Saunders®
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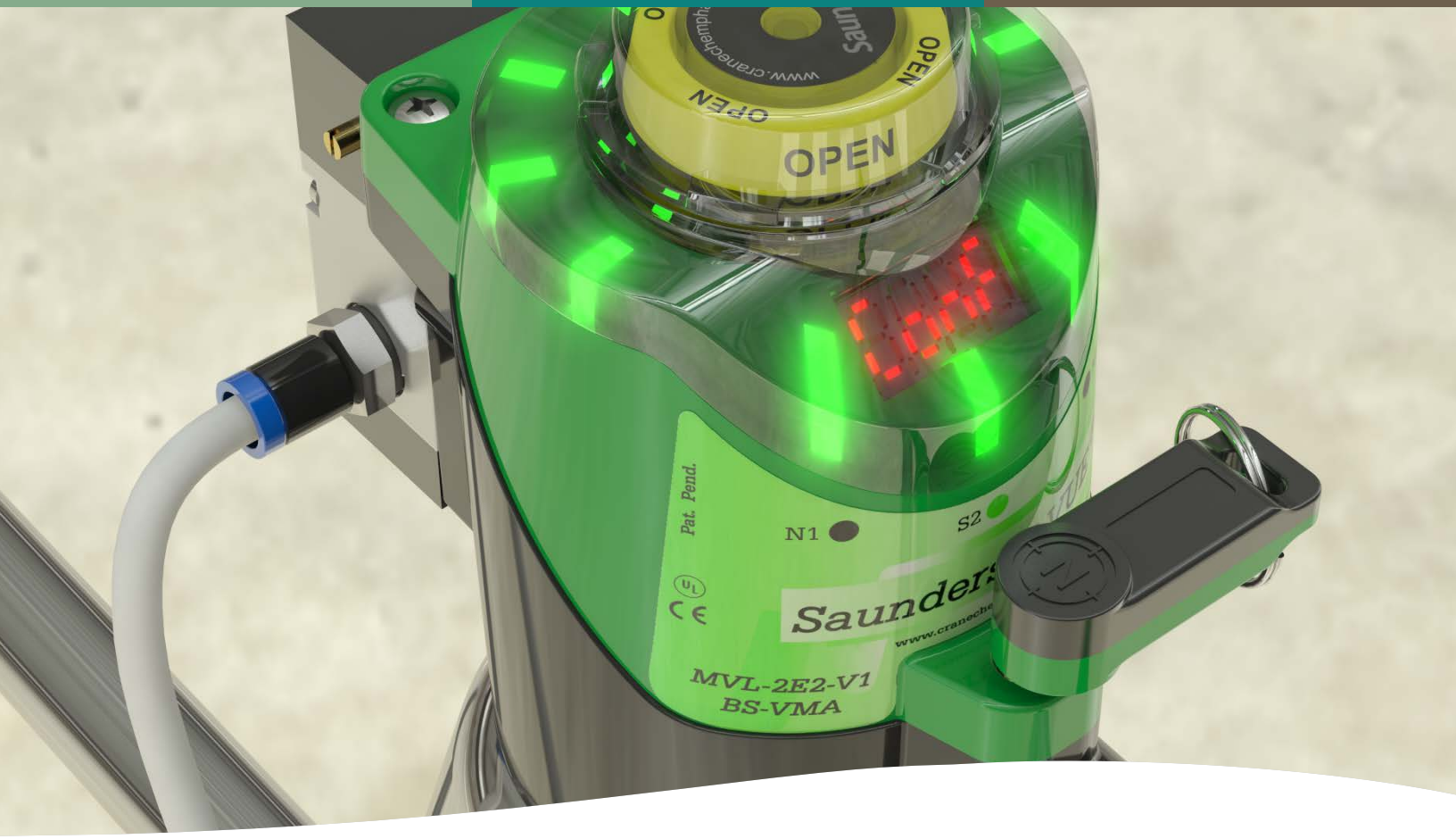
brands you trust.



Saunders-VUE
Intelligent Sensing Technology

CRANE
Crane ChemPharma & Energy

www.cranecpe.com

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Saunders-VUE: Your New Automation Solution

Saunders-VUE portfolio offers industry leading automation technology that adds intelligence to a diaphragm valve, delivering savings to the customer.

