HANKISON

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X DRAIN

Electronic Level-Controlled Drain

SPX

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Secure Condensate Management... Optimized Compressed Air Quality!

Condensate is generated when compressed air is cooled below the dew point temperature.

The water vapour contained in the compressed air reaches its saturation point and condenses into water. The bigger water droplets collect at the lowest points of the compressed air ring main however the finer water droplets and aerosols are carried along within the air stream and impair the efficiency and operational safety of the entire compressed air system.

In a modern compressed air installation, the heat exchangers, filters and dryers are considered the norm for a good air system, however proper and efficient management and treatment of the condensate discharge is often neglected. Important requirements for a modern treatment system are:

- High operational safety,
  - · No contamination and blockage of the drain
  - · Alarm in case of malfunction
  - · Simple functional test
  - · A resistance against all standard compressor oil types
- High economical efficiency,
  - · No loss of compressed air
  - · Low installation and maintenance/service work
  - · Low investment

The SPX X-DRAIN technology offers you the highest safety and efficiency and therefore should be an integral part of every modern compressed air installation.

X-DRAIN – The definitive system for condensate treatment

Simple time-controlled solenoid valves have proved to be effective in the past but do not meet current safety and reliability requirements. Implementation of the electronic level-controlled X-DRAIN will meet these new standards and improve reliability and reduce unnecessary costs.

X-DRAIN: Principle of Operation

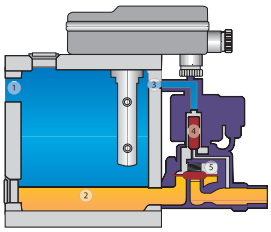


Figure 1: Condensate flowing in through inlet port (1) is collected in the reservoir (2). System air pressure passes through the pilot supply line (3) into the area above the valve diaphragm (5). The solenoid valve (4) is closed and the larger surface above the membrane holds the membrane in place and prevents any compressed air loss.

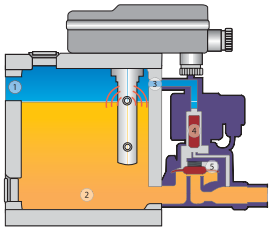


Figure 2: When the level of condensate (2) in the reservoir rises to its maximum level, this activates a capacitive sensor, the pilot supply line is then closed by the solenoid valve. The pressure above thediaphragm is reduced and the membrane lifts off the valve seat and the condensate flows out through the drain line (8).

Capacitive Sensor

This monitors the level of condensate received from the compressed air system and manages its effective discharge.

Minimal loss of compressed air

Two sensors (low-level and high-level) control the discharge of the condensate. The discharge valve closes the outlet before there is any loss of the costly-produced compressed air.

Automatic Discharge Function

In the event of the condensate not being discharged to the minimal level within two minutes, an alarm is generated automatically. The automatic drain will then implement a default setting which will activate the solenoid valve for 5 seconds every 3 minutes until returned to normal operation by the user.

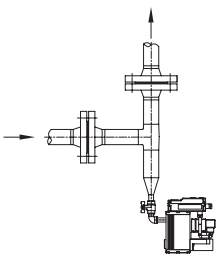
Standard Mode *Alarm Mode*

Durability (Hard-Wearing)

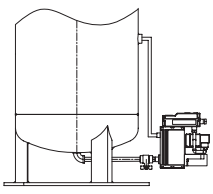
- Rigid housing material, typically used in the aircraft industry and semiconductor industry
- Corrosion and abrasion resistant for a long life in an industrial environment
- Efficient design available for 7 models
- Cast moulded and anodized housing design

Convenient to install and maintain

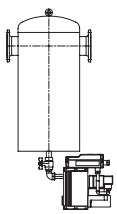
- Easy installation into both new and existing systems
- Housings are easy to clean
- Built-in strainer prevents valve blockage and damage



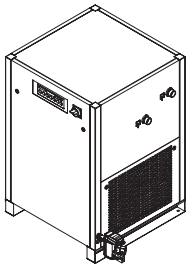
Piping



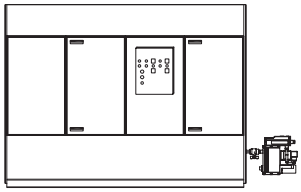
Receiver / Tank



Compressed Air Filter

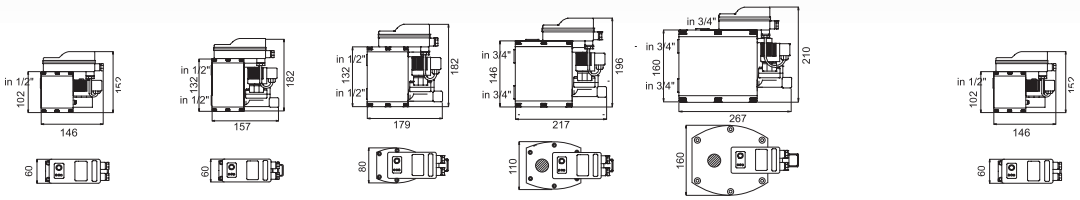


Air Dryer



Compressor

Technical Data X-DRAIN



Model	SXD- 1	SXD- 3	SXD- 10	SXD- 30	SXD- 100	SXD- 300	SXD- 3 HP
Capacity							
Compressor Capacity (m^3/min)	4 - 5,5	12 - 16,5	40 - 55	120 - 165	400 - 550	1200 - 1700	12 - 16,5
Refrigerated dryer*1 (m^3/min)	8,0- 11	24 - 33	80 - 115	240 - 330	800 - 1150	2300 -3250	24 - 33
Filter-downstream*2 (m^3/min)	40 - 55	120 - 165	400 - 550	1200 - 1600			120 - 16
Min. / Max. Operating Pressure (bar)	0,8 - 16	0,8 - 16	0,8 - 16	0,8 - 16	0,8 - 16	0,8 - 16	0,8 - 50
Min. /Max. Operating Temperature (°C)	+ 1 - + 80	+ 1 - + 80	+ 1 - + 80	+ 1 - + 80	+ 1 - + 80	+ 1 - + 80	+ 1 - + 80
Voltage (V AC)	90 - 250	90 - 250	90 - 250	90 - 250	90 - 250	90 - 250	90 - 250
Frequency (Hz)	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60
Condensate	oil-contaminated + oil-free						
Housing	Aluminium, hard-coated						
Condensate inlet	2 x ½"	2 x ½"	3 x ¾"		1 x 1" + 2 x ¾"		2 x ½"
Condensate outlet			1 x ½ "				1 x ⅜"
Weight (Kg)	1,10	1,45	2,10	2,40	4,10	6,50	1,85

*1 referred to 1 bar(a) and 20°C at 7 bar working pressure, compressor inlet 25°C at 60% r.H., compressor discharge temperature 35°C, dew-point dryer 3°C

*2 Condesate aftercooler or fridge dryer already removed.

Capacity depends on different climate zones

Options on request

Technical Alterations reserved

Improvements and research are continuous at SPX Dehydration & Filtration
Specifications may change without notice.

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