

Automatic Condensate Drains ECO DRAIN Series

For compressor capacities up to 1,700 m³/min



Eco Drain series

Electronic condensate drain

Condensate is an unavoidable result of air compression. If not reliably drained off at all collection points, it can cause costly downtime and damage to the compressed air system through corrosion. Electronic Eco Drain level-sensing condensate drains are therefore the perfect choice to perform this important task.

Loss-free condensate drainage

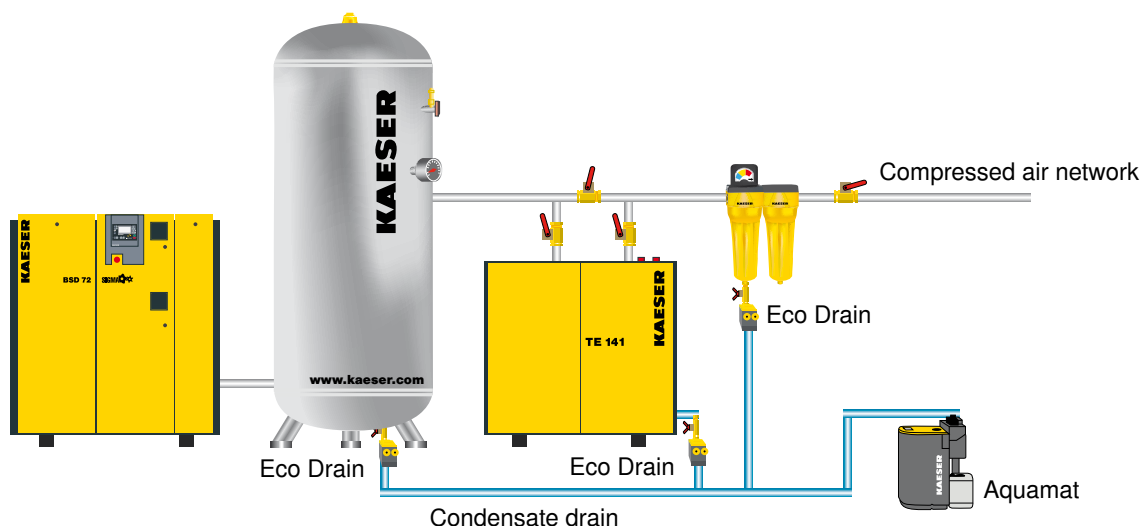
Eco Drain condensate drains ensure safe, dependable condensate drainage without air loss, even under conditions with widely fluctuating accumulation and high particle / oil content.

The industry standard

Quality, dependability and safe operation are essential features of any industrial machinery or equipment. The Eco drain meets all of these requirements. Versions are available to suit even the most hostile operating conditions, for example: highly aggressive condensate, freezing temperatures, high pressure or vacuum.

Essential system component

High quality, reliable condensate drains are a key component of any compressed air system that uses premium quality compressors and treatment equipment. They should also be simple to integrate throughout the entire system so that compressor controllers (Sigma Control) and master control systems (Sigma Air Manager) can react instantaneously to their signals, thereby enhancing system reliability and performance.



All collection points must be fitted with a reliable means of draining condensate.
Best results are achieved with an electronically controlled condensate drain.

Dependable condensate drainage without pressure loss



Fig.: Eco Drain 31



Eco Drain series

Dependable condensate drainage without pressure loss



“Click” and go

Maintenance on the Eco Drain 30 and 31 couldn't be quicker or easier. A simple “click” is all that's needed to detach the service unit from the electronics module. Complicated disassembly is therefore no longer necessary.



Intelligent control electronics

The control electronics operate the discharge valve with such precision that all collected condensate is discharged without any loss of compressed air. This not only maximises compressed air use but also leads to considerable energy savings. All electrical components are splash-proof.



Self-monitoring

Should an alarm situation occur (e.g. a blocked discharge line), the unit waits 60 seconds before switching to alarm mode, which allows the Eco Drain to continue to operate. A flashing LED indicates the alarm and a floating contact enables alarm signals to be relayed.



