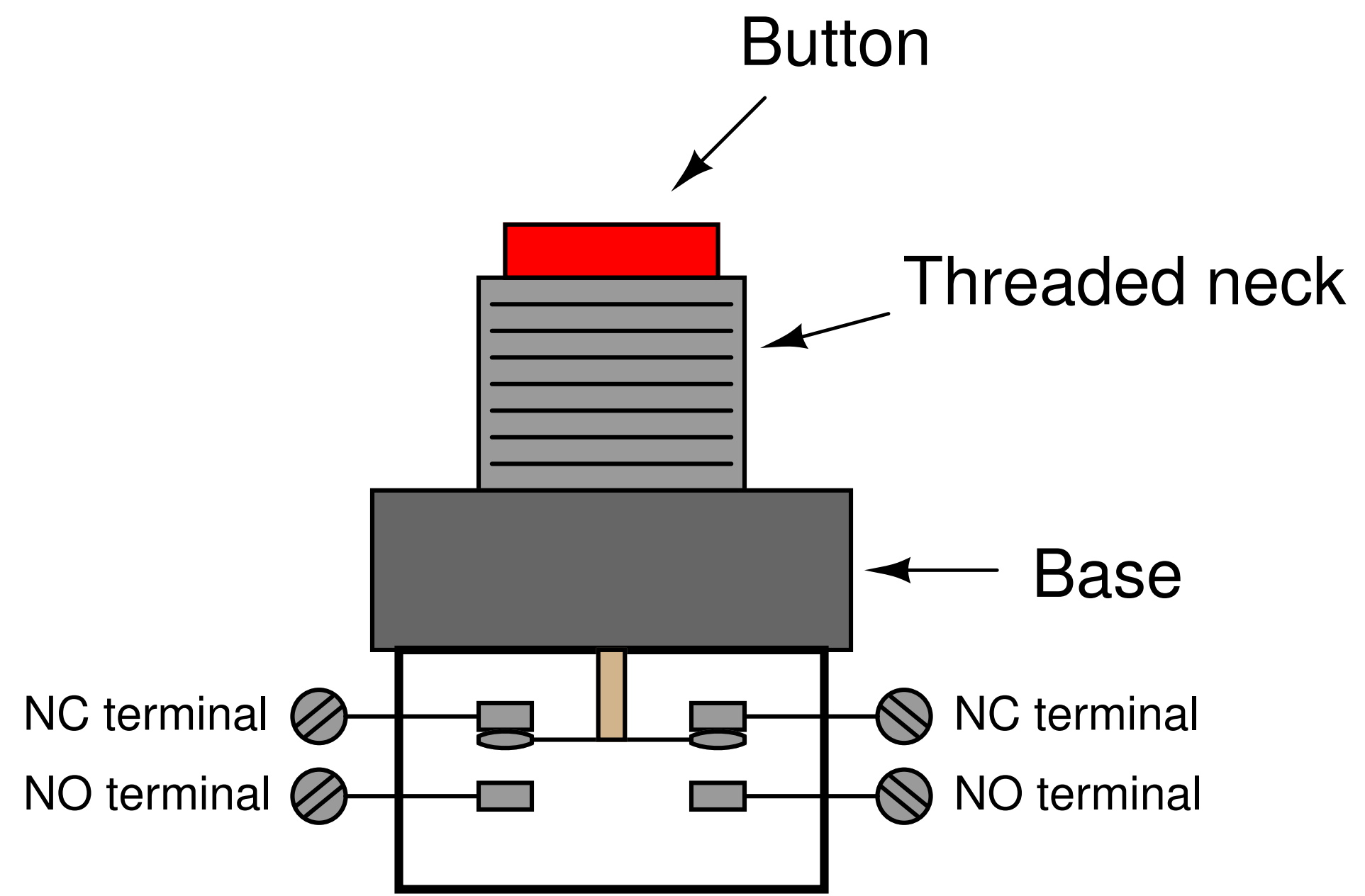


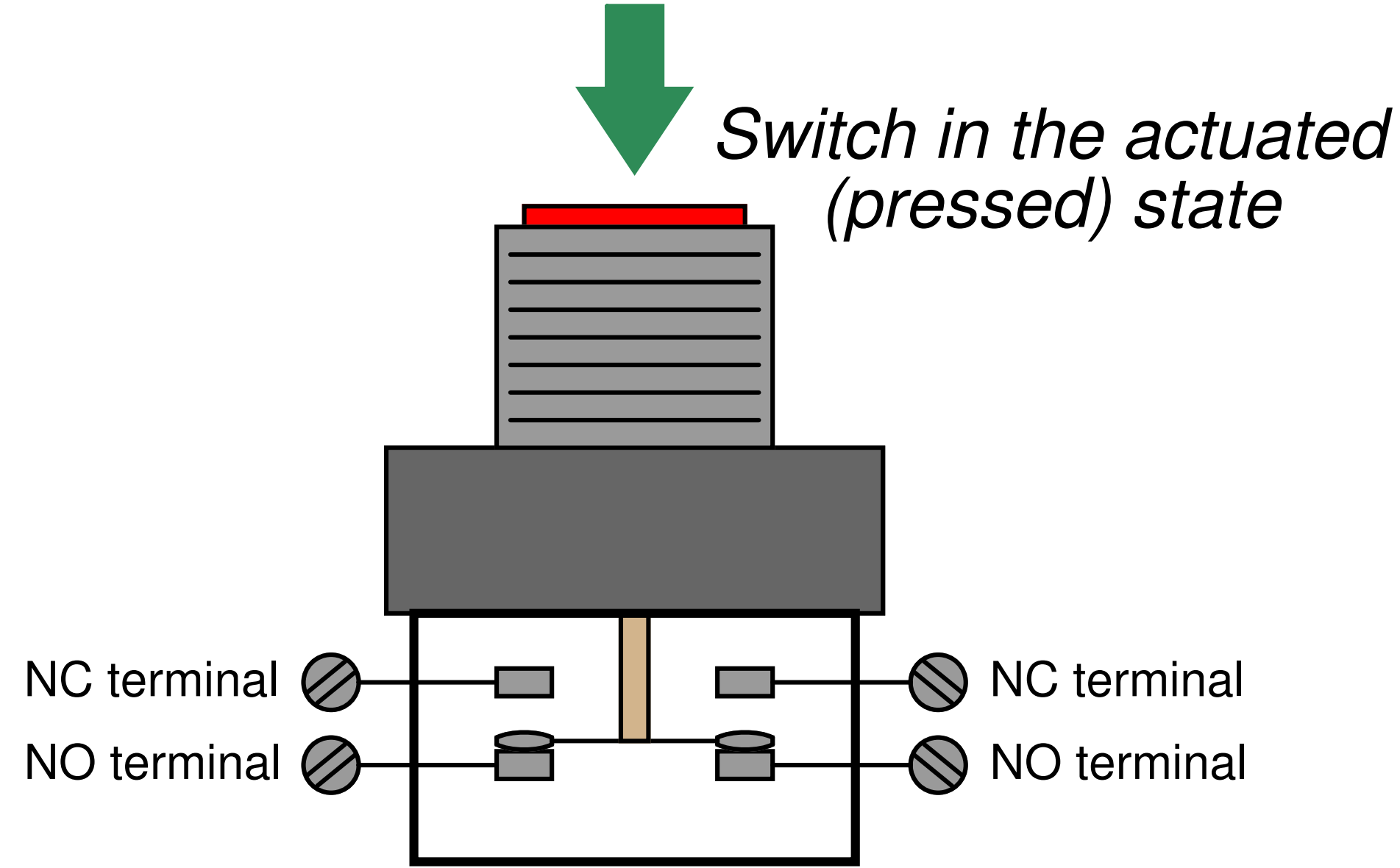
Closed when there is zero flow (minimum stimulus)
Open when flow increases beyond threshold

