

Fact Sheet

# Save energy and improve indoor climate by optimizing filter replacement



Mount VLT® Pressure Transmitter PTU 025 directly into the VLT® HVAC Drive FC 102 enclosure, and connect easily to achieve seamless BMS integration.

**Did you know that many filters in air handling units (AHUs) and rooftop units (RTUs) are clogged, causing poor indoor climate and unnecessary energy losses?**

**And did you know you can solve this problem easily with the VLT® Pressure Transmitter PTU 025, which provides convenient early warning via filter monitoring - and is also easy to install?**

### Optimize indoor climate

Improve staff productivity and win the benefits of satisfied employees or tenants. By ensuring the cleanest, freshest air possible, you ensure a healthy working environment for optimal staff performance.

### Save energy

Ensure ErP compliance and cut your operating costs by ensuring correct replacement of clogged filters to optimize energy consumption.

### Replace filters right on time

Late filter replacement can cause severe energy losses due to the fans operating against clogged filters. Early replacement means that the filter lifetime potential is not utilized.

Connect the VLT® Pressure Transmitter PTU 025 combined with VLT® HVAC Drive FC 102 to eliminate these threats. The AC drive will raise the alarm and warn you when it's the right time to replace clogged filters.

### Easy to install

The VLT® Pressure Transmitter is fast and easy to install, commission and operate. You avoid complexity in installation and system integration, thanks to the simplicity of this compact design, built specifically for AHU and RTU applications, which operates reliably both indoors and outdoors.

### Communicate seamlessly

When combined into a single unit, the VLT® Pressure Transmitter and the VLT® HVAC Drive ensure that filter pressure information is handled by the drive according to predefined alarms & control parameters. Communication to the connected network or building management system (BMS) is automatic and seamless.



Ensure  
**clean**

air and win the benefits of an optimal indoor climate

Features	Benefits
Optimizes energy consumption by aiding correct filter replacement on clogged filters.	Reduces operating costs.
Easy to install, with dedicated software for filter monitoring.	Complexity reduction. Easy monitoring of clogged filters on the local control panel of the VLT® HVAC Drive.
Complies with the Ecodesign, Directive ErP, EC- Regulation 1253/2014/EG, which applies from 01.01.2018.	Easy ErP-compliant way to - Reduce AHU/RTU energy consumption. - Ensure clean air for optimal indoor climate.
Connects to building management system (BMS) via network, analog interface, or digital and relay outputs.	Easy to harvest, correlate and present performance data.
Measures up to 2500 kPa pressure.	Suits the needs of most AHUs and RTUs.

### Electrical connection

The VLT® Pressure Transmitter PTU 025 module is easily integrated into the VLT® HVAC Drive, and is fully IP55 and IP66 compatible.

It is easily mounted into the enclosure of the VLT® HVAC Drive, and retrofitted existing drives.



The PTU 025 is easily mounted into the FC 102 drive enclosure, and provides 360° access for optimal tube connections.

Example of installation: This air handling unit is equipped with 7 sensors. The inlet and outlet are controlled by separate VLT® HVAC Drives. Additional filters are optional.

### Ordering number

Order with code number 134B5925. Includes pressure transmitter with tube relief and internal C-option connection cable with cable binder.

### Specifications

System integration	
Pressure sensor inputs	<ul style="list-style-type: none"> <li>▪ Sensors 1 and 2*; working area of 0-500 Pa.</li> <li>▪ Sensor 3**; working area of 0-1000 Pa.</li> <li>▪ Sensor 4**; working area of 0-2500 Pa.</li> </ul> 5 mm pressure tube tap connection
Pressure sensor outputs	Pressure signals on digital output, relay or as analogue values.
Control method	Airflow control with close-loop PID regulator on air volume or pressure level in air channel. Internal connection to C-option slot on VLT® HVAC Drive FC 102.
Communication	Data communication via different fieldbus networks
Compatibility	VLT® HVAC Drive FC 102 with minimum software version 5.12. Retrofit solution with new control card for older version
Alarm parameterization	
Filter alarm	Customized selection of alarm levels, based on below and or above alarm level with fixed, linear or square speed control. One alarm from each pressure sensor 4 set-up operation modes
Performance	
Measuring accuracy	Pressure compensated to altitude, and absolute accuracy of $\pm 2.5\%$ of sensor FS value and temperature range
Environment	
Temperature Range	-25 to +50 °C
IP class	IP66

\* Filter monitoring with min / max alarm.

\*\* Filter monitoring with min / max alarm or as input for airflow control

