



# Efficiency, Flexibility & Value

Reliable Condensate Management



**No-loss drains**  
**Timed drains**  
**Air Saving products**





# INTRODUCTION TO COMPRESSED AIR CONDENSATE



Contaminants can enter a system at the compressor intake or be introduced into the airstream by the system itself. Lubricant, metal particles, rust, and pipe scale are all separated and filtered out, and drains have to operate correctly for the filters and separators to complete their task successfully. Drains can be found on an intercooler, after-cooler, filter, dryer, receiver, drip leg, or at the point of use.

## How do your drains improve system efficiency?

Draining the moisture from compressed air systems ensures less downtime and damage due to rust and scale. CompAir drains are designed for long life and require minimum maintenance. They are critical components in the quest for system efficiency and reliability. When a drain fails to discharge the condensate, the condensate can carry over into the system, causing a build-up of contaminants in dryers, receivers and filters. On multiple stage compressors, moisture carryover from the intercooler may allow liquid into the next stage, causing premature wear and a potentially catastrophic failure.

## Why install a CompAir condensate drain?

CompAir drains can be applied in both oil-lubricated and oil-free compressor applications. CompAir products carry globally recognised approvals, and each product is 100% tested before dispatch.

CompAir drains are robust and designed for long life industrial applications.

The CompAir direct-acting valve construction with a large orifice has proven to be the most reliable option for condensate draining applications, avoiding potential blockages. In addition, we apply stainless steel moving parts that offer an extended life guarantee and are less sensitive to aggressive particles found in the condensate.

CompAir valves are constructed from robust brass or stainless steel, ensuring no damage occurs during transportation, installation, functional operation and subsequent maintenance throughout the drain's working life.

Drains are also installed outdoors. IP65 (NEMA4) insulation protection is, therefore, a minimum requirement. High-grade coil insulation protects the copper wire from overheating, and top brand PCB components are applied to our electronic modules.

Servicing CompAir drains is quick and easy. Their service-friendly design ensures short maintenance intervals.

Based on their high and low-temperature operation characteristics, FPM seals have been specifically selected and used in all CompAir drains. In addition, FPM seals are chosen as this material has proved to be the best choice for compressed air condensate draining applications.



EN - ISO 9001:2015 – certified

# CTDV & CTDC



## Electronic timer controlled condensate drain

The CTDV timer controlled condensate drain is a combination of a solenoid valve and an electronic timer designed to automatically remove condensate from compressed air systems. The CTDC in addition, has an integral ball valve and a strainer, all in the same body.

### Product features

The CTDV and CTDC are designed to remove condensate from compressors, compressed air dryers, air filters and receivers up to any size, type or manufacturer.

The CTDV and CTDC offer true installation simplicity and they are recognised as the most reliable and best performing condensate drain worldwide. The larger orifice combined with its prominent front labelling feature is complemented by a selection of high pressure ranges and stainless steel valve options. In addition, virtually all voltage options are available in the CTDV and CTDC models.

### Features & Benefits

- Any type of compressed air system and compressor capacity
- Available in High Pressure up to 80 bar
- Environmentally friendly low Watt version available
- Serviceable valve construction
- Large (4.5mm) valve orifice
- Does not air-lock during operation
- Quick to service
- Test feature (micro-switch)
- Accurate time cycles
- High quality PCB components, offering you consistent quality

### Technical Data

<b>Max. compressor capacity</b>	Any size
<b>Min./max. system pressure</b>	Standard: 0 - 16 bar HP: 0 - 80 bar
<b>Min./max. medium temperature</b>	1 - 55°C (34 - 131°F)
<b>Min./max. ambient temperature</b>	1 - 55°C (34 - 131°F)
<b>Supply voltage options</b>	115VAC / 230VAC
<b>Environmental protection</b>	IP65 (NEMA4)
<b>Connector type (power)</b>	DIN 43650-A
<b>Inlet connections</b>	CTDV: 1/4", 3/8", 1/2" BSP CTDC: 1/4", 1/2" BSP
<b>Outlet connections</b>	CTDV: 1/4", 3/8", 1/2" BSP CTDC: 1/2" BSP
<b>Inlet connection height</b>	Approx. 1 cm
<b>Valve type</b>	2/2 way, direct acting
<b>Valve orifice</b>	CTDV: 4.5 mm CTDC: 4.0 mm
<b>Valve seals</b>	FPM
<b>Serviceable valve</b>	Yes
<b>Valve housing material</b>	Brass (stainless steel available)
<b>Test feature</b>	Yes
<b>Timer cycle range (ON/OFF)</b>	0.5 – 10 seconds / 0.5 – 45 minutes
<b>Timer PCB</b>	SMD technology, ensuring consistency in production
<b>Timer cycle indication</b>	Bright LED illumination





