CONDENSATE DRAINS

EDE Series - Electonic Level Sensing

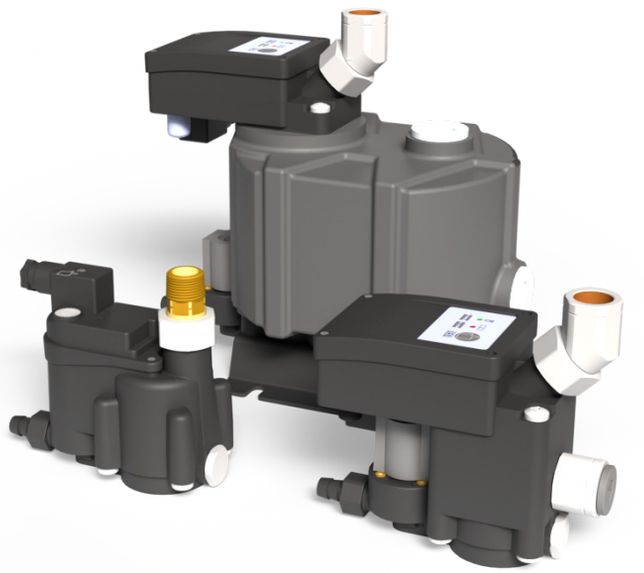
Parker's EDE range of condensate drains are designed for zero loss condensate removal from compressed air and gaseous nitrogen, at pressures up to 16 bar.

In a compressed air system, approximately 70 to 80% of liquid condensate arises at critical installation points, such as compressor aftercoolers, storage vessels, and liquid separators. Safe and reliable removal of large amounts of this condensate is essential.

With an integrated dirt filter, diaphram valve with large cross-section, direct controlled 2/2-way solenoid valve and capacitive level sensing, EDE condensate drains allowsfor the safe, reliable, and economical removal of condensate. Whilst simultaneously preventing any loss of compressed air.

Installation is simple and secure using the wall bracket provided, as well as upper or side attachment, allowing for vibration-free installation - even in enclosed spaces.

A service kit containing all of the required wear parts is available, for quick and easy maintenance.



Key Features and Benefits

Non-wearing magnetic-core level control

- Provides optimized, loss-free condensate discharge.
- Works independently of condensate type (water/oil) and pressure variations.
- Ensures a long lifespan without the need for calibration.

Integrated dirt screen for enhanced protection

- Prevents contaminants from reaching the diaphragm valve, ensuring reliability.
- Triggers an alarm if the screen is clogged, allowing proactive maintenance.
- Enables quick and easy cleaning, reducing downtime.

Diaphragm valve with large cross-section

- Ensures reliable operation and prevents blockage.
- Use of condensate pilot control for extended service life.
- Designed to handle various condensate conditions, without failure.

Built-in alarm contact for system monitoring (except ED060)

- Sends alerts in case of drainage issues.
- Helps prevent costly system failures by enabling timely intervention.

Smart and User Friendly Design

Revolving condensate inlet with balance option

- Flexible installation: connect from the top or side.
- Quick and easy adaptation to different system layouts.

Effortless installation and maintenance

- Fast disassembly for easy servicing in convenient locations.
- Premade cables simplify installation of new units.

Ergonomic and maintenance friendly

- Designed for easy access, reducing strain on knees and back.
- Ideal for preventive maintenance, improving system longevity.

CONDENSATE DRAIN SIZING

Correct sizing and installation of EDE electronic condensate drains is necessary to ensure that condensate is effectively removed from the compressed air system. Correct drain selection optimises the efficiency of a compressed air system and protects downstream applications and processes.

Why correct drain sizing matters

- Prevents unnecessary air loss, reducing energy costs.
- Ensures maximum drain efficiency, avoiding system failures.
- Extends equipment lifespan, lowering maintenance costs.
- Protects downstream processes and reduce product quality issues

