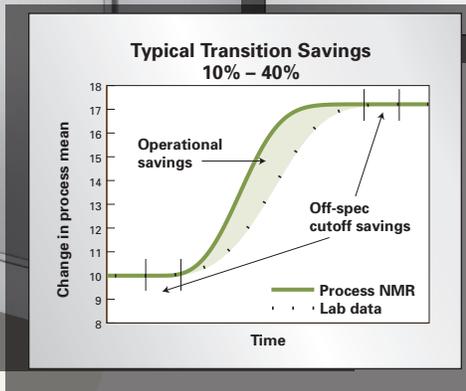
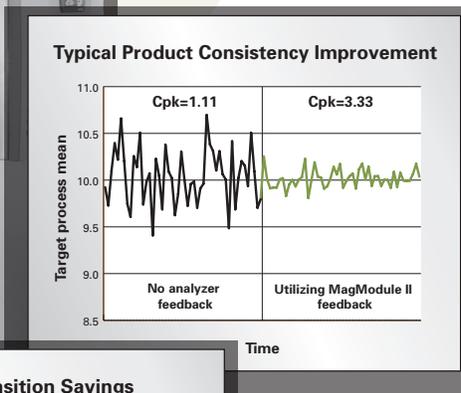
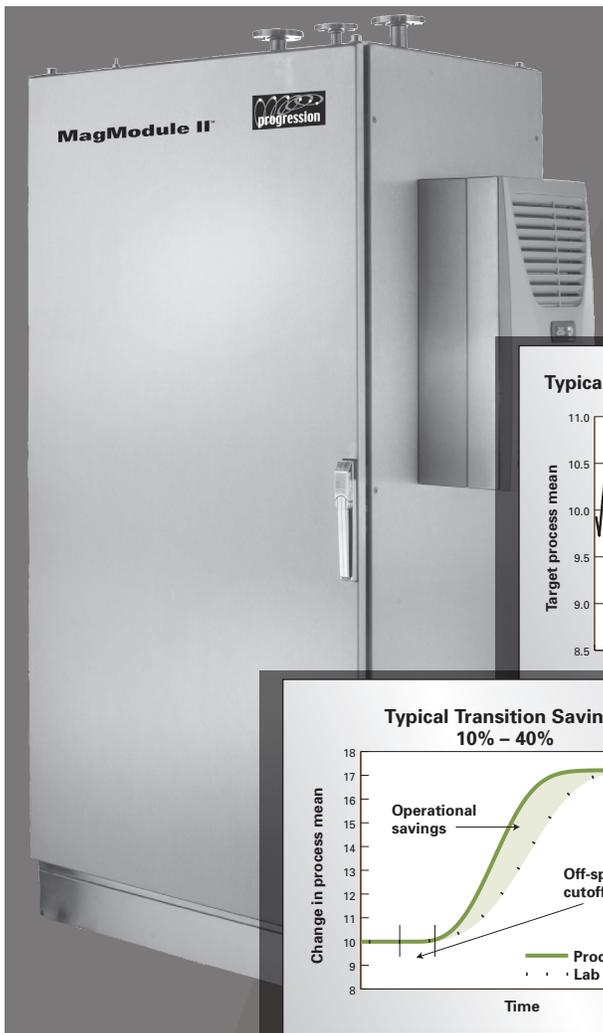


MagModule II™

The leader in process NMR technology



LexMar Global is the world's leading provider of Nuclear Magnetic Resonance (NMR) solutions for process control. The MagModule II utilizes process NMR technology combining a small footprint with a track record of proven success and is available for installation in both hazardous and non-hazardous locations. High-performance, data analysis methods provide reliable measurement of key process parameters. Complete logic

and computer controls are provided to enable Advanced Process Control (APC) and great profitability. When incorporated with our automated multiplexer, multiple sample points can be directed to a single analyzer.

The MagModule II is recommended by the world's leading polyolefin licensors and used by the world's leading phosphate producers.

Benefits

- Improved plant efficiency
- Increased production rates
- Improved transition times
- Fully compatible with off-line MagStation™ products
- Independent of particle size

Advantages

- Routine calibration not required
- No radioactive or hazardous material required
- Prior NMR knowledge not required
- Measures powders, pellets, slurries and liquids
- Worldwide support/training

Applications

- Polypropylene production
 - Xylene solubles
 - Tacticity
 - Decalin solubles
 - Melt flow
 - Ethylene content
 - Flex modulus
 - Heptane insolubles
- Polyethylene production
 - Crystallinity
 - Density
 - Melt index
- Phosphate mining and chemicals
 - BPL
 - P₂O₅
 - Fluorine

LexMar Global

Specifications

Field Cabinet

Hazardous Area Option

Class 1, Division 2, Group C and D, Zone 2, Group IIB, T4 + Zone 22
Designed for use in -20°C (-4°F) to +40°C (104°F)
Consult factory for higher temperatures
Cabinet is NEMA4 (IP66)

Climate Control

Air conditioner/electric heaters maintain cabinet to 25°C (77°F) ± 5°C.

Dimensions

Cabinet: 32" W x 24" D x 66" H (81 x 61 x 168 cm)
Typical footprint required (including purge system and air conditioner): 59" W x 24" D (150 x 61 cm)

Weight

Approximately 1000 lbs (454 Kg)

PLC

Integral PLC in field cabinet for control and sequencing of valves and plant interfacing

Piping/Tubing

Piping and tubing is 304/316 stainless steel. Swagelok fittings are used on all tubing connections. 150 lb RF flanged connections are used on all customer interfaced piping. Typical customer connections are as follows: purge and actuator gas (instrument air) supply (1/2" flange), nitrogen supply (1" flange), sample inlet and outlet, vent outlet (1" flange)

Control System

Location

Embedded or at plant control room or maintenance building

DCS Link

Can be linked through the plant control system

Hardware

Integrated System Control computer

Software

LexMar Global's proprietary A/Ztec™ viewer database software (Windows based) pcAnywhere™ remote access software

Connections

Secure internet connection or direct dial, outside line of sufficient quality for reliable modem communication for support, training and remote diagnostics

Communication connections between control computer system and field cabinet:

- Fiberoptic cable (4 fibers) to field cabinet (wire connection optional)
- Purge safety alarm contact to DCS (optional)
- Hard-wired emergency stop

On-line Extraction System

Location

Location (at plant transfer line or process) to be agreed upon by LexMar Global and customer. Components used on extraction panel are approved to appropriate area classification. Addition of a multiplexer allows multiple streams to be directed to a single analyzer

Hazardous Area Options

Class 1, Division 2, Group C and D; Zone 2, Group IIB, T3/4 + Zone 22

Dimensions

Approximately 30" W x 14" D x 46" H (76 x 37 x 116 cm)

Weight

Approximately 200 lbs (91 Kg)

Piping/Tubing

All piping and tubing is 304/316 stainless steel. Swagelok fittings are used on all tubing connections. 150 lb RF flanged connections are used on all piping. Typical customer connections are as follows: nitrogen supply (1"), instrument air supply (0.5"), inlet to extraction system (1"), sample/gas return to process (1.5")

Manual Sampling Optional

(1) 1" 150 lb RF flange for manual sampling at the extraction panel

Documentation

Operation and software manual, as-built drawings, P&ID drawings

LexMarGlobal