Durable level sensor

The durable level sensor forms the basis for safe, reliable condensate drainage. The drain also works perfectly under conditions with high levels of contamination, even when filled with pure oil.

Technical Specifications

Model	Pressure min. / max. bar _(g)	Climate zone ¹⁾	Max. compressor power according to climate zone 1/2/3 m³/min	Dryer power max. 1/2/3 m³/min	Filter power ²⁾ max. 1/2/3 m³/min	Fields of use Condensate ³⁾	Floating contact	Dimensions W x D x H mm	Weight kg
Eco Drain 30	0.8/16	1/2/3	3/2.5/1.5	6/5/3	30/25/15	a/b	–	65 x 149 x 118	0.8
Eco Drain 31	0.8/16	1/2/3	6/5/3.5	12/10/7	60/50/35	a/b	•	74 x 165 x 127	1
Eco Drain 32	0.8/16	1/2/3	12/10/7	24/20/14	120/100/70	a	•	74 x 211 x 157	1.65
Eco Drain 32 CO	0.8/16	1/2/3	12/10/7	24/20/14	120/100/70	a/b	•	74 x 211 x 157	1.65
Eco Drain 12	0.8/16	1/2/3	8/6.5/4	16/13/8	80/65/40	a	•	65 x 150 x 141	0.8
Eco Drain 12 CO	1.2/16	1/2/3	8/6.5/4	16/13/8	80/65/40	a/b	•	65 x 150 x 141	0.8
Eco Drain 13	0.8/16	1/2/3	35/30/20	70/60/40	350/300/200	a	•	93 x 212 x 162	2.0
Eco Drain 13 CO	0.8/16	1/2/3	35/30/20	70/60/40	350/300/200	a/b	•	93 x 212 x 162	2.0
Eco Drain 14	0.8/16	1/2/3	150/130/90	300/260/180	1500/1300/900	a	•	120 x 252 x 180	2.9
Eco Drain 14 CO	0.8/16	1/2/3	150/130/90	300/260/180	1500/1300/900	a/b	•	120 x 252 x 180	2.9
Eco Drain 16 CO	0.8/16	1/2/3	1700/1400/1000	3400/2800/2000	–	a/b	•	280 x 260 x 280	5.9
Eco Drain 12 CP PN 63 ⁴⁾	0.8/63	1/2/3	8/6.5/4	16/13/8	80/65/40	a/b	•	65 x 150 x 141	0.9
Eco Drain 13 CO PN 25 ⁴⁾	0.8/25	1/2/3	35/30/20	70/60/40	350/300/200	a/b	•	93 x 197 x 162	2.2

¹⁾ Climate zone: **1 = Dry/cool** (Northern Europe, Canada, Northern USA, Central Asia); **2 = Temperate** (Central and Southern Europe, some parts of South America, North Africa), **3 = Humid** (South-East Asian coastal regions, Central America, Oceania, Amazonia and Congo regions)

