

Diaphragm Switch

CD1H, CD2H Series

Features

- ▶ High reliability
- ▶ Extremely versatile
- ▶ Calibrated dial for easy setpoint adjustment
- ▶ Ideal for pressure or vacuum

Applications

- ▶ Medical
- ▶ Water equipment
- ▶ Food & beverage
- ▶ Air proving in HVAC systems
- ▶ Engine monitoring
- ▶ Factory automation



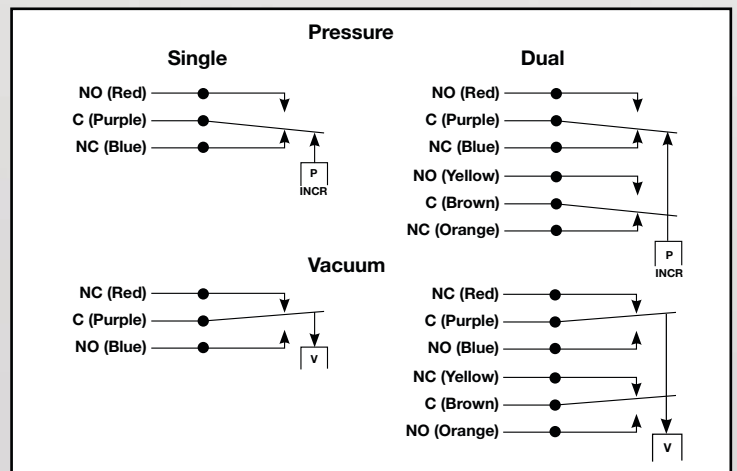
General Specifications*

Accuracy:	+/- 0.5% of the adjustable range
Switch: Type:	Single pole double throw (SPDT) single or dual circuit
Rating:	10 amps @ 125/250 VAC, 3 amps @ 480 VAC (Class A or H limit switch); Consult sales drawing for ratings of optional limit switches.
Wetted Parts: Process Fitting:	304 stainless steel
Diaphragm:	17-7 PH stainless steel
Enclosure:	Anodized aluminum
Electrical Connection:	Free leads approximately 18" long, 16 AWG through 3/4" NPT conduit connector.
Enclosure Ratings:	NEMA 4
Pressure Connection:	1/4" NPT female
Approvals: UL:	All models are Underwriters' Laboratories listed in the Electrical Construction Materials Directory under Industrial Control Equipment, float and pressure-operated; File E42816, and Canadian Standards Association listed under Guide 380-W-1.16, Class 3231, File 22355.

* See product configurator for additional options.

Approvals (Cont.): CSA:	Listed under Guide 380-W-1.16, Class 3231, File 22355
Temperature Range: Operating:	-40° to +165°F (-40° to +74°C)
Storage:	-65° to +200°F (-54° to +93°C)
Adjustment Instructions: Pressure:	Turn self-locking adjustment screw counterclockwise to increase pressure setting
Vacuum:	Turn self-locking adjustment screw clockwise to increase vacuum setting
Options:	-Cleaned for Oxygen Service -1/2" NPT Pressure Port -NEMA 4X enclosure
Shipping Weight:	Approximate 1.75 lbs.

