# Filter pressure regulator, Series NL1-FRE

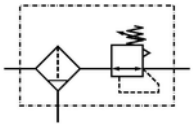
**0821300759**



## AVENTICS Series NL1 Air Preparation Units

The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.





## Technical data

| | |
|---|---|
| Industry | Industrial |
| Parts | Filter pressure regulator |
| Reservoir | reservoir, polycarbonate, without protective guard |
| Port | G 1/4 |
| Nominal flow Qn | 1350 l/min |
| Filter porosity | 5 µm |
| Condensate drain | semi-automatic, open without pressure |
| Pressure gauge | without pressure gauge |
| Min. working pressure | 1.5 bar |
| Max. working pressure | 16 bar |
| Min. ambient temperature | -10 °C |
| Max. ambient temperature | 60 °C |
| Min. regulation range | 0.5 bar |
| Max. regulation range | 10 bar |
| Lock type | not lockable |
| Type | 1-part |
| Type | Can be assembled into blocks |
| Pressure supply | single |
| Mounting orientation | vertical |

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| | |
|---|---|
| Regulator type | Diaphragm-type pressure regulator |
| Regulator function | with relieving air exhaust |
| Filter element | exchangeable |
| Filter reservoir volume | 16 cm³ |
| Max. achievable compressed air class acc. to ISO 8573-1:2010 | 6 : 7 : - |
| Medium | Compressed air<br>Neutral gases |
| Weight | 0.334 kg |

## Material

| | |
|---|---|
| Housing material | Die cast zinc |
| Seal material | Acrylonitrile butadiene rubber |
| Material front plate | Acrylonitrile butadiene styrene |
| Material threaded bushing | Die cast zinc |
| Material reservoir | Polycarbonate |
| Material filter insert | Polyethylene |
| Part No. | 0821300759 |

## Technical information

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

Order pressure gauge separately

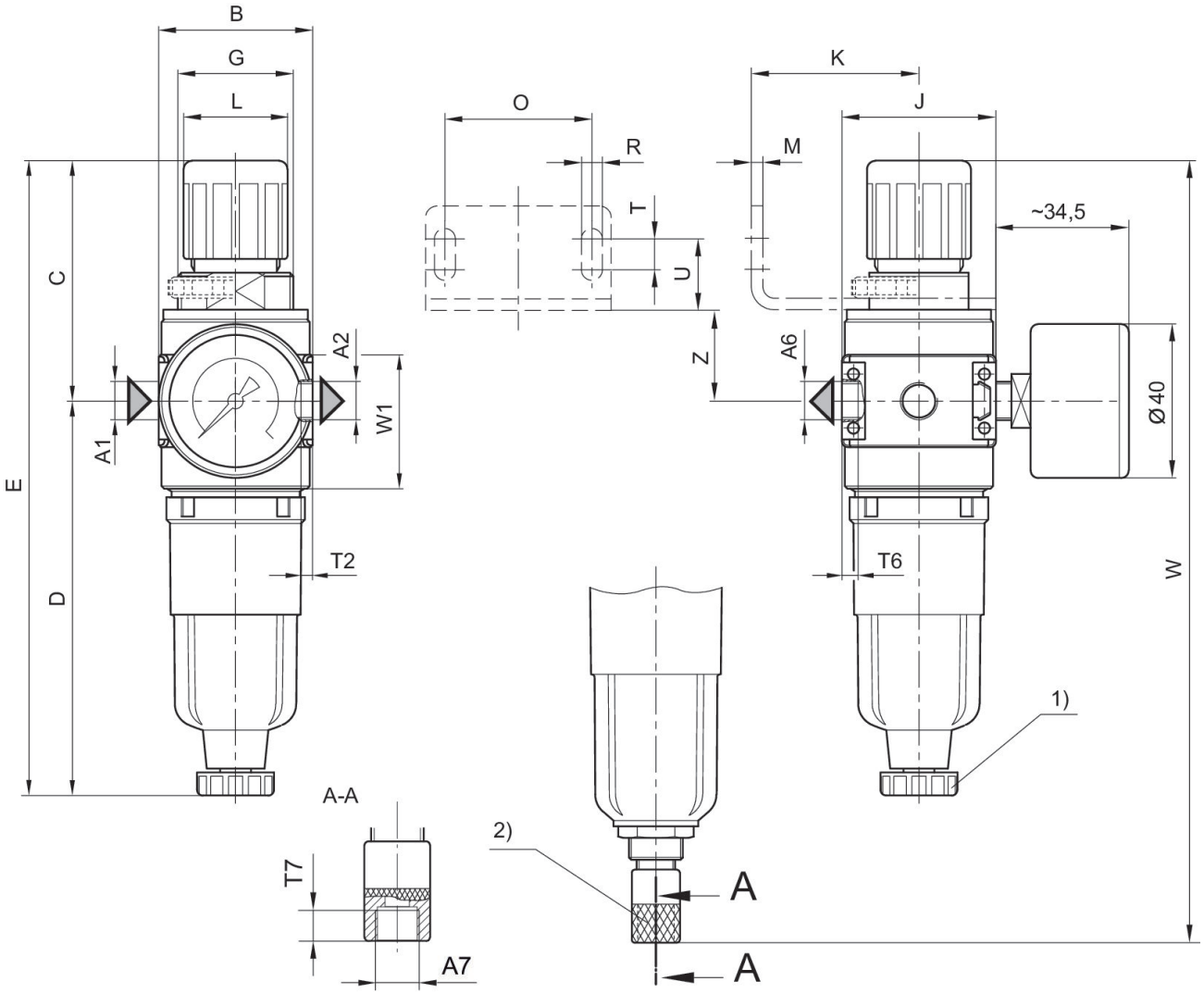
Metal protective guard can be retrofitted for all polycarbonate reservoirs

