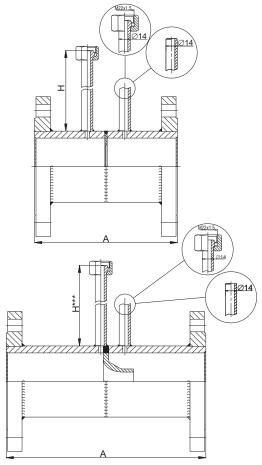


# Flange type of nozzle flowmeter ZPK



#### Technical data:

- -nominal pressure PN6÷PN100
- -size of flowmeter DN25÷DN800
- -material of flow element (orifice, nozzle):
  - stainless steel 1.4301
- -material of construction elements:
  - carbon steel
  - austenic steel
  - stainless steel
- -temperature up to 500°C
- -material certification
- -calculation acc. to PN-EN ISO 5167, ISO/TR 15377

# Application:

Nozzle flowmeter is used for flow measurement of liquid medium in close pipeline.

An orifice plate installed in line creates a pressure drop. This difference of pressure is measured via impulse line by differential pressure transmitter. The relationship between the rate of flow and pressure drop is very well known and allows to easily convert measured pressure difference to flow value.

Flowmeters without correction are used for mediums with constant values of pressure and temperature.

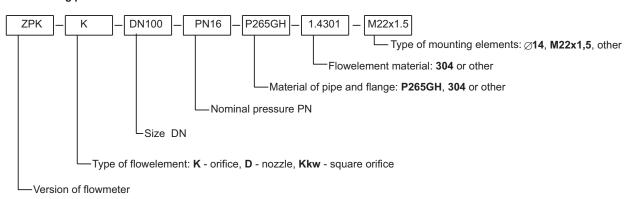
For custody transfer measurement it's recommend to use differential pressure transmitters without SQRT characteristic and correction from changes of medium's pressure and temperature. This kind of measurement have to be calculated in dedicated flow counters.

Characteristic:

- high accuracy of measurement in wide range of flow
- resistant for aggressive media
- work in wide range of temp. and pressure

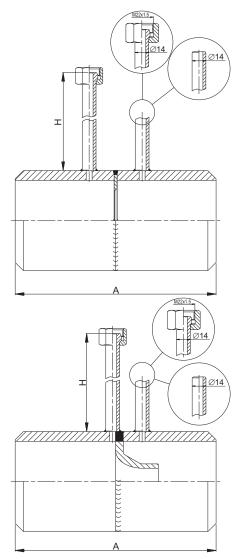
[	DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600	800
	A	150		200		250		300	350	400	50	00		600		800		

Version with straight sections and flanges for screwing





# Welded type of nozzle flowmeter ZPR



## Technical data:

- -nominal pressure PN6÷PN100
- -size of flowmeter DN25÷DN800
- -material of flow element (orifice, nozzle):

stainless steel 1.4301

-material of construction elements:

carbon steel

austenic steel

- stainless steel
- -temperature up to 500°C
- -material certification
- -calculation acc. to PN-EN ISO 5167, ISO/TR 15377

## **Application:**

Nozzle flowmeter is used for flow measurement of liquid medium in close pipeline.

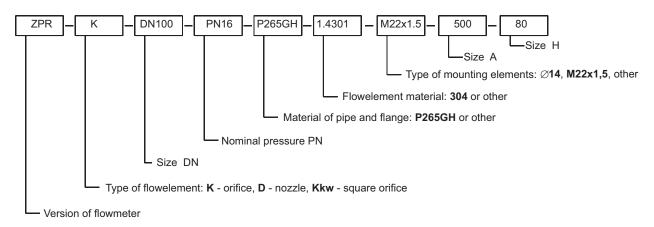
An orifice plate installed in line creates a pressure drop. This difference of pressure is measured via impulse line by differential pressure transmitter. The relationship between the rate of flow and pressure drop is very well known and allows to easily convert measured pressure difference to flow value.

Flowmeters without correction are used for mediums with constant values of pressure and temperature.

For custody transfer measurement it's recommend to use differential pressure transmitters without SQRT characteristic and correction from changes of medium's pressure and temperature. This kind of measurement have to be calculated in dedicated flow counters.