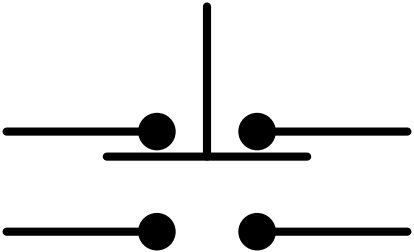

14 inches
3 GPM
22 PSI
125 °F

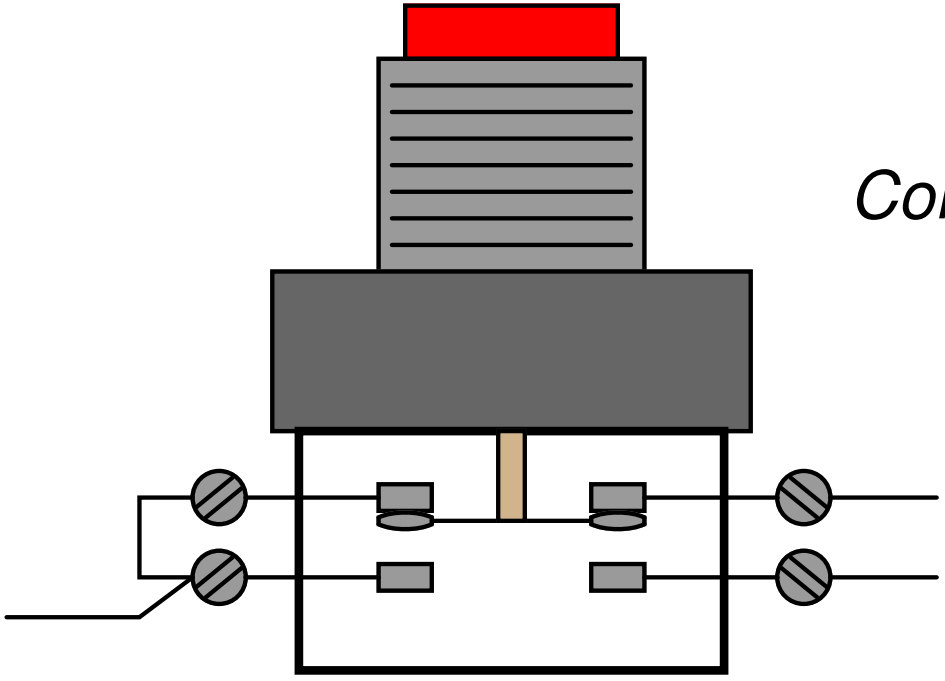

NC
Com
NO
Temperature switch
Trip = 235 °F
Temperature sensing bulb
NC
Com
NO
Pressure switch
Trip = 12 PSI
Fluid pressure
NC
Com
NO
Liquid level float switch
Trip = 4 inches
Float
NO
Com
NC
Limit switch
+ 24V −
DC OUT
DC COM
I/0
I/1
I/2
I/3
DC COM
I/4
I/5
Power
Run
Fault
Force
Allen-Bradley MicroLogix PLC
85-264 VAC
L1
L2/N
VAC VDC
O/0
VAC VDC
O/1
VAC VDC
O/2
VAC VDC
O/3
Pressure switch status
(on)
Temperature switch status
(on)
Level switch status
(on)
Limit switch status
(off)

Switch	Normal status	Present status	Trip value	Stimulus
Pressure	Normally-closed (NC)	Closed	12 PSI	$P < 12$ PSI
Temperature	Normally-open (NO)	Closed	235 ^{o}F	$T > 235$ ^{o}F
Level	Normally-closed (NC)	Closed	4 inches	$L < 4$ inches
Limit	Normally-open (NO)	Open	n/a	*no contact*

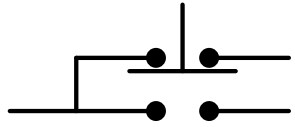

Button
Threaded neck
Base
NC terminal
NO terminal
NC terminal
NO terminal

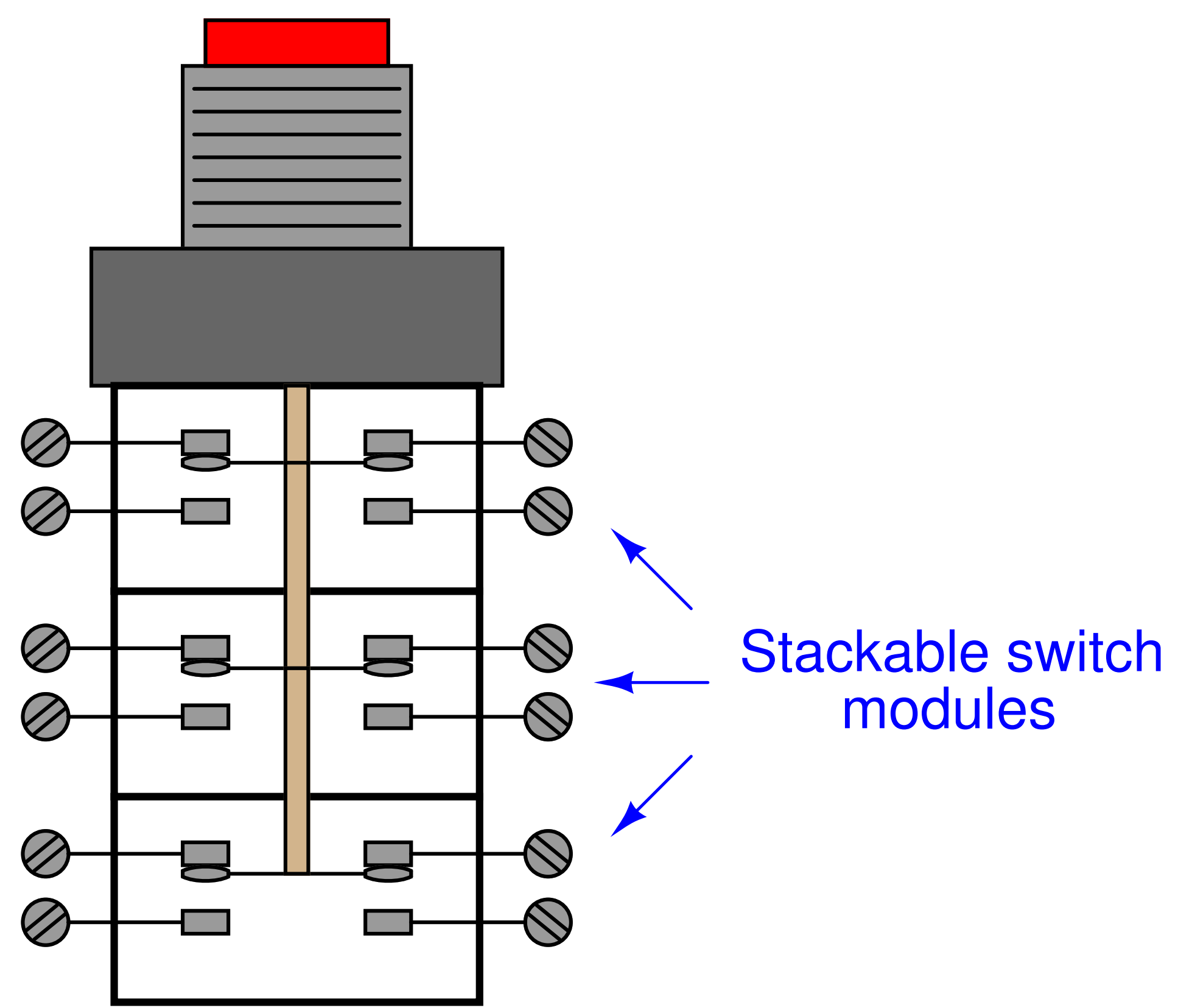

Switch in the actuated (pressed) state
NC terminal
NO terminal
NC terminal
NO terminal





