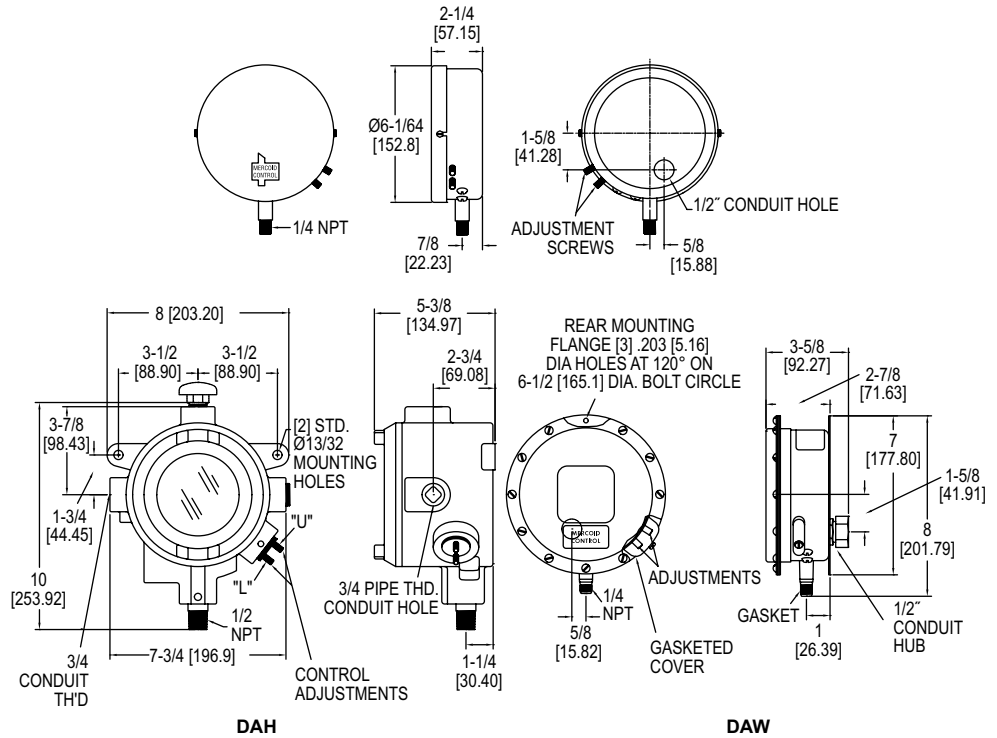


# BOURDON TUBE PRESSURE SWITCH

Pressure Ranges to 8000 psi (551.6 bar)



Customers tell us that the **Series DA/DS Bourdon Tube Pressure Switch** is the best pressure switch made. The Mercoid DA/DS Series is one of the world's broadest lines of pressure switches. The DA/DS Series has extremely high sensitivity and great repeatability. The DA Models are equipped with two external adjustments, one for setting high pressure operating point, the other for setting low pressure operating point. Deadband, the difference between high and low setpoints, is adjustable over the full-scale. The DS Models are equipped with a single external adjustment for setting operating point only. For mercury-free switches, choose between the snap action switch or hermetically sealed snap action switch. Hermetically sealed mercury switch also available.

**BENEFITS/FEATURES**

- Visible calibrated dial provides an easy and fast check without having to open device causing dangerous conditions to operators
- On/off indication (except hermetically sealed snap switch models) gives operator clear indication of state of switched equipment that could be located in another location
- Adjustable or fixed deadband supports control applications by reducing equipment wear-out by unnecessary recycling
- External switch set point adjustment reduces set-up time
- Pressure ranges of full vacuum to 8000 psig gives application designers the ability to specify standard equipment, simplifying install and training, and reducing servicing costs
- UL listed, CSA approved, many models FM approved to support rigorous process applications and regulations
- General purpose, weatherproof or explosion-proof enclosures for a variety of indoor or outdoor environments meeting the needs of multiple applications and uses

**APPLICATIONS**

- Compressors
- Mechanical HVAC or process equipment
- Pump control

**SPECIFICATIONS**

**Wetted Materials:** Brass, 403 SS, or 316 SS.  
**Temperature Limit:** 180°F (82°C).  
**Pressure Limit:** Maximum pressure of the operating range.  
**Enclosure Rating:** General purpose, weatherproof or explosion-proof.  
**Repeatability:** ±1% of full operating range, ±1.5% on DS-7300 models.  
**Switch Type:** SPST mercury switch, SPDT mercury switch, SPDT snap switch. Other circuit types available.  
**Electrical Rating:** See model charts.  
**Electrical Connections:** Screw terminal.  
**Conduit Connection:** General purpose: 1/2" hole for conduit hub; Weatherproof: 1/2" conduit hub; Explosion-proof: 3/4" female NPT.  
**Process Connection:** General purpose and weatherproof: 1/4" male NPT, 1/2" male NPT on ranges 15S and 16S; Explosion-proof: 1/2" male NPT and 1/4" female NPT.  
**Mounting Orientation:** Vertical.  
**Set Point Adjustment:** Thumbscrew.  
**Weight:** General purpose: 4 lb (1.8 kg); Weatherproof: 6 lb (2.7 kg); Explosion-proof: 8 lb (3.5 kg).  
**Deadband:** See model chart.  
**Compliance:** CSA, FM, UL (mercury switch units are not CE approved) (Consult factory for FM approved models).

