



Pressure Switches

**Local Solutions for
Individual Customers
Worldwide**



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Pressure Switches

Diagnostic Products & Pressure Transmitters

- ◆ Digital Pressure Gauge SPG-DIGI
- ◆ Hydraulic Tester PPC
- ◆ Pressure Transmitters SPT
- ◆ Pressure Switches

Other Products

- ◆ Filters
- ◆ Filtration Equipment
- ◆ Accessories
- ◆ Accumulators
- ◆ Clamps
- ◆ Test Equipment
- ◆ Hydraulic Tube
- ◆ Hydraulic Tube Fittings
- ◆ Fluid Connectors
- ◆ Pumps & Valves

STAUFF PRESSURE SWITCHES

Stauff pressure switches are versatile, economically priced units with good hysteresis characteristics. The range covers low-cost miniature switches, vacuum switches, pressure switches, and differential pressure switches.

Subminiature Diaphragm and Piston types MS-PS

New MS-PS adjustable pressure switches, available either in diaphragm execution up to 100 bar or piston execution up to 300 bar. Diaphragm and piston MS-PS pressure switches are particularly suitable to monitor pressure in automation, hydraulics, gas distribution, fire prevention, lifting systems, pharmaceutical industry, lubrication plants, refrigeration and so on.

Part No.	MS2SCNTR14
Adjustment Range (bar)	0.2 - 2 bar
Max Press.	80 bar
Design	Diaphragm, Brass body
Connection thread	1/4" BSPP
Temperature range	-40 +140 °C
Medium	Air, hydraulic oil, oil emulsions, water
Hysteresis	15%
Mechanical durability	1 million cycles
Max. Switching frequency	120 / min.
Max voltage & current	250Vac , 6(2)A
Weight	0.1 Kg

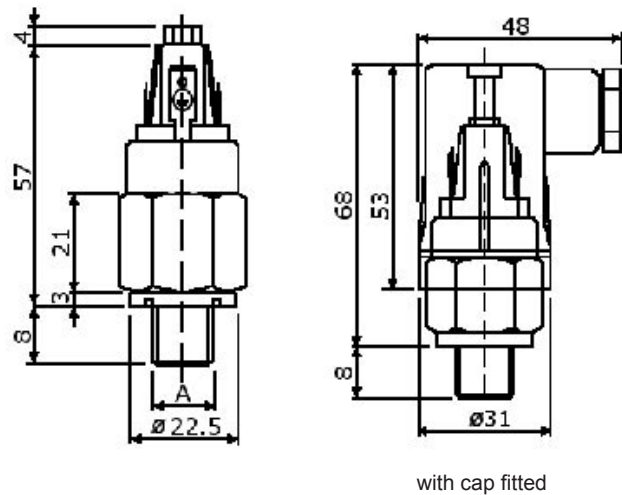
Part No.	PS300SCNTR14
Adjustment Range (bar)	50 - 300 bar
Max Press.	600 bar
Design	Piston, Tropicalized Steel body
Connection thread	1/4" BSPP
Temperature range	-40 +140 °C
Medium	Air, hydraulic oil, oil emulsions, water
Hysteresis	15%
Mechanical durability	1 million cycles
Max. Switching frequency	60 / min.
Max voltage & current	250Vac , 6(2)A
Weight	0.12 Kg

Part No.	MS10SCNTR14
Adjustment Range (bar)	1 - 10 bar
Max Press.	80 bar
Design	Diaphragm, Brass body
Connection thread	1/4" BSPP
Temperature range	-40 +140 °C
Medium	Air, hydraulic oil, oil emulsions, water
Hysteresis	15%
Mechanical durability	1 million cycles
Max. Switching frequency	120 / min.
Max voltage & current	250Vac , 6(2)A
Weight	0.1 Kg

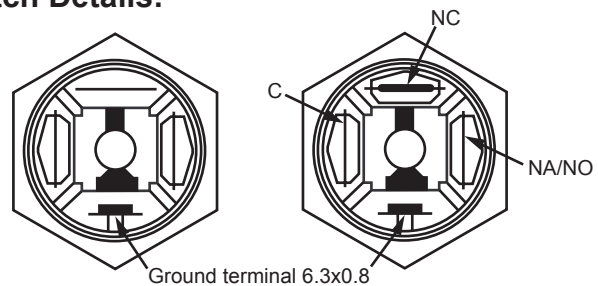
Part No.	MS50SCNTR14TG
Adjustment Range (bar)	10 - 50 bar
Max Press.	300 bar
Design	Diaphragm, Tropicalized Steel body
Connection thread	1/4" BSPP
Temperature range	-40 +140 °C
Medium	Air, hydraulic oil, oil emulsions, water
Hysteresis	15%
Mechanical durability	1 million cycles
Max. Switching frequency	120 / min.
Max voltage & current	250Vac , 6(2)A
Weight	0.1 Kg

