FLUID PROPERTY SENSORS

We offer distinct technologies to measure fluids. Our tuning fork technology is coupled with efficient software algorithms for accurate measurement of viscosity, density and dielectric constant. Dedicated applications include oils (engine, hydraulic, transmission), fuels, fluid monitoring, and others. Our urea quality sensors, based on Near Infra-Red (NIR) technology or ultrasonic measurement perform an analysis of the Diesel Exhaust Fluid (DEF) fluid to provide urea concentration and secure misfilling protection to the Selective Catalytic Reduction (SCR) systems. Our highly reliable reed switch technology is combined with temperature measurement for level sensing. Robust design enables fluid property sensors to operate under diverse pressure, flow and temperature conditions to bring real-time fluid monitoring to engines, fuel systems, SCR systems, compressors, transmissions, gear boxes and many other industrial applications. Our new water-in-oil measurement sensor supplements the existing fluid quality range of products.

DEF FLS SENSORS

DEF Level Sensors

	FLS RB Series	FLS RC Series	FLS P Series	FLS PU Series
Package	Rubber header and stainless steel body	Rubber header and stainless steel body	Plastic header and stainless steel body	Plastic header and stainless steel body
Type	Combined level sensor, temperature sensor, filter, DEF draw and return heater, collar header	Combined level sensor, temperature sensor, filter, DEF draw and return heater, bayonet header	Combined level sensor, temperature sensor	Combined level sensor, temperature sensor, filter, DEF draw and return heater, bayonet header
Operating Temp.	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Features	• Available in a range of sizes • High reliability • Reed switch technology • Using coolant system to thaw frozen tank • DEF feed and return connections can be incorporated into the header • Various collar adapter options	• Available in a range of sizes • High reliability • Reed switch technology • Using coolant system to thaw frozen tank • DEF feed and return connections can be incorporated into the header	• Available in a range of sizes • High reliability • Reed switch technology	• Available in a range of sizes • High reliability • Reed switch technology • Using coolant system to thaw frozen tank • DEF feed and return connections can be incorporated into the header

	AHM/L FLS AHM/L Series	TZS FLS TZS/I Series	TKD FLS TZS/I Series
Package	Rubber header and stainless steel body	Plastic header and stainless steel body	Plastic header and stainless steel body
Type	Combined level sensor, temperature sensor, filter, DEF draw and return heater, collar header	Combined level sensor, temperature sensor, filter, DEF draw and return heater, bayonet header	Combined level sensor, temperature sensor, filter, DEF draw and return heater, SAE locking ring header
Operating Temp.	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Features	• Available in a range of sizes • High reliability • Reed switch technology • Using coolant system to thaw frozen tank • DEF feed and return connections can be incorporated into the header • Various collar adapter options	• Available in a range of sizes • High reliability • Reed switch technology • Using coolant system to thaw frozen • DEF feed and return connections can be incorporated into the header	• Available in a range of sizes • High reliability • Reed switch technology • Using coolant system to thaw frozen • DEF feed and return connections can be incorporated

DEF SCR SENSORS

DEF Level Quality Sensors

	QLS RB Series	QLS RC Series	QLS PL Series
Package	Rubber header and stainless steel body	Rubber header and stainless steel body	Plastic header and stainless steel body
Type	Combined level sensor with quality measurement, temperature sensor, filter, DEF draw and return heater, collar header	Combined level sensor with quality measurement, temperature sensor, filter, DEF draw and return heater, bayonet header	Combined level sensor with quality measurement, temperature sensor, filter, DEF draw and return heater, screwed header
Operating Temp.	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Operating Range	0% to 62.5% mass urea	0% to 62.5% mass urea	0% to 62.5% mass urea
Urea Concentration Accuracy	±2%	±2%	±2%
Features	• Available in a range of sizes • High reliability • Reed switch technology • Using coolant system to thaw frozen tank • DEF feed and return connections can be incorporated into the header • Integrated quality sensor • Various collar adapter options	• Available in a range of sizes • High reliability • Reed switch technology • Using coolant system to thaw frozen tank • DEF feed and return connections can be incorporated into the header • Integrated quality sensor	• Available in a range of sizes • Foot options (Compact, normal and extended sizes) • High reliability • Reed switch technology • Using coolant system to thaw frozen tank • DEF feed and return connections can be incorporated into the header • Integrated quality sensor • Bayonet adaptor option

	AHUQ QLS AHM Series	TZLQ QLS TZS/L Series
Package	Rubber header and stainless steel body	Plastic header and stainless steel body
Type	Combined level sensor, temperature sensor, filter, DEF draw and return heater, collar header	Combined level sensor with quality measurement, temperature sensor, filter, draw and return heater, bayonet header
Operating Temp.	-40°C to 85°C	-6°C to 55°C
Urea Concentration Accuracy	±1% at -6°C to 55°C	±1% at -6°C to 55°C
Features	• Available in a range of sizes • High reliability • Reed switch technology • Using coolant system to thaw frozen DEF feed and return connections can be incorporated into the header • Integrated quality sensor • Various collar adapter options	• Available in a range of sizes • Foot options (Compact, normal and extended sizes) • High reliability • Reed switch technology • Using coolant system to thaw frozen • DEF feed and return connections can be incorporated into the header • Integrated quality sensor

FLUID PROPERTY SENSORS

MEAS FPS2800

Package	Fully integrated, stand-alone module combines sensor and processing electronics for in-situ monitoring
Type	Engine oil quality sensor
Operating Range	Viscosity from 0.5 to 50 mPa-s Density from 0.65 to 1.5 g/cc Dielectric from 1.0 to 6.0
Operating Temp.	-40°C to 150°C
Unique Features	• Rugged construction for high pressure and high flow environments • CAN communication protocol (SAEJ1939 compliant)
Calibration	Factory calibrated with NIST traceable standards
Dimensions (mm)	73.3 x 30 x 30
Typical Applications	Lubricating oil quality for industrial and commercial vehicles