USA: California Proposition 65  
**WARNING:** This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

# BOURDON TUBE PRESSURE SWITCH

Pressure Ranges to 8000 psi (551.6 bar)

**MODEL CHART - D SERIES PRESSURE SWITCH WITH SNAP ACTION SWITCH AND GENERAL PURPOSE ENCLOSURE**

Bourdon Tube Material	Adjustable Operating Range (psig)	Adjustable Deadband SPDT: 10 A @ 120/240 VAC		Fixed Deadband SPDT: 15 A @ 120/240 AC	
		Minimum Deadband (psig)	Model	Fixed	Model
Brass	0 to 30" Hg VAC	13.5" Hg	DA-7031-153-2	3" Hg	DS-7231-153-2
Brass	10" Hg VAC to 12	6	DA-7031-153-3	1.5	DS-7231-153-3
Brass	25" Hg VAC to 50	12	DA-7031-153-27	2.5	DS-7231-153-27
Brass	1/8 to 15	6	DA-7031-153-1	1.5	DS-7231-153-1
Brass	1/8 to 20	6	DA-7031-153-3A	1.5	DS-7231-153-3A
Brass	1 to 35	7.5	DA-7031-153-4	1.5	DS-7231-153-4
Brass	2 to 60	9	DA-7031-153-5	2	DS-7231-153-5
Brass	5 to 100	13.5	DA-7031-153-6	2.5	DS-7231-153-6
Brass	5 to 150	24	DA-7031-153-7	3	DS-7231-153-7
Brass	10 to 200	24	DA-7031-153-8	4	DS-7231-153-8
Brass	10 to 300	37.5	DA-7031-153-9	5	DS-7231-153-9
403 SS	30" Hg VAC to 60	18	DA-7021-153-25S	3.5	DS-7221-153-25S
403 SS	30" Hg VAC to 75	22.5	DA-7021-153-26S	3.5	DS-7221-153-26S
403 SS	2 to 60	13.5	DA-7021-153-5S	3	DS-7221-153-5S
403 SS	5 to 100	19.5	DA-7021-153-6S	3.5	DS-7221-153-6S
403 SS	10 to 200	22.5	DA-7021-153-8S	4	DS-7221-153-8S
403 SS	10 to 300	28.5	DA-7021-153-9S	6	DS-7221-153-9S
403 SS	40 to 350	30	DA-7021-153-9AS	6	DS-7221-153-9AS
403 SS	25 to 600	67.5	DA-7021-153-10S	10	DS-7221-153-10S
403 SS	50 to 1000	142.5	DA-7021-153-11S	20	DS-7221-153-11S
403 SS	100 to 1500	195	DA-7021-153-12S	30	DS-7221-153-12S
403 SS	300 to 2500	390	DA-7021-153-13S	60	DS-7221-153-13S
403 SS	500 to 5000	1350	DA-7021-153-15S	200	DS-7221-153-15S
403 SS	800 to 8000	2250	DA-7021-153-16S	500	DS-7221-153-16S
316 SS	30" Hg VAC to 75	15	DA-7041-153-26E	3.5	DS-7241-153-26E
316 SS	5 to 75	12	DA-7041-153-23E	4	DS-7241-153-23E
316 SS	10 to 100	15	DA-7041-153-6E	3.5	DS-7241-153-6E
316 SS	10 to 150	16.5	DA-7041-153-24E	4	DS-7241-153-24E
316 SS	10 to 300	42	DA-7041-153-9E	8	DS-7241-153-9E
316 SS	30 to 400	78	DA-7041-153-21E	10	DS-7241-153-21E
316 SS	75 to 800	180	DA-7041-153-22E	25	DS-7241-153-22E
316 SS	100 to 1000	285	DA-7041-153-11E	35	DS-7241-153-11E
316 SS	200 to 2500	600	DA-7041-153-13E	75	DS-7241-153-13E