Part No.	MS100SCNTR14TG
Adjustment Range (bar)	10 - 100 bar
Max Press.	300 bar
Design	Diaphragm, Tropicalized Steel body
Connection thread	1/4" BSPP
Temperature range	-40 +140 °C
Medium	Air, hydraulic oil, oil emulsions, water
Hysteresis	15%
Mechanical durability	1 million cycles
Max. Switching frequency	120 / min.
Max voltage & current	250Vac , 6(2)A
Weight	0.1 Kg

Dimensions:



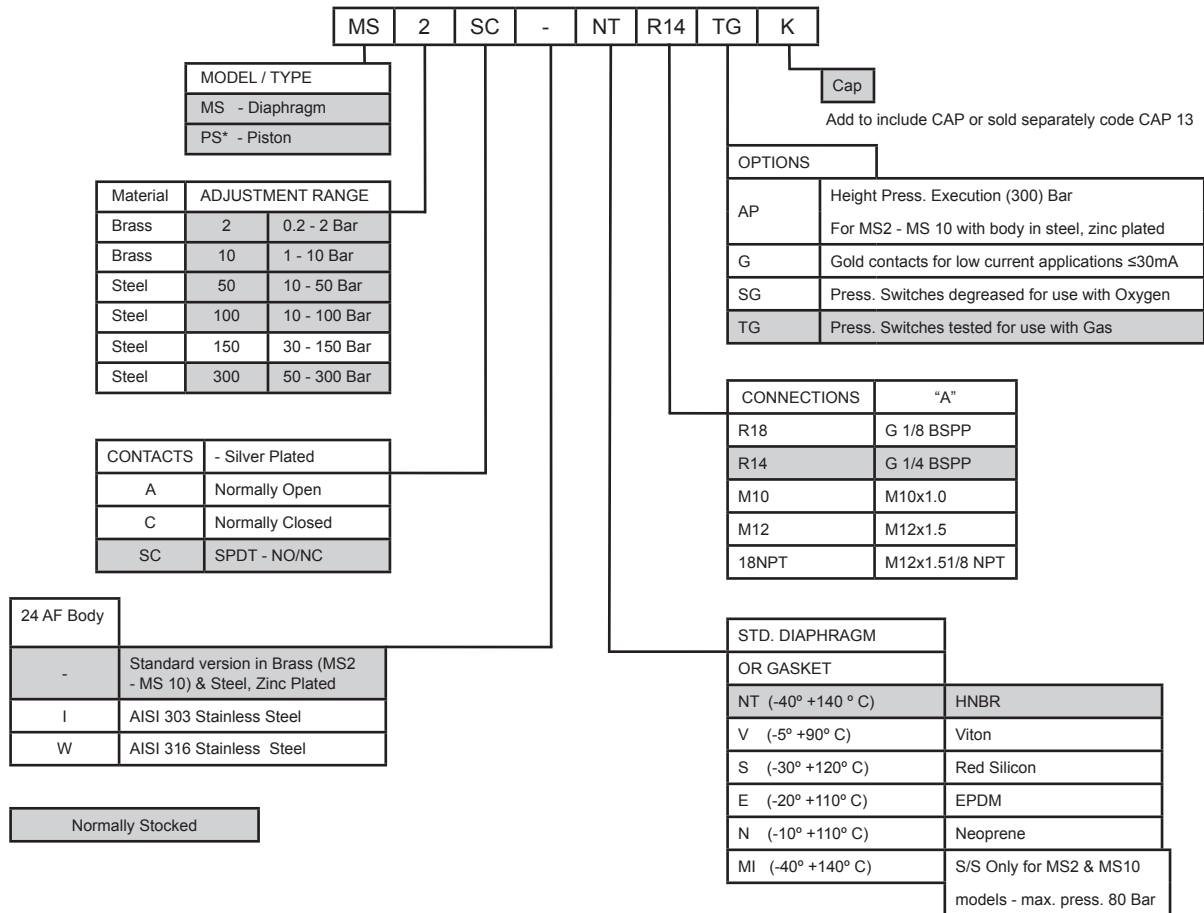
Switch Details:



Type "A" and "C"
 A = Normally Open
 C = Normally Closed

Type "SC"
 C = Common
 NC = Normally Closed
 NA/NO = Normally Open

Ordering Code:



