

Certified according to DIN EN ISO 9001

## Technical Datasheet



## ZHM 01\* in Cartridge Design Gear Flow Meters for Paints, Wax and Adhesives

## Application

The cartridge ZHM is suitable to handle base paints, fillers, transparent and waterborn coatings perfectly. It may also be used for wax and adhesives. The standard version has a carrier-frequency pulse amplifier which will precisely detect the r.p.m. of the gears. This happens without contact with the measuring medium and free of drag. The amplifier provides a digital output signal with a frequency directly proportional with the flow volume. For applications in electrostatic spraying systems the fibre-optic amplifier FOP 60 is available.

The fibre-optic principle guarantees for an interference-free signal transmission. All pickups are available with IS-approval for use in hazardous areas.

## Principle and Design

This ZHM series excels in numerous models for various applications: e.g., paint versions with flat seals and single-ended shafts for an ideal purging quality. In addition, versions with special bearings are available for critical paints. As an option adapter plates can be supplied (see left picture below).

The cartridge design of this follow-up model reduces the weight by another 50%. Therefore, the Cartridge-ZHM may be installed right behind the spray gun without adverse effects on the dynamic properties of the spray robot.

The newly designed measuring kit provides a high resolution and allows for a precise measurement over a measuring range which would usually require two flow meters.

The new flow meter can be completely purged within a few seconds and rapid colour changes are possible with no adverse effects on paints by residual sediments.

## Pickups and Amplifiers

The integral carrier-frequency pulse amplifier type VTE.CT or fibre-optic amplifier type FOP 60 allow for space-saving installation.

A legal protection of registered designs for the Cartridge-ZHM has been applied for.

### Application

- Base paints, fillers, transparent and water-born coatings
- Wax and adhesives

### Features

- High resolutiony
- Low weight
- Interference-free signal transmission
- Ex-protected
- Applicable in electrostatic spraying systems

## Technical Data

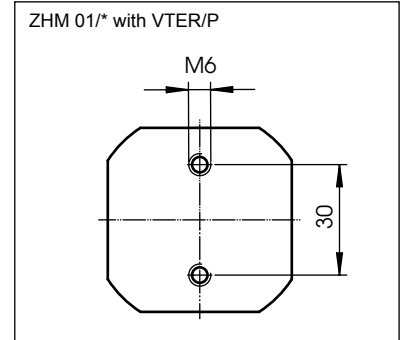
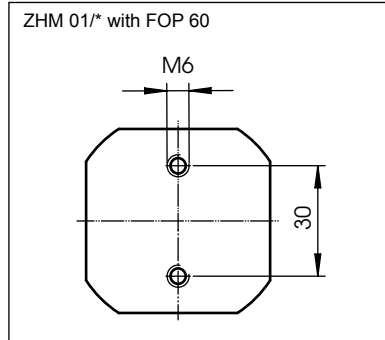
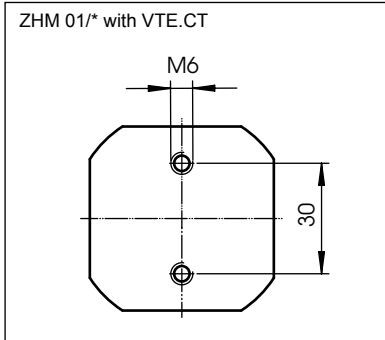
Type	Measuring range, l/min			K-Factor, pulses/l*	max. Pressure, bar
ZHM 01/1	0.005	bis	2	26,500	315
ZHM 01/2	0.02	bis	3	14,000	315

\* The measuring ranges are valid for viscosities from 30 mm<sup>2</sup>/s onwards.