## Electronic zero air loss drain with alarm feature

The CCNL10 removes all types of condensate from compressed air systems with air flow up to 10 m<sup>3</sup>/min without the loss of compressed air while the CCNL100 up to 100 m<sup>3</sup>/min.

### Product features

The CCNL10 is an electronic zero air loss drains suitable for smaller compressed air applications. It offers an incredibly compact solution with unrivalled installation versatility and reliability. Typical draining applications include fridge dryers and filters. To further simplify the installation in restrictive height conditions, a side inlet adapter is available.

The CCNL100 offers a rapid pay-back period due to the zero air loss feature and energy saving features. The compact and robust industrial housing, 2/2 way direct acting valve with a large orifice, alarm feature and the integrated mesh strainer make the CCNL100 and CCNL100-HP highly reliable draining solutions. Equipped with a digital, LED illuminated, sight-port/level indicator showing you the condensate level inside the reservoir and enabling you to monitor the operation, even in poor lit places.

### Features & Benefits

- Extremely compact and lightweight
- True zero air loss solution saves air and energy
- 2 models cover compressor capacities up to 100 m<sup>3</sup>/min
- Visual alarm (LED indication)
- Easy installation and visual display of operating status
- External valve construction for fast and easy maintenance
- Direct acting valve with FPM seal
- Robust corrosion resistant aluminium housing
- Large integrated mesh strainer to protect the valve
- Side inlet adapter optionally available
- Drain heater for cold weather applications and T-adaptor optionally available
- Large orifice for successful draining of all condensate types

### Technical Data

<b>Max. compressor capacity</b>	CCNL10: 10 m <sup>3</sup> /min CCNL100: 100 m <sup>3</sup> /min
<b>Max. drainage capacity of condensate</b>	CCNL10: 45 l/h at 16 bar CCNL100: 665 l/h at 16 bar CCNL100 HP: 120 l/h at 50 bar
<b>Min./max. system pressure</b>	0 - 16 bar (0 - 230 psi) HP: 0 - 50 bar (0 - 725 psi)
<b>Min./max. medium temperature</b>	1 - 50°C (34 - 122°F)
<b>Min./max. ambient temperature</b>	1 - 50°C (34 - 122°F)
<b>Supply voltage options</b>	115VAC / 230VAC
<b>Enclosure protection rating</b>	IP65 (NEMA4)
<b>Connector type (power)</b>	DIN 43650-B
<b>Inlet connection</b>	1/2" BSP CCNL100: 3 inlet options
<b>Inlet height</b>	CCNL10: 74mm CCNL100: 110mm (top) and 75 & 15mm (side)
<b>Side inlet adapter</b>	Yes, optional
<b>Outlet connection</b>	1/4" BSP, with brass hose barb adapter
<b>Valve type</b>	2/2 way, direct acting
<b>Valve orifice</b>	CCNL10: 2mm CCNL100: 4mm (Non-HP) 1.8mm (HP)
<b>Valve seals</b>	FPM
<b>Serviceable valve</b>	Yes
<b>Integrated mesh strainer</b>	Yes
<b>Housing material</b>	Corrosion resistant aluminium, EP coating
<b>Test feature</b>	Yes
<b>Visual alarm</b>	Yes, LED indication
<b>Alarm feature (N/O)*</b>	Normally open alarm output contact (potential free relay)

\* Normally open contacts, closed when in alarm phase. In CCNL100 Alarm LED on the drain is OFF in normal operation and ON when in alarm mode.

# CMNL10, 100 & 500



## Magnetically operated level sensed condensate drain

The CMNL10 is a magnetically operated zero air loss drains that discharge condensate from all compressed air systems by using a unique technology based on magnetic forces and without the usage of electricity. The environmentally-friendly CMNL100 removes all types of condensate from compressed air systems up to 100 m<sup>3</sup>/min while the CMNL500 is ideal for larger applications up to 500 m<sup>3</sup>/min with exceptionally large condensate discharge capacity of 4,800 l/h at 16 bar.

