

## High Pressure Hydraulic Switches

For use on Oil or Hydraulic Fluids only. Ingress Protection IP65 □ (IEC 144)

### Type ADW High Pressure Piston Actuated Pressure Switches



Single pole – double throw contacts (1NO+1NC)

Range setting		Adjustable Differential		Maximum allowable pressure		Order Class 9012
Limits of Pressure between which switch can be adjusted to operate on Rising pressure		Subtract from range setting to obtain operating point on Falling pressure				Type...
Bars	PSI	Bars	PSI	Bars	PSI	
9.3– 68.9	135–1000	2.4– 9.3	35–135	689	10,000	ADW-3
27.6–206.7	400-3000	6.9–27.6	100–400	689	10,000	ADW-4
37.9–344.5	550–5000	8.6–27.6	150–400	689	10,000	ADW-7

With piston seal \*

Bars	PSI		Bars	PSI	Type...
9.3– 68.9	135–1000	Increases with range See Table below	689	10,000	#ADW-5
27.6–206.7	400–3000		689	10,000	ADW-6

Double pole – double throw contacts (2NO+2NC)

Range setting		Adjustable Differential		Maximum allowable pressure		Order Class 9012
Limits of Pressure between which switch can be adjusted to operate on Rising pressure		Subtract from range setting to obtain operating point on Falling pressure				Type...
Bars	PSI	Bars	PSI	Bars	PSI	
9.3– 68.9	135–1000	3.1–13.8	45–200	689	10,000	ADW-23
27.6–206.7	400-3000	8.6–34.5	125–500	689	10,000	ADW-24
37.9–344.5	550–5000	13.8–41.3	200–600	689	10,000	ADW-27

With piston seal \*

Bars	PSI		Bars	PSI	Type...
9.3– 68.9	135–1000	Increases with range See Table below	689	10,000	ADW-25
27.6–206.7	400–3000		689	10,000	ADW-26

Approximate differentials for types ADW-5, 6, 25, 26

Bars		ADW-5		ADW-25		PSI		ADW-5		ADW-25	
		Min	Max	Min	Max			Min	Max	Min	Max
Overall Range	9.3–68.9					Overall Range	135–1000				
Lower End	9.3–29.3	4.8	6.9	6.2	7.9	Lower End	135– 425	70	100	90	115
Middle	29.3–49.3	6.5	9.3	8.3	11.0	Middle	425– 715	95	135	120	160
Upper End	49.3–68.9	8.6	10.3	10.3	12.4	Upper End	715–1000	125	150	150	180

Type		ADW-6		ADW-26		Type		ADW-6		ADW-26	
		Min	Max	Min	Max			Min	Max	Min	Max
Overall Range	27.6–206.7					Overall Range	400–3000				
Lower End	27.6– 87.2	14.5	20.7	17.2	24.1	Lower End	400–1265	210	300	250	350
Middle	87.2–146.8	21.4	28.2	25.5	33.8	Middle	1265–2130	310	410	370	490
Upper End	146.8–206.7	27.6	34.5	34.5	38.6	Upper End	2130–3000	400	500	500	560

**Connection data**

Pressure connection: G $\frac{3}{8}$ " to BS2779  
 Conduit (Electrical) entry: Form M11 (standard) 20mm Iso Metric  
 Form M12 PG13.5 DIN 40430  
 Note: NPT Threads available to special order.

- Spare Parts ..... Page 3a6
- Accessories ..... Page 3a6
- Technical Data ..... Pages 3a7 and 3a8
- Dimensions ..... Page 3a9

Standard controls should not be used with phosphate base synthetic hydraulic fluids. Refer to Technical Data.

**Ordering Instructions**

State... **Class Type** and **Form No.**  
 (where applicable, see page 3a6)  
 Eg: Class **9012** Type **ADW-5**

- \* Prevents oil leakage – refer to Technical Data
- # Tested to BS 6134 1981
- When fitted with suitable Cable Gland or adequately sealed conduit entry

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## Differential Pressure Switches

Ingress Protection IP65 □ (IEC 144)

### Type AEW Bellows actuated differential pressure switches

Single pole – double throw contacts (1NO+1NC)



Working Pressure Range ('Y' must always be greater than 'X')		Maximum Allowable Pressure		* Sensitivity Between Opening and Closing of Contacts		Adjustable Pressure Differential ●		Order Class 9012
Bars	PSI	Bars	PSI	Bars	PSI	Bars	PSI	Type...