Connected as a form-C switch

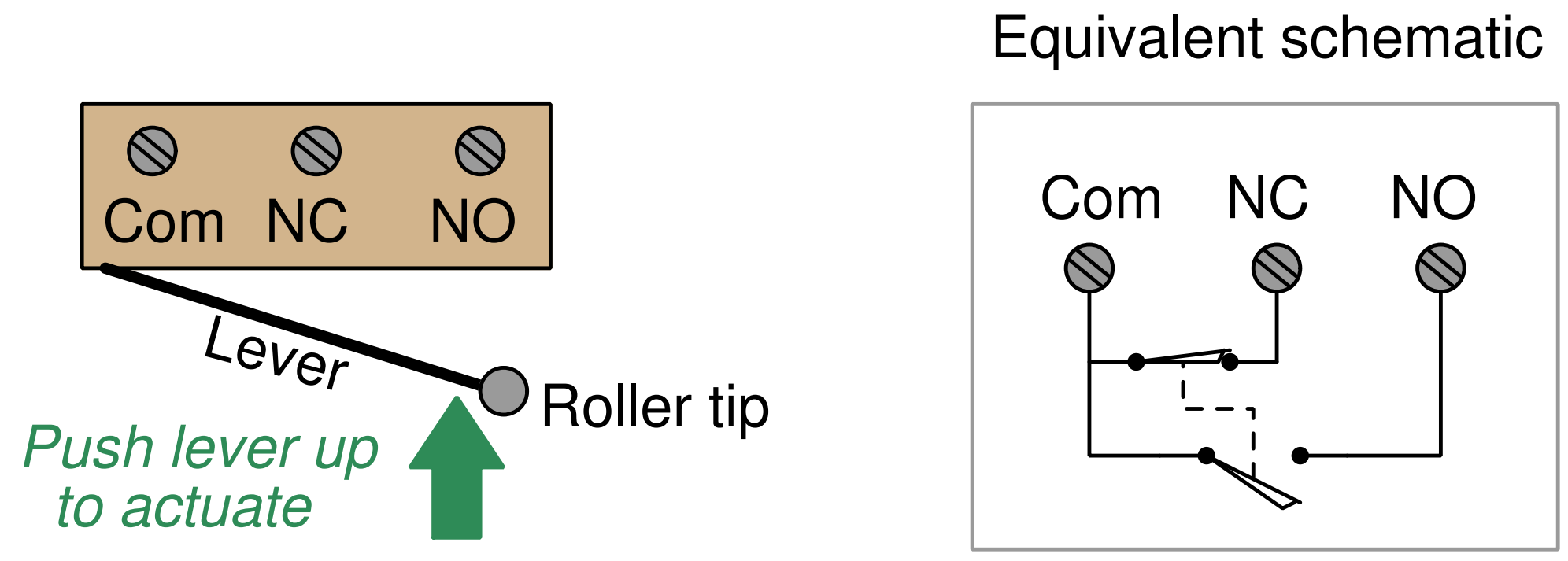



Stackable switch
modules

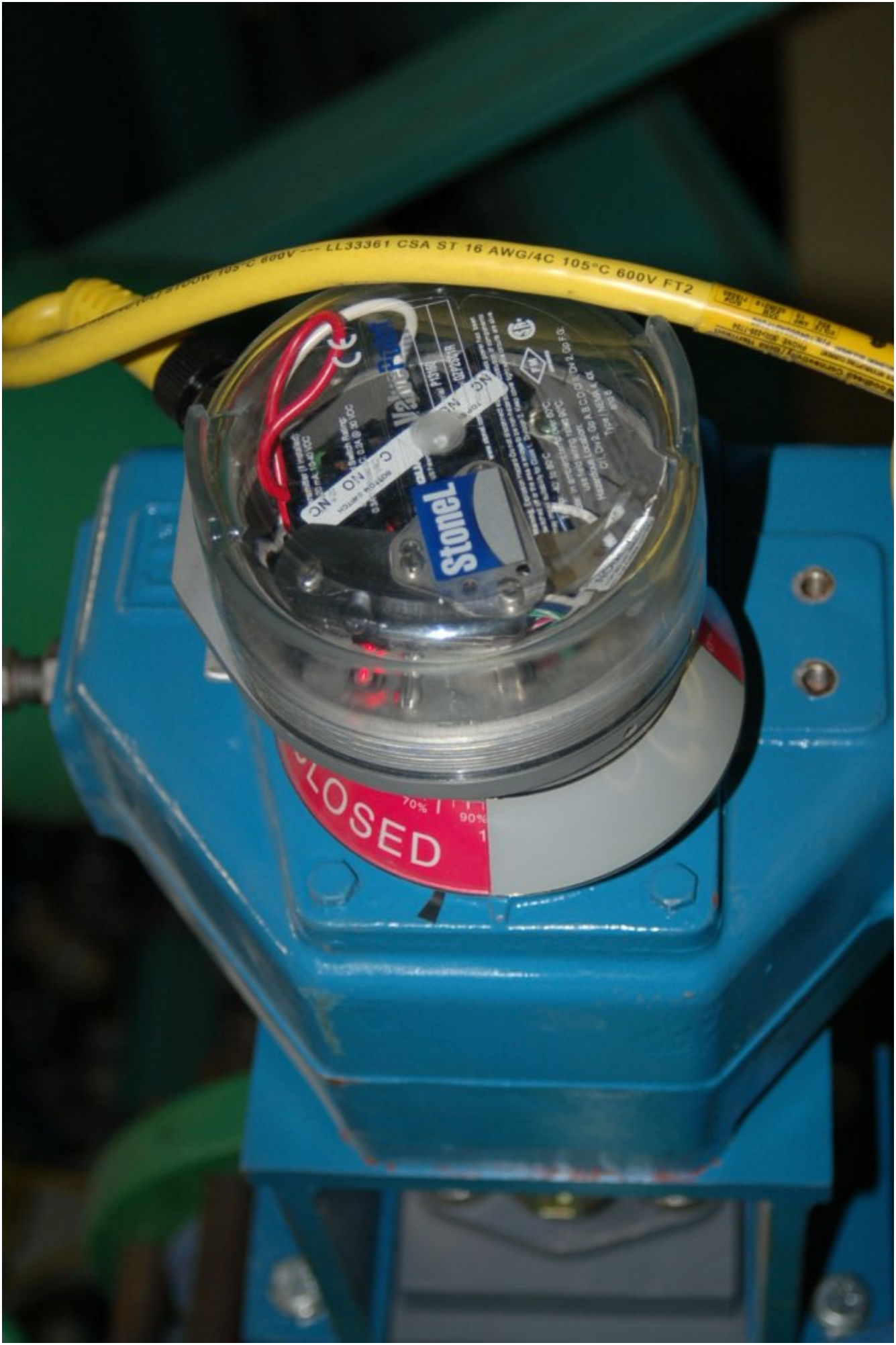
Limit switch symbols

Normally-open
(NO)

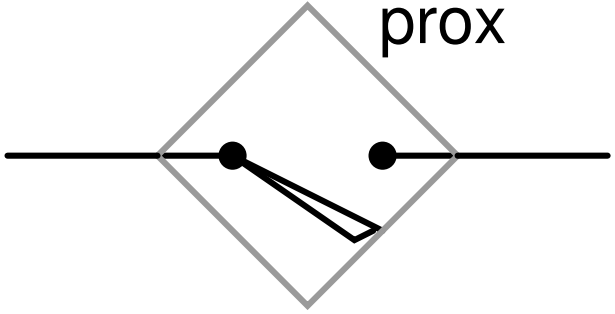
Normally-closed
(NC)


