

ADAPT Damper d

Installation – Commissioning – Maintenance

20170601 / Art. No. 1545219

Installation

A length of straight duct ≥ 2 times the duct diameter downstream of a duct bend, T-piece or a dimensional change of the ducting is required for correct operation. We recommend installation using an FSR clamp. See Figure 1. The exterior surface of the entire product should be insulated if it is installed in a cold space.

Separate accessories

- DETECT SME, complete presence detector (figure 2), installed according to separate instructions included at delivery of DETECT SME.
- LINK Tuneadapt, extension cable for TUNE Adapt, see figure 3.

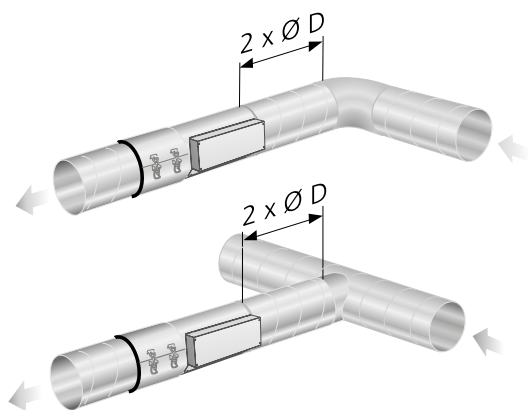


Figure 1. Length of straight duct required upstream of ADAPT Damper to compensate for various obstructions.

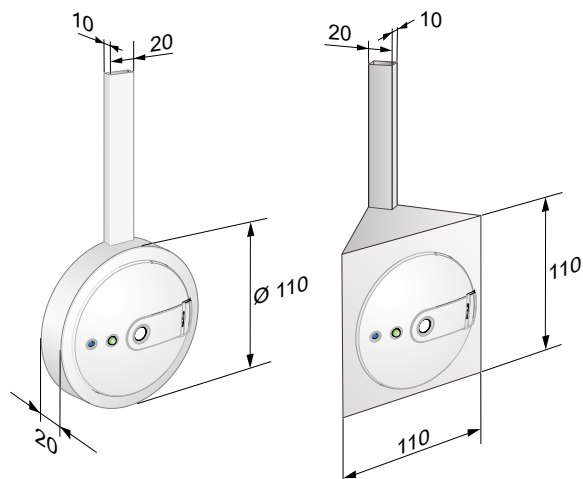


Figure 2. Detect SME, dimensions for wall mounted and corner mounted types. See separate installation guide for installation instructions.

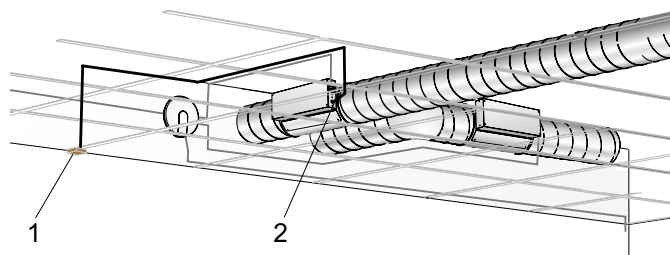


Figure 3. Installation of extension cable for TUNE Adapt.

1. Install the supplied connection box to the ceiling or to a wall.
2. The RJ12 connector is plugged into the separate socket of the hand-held unit.

Electrical data

ADAPT Damper is supplied with power via the connection box. See the wiring diagram.

For more information about various wiring and room solutions, see the Technical Section entitled: System Solutions.

Supply voltage	24 V AC $\pm 10\%$ 50-60 Hz
Max. power consumption	3 VA
Cable rating	0.6 A
Ambient temperature:	
In-operation	0°C - +50°C
Storage	-20°C - +50°C

Electrical connections

All the connections are wired to the CONNECT Adapt connection box. From there, the Master air diffuser is connected by means of the LINK Adapt (RJ45) cable included in the delivery. The slave air diffusers, if required, are connected by means of the same type of cable to their respective slave contacts. The maximum permitted length of the LINK Adapt cable from the connection box to the last air diffuser is 15 metres. If ADAPT is to be connected up to Modbus communication, this should be done by means of the LINK Modbus (RJ12) cable. All cables and contacts are different so that they will not be confused or incorrectly connected.

