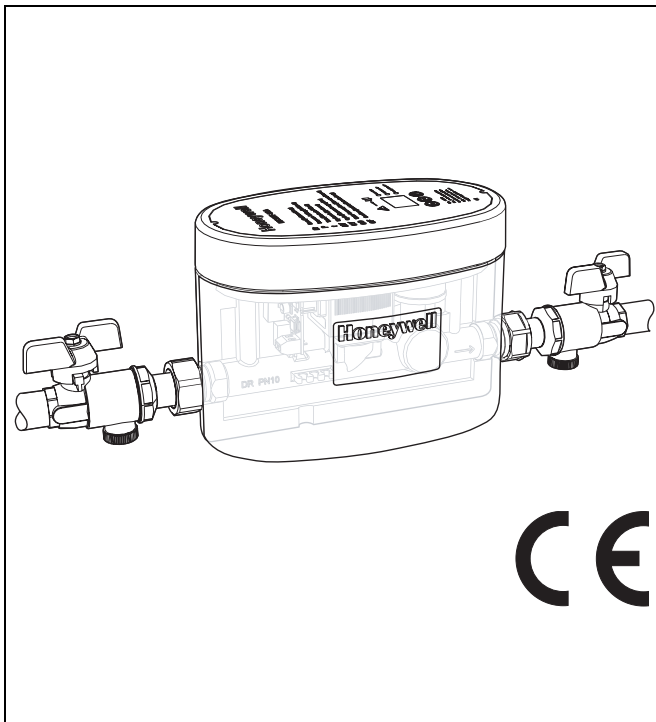


NK300T

Electronic refill unit

Product specification sheet



Application

The refill unit continually monitors the pressure in a connected system, e.g. a heating circuit, and maintains it automatically. Refill units of this type enable permanent connection of closed heating systems to the drinking water network. Together with the backflow preventer the unit corresponds to EN 1717.

Control unit, quantity counter and pressure regulation are integrated in one device. An alarm message is given as well as message contact on the switching of an error message system or central building control system.

Special Features

- Fully automatic, electronically monitored filling
- Simple handling with three-button keypad and display
- Monitoring and registration of the feed amounts
- Electronic pressure monitor and switching off in case of leaks
- Internal and external alarm in case of malfunction
- User-friendly, time-optimised system initial filling
- Very flexible use due to modular construction (backflow preventer CA, backflow preventer BA, softening unit VE)

Range of Application

Medium Drinking water

Technical Data

Installation position	Installation into horizontal pipework
Medium temperature	Input side: 5 °C to 30 °C, output side: 5 °C to 65 °C
Pressure range	
Input side	0.1 to 6 bar
Output side	1.5 to 4 bar
Totalizer range	0.1 litres up to 99m ³ (display double-digit + unit)
Flow rate	max. approx. 800l/h
Connections	2x external thread 1/2" (1 adapter included for 3/4" internal thread)
Ambient temperature	5 °C to 50 °C (power pack and cable: 0 °C to 40 °C)
Relative air humidity	max. 80% r.h.

Construction

The electronic refill unit consists of:

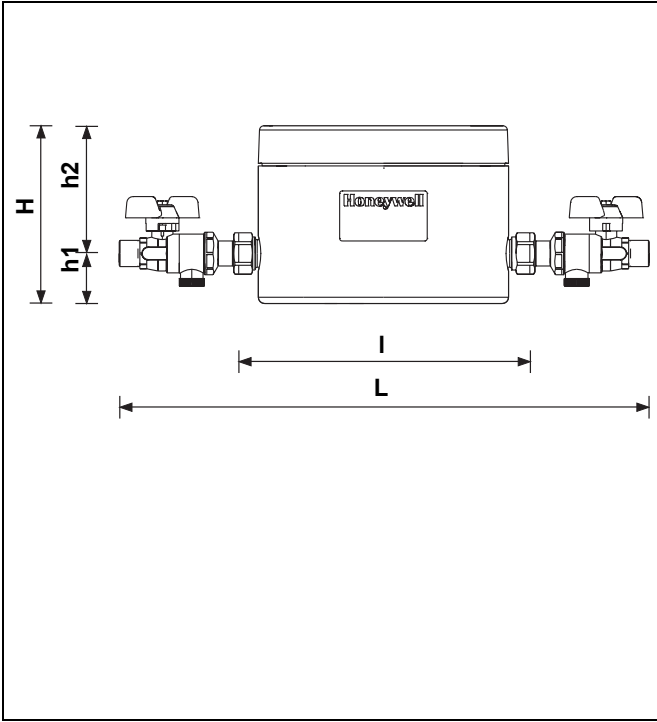
- Housing
- Shut off valve, up- and downstream
- Wide-area power pack
- Insulation shells
- Adapter for internal threads 3/4"