Com
NC
NO
Lever
Roller tip
Push lever up
to actuate
Equivalent schematic
Com
NC
NO

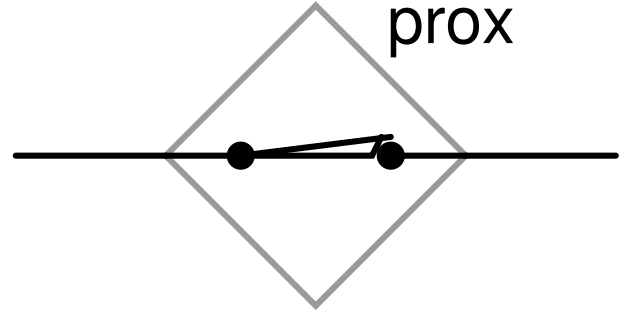

NCNOC
NCNOC
NCNOC
NCNOC
7
6
4
5


LL33361 CSA ST 16 AWG/4C 105°C 600V FT2
Stonel
LOSED
70%
90%

Proximity switch symbols



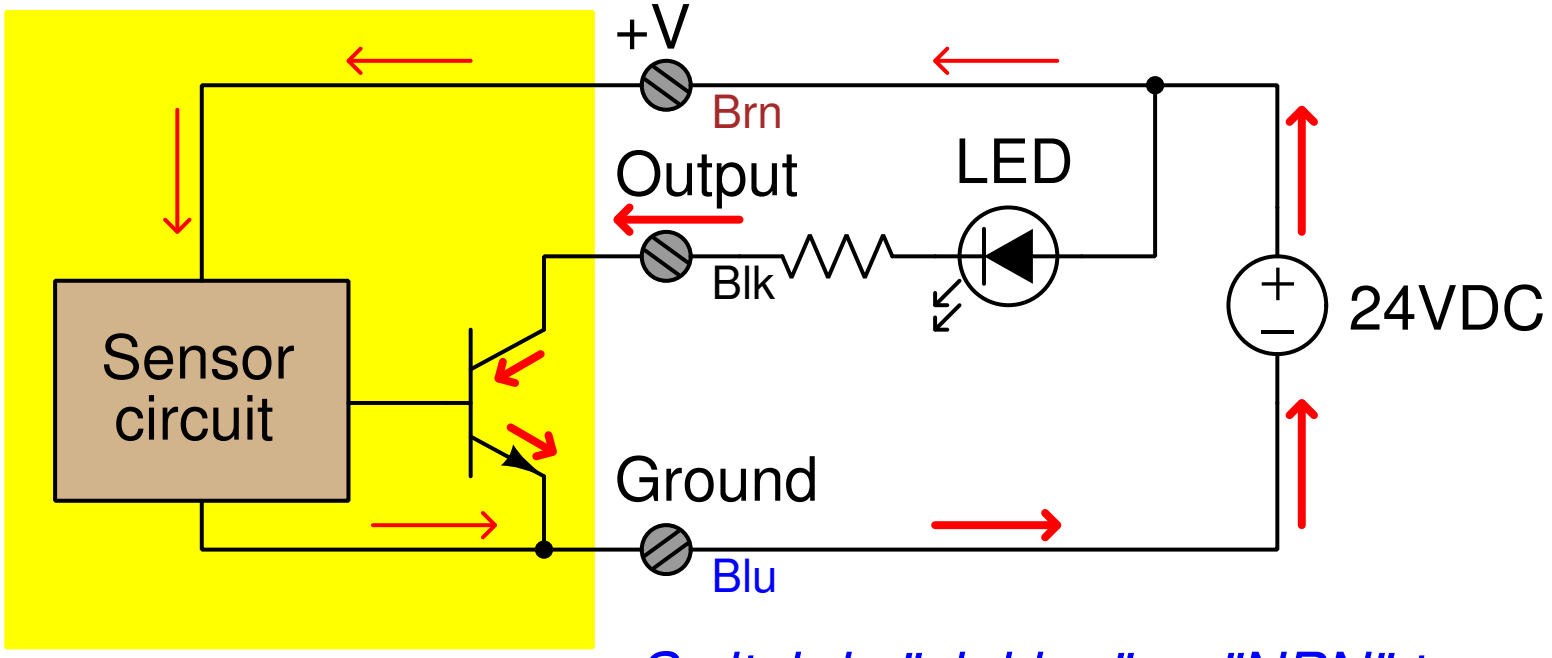
Normally-open
(NO)



Normally-closed
(NC)

"Sinking" output
proximity switch

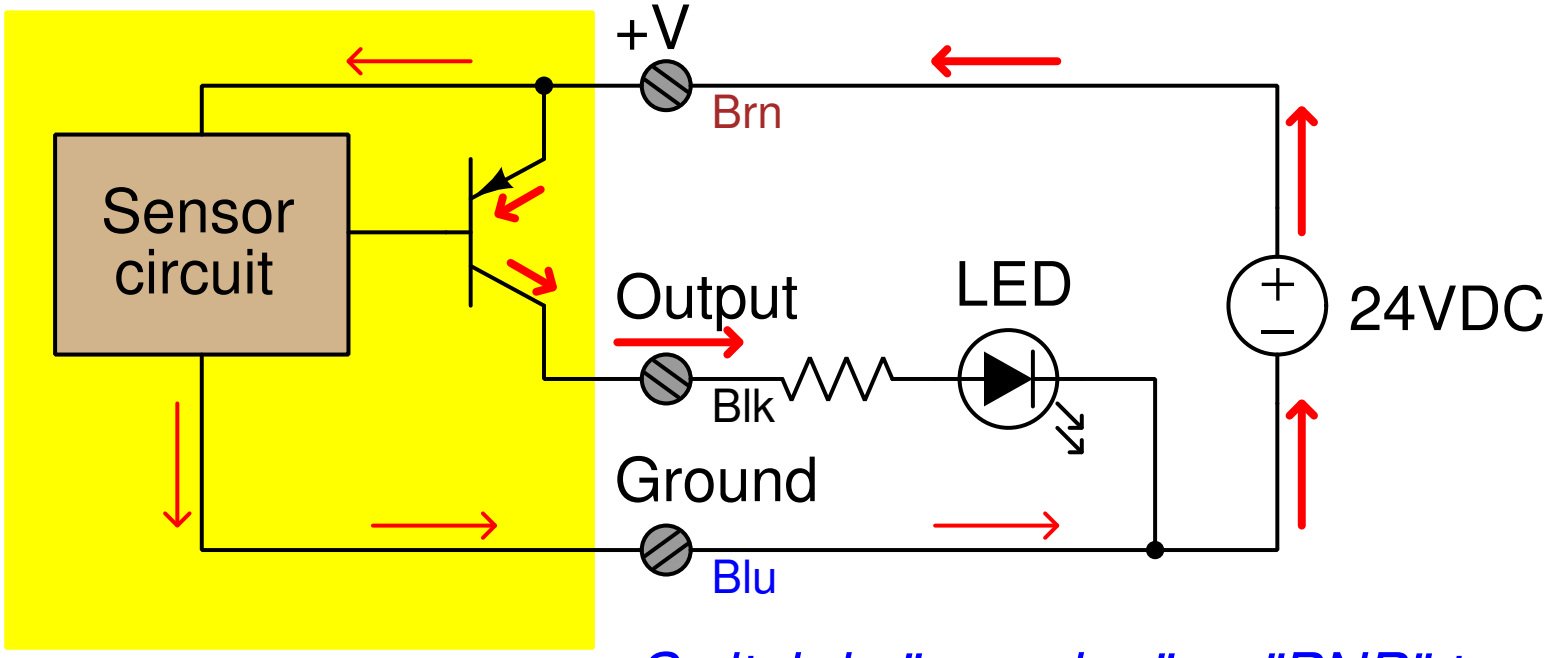
LED current "sinks" down to ground through the switch