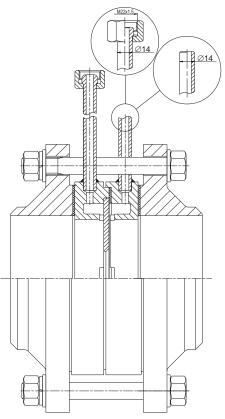
Characteristic:

- high accuracy of measurement in wide range of flow
- resistant for aggressive media
- work in wide range of temp. and pressure

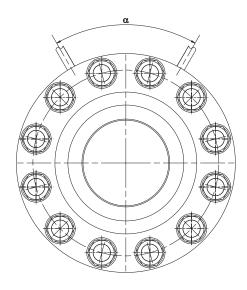




# Orifice flowmeter with assembling element ZPS



							3					
	angle spacing between measuring points $\alpha$											
			Steam									
DN			PN									
	PN6	PN10	PN16	PN25	PN40	PN63	PN100	6, 10, 16, 25 40, 63, 100				
25÷50	135°	135°	135°	135°	135°	135°	135°					
65	133	133		90°			90°					
80					90°			0°, 90°, 180°				
100		90°	90°			90°		, , , , , , , , , , , , , , , , , , , ,				
125	90°											
150												
200				60°	600	60°	60°					
≥250	60°	60°	60°		60°	60						



#### **Technical data:**

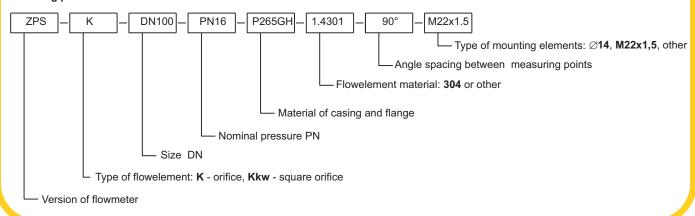
- -nominal pressure PN6÷PN100
- -size of flowmeter DN25÷DN800
- -material of flow element:
- stainless steel 1.4301 -material of construction elements:
  - carbon steel
  - austenic steel
  - stainless steel
- -temperature up to 500°C
- -material certification
- -calculation acc. to PN-EN ISO 5167, ISO/TR 15377

# Application:

Measurement based on orifice plate with differential pressure trassmitter is most widely used type of flow measurement. It can be used in flow measurement of steam, water and gases.

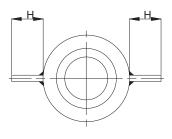
The biggest advantages of this soultion are:

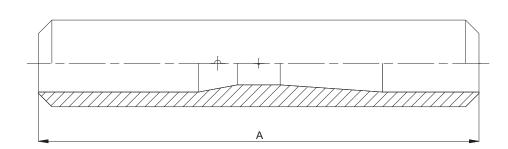
- high accuracy in wide measuring ranges
- applicable to measure flow of neutral and agressive mediums
- easy calibration





# Venturi type flowmeter ZPV





#### Technical data:

- -nominal pressure PN6÷PN160
- -size of flowmeter DN65÷DN800
- -material of flow element (orifice, nozzle): stainless steel 1.4301
- -material of construction elements:
  - carbon steel
  - austenic steel
  - stainless steel
- -temperature up to 600°C
- -material certification
- -calculation acc. to PN-EN ISO 5167

## Application:

Venturi flowmeter is used for flow measurement of liquid medium in close pipeline. An orifice plate installed in line creates a pressure drop. This difference of pressure is measured via impulse line by differential pressure transmitter. The relationship between the rate of flow and pressure drop is very well known and allows to easily convert measured pressure difference to flow value.

Flowmeters without correction are used for mediums with constant values of pressure and temperature.

For custody transfer measurement it's recommend to use differential pressure transmitters without SQRT characteristic and correction from changes of medium's pressure and temperature. This kind of measurement have to be calculated in dedicated flow counters.

#### Characteristic:

- high accuracy of measurement in wide range of flow
- resistant for aggressive media
- work in wide range of temp. and pressure