Materials

- Dezincification-resistant brass housing
- Seals in EPDM
- EPP insulation shells

Technical Data (electric)

Voltage	12V DC via wide-area power pack included in delivery
Power consumption	< 3W non-operation reception max. 12W (valve open)
Alarm contact	Potential-free closer, 24V / 2A max.
Service interface	Mini-USB port, form "B"
Protection class	IP 54 according to EN 60529 (ensured only with correctly connected cable, correct installation of the insulation shell elements and horizontal installation position)
Connections	Hollow plug 5.5mm



Connection size	R	1/2"
Weight	kg	1.8
Dimensions	mm	
	H	143
	h ₁	40
	h ₂	103
	I	225
	L	421
	T	115

Function

A sensor continually monitors the pressure in the connected system.

Should it drop under a adjustable limit value, a valve opens, so that the system is automatically supplied via a connected media supply until a specified value is reached.

Moreover, the refill unit is provided with a mode for the first filling of systems.

The rise in pressure is also monitored during the filling process. If this is not forthcoming for instance because of a leak in the system, filling is automatically interrupted.

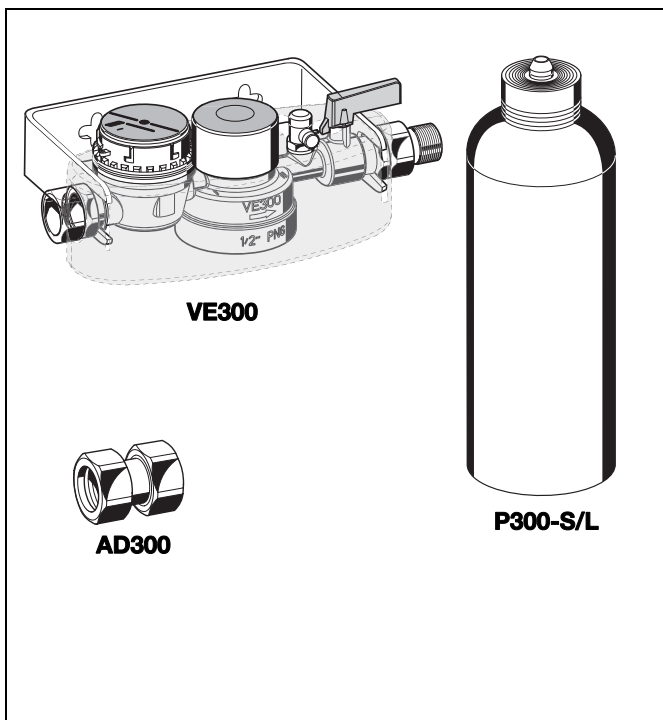
A further sensor registers the volume supplied to the system via the refill unit ("totalizer function"). The current value is saved hourly, meanwhile is secured against power failure. Any changes since the last save process can lead to a somewhat lower display value after a voltage reset. Monitoring the value offers the extra option of registering "creeping" losses in the system. The totalizer value can be reset to zero manually.

Operation of the device is performed through 3 buttons, a 7-segment display and 3 status LEDs.

Upcoming malfunctions are signalled optically and acoustically. An option exists to report upcoming malfunctions further via a relay contact.

