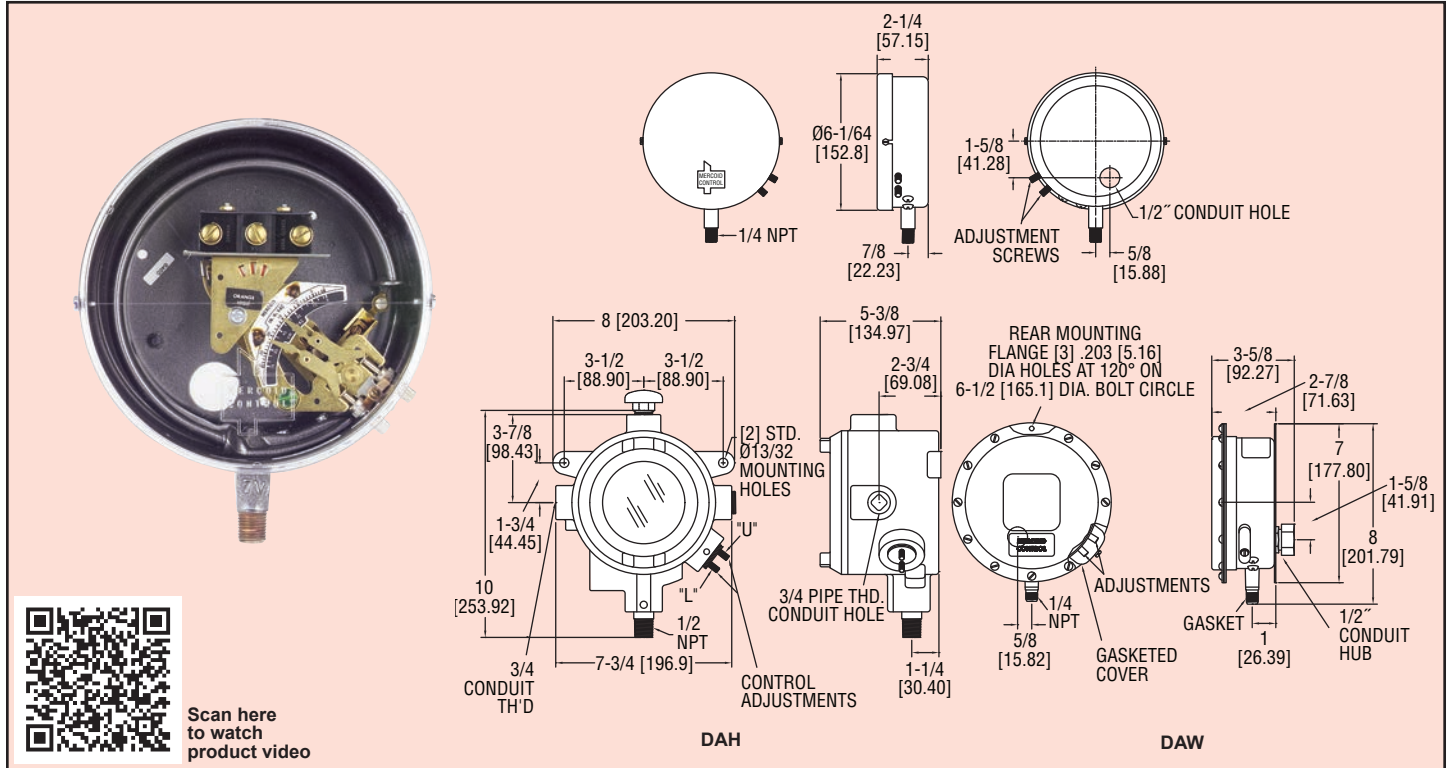


Series  
DA/DS

# Bourdon Tube Pressure Switches

Pressure Ranges to 8000 psi (551.6 bar)



**Customers tell us** that this is the best pressure switch made. The Mercoid D Series is one of the world's broadest lines of pressure switches.

The D 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.

## FEATURES

- Visible calibrated dial
- On/off indication (except hermetically sealed snap switch models)
- Adjustable or fixed deadband
- SPDT snap-action, hermetically sealed snap action or hermetically sealed mercury switch
- External switch setpoint adjustments
- Minimum deadband is obtainable at any point in the range
- Pressure ranges of full vacuum to 8000 psig
- UL listed, CSA approved, many models FM approved
- General purpose, weatherproof or explosion-proof enclosures

## OPTIONS

**Weatherproof Enclosure, Series DAW** – Add "W" to model number after DA or DS and 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. Add "H" to model number after DA or DS.

Example: DAH-31-153-7

**FM Approved:** For general purpose and explosion-proof models see agency approvals. Add "F" to model number after DA, DS, DAH or DSH.

