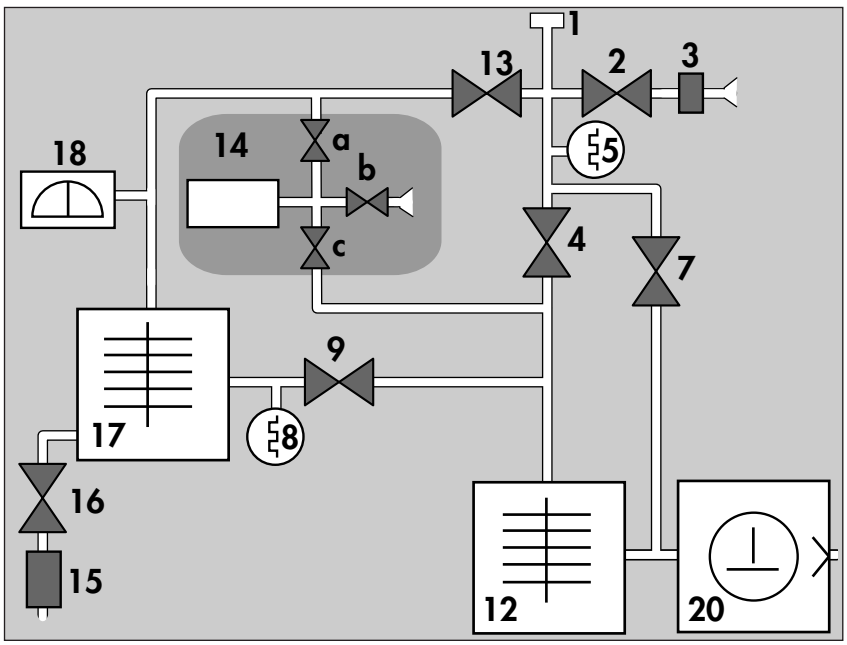
ASM 182 TD+
Detector operating principle

Vacuum circuit



1. Detector inlet port
2. Inlet vent valve
3. Vent filter connector
4. Roughing valve
5. Inlet pressure gauge (PI3C)
7. By-pass valve
8. Inlet pressure gauge (PI1)
9. Exhaust valve
12. Roughing molecular drag pump (MDP 5011)
13. Detection valve
14. Calibrated leak module
15. Connector for long distance sniffer
16. Sniffer valve
17. Hybrid turbomolecular pump (TMP 5154)
18. Analyzer cell
20. Dry primary roughing pump (ACP 20/28)

Pumping capacities

25 m^3/h (15 cfm) roughing (dry primary pump ACP 20/28) + 10 l/s (molecular drag pump MDP 5011).
Helium pumping speed at inlet port: 4.4 l/s.

Test capacities

Short test cycle.
Quick response time.
Auto-calibration with integrated calibrated leak.

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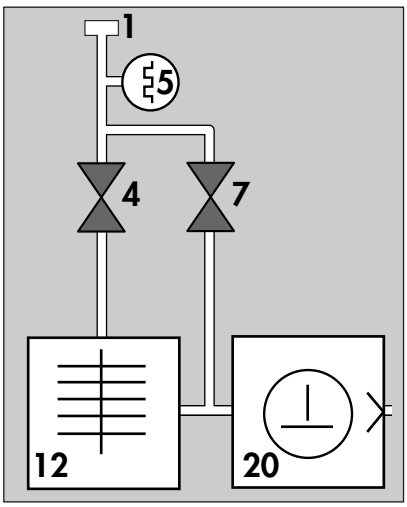
Detector operating principle

Note: Only operational parts are represented.