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2024-04-23

## Dimensions




A1 = input A2 = output
A4 = output A6 = output
1) Semi-automatic condensate drain 2) fully automatic condensate drain

## Dimensions in mm

| Part No. | A1 | A2 | A3 | A6 | A7 | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|
| 0821300750 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |
| 0821300751 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |
| 0821300752 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |
| 0821300753 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |
| 0821300754 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |
| 0821300755 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |
| 0821300756 | G 1/4 | G 1/4 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |
| 0821300757 | G 1/4 | G 1/4 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |
| 0821300758 | G 1/4 | G 1/4 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |

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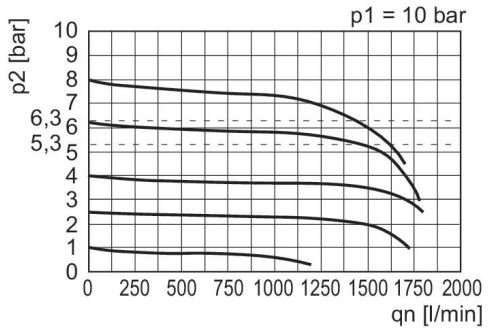
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| Part No. | A1 | A2 | A3 | A6 | A7 | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|
| 0821300759 | G 1/4 | G 1/4 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |
| 0821300760 | G 1/4 | G 1/4 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |
| 0821300761 | G 1/4 | G 1/4 | G 1/8 | G 1/8 | G 1/8 | 40 | 62.5 | 102.5 | 165 |

| Part No. | G | J | K | L | M | O | R | T | T2 |
|---|---|---|---|---|---|---|---|---|---|
| 0821300750 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300751 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300752 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300753 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300754 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300755 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300756 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300757 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300758 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300759 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300760 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |
| 0821300761 | M30x1,5 | 40 | 43.5 | 27 | 3 | 38 | 5.4 | 8 | 8 |

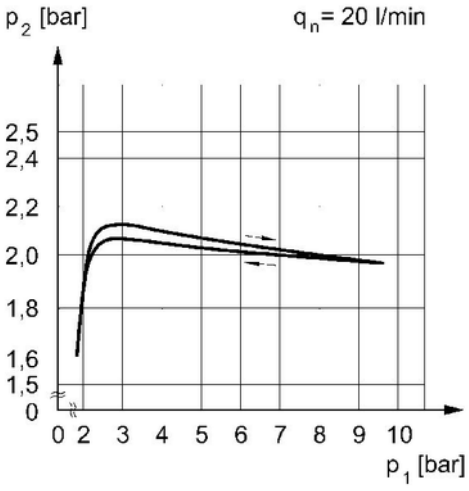
| Part No. | T6 | T7 | U | W | W1 | Z |
|---|---|---|---|---|---|---|
| 0821300750 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300751 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300752 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300753 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300754 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300755 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300756 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300757 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300758 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300759 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300760 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |
| 0821300761 | 6 | 8.5 | 18.5 | 203 | 44 | 24.5 |

## Flow rate characteristic, p2 = 0,05 - 7 bar




p1 = Working pressure p2 = Secondary pressure qn = Nominal flow

## Pressure characteristics curve




p1 = Working pressure p2 = Secondary pressure qn = Nominal flow