

Certified according to DIN EN ISO 9001

## Technical Datasheet



# KPS

## Turbidity Meter

## Application

With the turbidity meter KPS it is possible to capture and reproduce turbidity changes in industrial processes. It is mainly used in the following areas: beer industry, dairies and beverage production. Here, KPS assumes tasks such as: monitoring of filter, condensate in the cooling water circuit, separator and waste water, phase separation, monitoring of concentrations and it contributes not only to improving and optimizing the processes but also helps to save resources.

### Applications

- Product monitoring
- CIP-monitoring
- Phase break
- Detect filter breaks
- Monitor waste streams

## Principle and Design

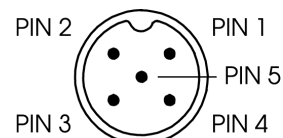
KPS is an optical sensor which is installed directly in the manufacturing process piping. The sensor emits an infrared light beam and measures backscattering which is caused by solid substances and other particles in the medium. The resulting absorbance is captured by a highly sensitive, frequency infrared receiver and processed by a high-performance microprocessor. The degree of dispersion is in the range from 4 to 20 mA.

### Features

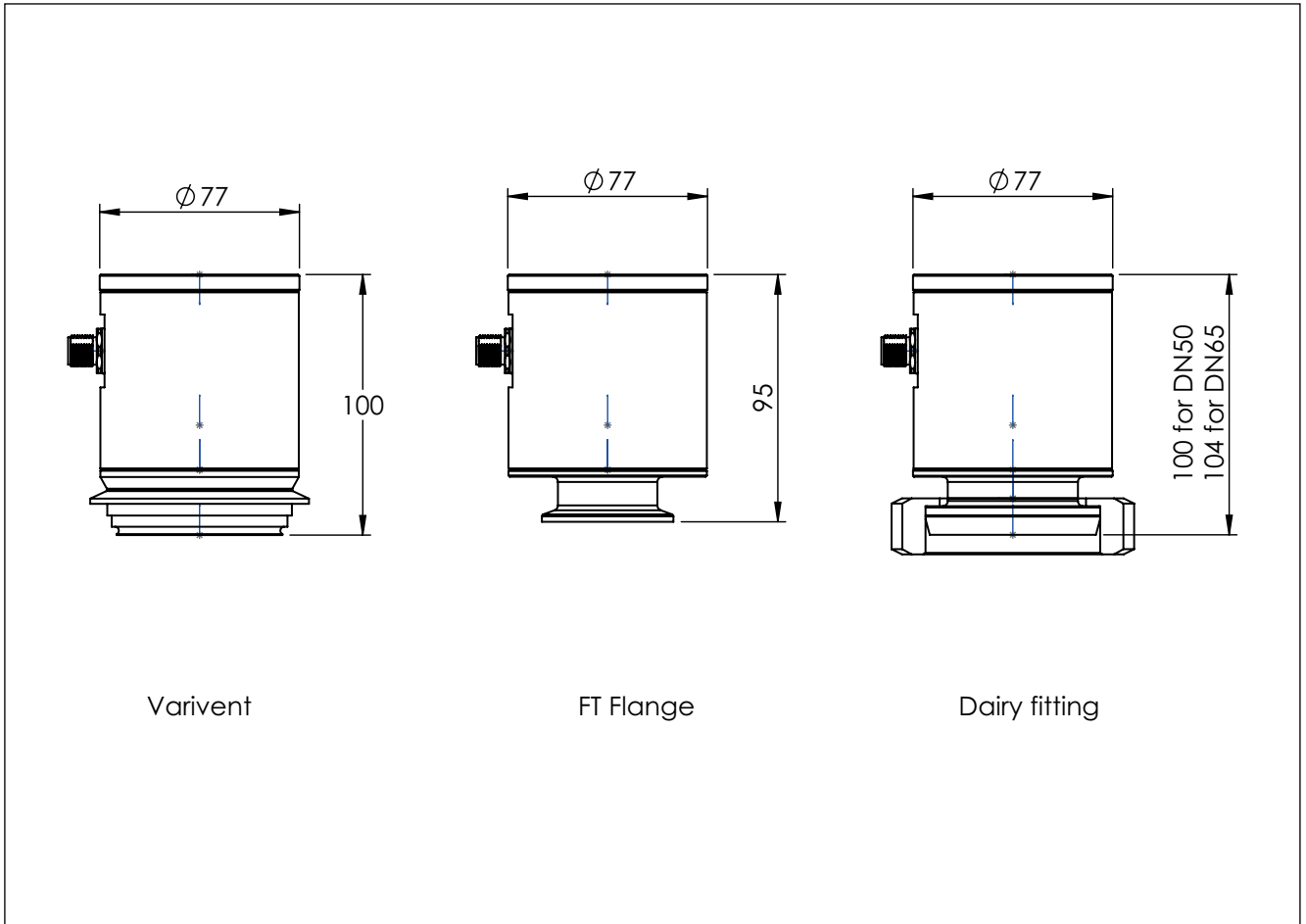
- Short response time
- Compact version
- Hochwertige Werkstoffe
- 3A-approval
- Different connections
- Simple operation

## Technical Data

| General               |   |
|-----------------------|---|
| Measuring principle   | ultrared light scatter  |
| Measuring range       | 150 to 4.000 NTU  |
| Linearity             | ± 0,2% of span  |
| Repeatability         | ± 1% of span  |
| Pressure              | max. 14 bar   |
| Temperature           | ambience: 0 to +50°C<br>process: 0 to +100°C<br>CIP cleaning: to +150°C (max. 30 min.)                                  |
| Materials             | housing and connector: accord. to DIN 1.4404 (SS316L)<br>lense: sapphire<br>lense seal: silicone rubber, FDA-approved   |
| Connections           | FT-Flange accord. to DIN 32676; dairy fitting accord. to DIN 1185; Varivent N   |
| Weight                | approx. 1,4 kg  |
| Protection class      | IP 67   |
| Approval              | 3-A sanitary standards  |
| Electrical Data       |   |
| Output signal         | 4 to 20mA   |
| Power consumption     | 0,45 W  |
| Supply voltage        | 15 to 24 V DC   |
| Electrical connection | 5-pin plug, M12 x 1 A-Coding<br>Pin 1 = -Iout<br>Pin 2 = +Iout<br>Pin 3 = +UB 15-24 V DC<br>Pin 4 = -UB<br>Pin 5 = n.c. |



## Dimensional Drawings (mm) - KPS



| KPS Type | Varivent DN | FT-Flange<br>DN 32676 | Dairy pipe connection<br>DN 1185 |
|----------|-------------|-----------------------|----------------------------------|
| KPS 1.5  | -           | 50.4                  | -                                |
| KPS 2.0  | -           | 63.9                  | -                                |
| KPS 2.5  | -           | 77.4                  | -                                |
| KPS 3.0  | -           | 90.9                  | -                                |
| KPS 40   | 68 (Form N) | -                     | -                                |
| KPS 50   | -           | -                     | DN 50                            |
| KPS 65   | -           | -                     | DN 65                            |

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