* Sealing Ring supplied separately (part no. ATB021)



CAP IP65 Protection

Model	Adjustment range (bar)	Max static pressure (bar)					Fixed hysteresis at 25° C (bar)	Tolerance at 25°C (bar)	version
		Standard version in brass	Standard version in steel, zinc plated	AP version in steel, zinc plated only MS 2/10	AISI 303 stainless steel version	AISI 316 stainless steel version			
MS 2	0.2 - 2	80			150	150	-15% set-point	± 0.2	Diaphragm
MS 10	1 - 10	80			150	150	-15% set-point	± 0.4	
MS 2...AP	0.2 - 2			300			-15% set-point	± 0.3	
MS 10...AP	0.2 - 10			300			-15% set-point	± 0.4	
MS 50	10 - 50		300		150	150	-15% set-point	± 2	
MS 100	10 - 100		300		150	150	-15% set-point	± 3	Piston
PS 150	30 - 150		300		250	250	-15% set-point	± 5	
PS 300	50 - 300		600		400	400	-15% set-point	± 15	

Piston Type

Model DS307/-

This model is a piston-spring type pressure switch. With pressure at zero the micro-switch remains pressed and will only be released when the adjusted switching pressure has been reached. The piston acts against an adjustable spring with travel mechanically limited to 0.5mm, giving minimum work of good resistance to overpressure. The design of the spring .. prevents overtightening. Adjustment by turning the screw top (or knurled knob) which can be fixed with a locking screw. The complete adjusting travel is approx. 9 mm.

Standard Range

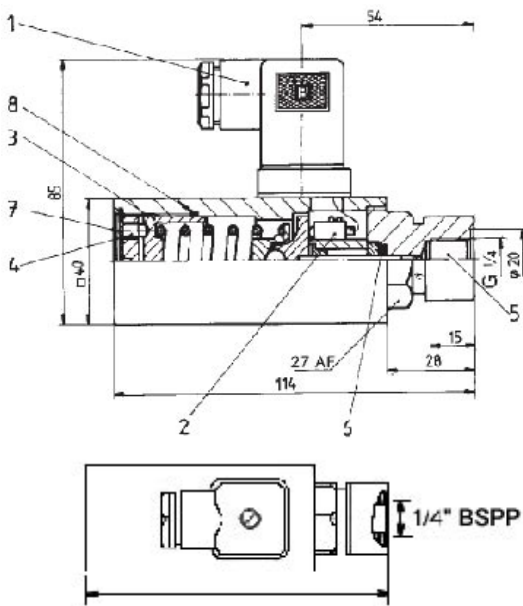
Model	Switching Pressure Range	Maximum Pressure	Piston Diameter
DS307/55	5 - 55 bar	300 bar	6 mm
DS307/100	10 - 100 bar	400 bar	6 mm
DS307/150	20 - 150 bar	500 bar	5 mm
DS307/240	40 - 420 bar	500 bar	4 mm
DS307/350	20 - 350 bar	600 bar	4 mm
DS307/420	50 - 420 bar	600 bar	3 mm
DS307/600	50 - 600 bar	800 bar	3 mm



shaded model available on special order

DS-307	Piston diameter mm						
	Ø3	Ø4	Ø5	Ø6			
1. General							
Design	Spring-loaded piston, spring overload protected						
Connection	Thread G 1/4 female or sub plate, pitch circle Ø 44 mm						
Adjustment	Adjustable screw top of knurled knob						
Safety	Locking screw or lock (E 10 H2[type AS])						
Mounting position	Variable						
2. Hydraulic data							
Switching pressure range	5-55 bar	10-100 bar	20-150 bar	40-240 bar	20-350 bar	50-420 bar	50-600 bar
Switching accuracy	Variations of less than 1%						
Ambient temperature	- 40°C up to + 90°C						
Fluid	Oil, oil-in-water-emulsion						
3. Electric data							
Switch	Electromechanical double-throw switch						
Current	AC - DC current (see table)						
Protection according to DIN 40050	IP 65						
Electrical connection	Appliance inlet according to DIN 43650						
4. Features							
Housing	Aluminium						
Standard body	Brass						
Switching travel	0.5mm - reducing wear of seal and ram to a minimum						
Sub plates	Valve mounting NG 6 and NG 10 (only for sub plate connection Type DS-307/F)						
5. Options							
Mounting	Sub plate mounting; panel mounting						
Body / Housing	Brass; intrinsically safe; and explosion proof						
Adjustment	Knurled screw; adjustment with key lock						
Hysteresis	Special low hysteresis versions						