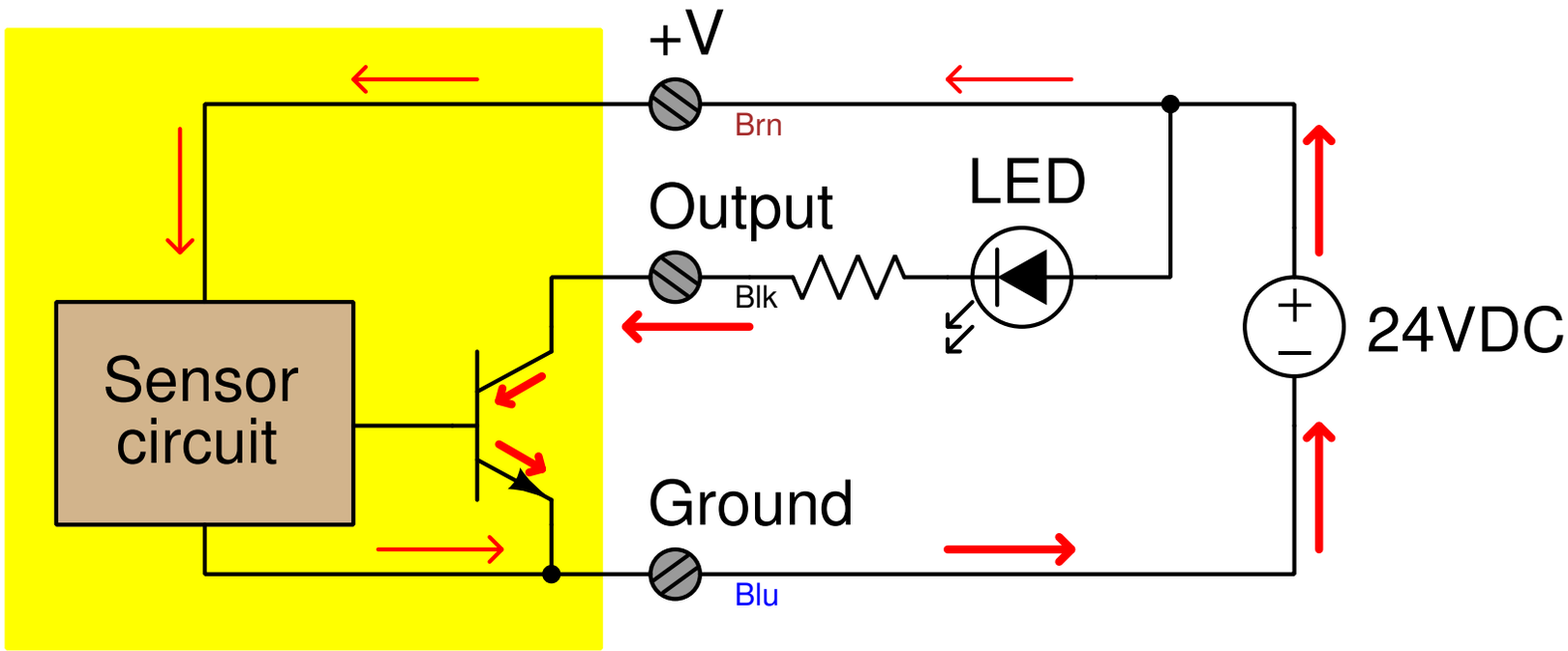
Switch is "sinking" or "NPN" type

"Sourcing" output
proximity switch

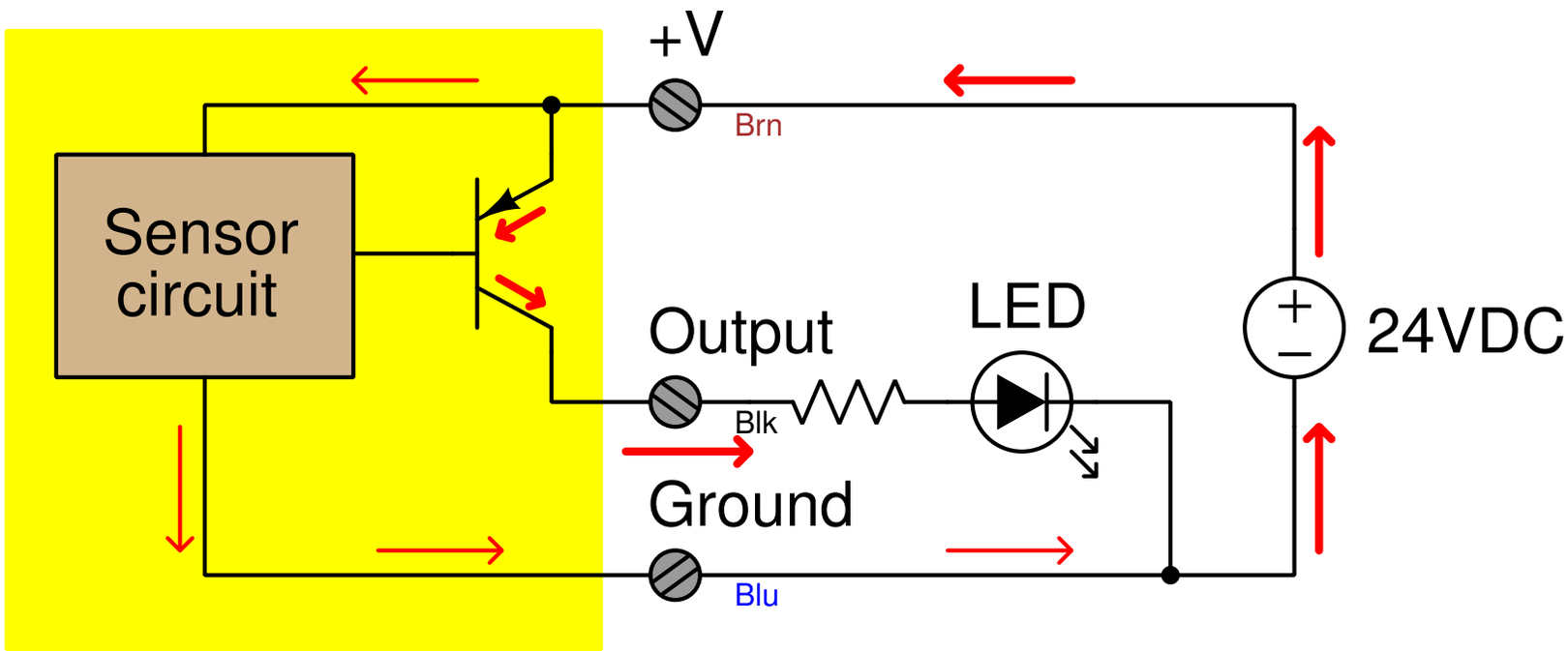
Switch "sources" current out to the LED



Switch is "sourcing" or "PNP" type

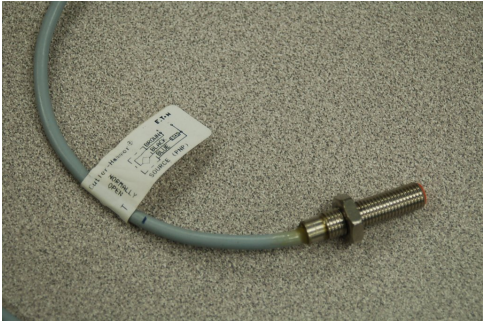


Sinking transistor = NPN = "low side" switch



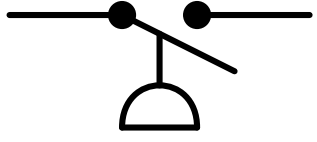
Sourcing transistor = PNP = "high side" switch


