



# SUSPENDED SOLIDS MONITOR

# SolSys: XL



Transmitter/logger & SS sensor



In tank mounting, "hot tap pipe mount", mechanical optics wiper

### Features:

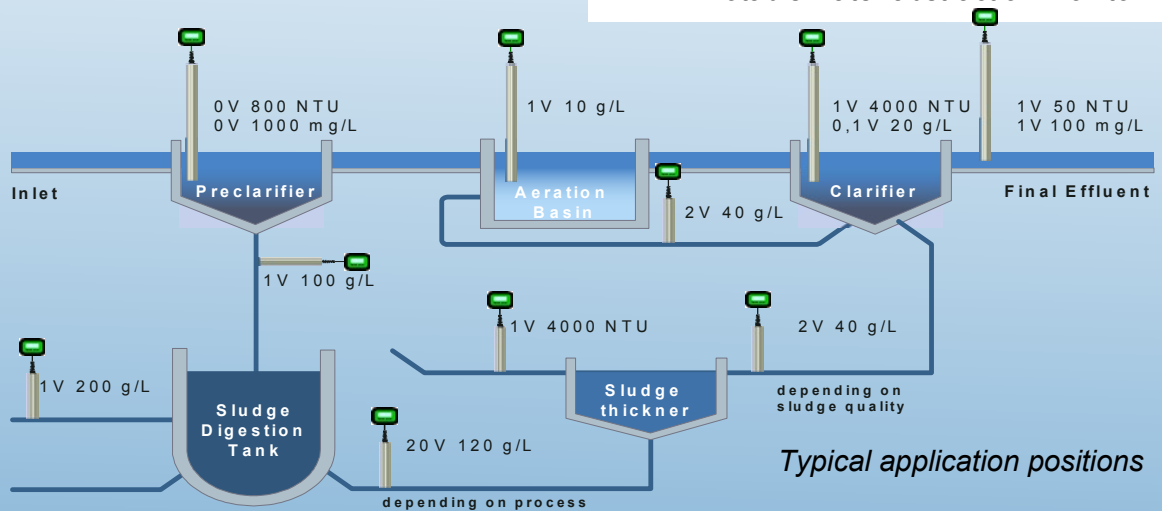
- Multipath optics with pulsed 860nm source.
- Scratch resistant Sapphire glass windows
- Acid proof, chrome dioxide coated full gloss steel body
- Optional mechanical wiper
- Single/double or triple pt calibration
- Backlit LCD display
- Analogue, digital, modbus outputs
- Real time graphics + logging
- In pipe or in tank deployment

### Benefits:

- Suitable for chemically aggressive or extreme fouling applications
- Minimal maintenance & calibration
- Reduces stock holding since 1 type suitable for many application areas
- Highest accuracy over largest range

### Applications:

- Activated sludge monitoring & control
- Final effluent monitoring
- Industrial Process monitoring
- Potable water abstraction monitoring



**SolSys: XL** is an advanced optical Suspended Solids/Turbidity sensing system from MJK. Its six optical path configurations together with neural net based software enables measurement from very low turbidity ranges to thick sludges with the same sensor. It incorporates self diagnostics and compensation for fouling and emitter aging. It is extremely robust and suitable for in tank or in pipe application, making it ideal for use in industrial processes, wastewater treatment works, and potable water abstraction. The transmitter/display includes data logging for up to 160000 time stamped readings and has a real time graphic display. Data download to PC is via a USB connection. Other outputs include 4/20 mA analogue signal, 2 off alarm relays and modbus for direct Scada link (profibus converter available on request). There is one digital input for alarm cancelation or range change. Multiple units, including other instruments in the range (magflux and DO), may be networked together for common display.



## System Specification

<b>Operational Principle:</b>	Based on six optical path detection of 860nm light, and using neural net software for optimal interpretation over the whole range
<b>Range:</b>	Suspended solids (TSS) up to 400 g/l SIO2 Turbidity 0,001P 9999 NTU, FNU or FTU and EBC
<b>Resolution:</b>	1 mg/l (for <1000 mg/l), 10mg/l (for 1000-9999mg/l), & 100 for > 10000mg/l
<b>Repeatability:</b>	<4% of reading
<b>Accuracy:</b>	<5% of measuring range
<b>Response Time:</b>	1sec min, may be buffered

## Transmitter/Controller Specification

<b>Mechanical Construction:</b>	<b>Dimensions l x h x d</b>	162x150x89 mm
	<b>Weight:</b>	1 kg (approx)
	<b>Materials:</b>	Polycarbonate, glass reinforced
	<b>Ambient conditions:</b>	0 to +60 °C
	<b>Weather Protection:</b>	IP67
	<b>CE:</b>	Compliant
<b>Outputs:</b>	<b>Display:</b>	5 line LCD (64x28 pixel), soft keys + graphics
	<b>Analogue:</b>	1 off 0/4–20 mA galvanic isolated (max 800 Ω)
	<b>Relays:</b>	1 off 120VAC free electromechanical relay (50VDC/1A) 1 off optically isolated MOSFET relay (50VAC/VDC/120mA)
	<b>Data interface:</b>	RS 232 serial and RS485 modbus
<b>Power requirements:</b>	<b>Supply voltage:</b>	24 VAC, 50/60Hz ±10%, 115VAC, 50/60Hz ±10%, 230VAC, 50/60Hz ±10%,
	<b>Load:</b>	10Watts max

## Sensor assembly Specification

<b>Mechanical Construction:</b>	<b>Materials:</b>	full gloss steel coated with chrome oxide
	<b>Dimensions:</b>	40mm dia, 240mm long, 1" ISO RG thread
	<b>Weight:</b>	<1 Kg excluding support pole + bracket
<b>Process conditions:</b>	<b>Medium Temp</b>	0 to 60 °C, 0 to 50 °C, with wiper
	<b>Medium Pressure</b>	max 10 bar
	<b>Max dist. To controller</b>	300m

## Ordering Information

When placing an order it is important to indicate the following requirements to our sales staff:

1. What is the medium you wish to measure and what are the temperature and pressure?
2. Is the sensor to be in tank or in pipe?
3. If in tank, is the sensor to be rail mounted or mounted off a sidewall? What is the distance from mounting point to water level?
4. If pipe mounted what is the pipe size?
5. Is the transmitter to be wall mount, rail mount or panel mount?
6. How far is the transmitter to be mounted from the sensor?
7. What operating voltage is required?
8. What units are to be displayed, what range is to be covered?
9. What outputs are required and what alarm levels and analogue range is to be set up?
10. Is a mechanical wiper required?
11. Is this unit to be used in isolation or is it to be networked with other MJK sensors with a common display?

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