²⁾ Installed downstream from dryer

³⁾ a = Condensate from fluid-cooled compressors, b = Aggressive condensate

⁴⁾ For high pressure applications

► All models can be used in a temperature range from +1 °C to +60 °C

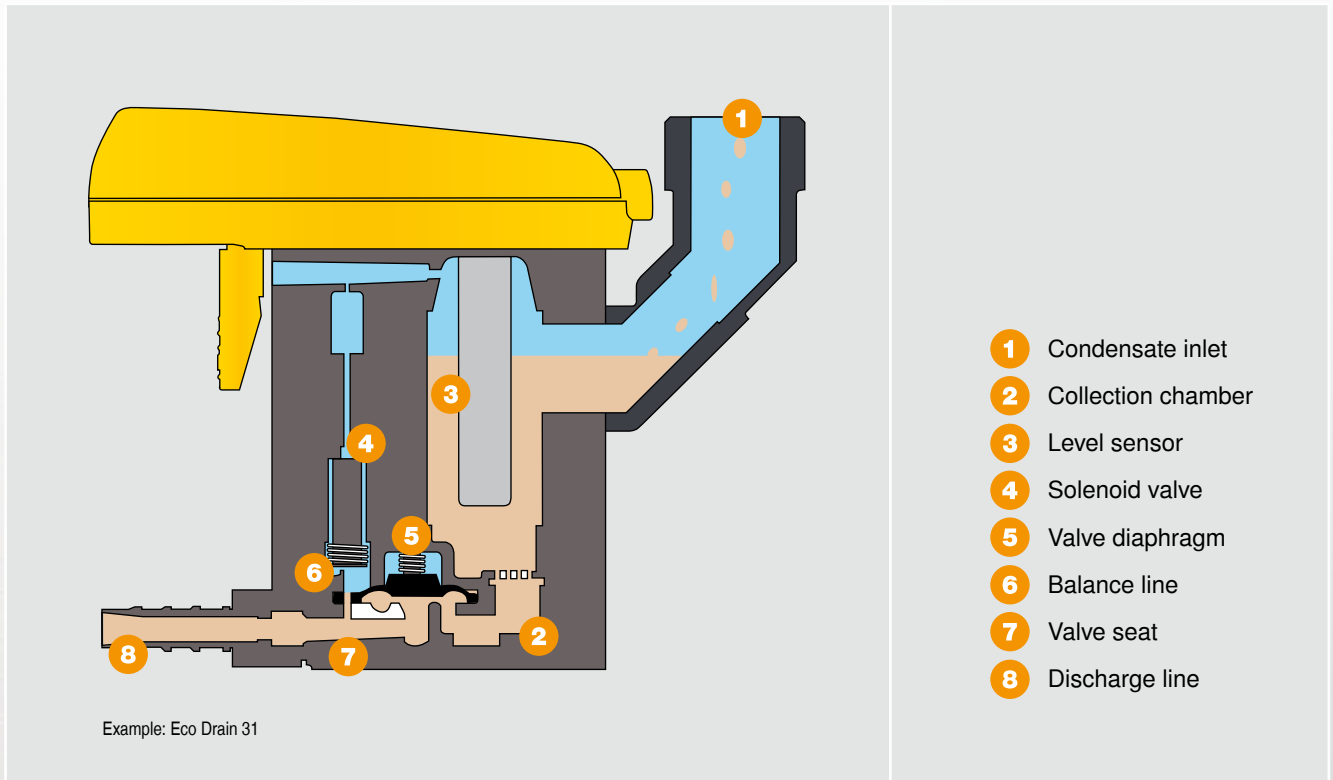
Eco Drain for vacuum/ low pressure	Condensate volume at 8 bar external control air Ø l/h	Min. / max. working pressure bar _(a)	Control pressure (external control air) bar _(g)	Reverse flow volume (normal volume) l	Dimensions W x D x H mm	Weight kg
3 CO V / 3 V	43	0.1 - 1.8	4 - 8	2 - 3	195 x 310 x 250	6.1
6 CO V / 6 V	228	0.1 - 1.8	4 - 8	15	256 x 310 x 302	9.0

Electrical data	
Connection	230 V / 1 Ph / 50-60 Hz
Max. power consumption	2 VA
Recommended cable diameter	3 x 0.75 mm²
Recommended fusing	0.5 A

Floating contact	
AC	max. 250 V / 1 A
DC	min. 5 V / 10 mA

Options	
Heating	Thermostatically controlled to prevent freezing of Eco Drain in ambient temperatures down to - 25 °C (not suitable for 63bar high pressure version). Power supply 230 V / 1 Ph / 50 – 60 Hz, max. 125 W; scope of delivery: heating rod, adapter, gaskets.
Pipe heating	To be installed onsite to protect the inlet and discharge lines from freezing, temperature range - 25 °C to + 60 °C. Power 10 W/metre, on-site installation. Scope of delivery: terminal box, heating band.