Options

- NK300T-1/2A = Standard version
- NK300T-1/2ABA = with backflow preventer BA
- NK300T-1/2ACA = with backflow preventer CA



Accessories

Accessories

VE300-1/2A Cutting unit

Standard version with threaded connection 1/2"

P300-S Cartridge

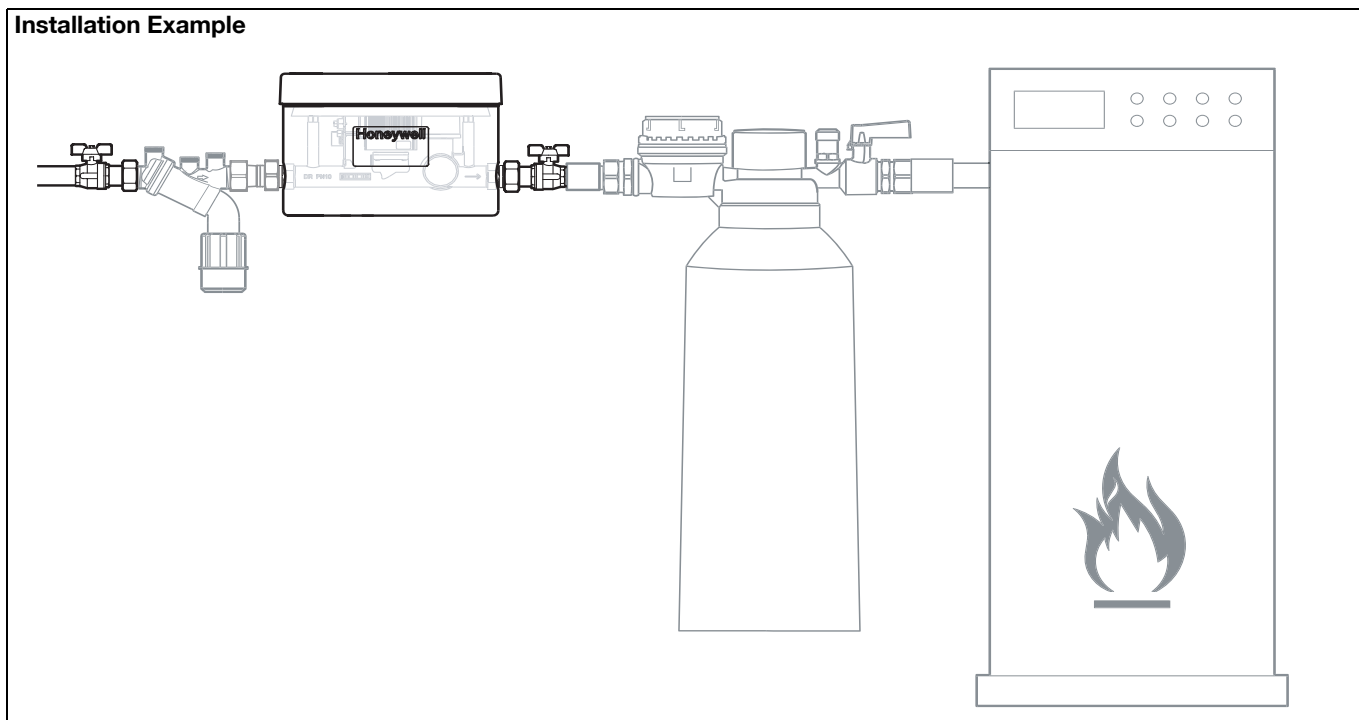
0,75l cartridge with ionic exchange resin

P300-L Cartridge

3.5l cartridge with ionic exchange resin

AD300 Adapter

To fit the softening unit to a 3/4" male connection.



Installation Guidelines

- Usage in closed media systems in interiors (e.g. heating circuits) .
- For monitoring and maintaining the system pressure within the defined limits.
- Usage only in connection with components and external devices recommended and authorised by Honeywell.
- When filling and connecting up the media system with a drinking water supply, a suitable system separator is to be set upstream according to EN1717.
- Suitable filter against particles $\geq 600\mu\text{m}$ set upstream.
- The installation may not take place in areas or ducts where poisonous gases or vapours may be present or where flooding can occur
- The installation location must be ventilated well
- The installation location should be protected against frost and be easily accessible
 - o Simplified maintenance and cleaning

Typical Applications

The electronic refilling device serves to fill heating and cooling circuits, as well as air conditioners in public buildings, multifamily dwellings and industrial facilities.

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