By combining the field-proven superior design of application specific sensors with the new SENCOM 4.0 philosophy and functionality, the flexibility to adapt easily to the changing industry requirements; while guaranteeing performance throughout the lifecycle of the process measurement even for the dirtiest applications lies in your hands.

To facilitate optimal processes and improve efficiency of personnel, Yokogawa has placed a strong focus on our Digital SMART Sensor SENCOM 4.0 Platform. Following Yokogawa's commitment to co-innovation, this generation of process control solutions was made in collaboration with our customers. Yokogawa's SENCOM 4.0 combines measurement, control, and information for more connected technologies that achieve results like never before.

SENCOM 4.0 creates sustainable value through the entire product life cycle, from the engineering and purchasing to the modification and optimization. The new liquid analyzer platform provides full visualization while improving operation, reliability and credibility of your online process analyzers utilizing the latest Sensing Technology, Asset management tools, and much more; giving you the power to truly SEE MORE DO MORE.

**Designed to Last**
Severe process conditions like high temperatures and abrasive slurries pose challenges to any pH and conductivity sensor, which also have to thrive under difficult operating environments. With Yokogawa field-proven inductive conductivity sensor

**Verified performance**
Maintenance and Calibration in the field can easily take half an hour per measurement monthly or bi-weekly. With more equipment to maintain, the SENCOM 4.0 platform utilizes the integrated “hot swap” and “plug and play” function will significantly decrease downtime. The Process Guard and Maintenance Manager Functionality of SMART data gathering of historical data and calibration reports, allows users to better predict next maintenance and sensor replacement.

**Predict. maintenance**
2016/08/08 16:28:28
Last calibrated at 2016/07/13 20:12:28
Calibration due at 2017/03/20 20:12:28
Projected maintenance (no meaning)
Projected replacement 0-1month (poor pred.)

**Sensor wellness**
- Zero
- Slope
- Input 1 imp.
- Input 2 imp.
- Heat cycle
- Progress Time

Increase the integrity of the measurement while optimizing the sensor performance.

Since the sensors are pre-calibrated, when it is time to change out a sensor in the field it is a simple plug and play. By using SMART sensors, the calibration data is stored in the memory chip. In the field when the sensor is connected to the analyzer automatically the latest calibration data will be uploaded to the analyzer making a calibration in the field unnecessary. It will simplify maintenance and service significantly.

**Reliable Measurement**
To avoid unexpected failures Process Guard functionality of Real Time Sensor diagnostics gives end user immediate indication when there is a problem. Tracking sensor

“I just need to keep the instrument running. I worry about unplanned outages.”

“The demanding applications and severe process conditions in pulp mills pose challenges for accurate, repeatable and reliable liquid analysis measurements.

- Unscheduled downtime is costly
- Failure in service can cause loss of product or quality problems
- Unnoticed problems upstream can cause irreversible problems downstream
impedance readings gives users the ability to
detect early pH sensor coating or polarization
of a conductivity sensor, before there is
measurement failure.

The Data-Logging Function provides a total
process analysis by showing the record of
the measured data before, during and after
the event occurred. Sensor wellness function
predicts next maintenance and sensor
replacement, for early detection of sensor
failure, for pro-active maintenance.

Preparing for the future

Industrial automation is moving towards
SMART products, with sensors changing
from analog to digital SMART. This transition
can affect plant operations and take time
to fully implement. With the new Yokogawa
SENCOM 4.0 Platform, upgrading to the next
generation SMART product is easy, and an
upgrade transfer can be done at any time
with little impact on operations. The SENCOM
4.0 Platform accelerates time-to-value of the
new technology and provides the connection
flexibility, simplicity, and efficiency to
seamlessly move data and workloads on an
ongoing basis.

Moving forward the SENCOM 4.0 Platform will
give more insight in the total measurement
and will enable enhanced capabilities such as
cloud connect ability, data mobility providing
more credible data through the entire
lifecycle of the products.

“I worry about plant obsolescence and the
costs of keeping plant instrumentation and
control systems current.”

Yokogawa delivers measurement and
instrumentation devices that offer
extreme precision with dependable
measurement accuracy, application
flexibility, reliability and serviceability,
creating value for you in both time
and money savings.