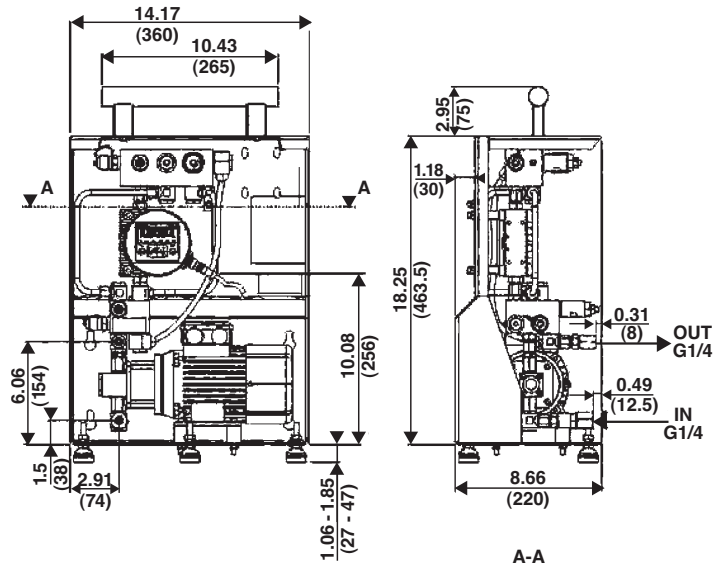
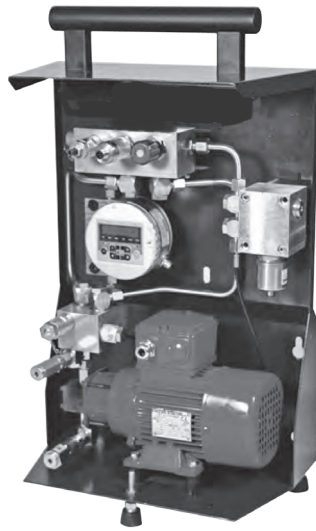
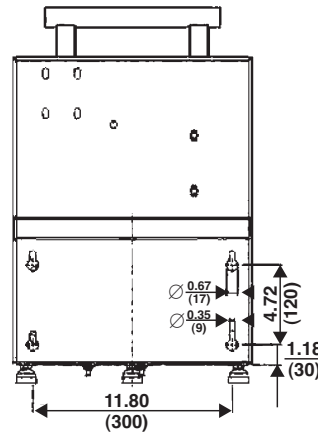
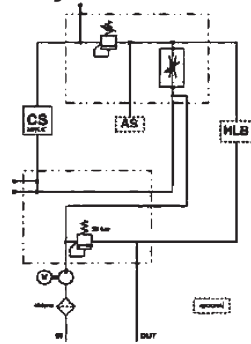


TestMate® Series

TSU TestMate® Sensor Unit®



Hydraulic Circuit



TSU Installation in Systems

Basically there are four different possibilities for connecting the TSU to hydraulic and lubrication systems. Select the measuring point according to the type of information the customer requires from the system.

1. Measuring from tank

Indicates the overall condition of the oil. Inlet and outlet of the TSU are connected to the tank near the suction of the main pump.

2. Measuring from the pressure line before the filter

This is the normal location for taking bottle samples. By using the TSU the amount of bottle sampling can be reduced and information on the oil condition is therefore available immediately. This test point is used mostly in lube systems.

3. Measuring from pressure line after the filter

This test point is used in roll hydraulics and the reason for measuring oil after the filter is to ensure that clean oil is always available to the sensitive proportional valves and to other machine parts. Mainly used in roll hydraulics and particularly if customers have had problems with the proportional valves.

Important! The pressure should be reduced using a separate valve before the oil goes into the TSU.

Applications

- Lubrication systems in paper, steel and energy sectors
- Preventive, pro-active preparation of service/intervals
- Monitoring of component cleanliness on test benches
- Monitoring of oil cleanliness in storage tanks

TestMate® Series

Pump Type:	Gear pump
Operation Pressure	
P _{in} (INLET):	-5.8 - 7.3 psi (-0.4 to 0.5 bar) (standard pump) -5.8 - 1,740 psi (-0.4 to 120 bar) (pump, pressure inlet stable)
P _{out} (OUTLET):	73 psi (5 bar)
P _{out} (leakage line):	7.3 psi (0.5 bar) (pump, pressure inlet stable)
Permissible Outlet Pressure:	73 psi (5 bar max.)
Connections:	INLET: Thread G 1/4, ISO 228 OUTLET: Thread G 1/4, ISO 228
Total Flow Rate:	approx. 26 gpm (100 ml/min) (standard pump) approx. 48 gpm (180 ml/min) (pump, pressure inlet stable)
Permissible Operating Viscosity Range:	10 to 3000 cSt
Permissible Visc. Range for Measuring:	10 to 1000 cSt
Permissible Fluid Temp. Range:	32°F to 158°F (0°C to 70°C)
Permissible Fluids:	Hydraulic and lubrication fluids based on mineral oil
Power Consumption	0.18 kW @ 50 Hz (motor pump group): 0.21 kW @ 60 Hz
Ambient Temperature Range:	32°F to 131°F (0°C to 55°C)
Storage Temperature Range:	-4°F to 185°F (-20°C to 85°C)
Relative Humidity:	max. 90%, not condensing
IP Class:	IP55
Weight:	approx. 40 lbs. (18 kg)
Contamination Sensor:	Self-diagnosis: continuously with error indication via status LED
Measuring Range:	MIN/MAX Display from class ISO 7/6/5 (MIN) up to class ISO 28/27/26 (MAX) Calibrated within the range ISO 13/11/10 to ISO 23/21/18
Power Supply Voltage:	9 to 36 VDC, residual ripple <10%
Power Consumption:	3 W max.
Electrical Outputs:	Analog output 4 to 20 mA or 0 to 10 V RS485 interface Switching output

Specifications

- TCM
- TCM-FC
- TSU**
- TMU
- TPM
- TIM
- TMS
- CTU
- TWS-C
- ET-100-6
- HMG 3000
- EPK
- HTB
- GS
- Trouble Check Plus
- Test Points
- Adapters
- Hose Joiners
- Microflex Hose
- Pressure Limiters
- Pressure Gauges
- Test Kits
- Probalizer
- Filtration Station
- MFS, MFD
- AMS, AMD
- KLS, KLD
- AKS, AKD
- KLC
- X Series
- MTS
- HFS
- SVD
- TDS-A
- TDS-E
- IXU
- Appendix

How to Build a Valid Model Number for a Schroeder TSU:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
TSU							

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
TSU	1	D	S	1	A	1	

BOX 1	BOX 2	BOX 3	BOX 4
Model	Contamination Code	Display	Fluid
TSU	1 = ISO 4406:1999; SAE AS 4059 2 = ISO 4406:1987; NAS 1638	D = Display N = No Display	S = Standard (Hydraulic or lubricating fluids)
BOX 5	BOX 6	BOX 7	BOX 8
Pump	Output	Electrical Supply	Water Sensor
1 = Standard pump 2 = Inlet stable pressure pump	A = 4-20 mA analog B = 0-10 V analog	1 = 230 V, 50 Hz, 3 Ph/265 V, 60 Hz, 3 Ph, delta/460 V, 60 Hz, 3 Ph star 2 = 400 V, 50 Hz, 3 Ph/400 V, 60 Hz, 3 Ph, delta	Omit = None W = Water Sensor

- TSU
- Operating and maintenance instructions
- CD with FluMoS software and manuals
- Calibration certificate contamination sensor

Model Number Selection

What's Included