Cutler-Hammer
E58BLT1C

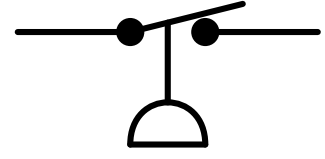



USE FEELER GAUGE
NTRELINE IS ON
ST POINT MARKED. 0
– SET CORRECTLY
– SEE SECTION E
RECTLY FOR PROPER
CTION E.
JUSTMENT = QUALITY
△ CAUTION
DO NOT RUN MACHINE WITH
COVERS OPEN
* NIP POINTS INSIDE *
* HOT COMPONENTS INSIDE *
INJURY COULD RESULT

Pressure switch symbols

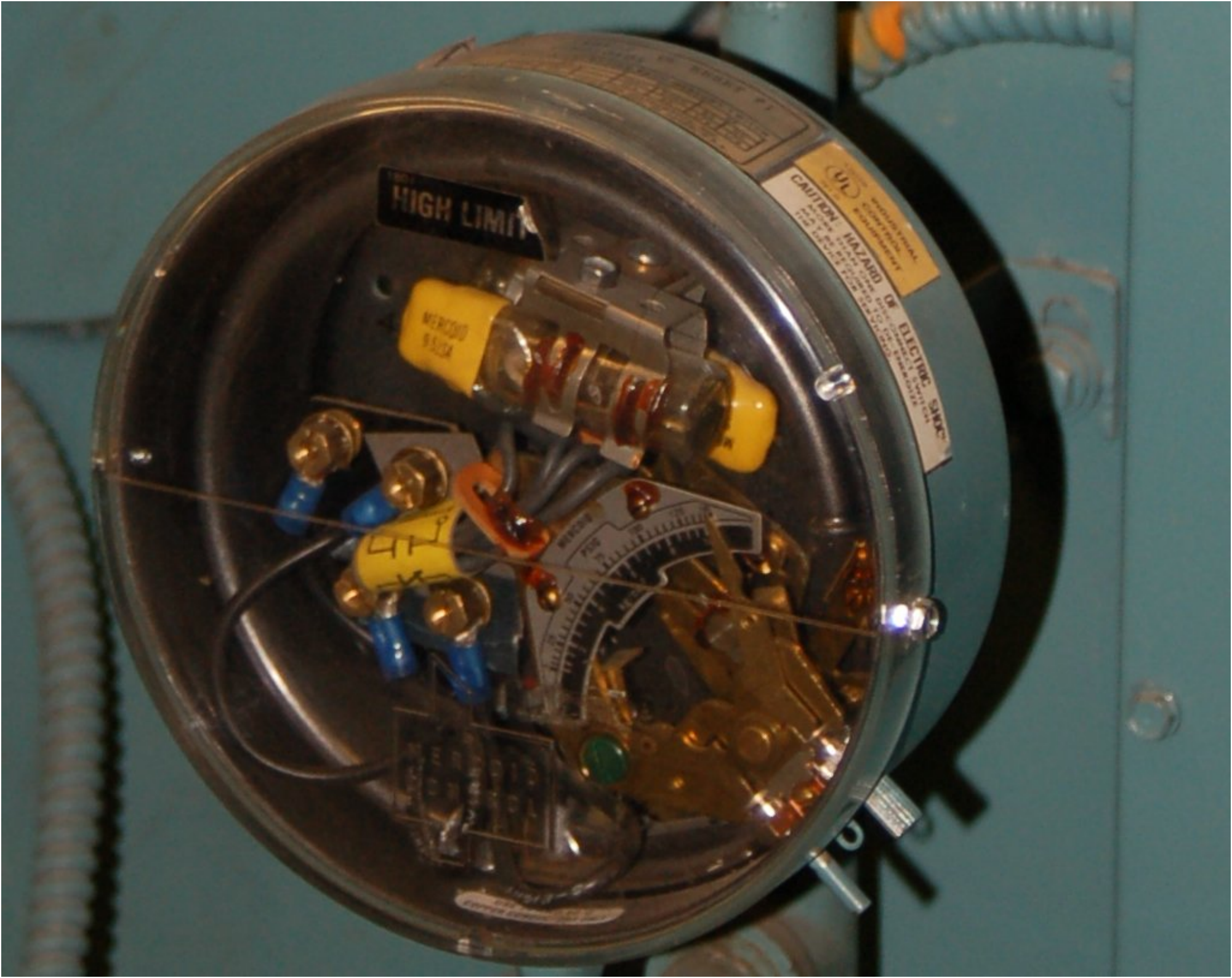


Normally-open
(NO)



Normally-closed
(NC)

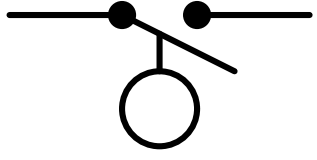

COLE
Cleaver Brooks
MODEL 4 WATERTUBE BOILER


HIGH LIMIT
CAUTION HAZARD OF ELECTRIC SHOCK

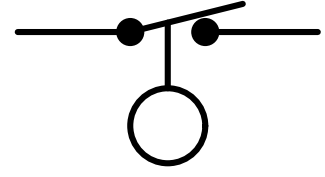

Δ P
3.5 - 17 psi
0.25 - 1.2 bar
25 - 120 kPa
DIFFERENTIAL
Danfoss
TAG 721.2
9-4-04