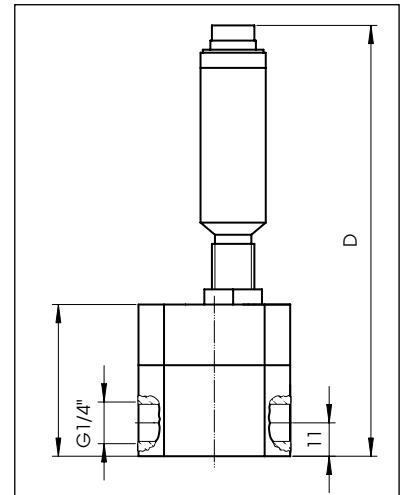
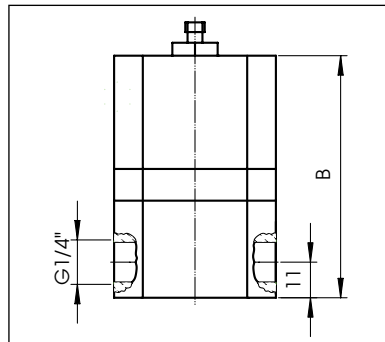
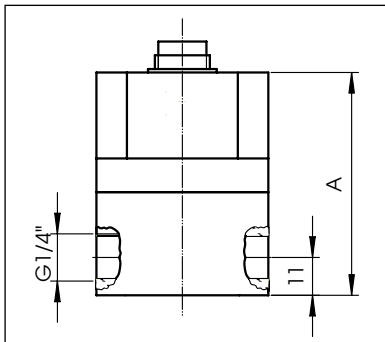
General	
Linearity	± 0.5 of actual flow
Material	Housing: Standard: stainless steel as per DIN 1.4305 (SS303) Special material: 1.4404 (SS316L) Gears: Standard: stainless steel as per DIN 1.4122 (SS303) Special material: 1.4122 (SS303) Bearing: Bush bearing: Carbide, ball bearing: 1.4043 Sealing: Telfon, Viton
Connections	bottom in- and outlet, Ø 6 mm (optionally: adapter plate) or lateral threads G 1/4" or 1/8
Dimensions	see drawing on page 4-6
Weights	ZHM 01/1: 400 g ZHM 01/2: 550 g for total weight add amplifier VTE-CT: 150 g FOP 60: 190 g VTER/P: 100 g
Electrical Data	see separate datasheets on VTE-CT, FOP 60 and VTER/P

## Dimensional drawings (mm) lateralich in- and outlet G1/4"

### Bottom views

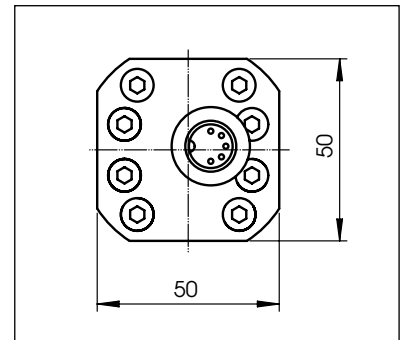
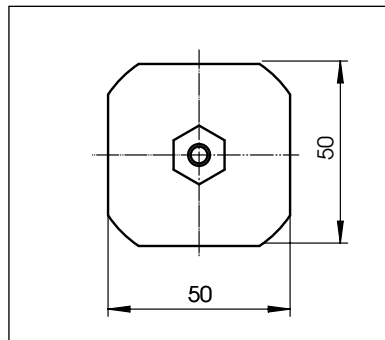
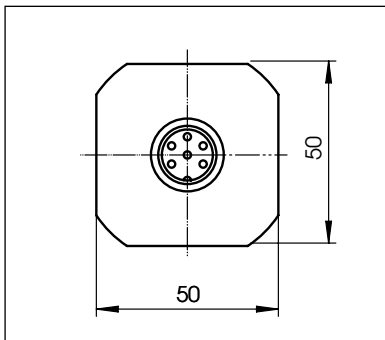


### Side views



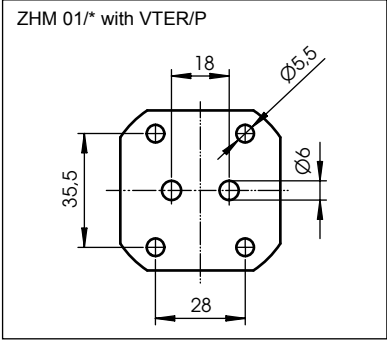
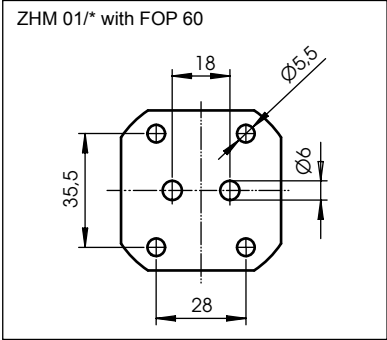
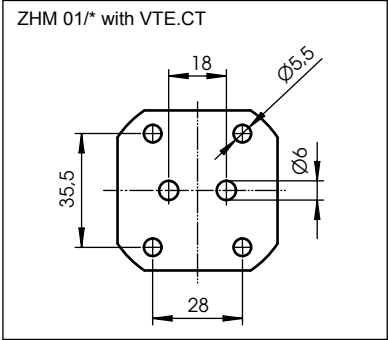
Type	A	B	C	D
ZHM01*/-CT	65	75	50	142

