Height adjustable unit

Controllable measurement point displacement **HFM 5**
Technical information / Instruction Manual

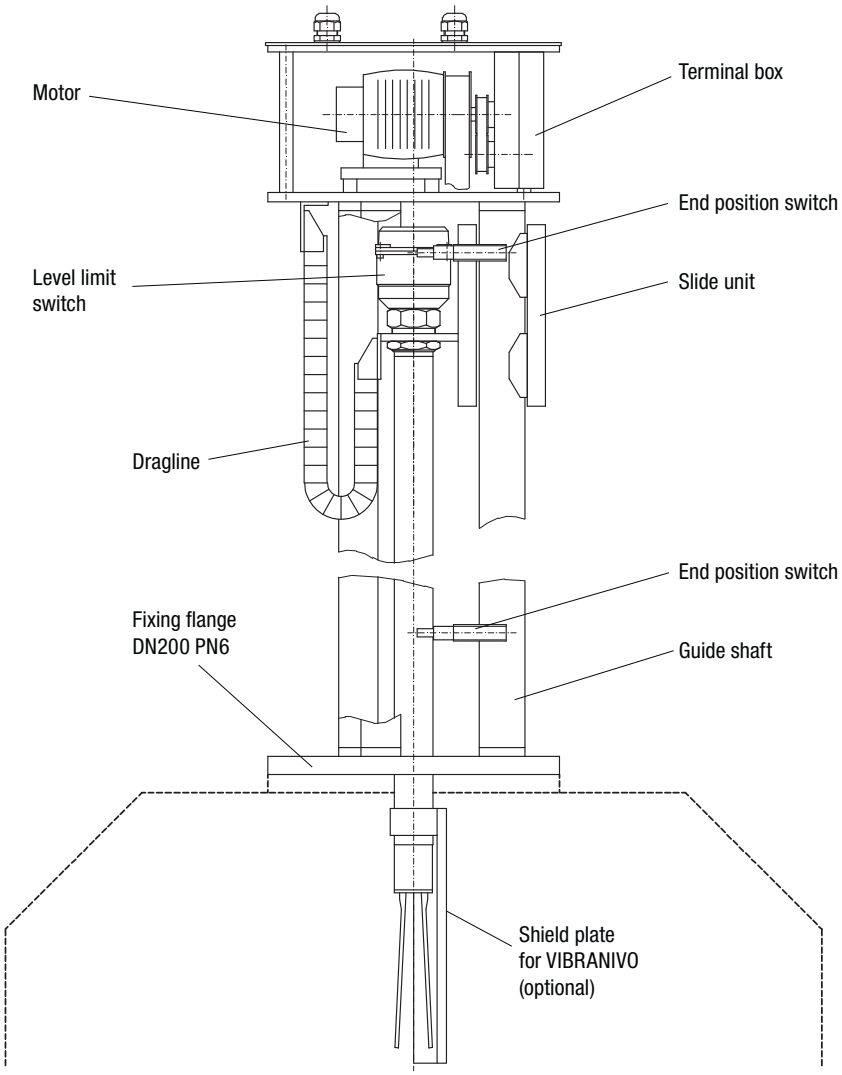
Introduction / Function

Introduction

The purpose of the device is to measure the level limit, by heightsetting adjustment, which enables simple setting of the desired switching point of the measuring probe.

Function

A level limit switch can be inserted into and withdrawn from a container by means of a motor. A cog belt converts the rotational movement of the motor into linear movement.
The slide unit with the level limit switch moves up and down the guide shaft. The end position switches serve as stops. A 10-way precision-potentiometer is connected to the motor shaft via a slip clutch. Thepotentiometer setting shows a measurement for the momentary height of the level limit switch.



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Technical data

Mechanical data

Dimensions:	see dimension sheet
Materials:	Base plate, support columns: Galvanised steel / VA Protective cover: Aluminium
Protection:	Motor: IP 44 Motor-terminal box: IP 54 Terminal box: IP 54 Grommet for Conduit-flange: IP 50
Weight:	approx. 90kg
Device mounting:	Flange for direct mounting on container (see dimension sheet)
Installation:	vertical
Displacement:	max. 2500 mm
Housing:	under protective cover

Electrical data

Motor spec.:	Type: Three phase asynchronous motor nominal current (star): 3 x 0.7A nom. current (delta): 3 x 1.2A nominal voltage (star): 3 x 400V nominal volt. (delta): 3 x 230V +10% -15%
Nominal apparent power:	0.25kW
Elect. connection:	from motor terminal box onwards by means of cable glands and cable lugs
Wiring diagram:	Terminal box lid interior and documentation

Sequencing data

Motor sequencing is carried out at factory.

Slide unit:	Running speed while moving up or down: 4.7m/min Slide unit run-on after motor stops: approx. 15mm
Precision Potentiometer:	10-way, 1kΩ Linearity ±0.25% Tolerance ±5% Number of revolutions over whole setting height: 8 - 9.5
Resistance logic:	see wiring diagram
Level limit switch accuracy:	approx. 20 mm (depending on the process and bulk good)

Note 1: The potentiometer is situated in the terminal box and is connected to the motor shaft via a slip clutch. That way it cannot be damaged by the rotary movement of the motor.

Note 2: The potentiometer can be turned by hand at end stop when the slide unit has reached an end limit in order to retain a defined setting.

Note 3: While covering the adjustable height the potentiometer does not run through the whole resistance range. If this should cause control problems, please contact UWT.

Operating conditions

Ambient temperature:	-10°C .. +55°C
Storage temperature:	-25°C .. +55°C
Air humidity:	95% max.
Container pressure:	not rated