

Dräger PSD 3000



ST-749-2006

The Dräger PSD 3000 is a sampling unit for continuous sampling of gas/air mixtures. In combination with Dräger Gas Transmitter, a remote sampling system can be designed for gas monitoring. The internal vibrating diaphragm pump has a superior life expectancy, due to the lack of moving parts. An electronic circuit monitors the flow rate internally and advises if the flow rate in the input line falls below a predefined minimum threshold. The device offers a flexible programmable massaging of the low-flow signal to the central controller. The Dräger PSD 3000 can be used for most industrial gases.



ST-746-2006

Dräger PSD 3000:
Pump unit for remote sampling systems.

Easy installation

The sampling unit is electrically installed between the gas transmitter and the central unit. There are cable glands and terminals provided for the respective connections. The sample unit can be installed either before or behind a gas transmitter depending on application requirements. Two instant tube fittings allow a fast and easy connection of stiff sample lines without tools or manual force.

Operation

The cable from the central unit provides the power to the pump unit during operation. A ground connection has to be provided. The 4 to 20 mA return signal from the transmitter is passed through the pump unit. A multicoloured LED indicates

the operational status of the device. The flow rate of the inlet line can be adjusted internally to adapt to special needs in certain circumstances. A dust filter protects the pump from dust and aerosols.

Low-flow monitor

If the flow in the inlet line drops below a predefined value an alarm is issued. This alarm can be transmitted via the 4 to 20 mA line to the central unit or by utilising a special switching contact. The latter option is to be selected if a digital communication between the transmitter and the controller (LON, HART, PB, FF) should not be disturbed. The operation LED will indicate with a red colour that the flow alarm has been triggered.

TECHNICAL DATA

| | | |
|--------------------------------|---|--------------------|
| Type | Electronic sampling unit with vibrating diaphragm pump | |
| Voltage | (DC) 24 V ± 2.4 V | |
| Power | < 6.5 W | |
| Flow rate | Adjustable 0.3 l/min up to approx. 1.0 l/min Factory default approx 0.75 l/min | |
| Low-flow alarm | 0.3 l/min | |
| Switching contact rating | Ohmic loads only $U_{max} = 30$ V DC, $I_{max} = 2$ A, $P_{max} 60$ W | |
| Ambient condition | Operation 0 °C to 50 °C; 32 °F to 120 °F 0 %RH to 95 %RH, non condensing During storage – 40 °C to 70 °C; – 40 °F to 160 °F | |
| Materials used in the gas path | Hose connection | Metal, NBR |
| | Hoses | Viton, PTFE |
| | Hose connection | PP |
| | Dust filter | PE, PP |
| | Internal restrictor | Glass |
| | Pump | PP, EPDM, silicone |
| Housing | IP 54; ABS | |
| Dimensions | Approx. 123 x 147 x 83 mm (W x H x D) | |
| Weight | Approx. 0.65 kg | |
| CE markings | Electromagnetic Compatibility (89/336/EWG) | |
| Certificate | RoHS (2002/95/EG) (Restriction of the use of certain hazardous substances in electrical and electronic equipment) | |
| Cable glands (2x) | M 20; cross section 6 to 12 mm | |
| Wire cross section | 0.5 to 1.5 mm ² | |
| Hose connection | Inside diameter 4 mm, outside diameter 6 mm | |

ORDER INFORMATION

| | | |
|-----------------------|-----------|---|
| Dräger PSD 3000 | 83 19 270 | |
| Sampling point filter | 68 06 743 | ┌ |
| Filter insert | 67 37 352 | |
| Gassing adapter | 68 06 978 | |

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