**MODEL CHART - D SERIES PRESSURE SWITCH WITH MERCURY SWITCH AND GENERAL PURPOSE ENCLOSURE**

Bourdon Tube Material	Adjustable Operating Range (psig)	Adjustable Deadband			
		Minimum Deadband (psig)	SPDT 4 A @ 120 V, 2 A @ 240 V AC/DC	SPST Open on Increase 10 A @ 120 V, 5 A @ 240 V AC/DC	SPST Close on Increase 10 A @ 120 V, 5 A @ 240 V AC/DC
Brass	30" to 0 Hg VAC	2" Hg	DA-31-153-2	DA-31-2-2	DA-31-3-2
Brass	10" Hg VAC to 12	1	DA-31-153-3	DA-31-2-3	DA-31-3-3
Brass	25" Hg VAC to 50	3.5	DA-31-153-27	DA-31-2-27	DA-31-3-27
Brass	1/8 to 15	1	DA-31-153-1	DA-31-2-1	DA-31-3-1
Brass	1/8 to 20	1	DA-31-153-3A	DA-31-2-3A	DA-31-3-3A
Brass	1 to 35	1.75	DA-31-153-4	DA-31-2-4	DA-31-3-4
Brass	2 to 60	3	DA-31-153-5	DA-31-2-5	DA-31-3-5
Brass	5 to 100	3.75	DA-31-153-6	DA-31-2-6	DA-31-3-6
Brass	5 to 150	6	DA-31-153-7	DA-31-2-7	DA-31-3-7
Brass	10 to 200	8	DA-31-153-8	DA-31-2-8	DA-31-3-8
Brass	10 to 300	12	DA-31-153-9	DA-31-2-9	DA-31-3-9
403 SS	30" Hg VAC to 60	6	DA-21-153-25S	DA-21-2-25S	DA-21-3-25S
403 SS	30" Hg VAC to 75	8	DA-21-153-26S	DA-21-2-26S	DA-21-3-26S
403 SS	2 to 60	4	DA-21-153-5S	DA-21-2-5S	DA-21-3-5S
403 SS	5 to 100	6	DA-21-153-6S	DA-21-2-6S	DA-21-3-6S
403 SS	10 to 200	8	DA-21-153-8S	DA-21-2-8S	DA-21-3-8S
403 SS	10 to 300	14	DA-21-153-9S	DA-21-2-9S	DA-21-3-9S
403 SS	40 to 350	14	DA-21-153-9AS	DA-21-2-9AS	DA-21-3-9AS
403 SS	25 to 600	25	DA-21-153-10S	DA-21-2-10S	DA-21-3-10S
403 SS	50 to 1000	60	DA-21-153-11S	DA-21-2-11S	DA-21-3-11S
403 SS	100 to 1500	90	DA-21-153-12S	DA-21-2-12S	DA-21-3-12S
403 SS	300 to 2500	150	DA-21-153-13S	DA-21-2-13S	DA-21-3-13S
403 SS	500 to 5000	450	DA-21-153-15S	DA-21-2-15S	DA-21-3-15S
403 SS	800 to 8000	750	DA-21-153-16S	DA-21-2-16S	DA-21-3-16S
316 SS	30" Hg VAC to 75	7	DA-41-153-26E	DA-41-2-26E	DA-41-3-26E
316 SS	5 to 75	3	DA-41-153-23E	DA-41-2-23E	DA-41-3-23E
316 SS	10 to 100	7	DA-41-153-6E	DA-41-2-6E	DA-41-3-6E
316 SS	10 to 150	6	DA-41-153-24E	DA-41-2-24E	DA-41-3-24E
316 SS	10 to 300	18	DA-41-153-9E	DA-41-2-9E	DA-41-3-9E
316 SS	30 to 400	30	DA-41-153-21E	DA-41-2-21E	DA-41-3-21E
316 SS	75 to 800	75	DA-41-153-22E	DA-41-2-22E	DA-41-3-22E
316 SS	100 to 1000	100	DA-41-153-11E	DA-41-2-11E	DA-41-3-11E
316 SS	200 to 2500	210	DA-41-153-13E	DA-41-2-13E	DA-41-3-13E

**OPTIONS**

**Weatherproof Enclosure - Series DAW**  
**Note:** To order, add "W" to model number after DA or DS, change 1 to 3.  
**Example:** DAW-33-153-7

**Explosion-Proof Enclosure - Series DAH**  
 Suitable for Class I, Groups C and D; NEMA 7; Class II, Groups E, F, G; Class III NEMA 9 and 9A, Division 1.  
**Note:** To order, add "H" to model number after DA or DS.  
**Example:** DAH-31-153-7

**FM Approved**  
 For general purpose and explosion-proof models see compliance.

**Note:** To order, add "F" to model number after DA, DS, DAH or DSH.  
**Examples:** DAF-31-153-7 or DAHF-31-153-7

**Other Options (Consult Factory)**  
 DPDT switches or other switch types, fixed deadband mercury switch units for low deadband applications, manual reset operation, two-stage operation, acetal bushed movement for applications with high amounts of vibration and/or pulsation, fungus proofing, siphon, diaphragm seals, mounting flange and remote connection.

Single Pressure Switches

USA: California Proposition 65  
**WARNING:** This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).