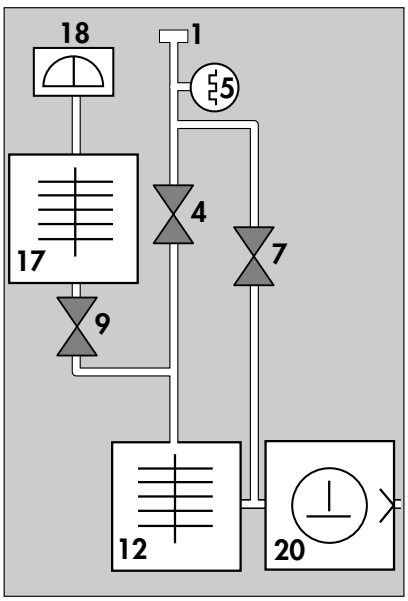
Operation in vacuum test mode: 3 stages

(1) Primary roughing

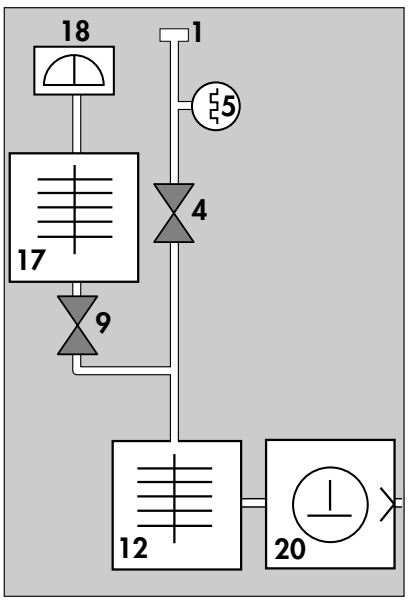


(2) Gross leak test mode

1 mbar < Inlet Pressure < 6 mbar



2.10^{-2} mbar < Inlet Pressure < 1 mbar



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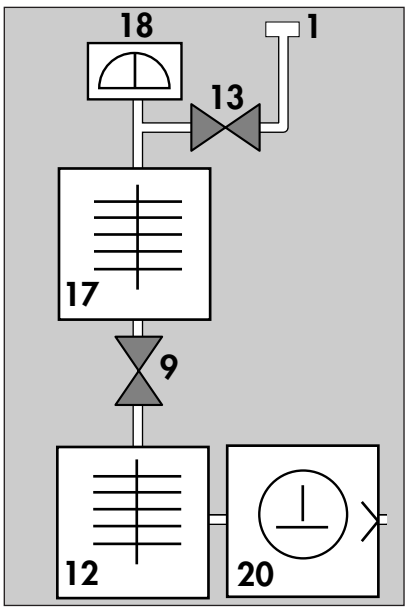
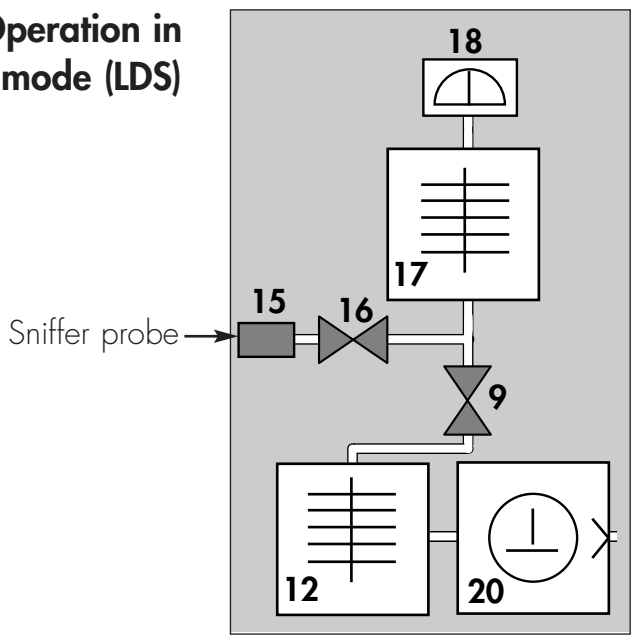
Detector operating principle

Operation in vacuum test mode: 3 stages (continued)

(3) High sensitivity test mode (HS)



Operation in sniffing mode (LDS)



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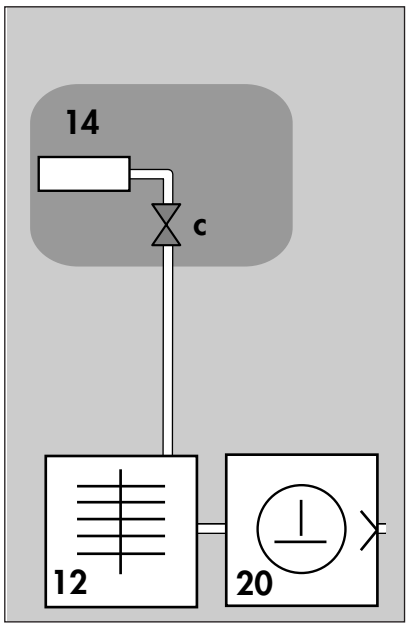
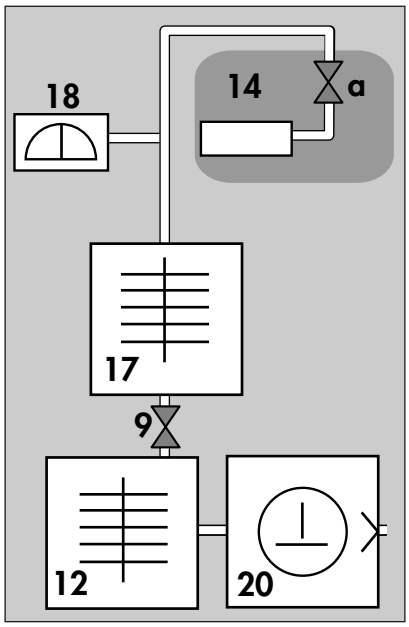
Detector operating principle

Operation in internal calibration mode

(1) Roughing of calibrated leak

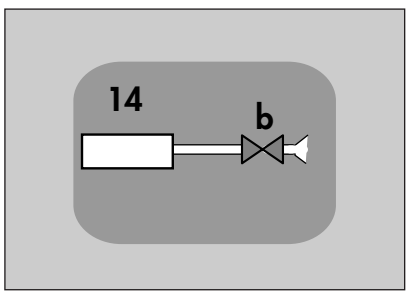


(2) Calibration



(3) Venting of calibrated leak

The leak is returned to atmospheric pressure.



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