For use on Air, Water or Oil (Bellows Actuated)

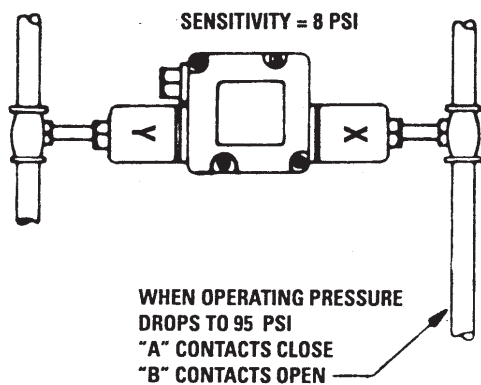
0-6.89 0-13.78	0-100 0-200	6.89 17.57	100 255	0.28-0.96 0.55-1.38	4-14 8-20	0.03-1.38 0.2-2.76	0.5-20 3-40	AEW-5 ●AEW-1
760 mm Hg Vac 1.38 to 20		2.07 30		25-406 mm Hg 0.03-0.55 or 1/2- 8		0-406 mm Hg 0.02-0.55 or 0.25- 8		AEW-3

Replacement snap switch assembly – Class 9007 Type AO-1

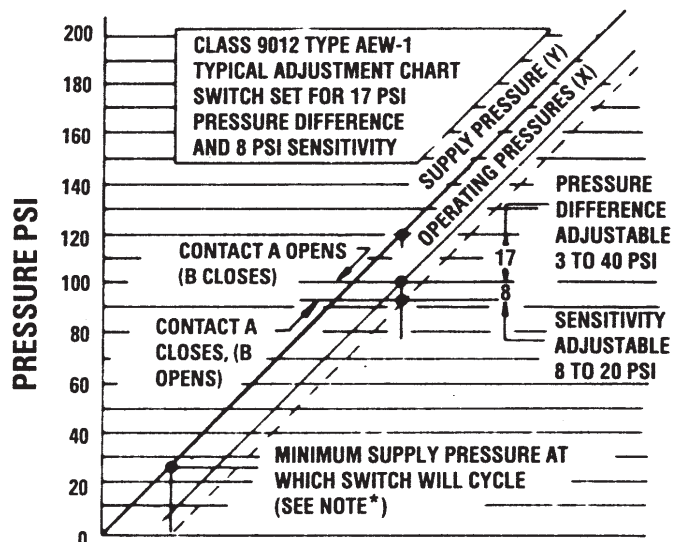
### Application

Differential pressure switches are used to control, or respond to a change in, the difference between two pressures. On these devices the top bellows, identified as the "X" or lower pressure side, works in opposition to the bottom bellows, identified as the "Y" or higher pressure side. These devices can control lower pressure X to maintain a constant difference from variable pressure Y or can control higher pressure Y to maintain a constant difference from variable pressure X or can initiate an alarm circuit to indicate that a predetermined pressure difference has widened beyond or narrowed below the desired value or can be made to operate when a predetermined pressure difference has been reached as a result of either a widening or a narrowing difference between pressures.

### Application Example for Differential Pressure Switch using AEW-1



**NOTE - THE LOWEST SUPPLY PRESSURE AT WHICH THE SWITCH WILL CYCLE IS EQUAL TO THE SUM OF THE PRESSURE DIFFERENCE AND THE SENSITIVITY FOR WHICH THE DEVICE IS ADJUSTED. IN THIS EXAMPLE, THIS EQUALS 25 PSI. BELOW THIS VALUE, CONTACT "A" REMAINS OPEN, "B" REMAINS CLOSED.**



PRESSURE/CONTACT STATE RELATIONSHIP

**Connection data**  
Pressure connection: G1/4" BS2779. x2.  
Conduit (Electrical) entry: Form M11 standard 20mm Iso Metric.

**Technical Data** . . . . . Pages 3a7 and 3a8  
**Dimensions** . . . . . Page 3a10

● Registered with the Loss Prevention Council as suitable for use in sprinkler systems.

**Ordering Instructions**  
State... **Class and Type**  
Eg: Class 9012 Type AEW-1

\* Adds to adjustable pressure differential to obtain operating point on a widening pressure difference.  
□ When fitted with suitable cable gland or adequately sealed conduit entry  
● Switch can be adjusted to operate on a narrowing pressure difference within this range.