H105K-457 9942

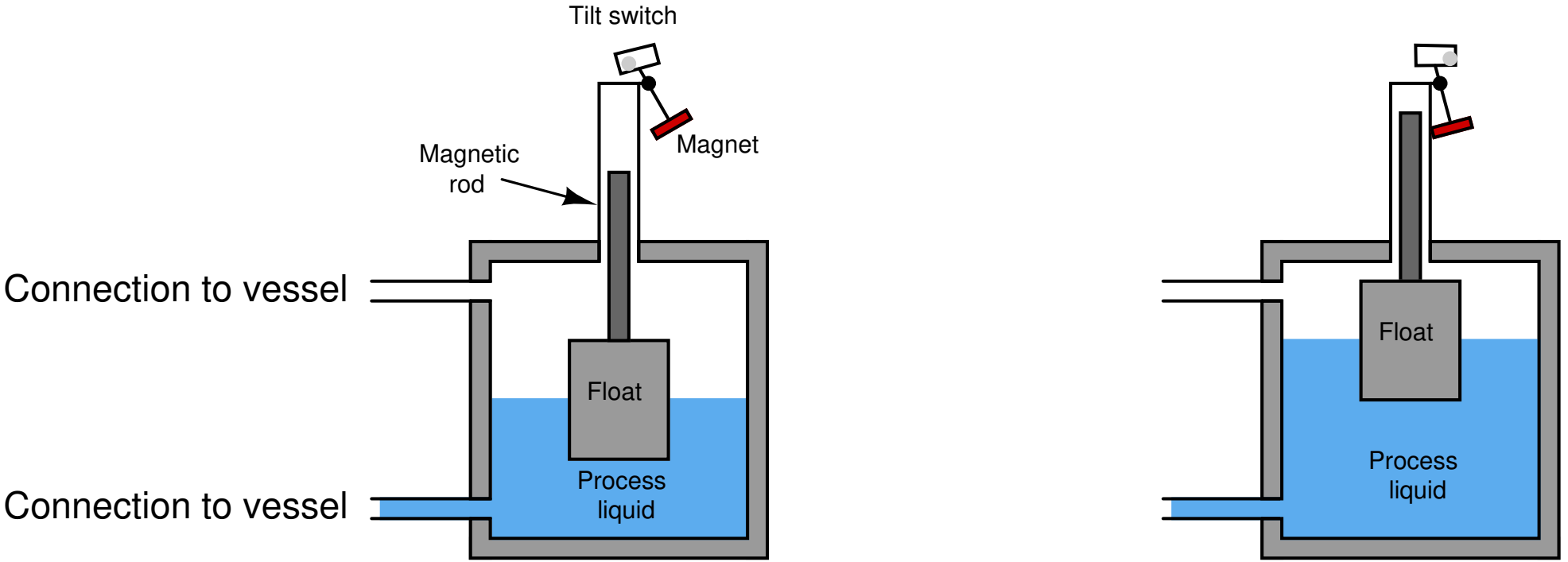
Level switch symbols

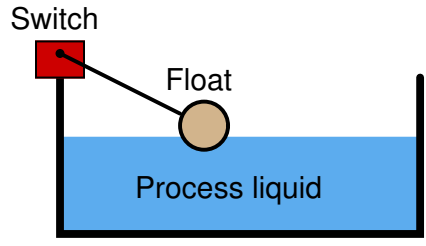


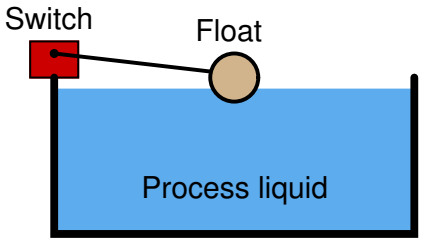
Normally-open
(NO)



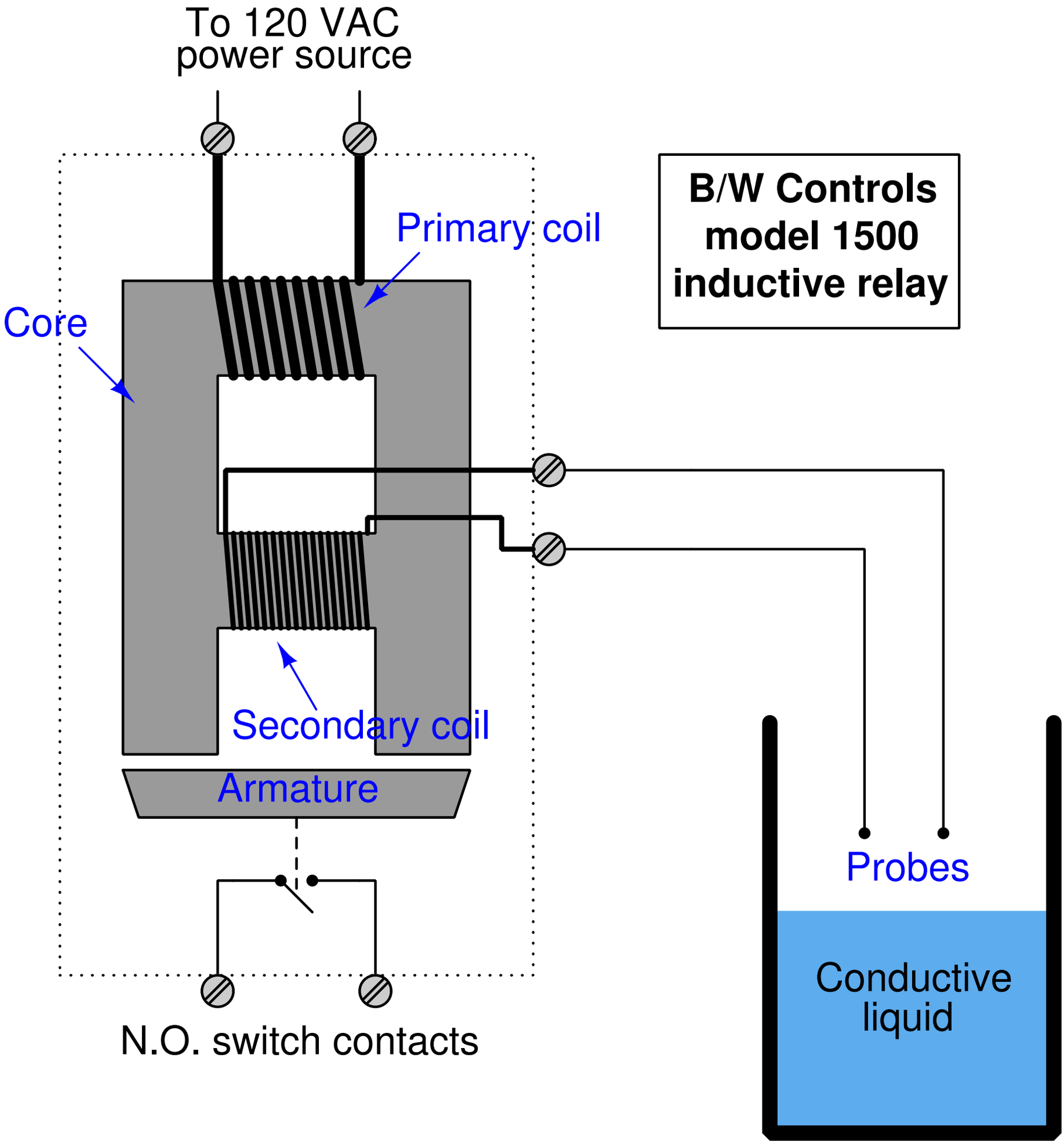
Normally-closed
(NC)


Tilt switch
Magnetic rod
Magnet
Connection to vessel
Float
Process liquid
Connection to vessel
Float
Process liquid