## Product features

The CMNL series uses specially selected long-life magnets that ensure a reliable discharge operation. The discharge process is automatic, does not require electricity and there is no compressed air lost during the condensate discharge cycle. They are ideally suited in applications where power is not available, too expensive or not reliable. The integrated stainless steel strainer protects the valve, optimising the discharge performance. Drains have an IP68 rating for higher enclosure protection.

## Features & Benefits

- Suitable for any type of compressed air system
- No electricity required: no operating cost
- 3 models cover compressor capacities up to 500 m<sup>3</sup>/min
- Zero air loss technology saves air, energy and money
- Compact and unique design
- Incredibly easy and quick to install and service
- No control air line and pressure regulator required
- Integrated mesh strainer to protect the valve
- Top and side inlets available
- Robust corrosion resistant aluminium housing
- Direct acting valve construction for a reliable condensate discharge operation
- Successful draining of, even heavily emulsified, condensate due to large 6mm valve orifice

## Technical Data

<b>Max. compressor capacity</b>	CMNL10: 10 m <sup>3</sup> /min CMNL100: 100 m <sup>3</sup> /min CMNL500: 500 m <sup>3</sup> /min
<b>Max. drainage capacity of condensate at 16 bar</b>	CMNL10: 145 l/h CMNL100: 1062 l/h CMNL500: 4800 l/h
<b>Min./max. system pressure</b>	CMNL10: 0 - 16 bar (0 - 230 psi) CMNL100: 3 - 16 bar (44 - 230 psi) CMNL500: 3 - 16 bar (44 - 230 psi)
<b>Min./max. medium temperature</b>	1 - 50°C (34 - 122°F)
<b>Min./max. ambient temperature</b>	1 - 50°C (34 - 122°F)
<b>Enclosure protection rating</b>	IP68 (NEMA6)
<b>Inlet connections</b>	CMNL10: 1/2" BSP, 2 inlet options CMNL100: 1/2" BSP, 3 inlet options CMNL500: 3/4" BSP, 3 inlet options
<b>Inlet height</b>	CMNL10: 10.3cm (top) and 9cm (side) CMNL100: 12cm (top) and 9.7cm & 1.5cm (side) CMNL500: 15.1cm (top) and 13.3cm & 1.8cm (side)
<b>Outlet connection</b>	CMNL10: 1/8" BSP, with brass hose barb adapter CMNL100: 1/4" BSP, with brass hose barb adapter CMNL500: 3/4" BSP, with brass hose barb adapter
<b>Valve type</b>	Direct acting
<b>Valve orifice</b>	CMNL10: 2mm CMNL100: 6mm CMNL500: 12mm
<b>Valve seals</b>	FPM
<b>Serviceable valve</b>	Yes
<b>Integrated mesh strainer</b>	CMNL10: No CMNL100: Yes CMNL500: Yes
<b>Housing material</b>	Corrosion resistant aluminium, EP coating





## Compressed air energy saver

A typical compressed air system has air losses through pipe works connections. By installing an CSLV the end user will limit them. Typically installed in the compressed air line after the air receiver.

## Product Features

The CSLV has proven its worth and saved millions m<sup>3</sup> of compressed air around the world, helping end-users to save valuable compressed air from escaping unnecessarily, reducing compressor running hours and thus extending its lifetime, saving energy and operating costs. The CSLV can be installed in all pipeline systems of 1" or 2". When the ball valve of the CSLV is closed, all compressed air will remain in the air receiver, rather than being lost through leakages. The control module offers programming simplicity and exciting display features.

**A typical installation example** is to connect the CSLV to a light switch. By switching on the lights in the production area - the CSLV will subsequently open. The saved compressed air flows into the factory compressed air line and the compressor kicks-in to produce the air needed to fill the system. At the end of the work-shift you switch off the light(s) and the CSLVE will close accordingly.

