

Formally Known as "TestMate® Water Sensor"

## Features and Benefits

- Compatible with hydraulic, lube oils and synthetic and natural esters
- Measures and displays saturation and temperature continuously in real-time
- Measured in saturation percentage, not ppm. This is preferable since it takes into account temperature and viscosity variations (see desired saturation level below)
- Data can be monitored to PC, PLC, etc.
- No calibration necessary for different oils
- Individual configuration (AS 3000 only)
- Flumos Mobile App compatibility (AS 1000 only)

## Applications

- Hydraulic systems that are sensitive to water in oil
- Gear boxes
- Injection molding machines
- Turbines
- Transformers
- Mobile Hydraulics
- OEM

The AS sensors are online saturation and temperature sensors for the monitoring of hydraulic and lubrication fluids accurately and continuously. They measure the water content relative to the saturation concentration (saturation point) and outputs the degree of saturation (saturation level) in the range of 0 to 100% as a 4 to 20 mA signal. A reading of 0% would indicate the absence of water, while a reading of 100% would indicate that a fluid is free water. An integrated thermoelement on the sensor measures the temperature of the fluid in the range of -13°F to 212°F (-25°C to 100°C) and outputs it as a 4 to 20 mA signal.

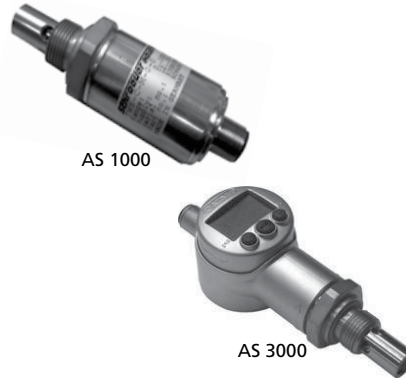
The AS 3000 has a 4-digit, digital display that shows real-time measured values and allows for parameter adjustments. The digital display may also be rotated/aligned on two axes.

Since the effects of free and emulsified water are more harmful than those of dissolved water, water levels should remain well below the saturation point. However, even water in solution can cause damage and therefore every reasonable effort should be made to keep saturation levels as low as possible. As a guideline, we recommend maintaining saturation levels below 30% in all equipment.

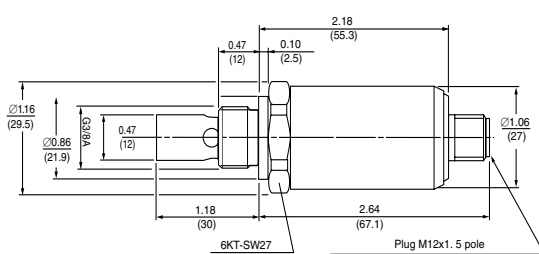
If you have any questions regarding technical details or the suitability of the AS sensors for your application, please contact our sales/technical department.



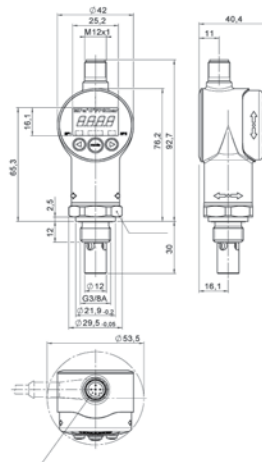
■ Only the AS 1000 is Usable with FluMoS Mobile App when connected to the CSI-C-11.



AS 1000



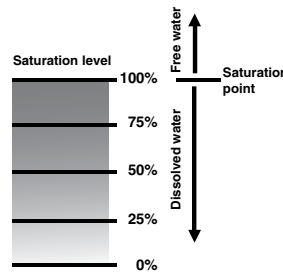
AS 3000



Metric dimensions in ( ).

