

Detector assembly kit for ventilation ducts C24178-A41-A1

Installation instructions

The detector assembly kit for ventilation ducts consisting of a mounting frame with door serves to monitor **clean** ventilation ducts using optical smoke detectors and facilitates problem-free inspection and easy replacement of the detectors used.

1. Selection of the installation location

The detectors must be installed at locations with a homogeneous air flow. Installation in air inlet openings is to be avoided. A minimum distance of twice the duct width from the "source of turbulence" must be observed. For fresh-air monitoring, the detectors must be mounted in the supply air current between the air filter and air-conditioning system (air humidity).

The alarm indicator must be easily visible and accessibility for inspection purposes must be guaranteed. In order to avoid premature contamination of the detector inserts provided in accordance with the implementation documents, they should not be inserted until all construction work has finished or if possible after the ventilation system has been running for a number of days.

2. Installation of the assembly kit

Mark the duct center at the designated installation location. Using the template (enclosed), mark the duct cutout and the guide hole indicated on the template.

Cut out the duct cutout (282 x 160 mm) and drill the guide hole.

Stick the self-adhesive sealing band supplied to the ventilation duct, flush with the edge of the cutout.

Insert the detector assembly kit, screw in using 1 screw (guide hole), level, and drill the other mounting holes.

- In aluminum plate hole Ø 2.2 mm

- In steel plate hole Ø 2.4 mm

Screw in all mounting screws (sixteen 2.9 x 13 mm tapping screws are included in the accessory pack).

3. Cabling

Relieve the strain on the incoming/outgoing cable using a clip at the ventilation duct (Figure 1).

Insert the cables into the detector assembly kit through the PG fittings. Cut the cable 30 cm after the entry point, leaving an adequate slackness loop.

Trim the cable insulation back to 20 cm.

Break through the opening for cable entry in the detector socket.

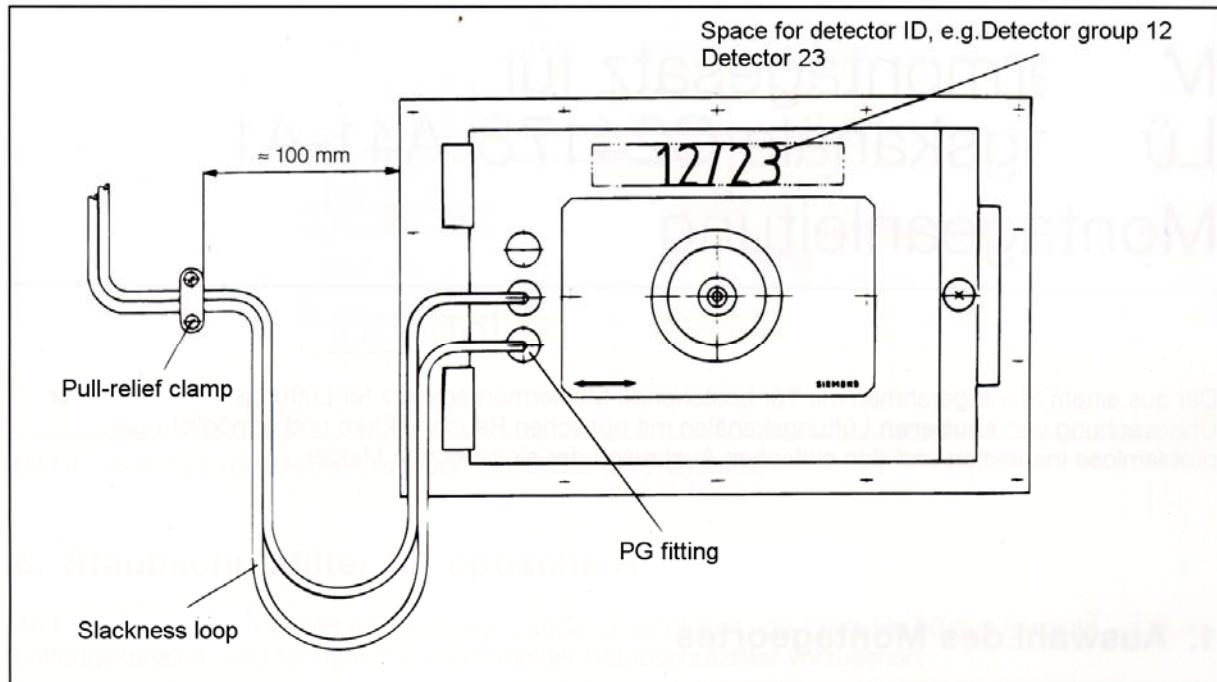


Figure 1 Detector assembly kit for ventilation duct

4. Installation of the detector socket

Screw the detector socket to the appropriate hole group (Figure 2) on the door of the assembly kit in accordance with the implementation documents. Two M4 x 16 screws are provided in the accessory pack for this purpose.