Dimensions - DS307/-



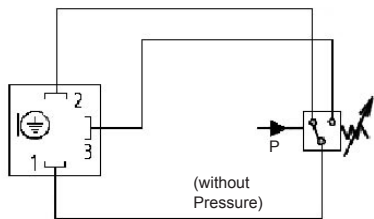
Item	No.	Description
1	1	Appliance inlet - DIN 43650
2	1	Micro switch (single-pole double-throw)
3	1	Adjustable screw top
4	1	Locking screw
5	1	Connection G 1/4-female
6	1	Set of seals (non-sticking, non-slipping)
7	1	Snap ring
8	1	O-ring

Switching capacity

The switch contacts are gold plated silver and are designed to handle micro-currents. At higher currents, the gold is vaporized and therefore a switch which has operated above the micro-current limitations will not operate satisfactorily in the micro-current range.

Max. Load for gold contacts **0.12A** with the additional limitations
 Max Voltage 30V
 Max Current 400mA

Electrical diagram



1. Common
2. NC (normally closed)
3. NO (normally open)

Life in Switching Cycles	Volts max. (V)	Resist. Load Amps	Metal. Bulb Load Amps	Induct. Load Amps
5000	220 AC	10	0.5	5
1000000	220 AC	0.25	0.1	0.25
5000	30 DC	10	2	3
1000000	30 DC	0.5	0.25	0.5

Caution: When the switch is used with inductive loads, eg., solenoids, the back EMF generated by the solenoid switching off can be two to three times the input voltage. This voltage can arc across the switch contacts effectively destroying them. Some type of circuit protection should be employed to eliminate the problem.

Hysteresis for DS-307/-

Pressure switch Type DS-307: For pressure settings of approximately 60-70% of the maximum. Adjustable pressure the Hysteresis is approximately 7-12% of end value.

These values are dependant on the temperature and viscosity of working fluid.

Example: DS-307/100 Adjustable pressure: 70 bar
 Pressure range: 10-100 bar Hysteresis: approx. 7-12 bar

Accessory:

Mounting clamp for piston type pressure switch.

Description	Part No.
Screw mount version	SPV 540x40 PP DP AS
Unistrut mount version	CRA 540x40 PP DP AS

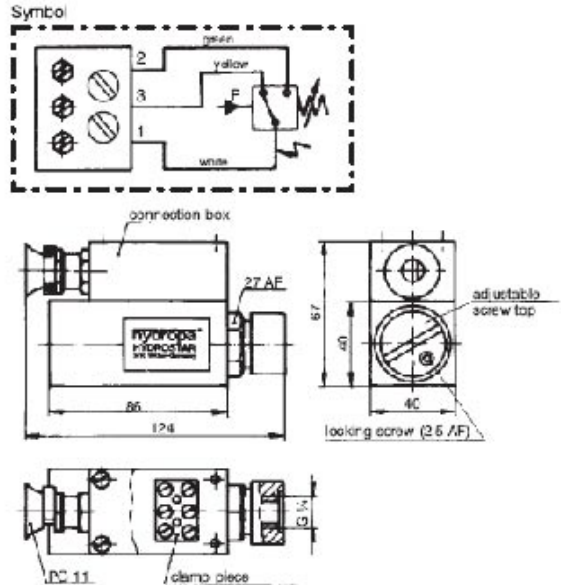
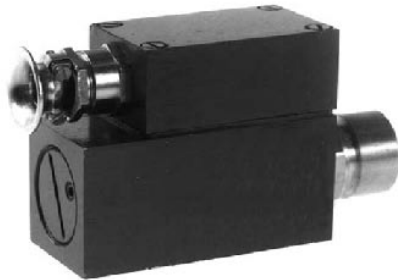


Piston Type for the Mining Industry

DS-103/ES/MS-*** Weight: 1.5 kg

Housing brass

Electrical production facilities
or machines for mines with mine gas.
Connection box:
with 3-pole terminal board



**Also with ATEX admittance
DMT 02 ATEX E 200**

Equipment identification:

EX I M2 EEx ia I

Please indicate supplement "ATEX" at order!



NOTE !

The unit may only be installed by technical specialists. Comply with the national regulations for the installation of electro-technical equipment. Ensure that the equipment is not energized before connecting the unit

Other Switches Available:



DS307/*/V2**
knurled adjusting screw
with scale



DS307/*/F**
subplate mounting



DS104/*/EX**
explosion-proof to EEx d II CT6

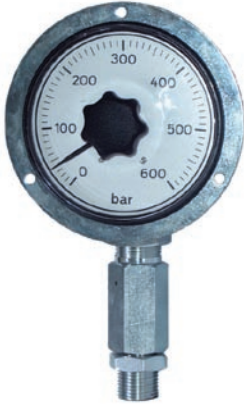
*** select pressure range from page 4

Pressure Switches - Hawe

Models DGxxx

The Hawe DG series of pressure switches range from the simple electro-hydraulic DG33, DG34, DG35 DG36 and DG365 models through the DG1 model with dial setting to the sophisticated electronic switch DG5E models.

