Don’t React to Your Reactions.

Reveal Them.
Why Reveal?

**Eliminate delay and cost of lab measurements.** With Reveal, you don’t have to stop your process to take samples or wait for lab results. Our in-line process analytical platform measures and reports results you can understand in real-time.

**Overcome integration challenges for closed-loop automation.** The Reveal was built with the Internet of Things (IoT) mindset. The data captured by Reveal runs through industrial protocols directly to your PLC or MES so you can act in real-time. Additionally, your plant operators can view the intelligent data via any permissioned smart device.

**Bypass the inaccuracy of indirect indicators, such as conductivity and refractive index.** Such measurements often lack the robustness to account for changes in natural ingredients and daily fluctuations in your process. Don’t fall for the false economy of indirect measurements and their hidden costs of calibration, consumables and regular sensor replacement. Instead, measure directly with Reveal. The Reveal uses optical spectroscopy to directly measure the molecules in your process.

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**Key Features**

**FAST & ACCURATE** Measures at molecular level and reports results in milliseconds.

**NON-DESTRUCTIVE** Doesn’t destroy or waste your product. Measures it all in process.

**NON-INTRUSIVE** Operates as part of your process; doesn’t stop it.

**SCIENCE** Spectroscopy and chemometrics combined in a simple solution.

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You can’t “unbake” a cake to get back your raw ingredients. In the same sense, it is often difficult and cost prohibitive to undo errors made in your manufacturing process. Wouldn’t it be better to measure it each step along the way? Measure the raw ingredients; verify the mix; and track chemical changes for that perfect cake every time. Make sure your process isn’t half baked. Use Reveal: our newest in-line, real-time process analyzer platform.
A Flexible, Customized Platform to Give You Just What You Need.

The Reveal platform gives you a customized solution along with flexibility on how to operate and integrate it. You have choice with Reveal. We can do the application modeling for you, or you can build your own.

**HARDWARE**

It runs 24/7/365 in any environment without ongoing operator interaction. Our internal calibration hardware allows for stability and reliability. All Reveal enclosures are IP65 or higher. Hazardous area options are also available.

**SOFTWARE**

Our fully-integrated software suite handles hardware control and chemometric analysis while ensuring that Reveal remains compliant with the U.S. FDA’s strictest guidelines on electronic records and signatures (21 CFR Part 11), the PAT initiative and Good Automated Manufacturing Practices (GAMP) as well as U.S. and European Pharmacopeia.

**INTEGRATION**

It offers a full line of industrial communications options for easy integration into your control system, including Modbus, OPC and EtherNet/IP. An expansion port allows additional communication options, which is helpful if you want analog outs. There’s also a secured easy access to each Reveal so plant operators with tablets or smartphones can access the instrument in the process line.

**PROCESS INTERFACE**

Having the right process interface is essential to making any measurement. We have hundreds of different probes that fit in almost any environment:

- Pressure: less than 11,000 psi
- Operating temperature of machine: 0°C to 40°C (in standard packaging)
- Operating temperature of probe: under 400°C

**LOW-COST OWNERSHIP**

Save on consumables and resources to operate. Very low maintenance.

**RUGGED**

Built from the ground up for a process environment. No fragile, repurposed lab device here.

**FULLY CONNECTED**

Multiple communications options for easy integration.

**VERSATILE**

Stands up to any environment – batch, continuous, hazardous and outdoor.

**ROBUST**

Multivariate chemometric models to account for fluctuations in your process.
Our Extensive Menu of Customizable Options!

**DETECTOR**
- UV (190 – 400 nm)
- UV/VIS (200 – 850 nm)
- VIS (350 – 850 nm)
- NIR (1550 – 1950 nm)
- Extended NIR (1100 – 2100 nm)
- LIF (280 – 800 nm)

**LIGHT SOURCE**
- Tungsten halogen lamp
- Deuterium lamp
- Combo tungsten / deuterium lamp
- LED

**PROCESS INTERFACES**
- 100s of reflectance probes, transfectance probes, flow cells

**COMMUNICATIONS**
- EtherNet, WiFi, Modbus, OPC UA, EtherNet / IP, expansion port for additional outs

**POWER**
- AC line power 120 – 265 VAC, 50/60 Hz
- DC power 24V
- Dual hot-swappable batteries

**CONTROLLING INTERFACE / MODELING**
- NovaPAC / NovaMath – user defined models
- Reveal – internal model

**CHASSIS OPTIONS**
- Quick-release brackets
- ATEX
- NFPA
- Heating, cooling

**DIMENSIONS**
- 300 mm x 210 mm x 110 mm

**WEIGHT**
- 13 lbs.

**CONSTRUCTION MATERIAL**
- Enclosure: 316 stainless, anodized aluminum
- Sample Interface: 316 stainless, sapphire (std.)
- Others available as required

**MAINTENANCE**
- Automated calibration/referencing
- User replaceable lamp cartridge (1500+ operating hours)

**EXTERNAL CONNECTIONS**
- Measurement interface, industrial communications, power

**IMPROVED QUALITY**
- +

**INCREASED YIELD**
- +

**INCREASED PRODUCTIVITY**
- +

**REDUCED WASTE**
- =

Simply put, you save money, time and resources with Reveal.
Reveal Your Apps

BLEND UNIFORMITY
CLEANING VALIDATION
GRANULATION
FAT / LIPID
CAFFEINE
SUGAR
ALCOHOL
PROTEIN
MOISTURE / WATER
ENZYME CONCENTRATION
COLOR
ORGANICS IN WATER
REACTION MONITORING
PEROXIDE
BENZENE
PLASTICS

These are just some of the applications for Reveal.

Pharmaceutical
Food & Beverage
Chemical / Petrochemical
Animal Health + Feed
Personal Health + Beauty

Are You Ready to Reveal Your Applications?

Please contact us at revealyourapps@prozesstech.com, call (314) 932-2920 or visit our website at www.prozesstech.com

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