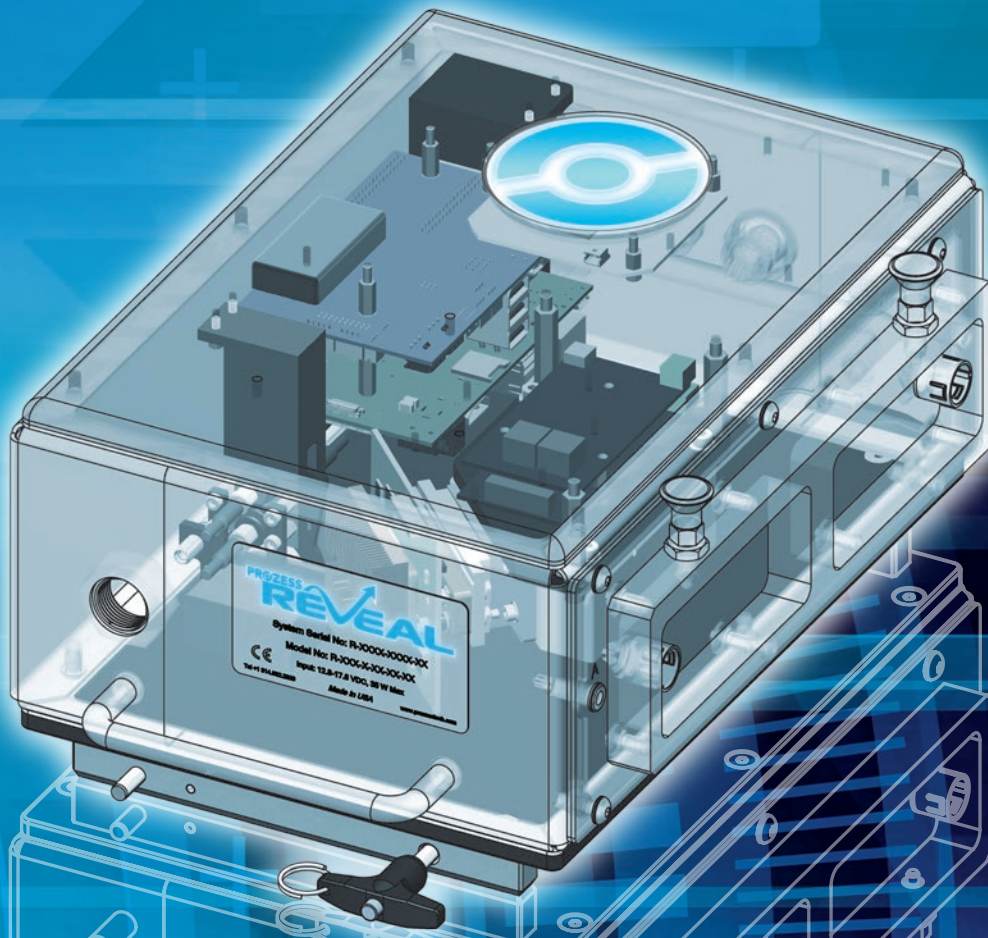


Don't React to Your Reactions.



Reveal Them.

PROZESS
TECHNOLOGIE



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.

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.

PROCESS MEASUREMENT made simple

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.

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

=

REVEAL™

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



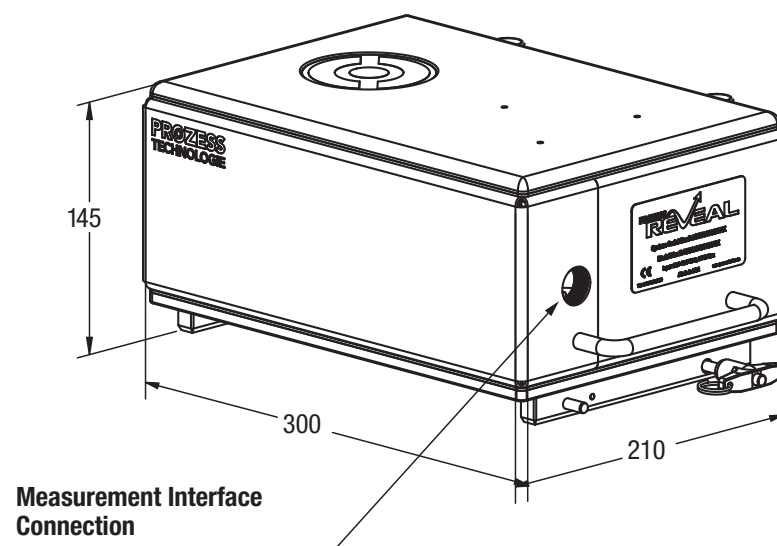
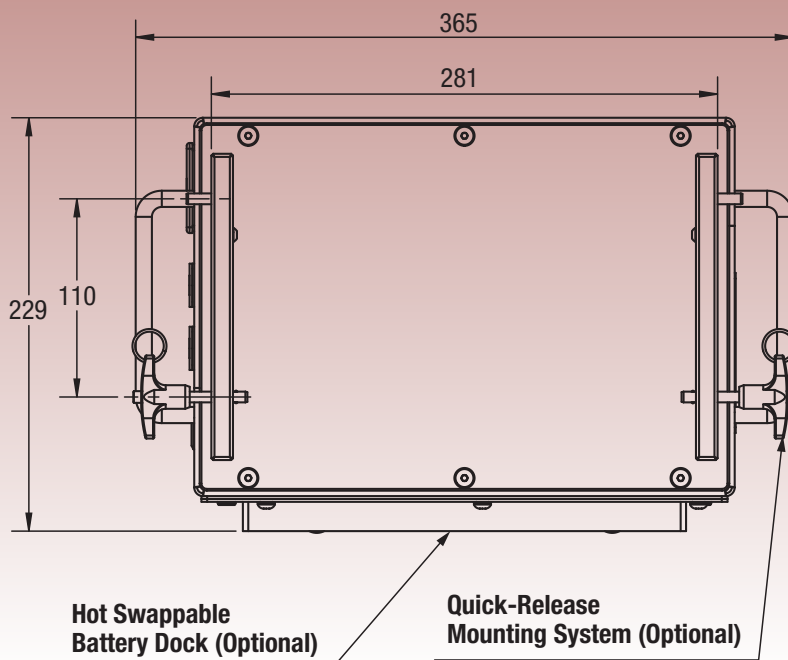
Reveal Your Apps

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

All dimensions in mm



Are You Ready to Reveal Your Applications?

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