Pressure switch with adjustable dial scale up to 600bar



Model	DG1RFS
Adjust. Range	20 - 600 bar
Max. Press.	600 bar
Connection	1/4"F or 1/2"M
Mounting	Vertical/panel mount option
Temp. Range	-25°-+80°C
Medium	Hyd oil, HEPG, HEES
Hysteresis	3%
Mech. Durability	1 million cycles
Max. Switching frequency	2HZ
Max. Voltage & current	230V AC 2A 24DC 4A
Protection	IP 54
Weight	1.3 kg
Body Material	Steel zinc plated

Pressure Switch, adjustable



Model	DG2HS
Adjust. Range	100 - 500 bar
Max. Press.	600 bar
Connection	1/4"F or 1/2"M
Mounting	Any position
Temp. Range	-25°-+80°C
Medium	Hyd oil, HEPG, HEES
Hysteresis	7%
Mech. Durability	7 million cycles
Max. Switching frequency	2HZ
Max. Voltage & current	230VAC 2A 24VDC 4A
Protection	IP 65
Weight	0.5 kg
Body Material	Steel zinc plated

Pressure Switch, adjustable



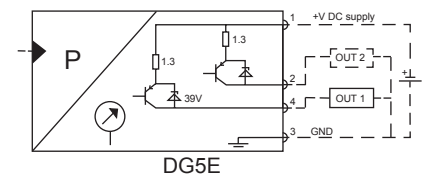
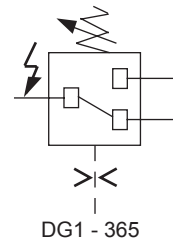
Model	DG33	DG34	DG35	DG36	DG365
Adjust. Range	20 - 700 bar	100 - 400 bar	20 - 250 bar	4 - 12 bar	12 - 170 bar
Max. Press.	700 bar	700 bar	700 bar	700 bar	700 bar
Connection	Sub plate 1/4"	Sub plate 1/4"	Sub plate 1/4"	Sub plate 1/4"	Sub plate 1/4"
Mounting	Any position	Any position	Any position	Any position	Any position
Temp. Range	-25°-+80°C	-25°-+80°C	-25°-+80°C	-25°-+80°C	-25°-+80°C
Medium	Hyd oil, HEPG, HEES	Hyd oil, HEPG, HEES	Hyd oil, HEPG, HEES	Hyd oil, HEPG, HEES	Hyd oil, HEPG, HEES
Hysteresis	2%	2%	5%	3%	5%
Mech. durability	1 million cycles	1 million cycles	1 million cycles	1 million cycles	1 million cycles
Max. Switching frequency	7HZ	7HZ	7HZ	7HZ	7HZ
Max. Voltage & current	230V AC 0.56A 24DC 2A	230V AC 0.56A 24DC 2A	230V AC 0.56A 24DC 2A	230V AC 0.56A 24DC 2A	230V AC 0.56A 24DC 2A
Protection	IP 65	IP 65	IP 65	IP 65	IP 65
Weight	0.3 kg	0.3 kg	0.3 kg	0.3 kg	0.3 kg
Body Material	Steel, cast zinc	Steel, cast zinc	Steel, cast zinc	Steel, cast zinc	Steel, cast zinc

Note: For more detailed specifications on all of the above pressure switches refer to HAWE technical bulletin D5440

Electronic Pressure Switch with digital read out



Model	DG5E-250	DG5E-400
Adjust. Range	0 - 250 bar	0 - 400 bar
Max. Press.	400 bar	600 bar
Connection	1/4"F	1/4"F
Mounting	Any position	Any position
Temp. Range	-25°-+80°C	-25°-+80°C
Medium	Hyd oil, HEPG, HEES	Hyd oil, HEPG, HEES
Hysteresis	7%	7%
Mech. Durability	Electronic >100 million	Electronic >100 million
Max. Switching frequency	70HZ	70HZ
Max. Supply Voltage & current	18-30V DC 250mA	18-30V DC 250mA
Max. Switching capacity	24V, 250mA	24V, 250mA
Protection	IP 67	IP 67
Weight	0.25 kg	0.25 kg
Body Material	Steel	Steel



Note: See bulletin D5440E for full details