# Performance characteristics

**Maximum measured error**

| | |
|---|---|
| Turbidity | < 2% of the measured value or 0.1 FNU (the respectively larger value is valid) |
| Solids | < 5 % of the measured value or 1 % of full scale ( the respectively larger value is valid); valid for sensors in the calibrated measuring range |

**Wavelength**

860 ± 30 nm

**Factory calibration**

FNU, FTU and solids concentration according to the application table
Standard: 3 points

**Applications**

The sensor is factory calibrated in the application "formazine" and hereof derived for "kaolin filterable solids)".
Further precalibrated applications are optimized for the corresponding medium.
The calibration can be performed up to 5 points.

| Application | Recommended working ranges | CUS51D- | |
|---|---|---|---|
| | | C1 | D1 |
| Factory calibration formazine | 0 to 4000 FNU | X | X |
| Factory calibration kaolin | 0 to 4 g/l | X | X |
| Application $SiO_2$ | 5 to 100 g/l | | X |
| Application titanium dioxide | 0.2 to 150 g/l | | X |
| Application activated sludge | 0.5 to 15 g/l | | X |
| Model return sludge | 3 to 50 g/l | | X |
| Application digested sludge / ooze | 5 to 100 g/l / 300 g/l | | X |

**Note!**
For solids the achievable measuring ranges are depending of the actual medium and can deviate from the recommended operating ranges. In this case a 3-point-calibration is recommended.

**Drift**

Thanks to electronic control the sensor works drift compensated in a wide range.

**Limit of detection**

| Application | Measuring range | Limit of detection |
|---|---|---|
| Formazine | 0 to 50 FNU | 0.006 FNU |
| | 0 to 9999 FNU | 0.4 FNU |
| Kaolin | 0 to 4000 mg/l | 0.85 mg/l |