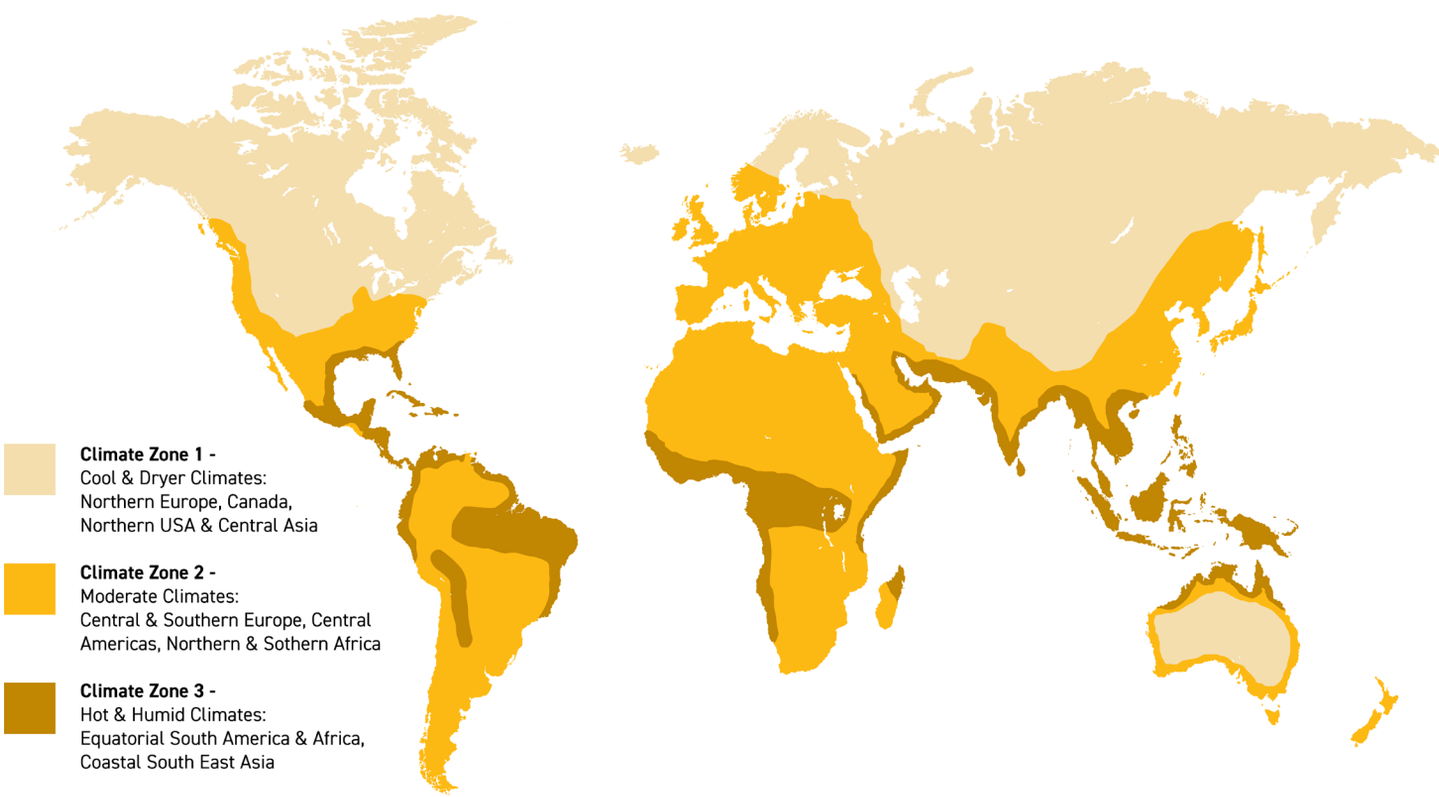
When sizing an EDE electronic drain, the following points must be considered:

- Climate zone & ambient conditions in which the compressed air system is installed.
- Type of equipment in the compressed air system that will discharge condensate.

CLIMATE ZONE AND AMBIENT CONDITIONS

The local climate (temperature and humidity levels) can have a significant impact on the volume of condensate that must be removed from a compressed air system. The condensate flow capacity of Parker EDE electronic drains means they can be used across all three climate zones. Performance data will vary between the different climate zones.