### Top views

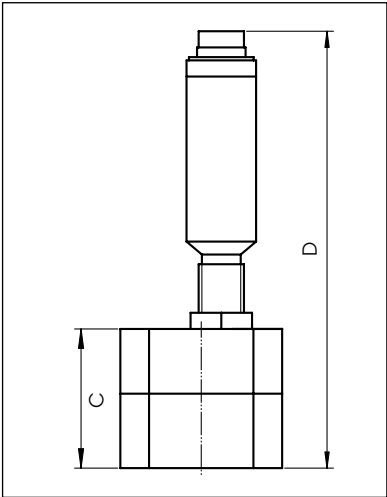
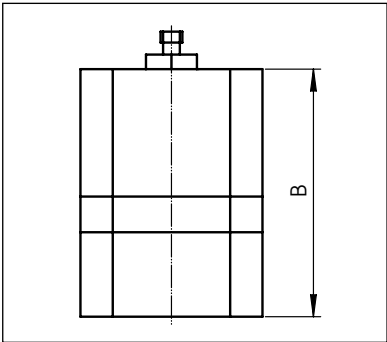
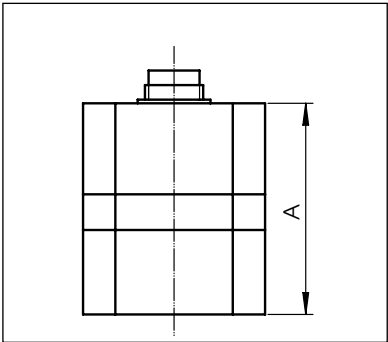


**Dimensional Drawings (mm) bottom in- and outlet M6**

*Bottom views*

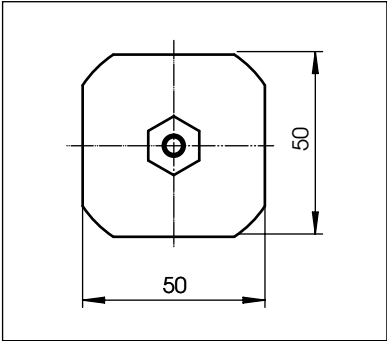
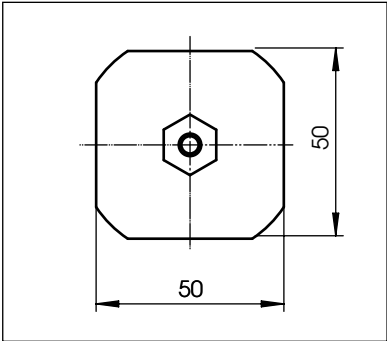
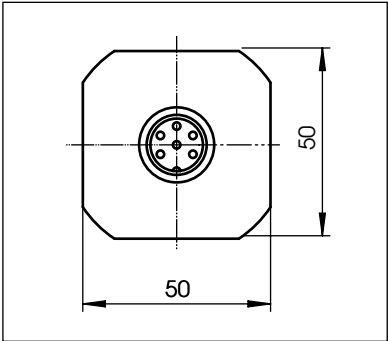


*Side views*



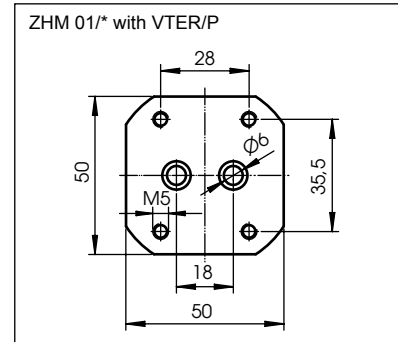
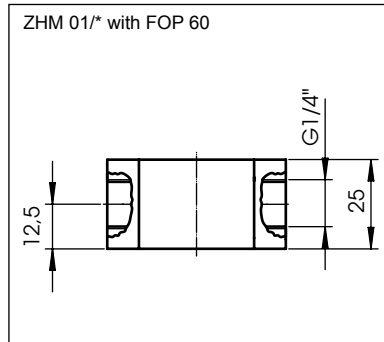
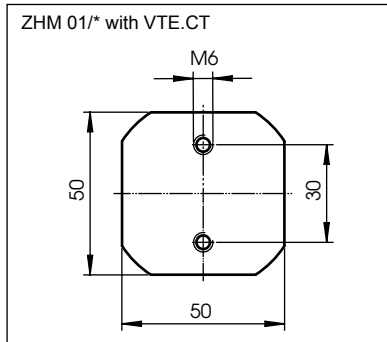
Type	A	B	C	D
ZHM01/1-CT	50	60	35	127
ZHM01/2-CT	58	68	43	135

*Top views*



## Dimensional Drawings (mm) bottom in- and outlet M6

Adapter plate (option)





# Contact

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