## Features & Benefits

- No unnecessary compressor start-up during periods when compressed air is not required
- Reduced maintenance requirements and lower power consumption leads to considerable savings on service and energy costs
- Time programmed or remote controlled
- Manual valve opening and closing possible, in case of a power failure

## Technical Data

<b>Min./max. system pressure</b>	0 - 16 bar
<b>Min./max. medium temperature</b>	1 - 100°C (34 - 212°F)
<b>Min./max. ambient temperature</b>	1 - 50°C (34 - 122°F)
<b>Supply voltage options</b>	230 VAC 50/60 Hz.
<b>Power consumption</b>	Approx. 7W during cycle rotation for CSLV 1" and 9W for CSLV 2".
<b>Enclosure protection rating</b>	IP54 (NEMA13)
<b>Valve inlet/outlet connections</b>	1" or 2"
<b>Valve opening/closing duration</b>	30 sec. (90°) for 1", or 105 sec for 2"
<b>Valve housing material</b>	Brass valve, nickel plated
<b>Illuminated LCD display</b>	Indicating day, time, valve status, battery life
<b>Battery type</b>	CR2032, 3 volt
<b>Programmable options</b>	Week planner, max. 100 switching points, to be distributed over 1-7 days
<b>Manual valve override</b>	Yes
<b>Remote controllable</b>	Yes (optional)

- Typically installed on the air outlet of the air receiver or alternatively applied to close off certain parts of the compressed air system
- A backup battery or a manual valve opening and closing, in case of a power failure
- Battery life indication on the display
- Slow valve opening to avoid "water hammer" in pipe line system
- Brass valve, nickel plated
- Compact design - Easy to install

# ACCESSORIES

## Ball Valve Strainers

The specially designed in-line ball valve strainer allows for easy local shut off of zero air loss drains for maintenance purposes.



Any debris will be caught in the mesh strainer that protects the drain from any blockages and reducing maintenance to a minimum. It is specially designed to prevent flow restrictions that can cause air-locks. A specially designed in-line protective strainer ensures debris does not affect the valve orifice or seals and allows the service engineer to safely shut the drain off from the compressed air system.

## Wall Mounting Bracket

Wall mounting brackets allow easy installation of timer drains to walls or to the inside of refrigerated dryers. The bracket kit contains all necessary fixings to complete the job.



## Drain Heater and T-Adapter

In very cold temperatures, condensate may run the risk of freezing when it does not continuously flow through the system. The drain heater guarantees a continuous condensate flow in all systems where you have trouble keeping the condensate flowing due to extreme cold weathers. The T-adapter is a useful installation aid as it enables you to connect the drain heater to various 1/2" drains. The drain heater with T-adapter can be applied in combination with both levels sensed drains and timer controlled drains.



## Service Kits

Great care is taken to ensure long lasting components are selected and applied in our products. CompAir products are designed in a way that makes servicing simple, quick and error free. Servicing CompAir products is a cost effective way to recondition the products for many more years of draining service.



## CompAir Timers

The CompAir timers are produced to the highest standards. We apply two voltage protection element (IN and OUT) to ensure a long life protection against electrical power surges. Our timers are also purchased by other solenoid valve producers and mounted on their valves for all kinds of different applications besides condensate draining.





# Global experience – truly local service

With over 200 years of engineering excellence, the CompAir brand offers an extensive range of highly reliable, energy efficient compressors and accessories to suit all applications.

An extensive network of dedicated CompAir sales companies and premium partners across all continents provide global expertise with a truly local service, ensuring our advanced technology is backed up with the right support.

CompAir has consistently been at the forefront of compressed air systems development, culminating in some of the most energy efficient and low environmental impact compressors on the market today, helping customers achieve or surpass their sustainability targets.



## CompAir compressed air product range

### Advanced Compressor Technology Lubricated

- Rotary Screw
  - > Fixed and Regulated Speed
- Portable

### Oil-Free

- Water Injected Screw
  - > Fixed and Regulated Speed
- Two Stage Screw
  - > Fixed and Regulated Speed
- Rotary Scroll
- Ultima®

### Complete Air Treatment Range

- Filter
- Refrigerant and Desiccant Dryer
- Condensate Management
- Heat of Compression Dryer
- Nitrogen Generator

### Modern Control Systems

- CompAir DELCOS Controllers
- SmartAir Master Sequencer
- iConn - Smart Compressor Service

CompAir policy is one of continuous improvement and we therefore reserve the right to alter specifications and prices without prior notice. All products are sold subject to the Company's conditions of sale.

### Value Added Services

- Professional Air Audit
- Performance Reporting
- Leak Detection

### Leading Customer Support

- Custom Engineered Solutions
- Local Service Centres
- Genuine CompAir Parts and Lubricants