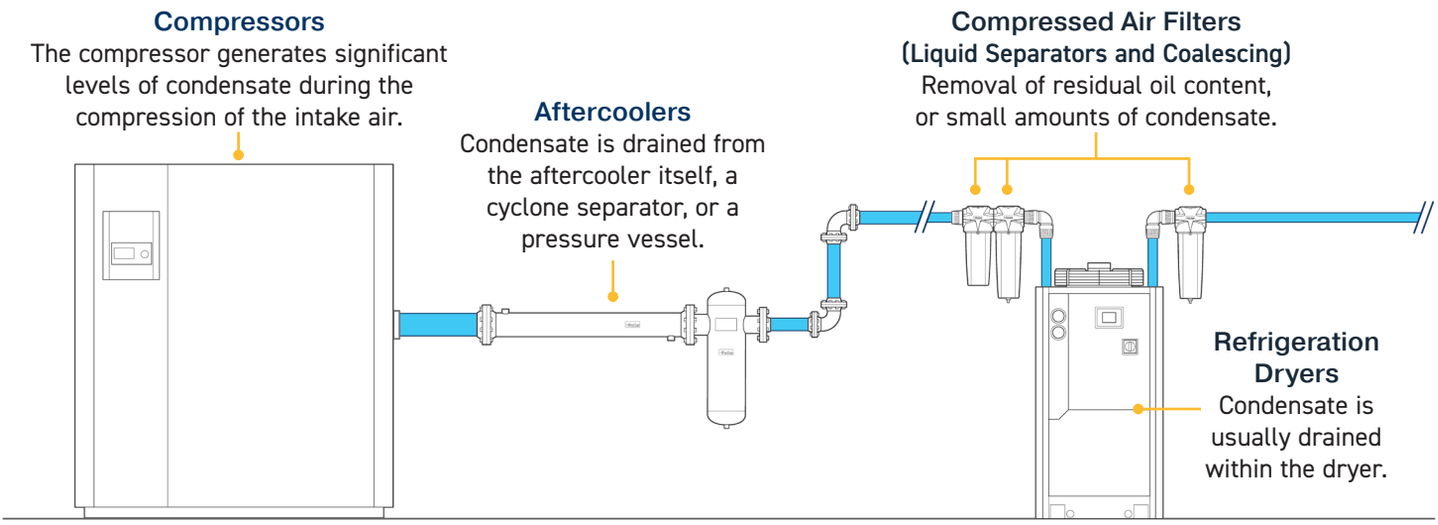
The global climate zone map can be used to indicatively select the correct EDE drain performance data:



Note: the above climate zones are indicative only and an assessment of the installation conditions and temperature variations throughout the year should be undertaken locally.

EQUIPMENT WITHIN A COMPRESSED AIR SYSTEM

Different equipment within a compressed air system will generate varying amounts of condensate that must be effectively discharged. The following drain applications are common within a system:



EDE range electronic condensate drains are suitable for use for oil lubricated and oil-free compressor applications and their associated downstream equipment.

PRODUCT SELECTION

Technical Data

Drain Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Electrical Supply
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	
EDE060 - EDE0150	0.2	3	16	232	1	34	60	140	230V/50-60Hz
EDE3000 - EDE6002	0.2	3							

EDE drains can be used in all global climate zones, although standard EDE range sizing information is based on **Climate Zone 2** conditions, with the following operating parameters:

Ambient (Suction) Air Temperature: 25°C / 60% relative humidity	**Operating Pressure:** 7 bar(g) - 102 psi(g)	**Aftercooler Air Discharge Temperature:** 35°C (95°F)

Please refer to the table below for EDE range standard technical specification based upon these operating conditions.

Flow Rates

Drain Model	Condensate Connections		Maximum Flow Rate (m^3/hr)*			Tank Volume (l)	Condensate Discharge Rate (l/hr)*	
	Inlet Top (Bottom)	Outlet Hose Barb	Compressor (Aftercooler)	Refrigeration Dryer	Filter		Nominal	Maximum
EDE0060	G½ M (NA)	Ø 12mm	180	360	1,800	0.06	2	5
EDE0120	G½ F (NA)	Ø 12mm	378	756	3,780	0.08	3.3	10
EDE0150	G½ F (G½)	Ø 12mm	450	900	4,500	0.09	5	15
EDE0300	G½ F (G½)	Ø 12mm	900	1,800	9,000	0.11	10	20
EDE0601	G½ F (G½)	Ø 12mm	1,800	3,600	18,000	0.22	20	35
EDE3200	G½ F (G½)	Ø 12mm	9,600	19,200	96,000	0.45	90	150
EDE6002	G½ F (G¾)	Ø 12mm	18,000	36,000	180,000	1.5	200	>350

*Stated flows are based on sizing related to climate zone 2 conditions at 7 bar (g) (102 psi g) with ambient suction air temperature of 25°C (77°F) and 60% RH with a compressor air discharge temperature of 35°C (95°F). For refrigeration drying equipment, a pressure dewpoint 3°C (37°F) with reference to 20°C, 1 bar (A), 0% relative water vapour pressure is applied. Refrigeration dryer and filters flow rates assume adequate condensate drainage has been applied upstream.

Options

- 115V (50 / 60Hz) UL Approved with NPT threaded connections
- 24VDC for models EDE0120 and above – On Request
- Drain heater for low ambient temperature application with/ without UL approval – On Request

EDE Drain Sizing Reference Data

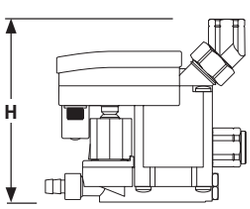
Following climate zone and equipment type selection, the following performance data can be used to select the appropriately sized EDE electronic drain.

