

DK37

Variable area flowmeters



Installation, assembly, start-up and maintenance may only be performed by appropriately trained personnel. Check the nameplate for correct operating conditions.



For use in hazardous areas, special codes and regulations are applicable. Instruments must not be connected to power supply before reading instructions described in the supplementary manual.



This instrument complies with the requirements of the Pressure Equipment Directive. Please refer to the nameplate for operating condition limits. Instruments must not be pressurised before reading instructions described in the manual.



The responsibility as to the suitability, intended use and corrosion resistance of the used materials against the measured fluid of this device rests solely with the operator.

1 Installation



Specific conditions of use to be observed:

- The Variable Area Flowmeters with coated parts shall be installed and maintained such that the risk of electrostatic discharge is minimized.
- For thermal data and electrical data refer to the limits in the appropriate supplementary manual.
- Pressure surges in the process line shall be avoided.

Observe the type of protection (refer to nameplate) to apply the correct supplementary manual!

Prior to installation:

- Blow or flush out the pipes or tubes leading to the flowmeter.
- For gas flow applications, dry the pipes or tubes leading to the flowmeter.

Installation:

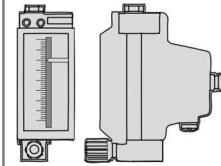
- Align the pipes or tubes leading to and from the flowmeter with the process connections to keep them free of stress.
- If necessary, support the pipes or tubes to prevent vibration being transmitted to the flowmeter.
- Install the flowmeters with inlet at the bottom and outlet at the top within 5° of the vertical.
- Follow accepted plumbing practices for threaded or flanged fittings and the intended use.
- The built-in needle control valve allows adjustment of the flow.

For accurate flow measurement, the application data should be consistent with the sizing data and calibration of the variable area flowmeter.

Device variants

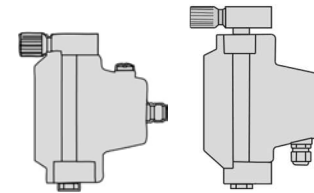
DK37 with bottom valve and rear process connections

DK37 M8M / M8E



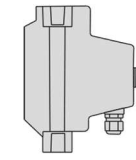
DK37 with top valve and rear process connections

DK37 M8M



DK37 with vertical process connections, no valve

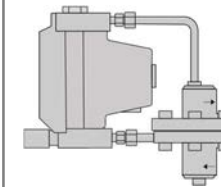
DK37 M8M / M8E



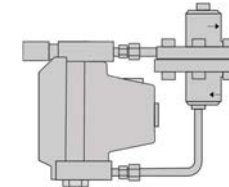
DK37 M8E

Flow direction: bottom to top for all variants

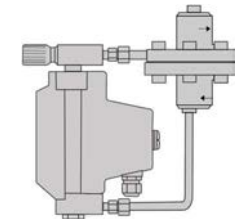
Version with flow regulator



DK37 M8M / M8E with flow regulator for variable inlet pressure



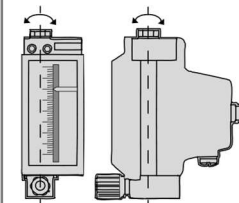
DK37 M8M with flow regulator for variable outlet pressure



DK37 M8E with flow regulator for variable outlet pressure

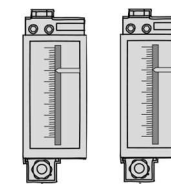
Installation conditions

+/- 5° from vertical



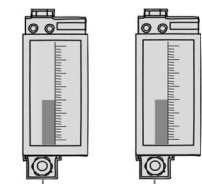
Keep minimum distances or apply vertical offset

DK37 M8M



100 mm / 3.94"

DK37 M8E



120 mm / 4.73"



2 Electrical connection

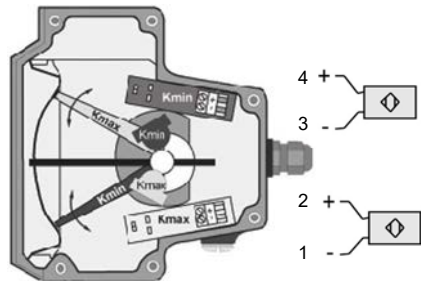


Danger:

All work on the electrical connections may only be carried out with the power disconnected.
Take note of the voltage data on the nameplate.
Observe the national regulations for electrical installations.

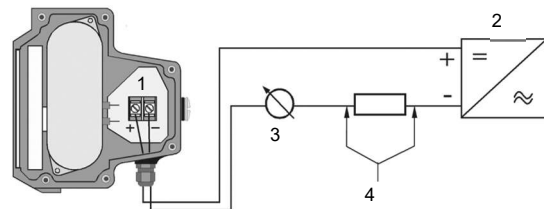
Electrical connection of NAMUR limit switches K1/K2

Power supply 8 VDC, measuring signal 1 / 3 mA



	Contact	Contact connection
4	Kmin +	Min plus
3	Kmin -	Min minus
2	Kmax +	Max plus
1	Kmax -	Max minus

Electrical signal output M8E



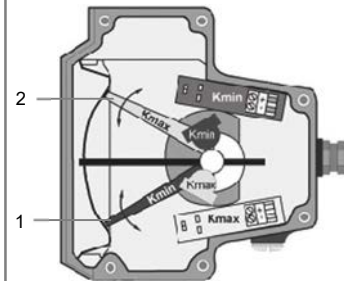
- 1 Terminal connection
- 2 Power supply 14.8...30 VDC
- 3 Measuring signal 4...20 mA
- 4 External load, HART communication



Danger:

For devices intended for use in hazardous areas with dust-resistant housing, the special conditions for sealing the electronic compartment and for the cable entry are available in the supplementary instructions.

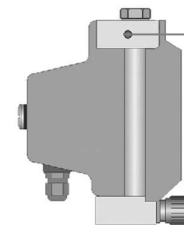
Settings of NAMUR limit switches K1/K2



Set the pointers to the desired limit values as a MIN contact (1) or MAX contact (2) along the scale.

If the pointer vane goes into the slot, an alarm is triggered. An alarm is also triggered in the event of a cable break or short circuit if a suitable amplifier is used.

Grounding connections



Fitting (M4 threaded hole) of measuring unit

Download documents and software

Scan the code on the nameplate or scan the following code and enter the serial number.



Contact

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www.krohne.com