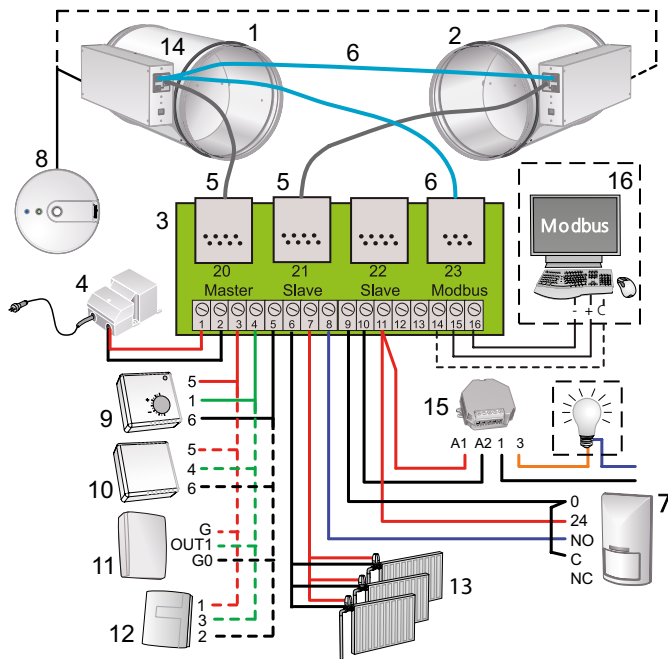


Figure 4. Wiring of master/slave-units and accessories.

1. ADAPT Damper, Master unit (3VA).
2. ADAPT Damper, Slave unit (3VA).
3. CONNECT Adapt (conn. terminal).
4. POWER Adapt 24 V AC transformer.
5. LINK Adapt 5 m (RJ45 cable).
6. LINK Modbus 5 m (RJ 12 cable).
7. DETECT Occupancy (1 VA).
8. DETECT SME, Presence detector. Function control, temperature and occupancy detection.
9. *)TUNE Temp (Can be combined with DETECT SME).
10. *)DETECT Temp (Redundant when DETCT SME is chosen).
11. *)DETECT Quality (Can be combined with DETECT SME).
12. *)DETECT RH, humidity detector (Can be combined with DETECT SME).
13. ACTUATOR, radiator- or cooling unit regulation (24V PWM), max 3 valves, each at 6 VA.
14. SPLIT Link RJ12, branching for Modbus cable.
15. ADAPT Relay 24 V AC for lighting (<1 VA).
16. Modbus RTU, connection to zone damper or router.

*)9, 10, 11 and 12 cannot be combined.

Commissioning

ADAPT Damper is normally preset at the factory, either with customer-specific or with standard settings.

The TUNE Adapt hand-held terminal is used for manually checking the current airflow through the damper and for changing set points, if required. It can be connected to the appropriate quick-fit socket on the side of the damper, see Figure 5.

Maintenance

ADAPT Damper is maintenance-free. Cleaning tools like whisks and the like must not be drawn through the damper.



Figure 5. Wiring TUNE Adapt for checking and changing set points. Connection is made directly into the single socket on the side of the damper or the connection box of the extension cable. If DETECT SME is installed, TUNE Adapt is connected to SME instead. Communication with the parent system is disconnected while TUNE Adapt is connected.

Standard settings

Temperatures

Presence	22 °C	± 1 K
Absence	22 °C	+3 / -2 K
Night-time cooling	17 °C	

Air flows m ³ /h (l/s)	Unoccupied*	Min. airflow	Max. airflow
Size 125	0/4	8	50
Size 160	0/6	10	80
Size 200	0/10	15	125
Size 250	0/15	25	200
Size 315	0/25	40	300
Size 400	0/40	65	500
Size 500	0/60	100	800

*) Possibility to set 0 as min. flow with the result of fully closing the damper. The second displayed value refers to adjustable flow during absence.

Air quality

	Min.	Max.
CAC (%) version before 170501, see figure 6	25	35
CAC (%) version after 170501, see figure 6	35	45
CO ₂	800	1000
Rh - Relative humidity (%Rh)	65	90

Presence

Switch on delay	0 sec.
Switch out delay	20 min.

Communication

Modbus ID	1
Speed	38 400 bps
Word length	8 bits
Stop bits	1
Parity	None

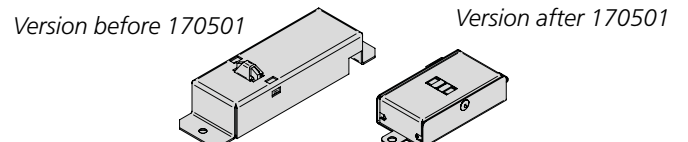


Figure 6. CAC sensor.