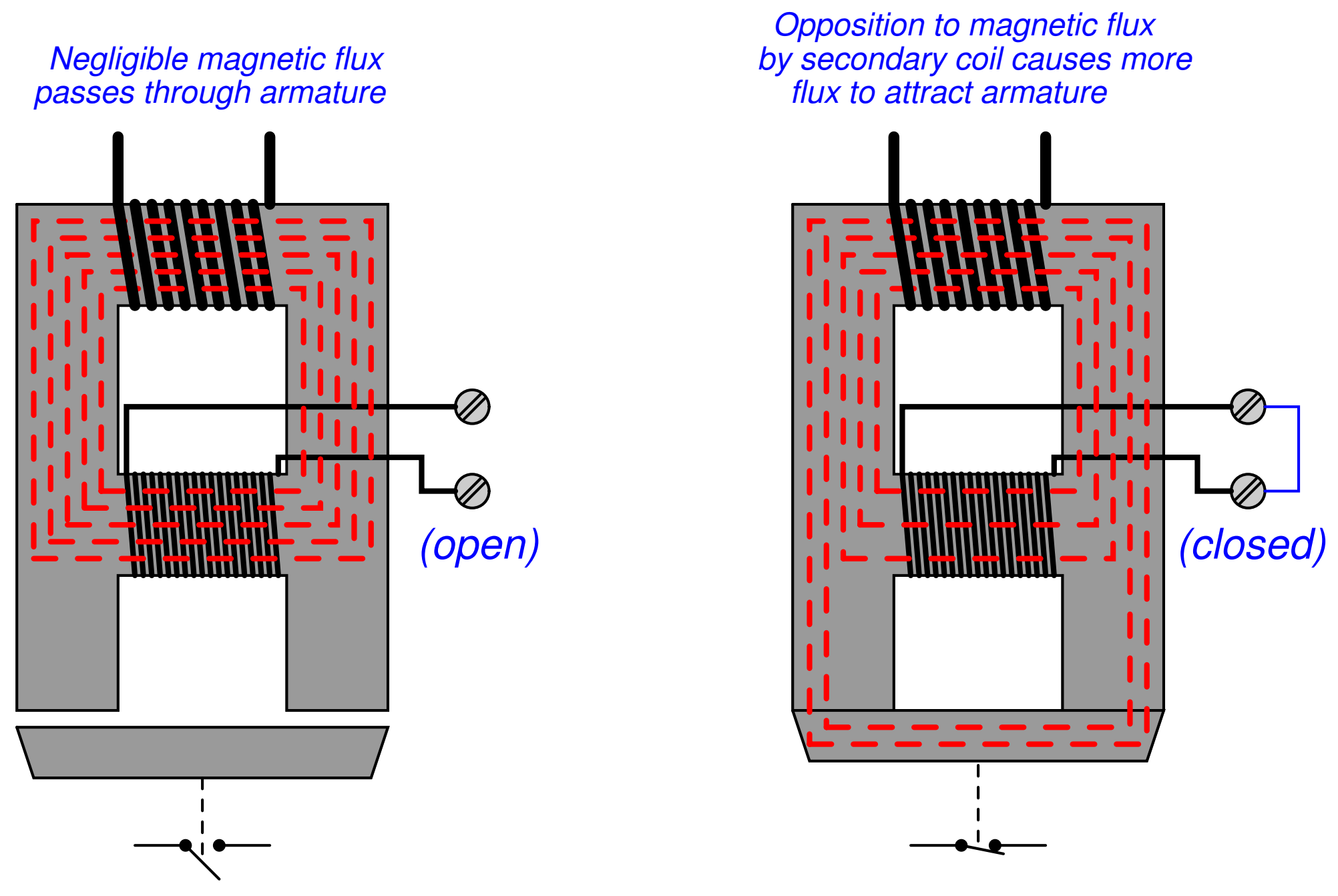

Switch
Float
Process liquid


Switch
Float
Process liquid

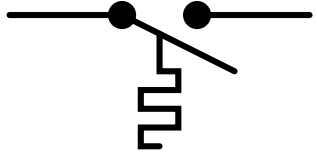

Power
On
Switch
Power
Supply
On
017750-0000
Hart


To 120 VAC
power source
B/W Controls
model 1500
inductive relay
Primary coil
Core
Secondary coil
Armature
Probes
Conductive
liquid
N.O. switch contacts

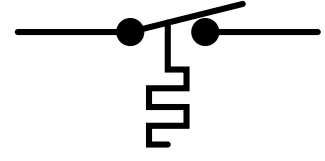
$$V = N \frac{d\phi}{dt}$$


Negligible magnetic flux
passes through armature
(open)
Opposition to magnetic flux
by secondary coil causes more
flux to attract armature
(closed)

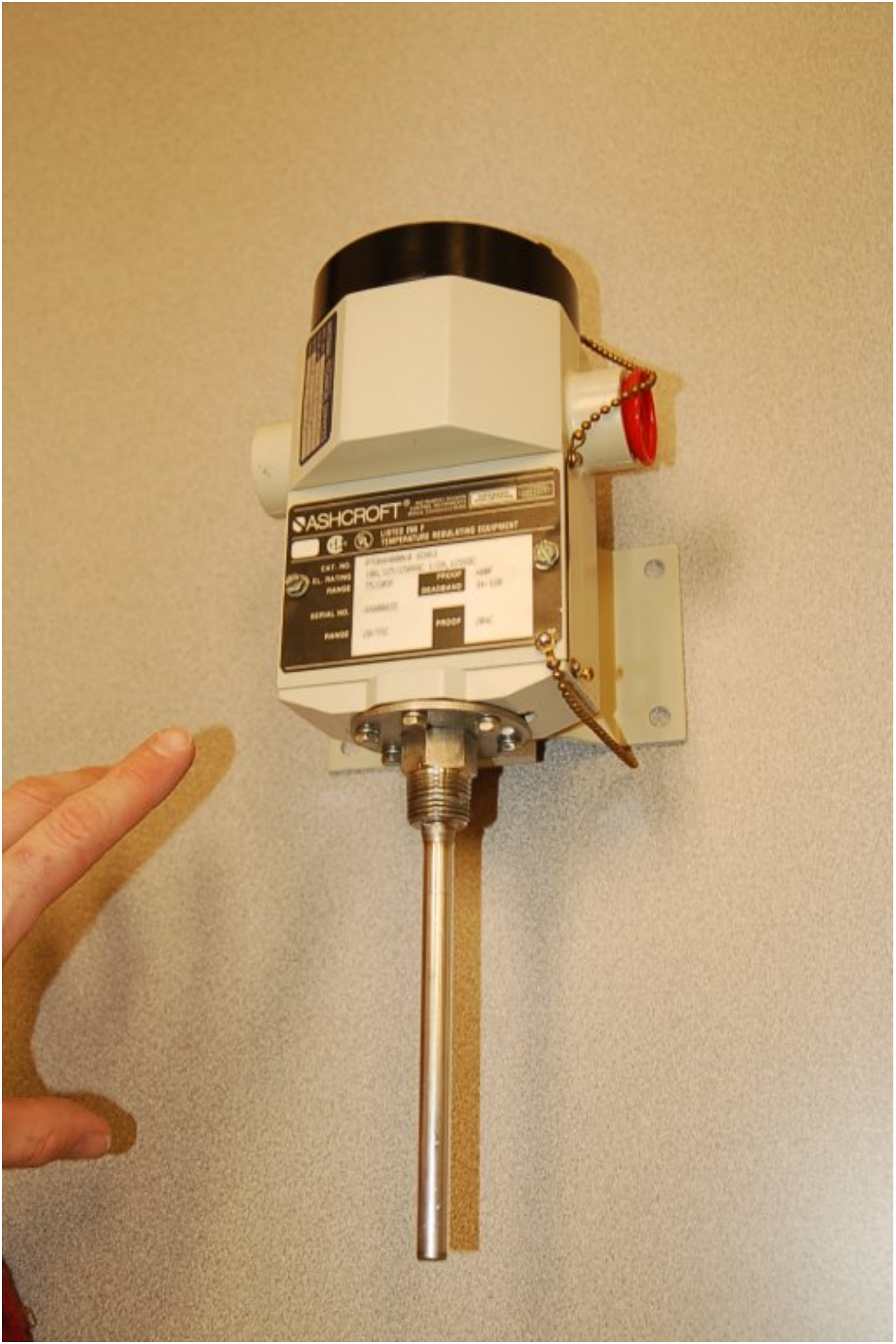
Temperature switch symbols



Normally-open
(NO)



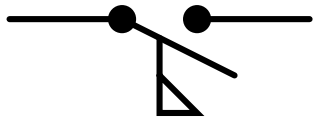
Normally-closed
(NC)


ASHCROFT
PROOF
DEADBAND
PROOF

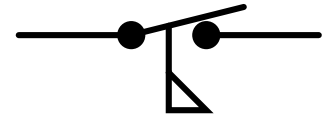
O


READY
INPUT
TRIP 1
TRIP 2
TRIP 3
TRIP 4
SPA
SITE PROGRAMMABLE ALARM
MOORE INDUSTRIES
VIEW
SELECT

Flow switch symbols



Normally-open
(NO)



Normally-closed
(NC)


CAUTION
THIS APPARATUS MUST BE DISCONNECTED FROM POWER
SUPPLY CIRCUITS BEFORE OPENING CASE & MUST BE
CAREFULLY CLOSED AGAIN BEFORE RECONNECTING.
THIS EXPLOSION-PROOF HOUSING MEETS ALL U.L.
CODE CLASS I - GROUP D REQUIREMENTS