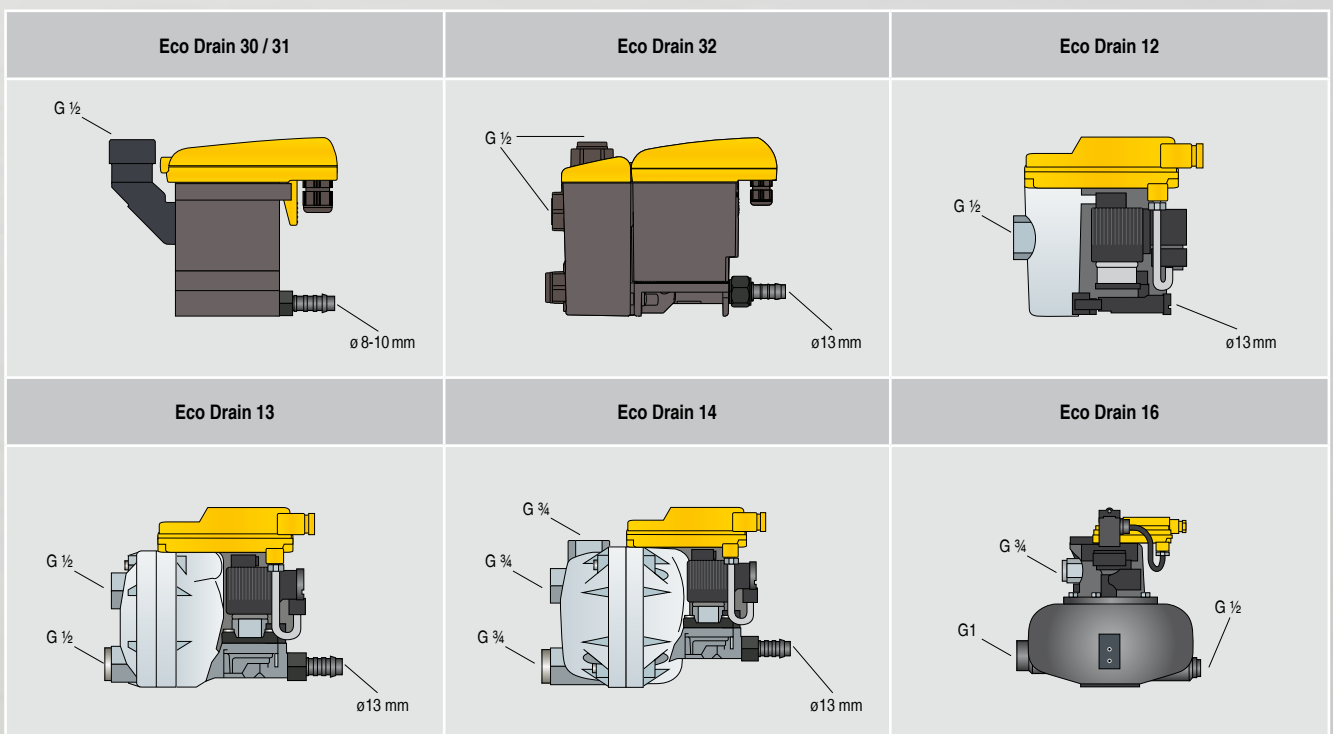
General design



The condensate passes through **the condensate inlet (1)** into the **collection chamber (2)**. The **level sensor (3)** detects the presence of condensate and sends a signal to the drain's control system when a preset condensate level is reached. This opens the **solenoid valve (4)** and also therefore the **pressure balance line (6)**. The resulting pressure compensation causes the **valve diaphragm (5)** to open.

The condensate flows from the collector through the **discharge line (8)** from the drain. As soon as the minimum condensate level in the collection chamber is reached, the controller closes the solenoid valve. This causes a change in the pressure exerted on the diaphragm which in turn is re-closed and sealed via the spring.

Views



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With innovative products and services, KAESER KOMPRESSOREN's experienced consultants and engineers help customers to enhance their competitive edge by working in close partnership to develop progressive system concepts that continuously push the boundaries of performance and compressed air efficiency. Moreover, the decades of knowledge and expertise from this industry-leading system provider are made available to each and every customer via the Kaeser group's global computer network.

These advantages, coupled with KAESER's worldwide service organisation, ensure that all products operate at the peak of their performance at all times and provide maximum availability.