## Description

## Desired Saturation Level



- CS 1000
- CS 1939
- CSI-C-11
- HY-TRAX®
- RBSA
- CSM
- FCU
- MCS
- AS**
- SMU
- CTU
- EPK
- Trouble Check Plus
- HMG2500
- HMG4000
- ET-100-6
- HTB
- RFSA
- HFS-BC
- HFS-15
- MFD-BC
- MFS, MFD
- HY-TRAX® Retrofit System
- MFD-MV
- MFS-HV
- AMS, AMD
- FS
- AMFS
- KLS, KLD
- MCO
- AKS, AKD
- LSN, LSA, LSW
- X Series
- OLF Compact
- OLF
- OLF-P
- NxTM
- VEU-F
- IXU
- Triton-A
- Triton-E
- NAV
- SVD01
- SVD
- OXS
- Appendix



# AquaSensor

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## Specifications

<b>Input Data</b>	Measuring Range:	0 to 100% Saturation; -13°F to 212°F (25°C to 100°C)	
	Operating Pressure:	-7.25 to 725 psi max (-0.5 to 50 bar)	
	Burst Pressure:	9135 psi (630 bar) max	
	Parts in Contact with Media:	Connection Point: Stainless Steel/Ceramic with vacuum-metalized metal Seal: Viton = Mineral Oils/Esters, EPDM = Skydrol	
<b>Output Data</b>	<b>Humidity Measurement:</b>		
	Output Signal (saturation level):	4 to 20 mA	
	Calibrated Accuracy:	≤ ± 2% FS max	
	Accuracy in Media Measurements:	≤ ± 3% FS typ.	
<b>Output Data</b>	<b>Temperature Measurement:</b>		
	Output Signal (temperature):	4 to 20 mA	
	Accuracy:	± 2% FS max	
	<b>Ambient Conditions</b>	Nominal Temperature Range (saturation level measuring):	<b>AS 1000</b> 32°F to 194°F (0°C to 90°C)
Ambient Temperature Range:		-40°F to 212°F (-40°C to 100°C)	-40°F to 176°F (-40°C to 80°C)
Viscosity Range:		32 to 23,175 SUS (1 to 5000 cSt)	
Flow Velocity:		< 16 ft/s	Maximum 16 ft/s
Media Tolerance:		Mineral oil-based fluids, natural and synthetic esters	
CE Mark:		EN 50081-1, EN 50081-2, EN 50082-1, EN 61000-6-1-1/2/3/4	
Type of Protection acc. DIN 40050:		IP 67	
<b>Other Data</b>		Supply Voltage:	12 to 32 VDC
	Residual Ripple Supply Voltage:	≤5%	
	Mechanical Connection:	G3/8A DIN 3852	
	Torque Rating:	18.5 ft-lbs	
	Electrical Connection:	M12x1, 5 pole (DIN VDE 0627)	
		Pin 1: +Ub Pin 2: Signal saturation level Pin 3: 0V / GND Pin 4: Signal temperature Pin 5: HSI Interface: 1 wire, half duplex	Supply voltage: 18-35 VDC Analog output GND SP1 (alarm) SP2 (warning)

FS (Full Scale) relative to the full measuring range

## Model Number Selection

### How to Build a Valid Model Number for a Schroeder AS:



**Example:** NOTE: One option per box



BOX 1	BOX 2	BOX 3	BOX 4
<b>Model</b>	<b>Sensor Types</b>	<b>Type of Medium</b>	<b>Signal Technology</b>
AS	1 = No Display 3 = Digital Display	008 = Mineral Oil 108 = Phosphate Ester	5 = 2 Switch outputs/1 analog output *AS 3000 ONLY OPTION* Output 1 Pin 2 saturation level (4 .. 20 mA) C = Output 2 Pin 4 temperature (4 .. 20 mA) *AS 1000 ONLY OPTION*

## Accessories

Part Number	Description	Color Code
6006791	(5 pole) with 5m cable	Pin 1: Brown
7608409	(5 pole) with 5m screened cable	Pin 2: White
6023102	(5 pole) with 10m screened cable	Pin 3: Blue
		Pin 4: Black
		Pin 5: Grey