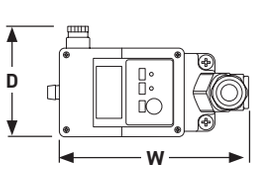
	Climate Zone		
Operating Conditions	**1. Cool and Dryer**	**2. Moderate**	**3. Hot and Humid**
Ambient Temperature at compressed air inlet	15°C (59°F)	25°C (77°F)	35°C (95°F)
Relative humidity at compressor inlet	<45% RH	65% RH	> 80% RH
Compressor discharge temperatue	25°C (77°F)	35°C (95°F)	45°C (95°F)
System Pressure	7 bar g (100 psi g)	7 bar g (100 psi g)	7 bar g (100 psi g)
Refrigeration dryer dewpoint	3°C (36°F)	3°C (36°F)	3°C (36°F)
Shift Pattern	24 Hour Use	24 Hour Use	24 Hour Use

	Maximum Flow Rate (m^3/hr)* by Equipment Type Used											
Drain Model	**Compressor / Aftercooler/ Wet Air Receiver**				**Refrigeration Dryer**				**Filtration**			
	l/s	**m^3/min**	**m^3/hr**	**cfm**	**l/s**	**m^3/min**	**m^3/hr**	**cfm**	**l/s**	**m^3/min**	**m^3/hr**	**cfm**
Climate Zone 1 - Cool and Dryer Climates												
EDE0060	60	3.6	216	127	117	7	420	247	600	36	2,160	1,271
EDE0120	126	7.6	456	268	250	15	900	530	1,250	76	4,500	2,531
EDE0150	150	9	540	318	300	18	1,080	636	1,500	90	5,400	3,178
EDE0300	300	18	1,080	636	600	36	2,160	1,271	3,000	180	10,800	6,357
EDE0601	600	36	2,160	1,271	1,200	72	4,320	2,543	6,000	360	21,600	12,713
EDE3200	3,167	190	11,400	6,710	6,333	380	22,800	13,420	31,667	1,900	114,000	67,098
EDE6002	6,000	360	21,600	12,713	12,000	720	43,200	25,427	60,000	3,600	216,000	127,133
Climate Zone 2 - Moderate Climates												
EDE0060	50	3	180	106	100	6	360	212	500	30	1,800	1,060
EDE0120	105	6.3	378	223	210	13	756	445	1,050	63	3,780	2,226
EDE0150	125	7.5	450	265	250	15	900	530	1,250	75	4,500	2,651
EDE0300	250	15	900	530	500	30	1,800	1,060	2,500	150	9,000	5,301
EDE0601	500	30	1,800	1,060	1,000	60	3,600	2,120	5,000	300	18,000	10,602
EDE3200	2,667	160	9,600	5,654	5,333	320	19,200	11,309	26,667	1600	96,000	56,544
EDE6002	5,000	300	18,000	10,602	10,000	600	36,000	21,204	50,000	3000	180,000	106,020
Climate Zone 3 - Hot and Humid Climates												
EDE0060	30	1.8	108	64	58	3.5	210	124	300	18	1,080	636
EDE0120	63	3.8	228	134	125	7.5	450	265	633	38	2,280	1,342
EDE0150	75	4.5	270	159	150	9	540	318	750	45	2,700	1,589
EDE0300	150	9	540	318	300	18	1,080	636	1,250	90	4,500	2,649
EDE0601	300	18	1,080	636	600	36	2,160	1,271	3,000	180	10,800	6,357
EDE3200	1,600	96	5,760	3,390	3,167	190	11,400	6,710	16,000	960	57,600	33,902
EDE6002	3,000	180	10,800	6,357	6,000	360	21,600	12,713	30,000	1,800	108,000	63,566

Weight and Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	**ins**	**mm**	**ins**	**mm**	**ins**	**kg**	**lbs**
EDE0060	120	4.7	136	5.4	60	2.4	0.4	0.88
EDE0120	107	4.2	160	6.3	69	2.7	0.5	1.1
EDE0150	140	5.5	163	6.4	69	2.7	0.6	1.32
EDE0300	155	6. 1	163	6.4	69	2.7	0.7	1.54
EDE0601	214	8.4	163	6.4	69	2.7	1.2	2.64
EDE3200	230	9.1	173	6.8	123	4.8	1.8	3.96
EDE6002	230	9.1	250	9.8	148	5.8	3.45	8





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