Attach the detector numbering to the door (Figure 1) of the detector assembly kit in accordance with the implementation documents.

Detector socket	LED position	Mounting on hole group	Hole group on the inside of the door *) Wire throughfeed to the alarm indicator in the doors
SIGMASYS	bottom right	(1)	
MS8.1	top center	(1)	
MS9 socket 94	top left	(2)	
MS8 (old)		(3)	

Figure 2 Mounting holes for the various detector socket types

5. Connection of the various detector sockets

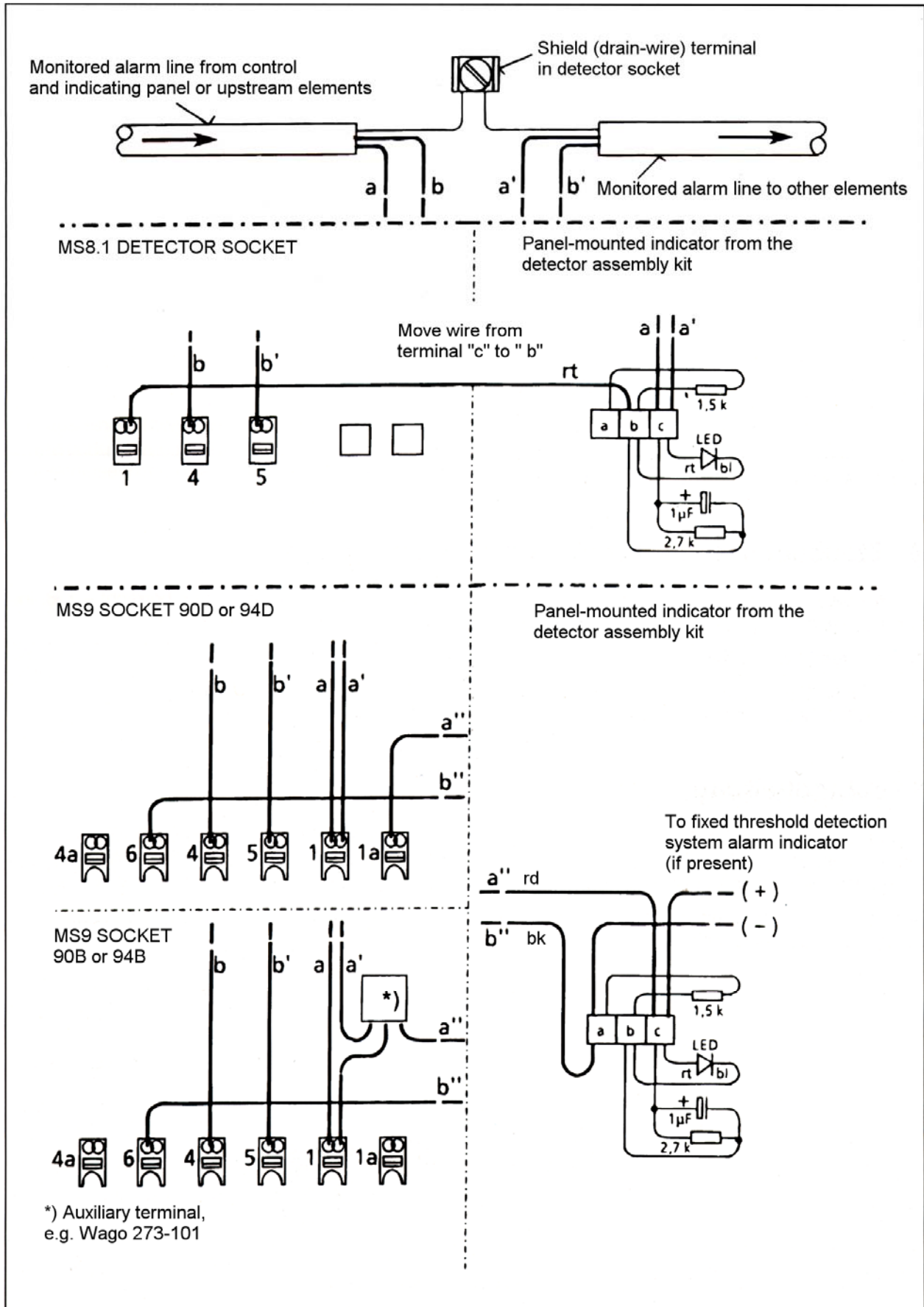


Figure 3 Connection of the detector sockets from the MS8 and MS9 systems

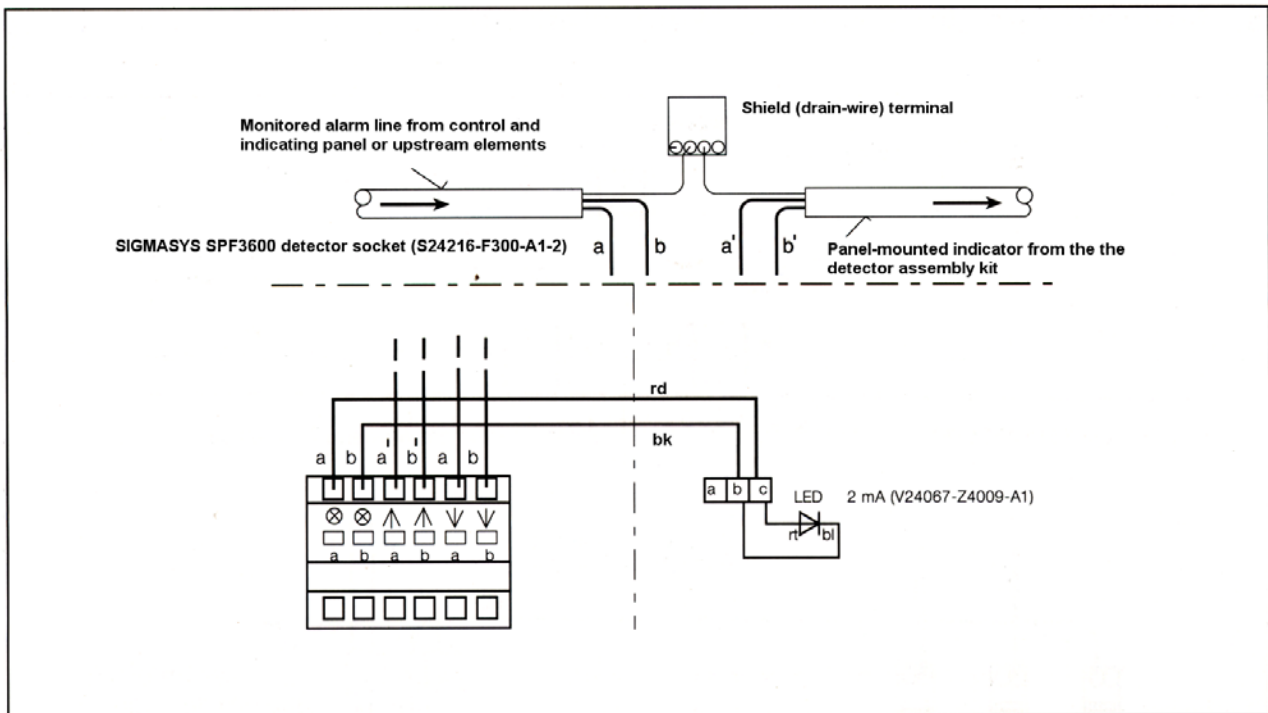


Figure 4 Connection of the detector sockets from the SIGMASYS system

6. Dust protection filter for optical smoke detectors

Dust protection filters for optical smoke detectors must be provided at installation locations with a constant air speed of 1 m/s to 20 m/s, for example in ventilation ducts.

The following dust filters are available:

- 10 ORM dust filter C24178-A41-A2
for MS8 and MS9
- IO ORM SIGMASYS dust filter C24178-A41-A3
for SIGMASYS

7. Maintenance

The detectors must be tested in accordance with the commissioning/acceptance check list for the control and indicating panel. The detector tester can be used even a filter fleece is attached; the tester's response behavior will not be impaired. The detector tester must, however, be set at a slight angle.

Contaminated filter fleeces must be replaced during maintenance work, normally when replacing the detector.