Examples: DAF-31-153-7 or DAHE-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.

## 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, or SPDT hermetically sealed 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.

**Agency Approvals:** CE, CSA, FM, UL (mercury switch units are not CE approved) (Consult factory for FM approved models).

D Series Pressure Switch with Snap Action Switch and General Purpose Enclosure							
Bourdon Tube Material	Adjustable Operating Range (psig)	Adjustable Deadband SPDT: 10A @ 120/240 VAC		Fixed Deadband SPDT: 15A @ 120/240 AC		Hermetically Sealed, Fixed Deadband SPDT: 5A @ 120/240 VAC, 5A res. @ 30 VDC	
		Minimum Deadband (psig)	Model	Fixed	Model	Fixed	Model
Brass	0-30" Hg VAC	13.5" Hg	DA-7031-153-2	3" Hg	DS-7231-153-2	5" Hg	DS-7331-153-2
	10" Hg VAC - 12	6	DA-7031-153-3	1.5	DS-7231-153-3	3	DS-7331-153-3
	25" Hg VAC - 50	12	DA-7031-153-27	2.5	DS-7231-153-27	3.75	DS-7331-153-27
	1/8 - 15	6	DA-7031-153-1	1.5	DS-7231-153-1	3	DS-7331-153-1
	1/8 - 20	6	DA-7031-153-3A	1.5	DS-7231-153-3A	3	DS-7331-153-3A
	1 - 35	7.5	DA-7031-153-4	1.5	DS-7231-153-4	3	DS-7331-153-4
	2 - 60	9	DA-7031-153-5	2	DS-7231-153-5	3	DS-7331-153-5
	5 - 100	13.5	DA-7031-153-6	2.5	DS-7231-153-6	3.75	DS-7331-153-6
	5 - 150	24	DA-7031-153-7	3	DS-7231-153-7	5.25	DS-7331-153-7
	10 - 200	24	DA-7031-153-8	4	DS-7231-153-8	6.75	DS-7331-153-8
	10 - 300	37.5	DA-7031-153-9	5	DS-7231-153-9	9	DS-7331-153-9
	Stainless Steel	30" Hg VAC - 60	18	DA-7021-153-25S	3.5	DS-7221-153-25S	5.25
30" Hg VAC - 75		22.5	DA-7021-153-26S	3.5	DS-7221-153-26S	5.25	DS-7321-153-26S
2 - 60		13.5	DA-7021-153-5S	3	DS-7221-153-5S	4.5	DS-7321-153-5S
5 - 100		19.5	DA-7021-153-6S	3.5	DS-7221-153-6S	5.25	DS-7321-153-6S
10 - 200		22.5	DA-7021-153-8S	4	DS-7221-153-8S	7.125	DS-7321-153-8S
10 - 300		28.5	DA-7021-153-9S	6	DS-7221-153-9S	10.5	DS-7321-153-9S
40 - 350		30	DA-7021-153-9AS	6	DS-7221-153-9AS	10.5	DS-7321-153-9AS
25 - 600		67.5	DA-7021-153-10S	10	DS-7221-153-10S	18	DS-7321-153-10S
50 - 1000		142.5	DA-7021-153-11S	20	DS-7221-153-11S	33	DS-7321-153-11S
100 - 1500		195	DA-7021-153-12S	30	DS-7221-153-12S	52.5	DS-7321-153-12S
300 - 2500		390	DA-7021-153-13S	60	DS-7221-153-13S	90	DS-7321-153-13S
500 - 5000		1350	DA-7021-153-15S	200	DS-7221-153-15S	300	DS-7321-153-15S
800 - 8000		2250	DA-7021-153-16S	500	DS-7221-153-16S		
316 Stainless Steel		30" Hg VAC - 75	15	DA-7041-153-26E	3.5	DS-7241-153-26E	5.25
	5 - 75	12	DA-7041-153-23E	4	DS-7241-153-23E	6	DS-7341-153-23E
	10 - 100	15	DA-7041-153-6E	3.5	DS-7241-153-6E	5.25	DS-7341-153-6E
	10 - 150	16.5	DA-7041-153-24E	4	DS-7241-153-24E	6.75	DS-7341-153-24E
	10 - 300	42	DA-7041-153-9E	8	DS-7241-153-9E	12	DS-7341-153-9E
	30 - 400	78	DA-7041-153-21E	10	DS-7241-153-21E	18	DS-7341-153-21E
	75 - 800	180	DA-7041-153-22E	25	DS-7241-153-22E	37.5	DS-7341-153-22E
	100 - 1000	285	DA-7041-153-11E	35	DS-7241-153-11E	52.5	DS-7341-153-11E
	200 - 2500	600	DA-7041-153-13E	75	DS-7241-153-13E	112.5	DS-7341-153-13E

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