Wiring Diagram



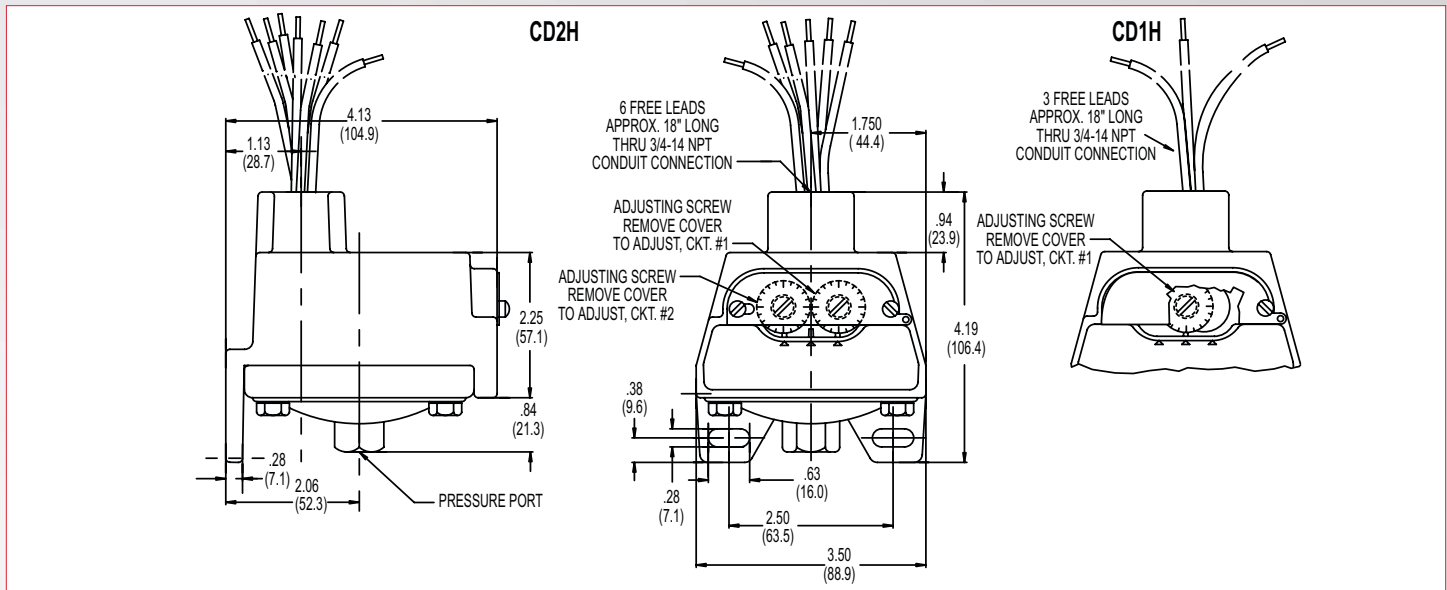
Wiring Code

Lead	Circuit #1		Circuit #2	
	Pressure	Vacuum	Pressure	Vacuum
Normally Closed	Blue	Red	Orange	Yellow
Common	Purple	Purple	Brown	Brown
Normally Open	Red	Blue	Yellow	Orange

Diaphragm Switch

CD1H, CD2H Series

Technical Drawing



Product Configurator

Example	CD1H	-A	3SS		
---------	------	----	-----	--	--

H	Hermetically sealed limit switch option - Class I, Division II (requires AA, CC, GH, HH limit switch, not available in vacuum models)
---	---

Base Configuration

CD1H	Single setpoint housed
CD2H	Dual setpoint housed
VCD1H	Single setpoint housed - Vacuum
VCD2H	Dual setpoint housed - Vacuum

Limit Switch¹

-A	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (standard for pressure range 3SS, 80SS or 150SS; not available on 2SS option)
-C	10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.1 amps @ 125 VDC; 0.05 amps @ 250 VDC
-H	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (standard for pressure range 2SS or 18SS)
-M	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; 0.5 amps @ 125 VDC; 0.25 amps @ 250 VDC
-GH	1 amp @ 125 VAC; 1 amp @ 24 VDC with gold contacts
-CC	Hermetically sealed; 10 amps @ 125/250 VAC (not available on 2SS or vacuum models)
-GH	Hermetically sealed; 1 amp @ 125 VAC with gold contacts (not available on 2SS or vacuum models)
-HH	Hermetically sealed; 5 amps @ 125/250 VAC (not available on 2SS or vacuum models)

Options

-Z1	Oxygen cleaned
-FX	NEMA 4X Enclosure
-Wxxx	Extra wire length (XXX = inches)
-Sxxx	Factory pre-set (consult factory)

Pressure Connection

Blank	Standard 1/4" NPT female
-P2	1/2" NPT female pressure fitting

Adjustable Range

	Adjustable Range (PRESSURE)				Approx. Deadband ² (Actuation Value)	Proof Pressure
	Decreasing - psi (bar)		Increasing - psi (bar)			
	Min	Max	Min	Max		
2SS ³	.5 (.03)	34.6 (2.4)	1.9 (.13)	36 (2.4)	.6 - 1.4 (.04 - .1)	83.3" H2O
3SS	.3 (.02)	2.85 (.2)	.18 (.01)	3 (.2)	.07 - .15 (0 - .01)	10 (.7)
18SS	.4 (.03)	17.74 (1.2)	.66 (.04)	18 (1.2)	.12 - .26 (.01 - .02)	60 (4.1)
80SS	.5 (.03)	76.6 (5.2)	3.9 (.3)	80 (5.4)	1.6 - 3.4 (.1 - .2)	160 (10.9)
150SS	1.5 (.1)	144.0 (9.8)	7.5 (.5)	150 (10.2)	2.3 - 6.0 (.2 - .4)	300 (20.4)

	Adjustable Range (VACUUM)				Approx. Deadband ² (Actuation Value)	Proof Pressure
	Decreasing - In. Hg		Increasing - In. Hg			
	Min	Max	Min	Max		
3SS	0.06	5.72	0.34	6	.14 - .28	6
18SS	0.8	29.2	1.6	30	.4 - .8	30

NOTES:

¹ Consult Supplemental Guide for specific deadband values

² Deadband values indicated when used with the standard "H" limit switch

³ The "2SS" range is specified in inches of H₂O