TOTAL COST OF OWNERSHIP

DELIVERS $1.3M SAVINGS
IN 5 YEARS FOR 2800 SENSOR FACILITY

ZERO MAINTENANCE

CONTACTLESS OPERATION WITHOUT ANY
ROUTINE MAINTENANCE

RELIABLE & ACCURATE

STATE OF THE ART CONTINUOUS SENSING
MAGNETIC TECHNOLOGY

INTELLIGENT

OFFERS REMOTE DIAGNOSTICS TO
OPTIMIZE PREVENTIVE MAINTENANCE

As the inventor of the diaphragm valve, Saunders® has been a key player in the evolution of high purity valve technology. Continuing the lead in aseptic valve technology, Saunders® has engineered a suite of automation products that add intelligence to a diaphragm valve offering new possibilities to our customers.

Saunders-VUE offers intelligent solutions for diaphragm valves in the Life Science Industry. Saunders-VUE platform is designed to maximize plant efficiency by eliminating false alarms and reducing set-up times. Saunders-VUE valve sensors provide a wide variety of diagnostic features that help in continuous monitoring and preventative maintenance. All the unique features can be operated remotely over an industrial network or locally using a magnetic key to extract diagnostics and facilitate safe, secure and efficient processing and maintenance.

Saunders-VUE range of valve sensors are designed to provide positive and accurate confirmation of valve position while delivering a wide variety of diagnostics to enable continuous monitoring and preventative maintenance.

- Saunders-VUE Sensors are contactless and operated either by a magnetic key or remotely through an industrial network.
- Focused on delivering valve intelligence, Saunders-VUE sensors offer millions of dollars of savings to the customer throughout the lifetime of the sensor.
- Saunders-VUE sensors are available in point-to-point (P2P), AS-i and DeviceNet versions.
- $1.3 million in savings over approximately five years for a 2800 sensor facility.

Saunders-VUE automation solution adds intelligence to a diaphragm valve!

Value Proposition

Saunders-VUE sensors maximize plant efficiency by increasing accuracy and eliminating false alarms.

The innovative self-calibration feature allows the sensor to identify open and close valve positions without opening the enclosure.

Assumptions

- A switchbox is calibrated every time a diaphragm is changed.
- Labor rate is $100 per hour.
- Diaphragm change-outs are performed once a year.

Saving Time Per Calibration

Saunders-VUE sensors can be calibrated by one person in under 3 minutes, while a traditional switchbox is calibrated by two people in 30 minutes.

Pre-Commissioning

In pre-commissioning, a valve is calibrated four times: during Factory Acceptance Test (FAT), passivation, start-up and pre-calibration.

Based on model assumptions:

- One Saunders-VUE sensor saves $45 per calibration.
- Overall pre-commissioning savings is $180 per sensor.
- Saunders-VUE sensors can be calibrated by one person in under 3 minutes, while a traditional switchbox is calibrated by two people in 30 minutes.

Post-Commissioning

In post-commissioning, a valve is calibrated two times: during routine maintenance and diaphragm change-outs.

Based on model assumptions:

- One Saunders-VUE sensor saves $95 per calibration.

A 2800 valve facility can save $1.3 million in 5 years

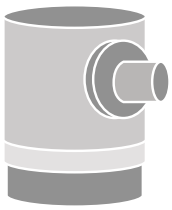
Payback time for Saunders-VUE Sensors is only four diaphragm change-outs

SAUNDERS-VUE SENSORS

*Save your facility $1.3 million in five years**

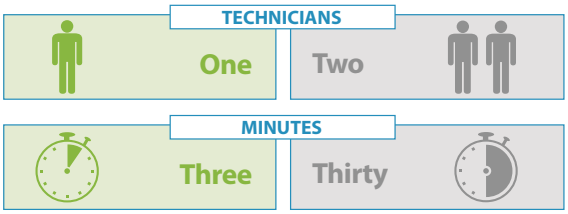
Saunders-VUE Sensors

vs.



Traditional Switchbox

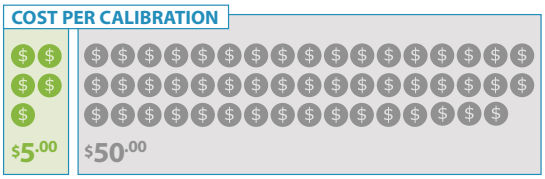
REQUIREMENTS PER CALIBRATION



Saunders-VUE sensors require half of the manpower and a tenth of time per calibration.

PRE-COMMISSIONING

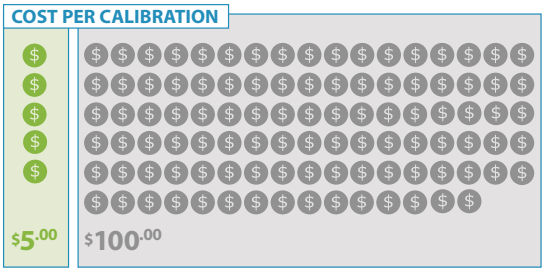
*In pre-commissioning, a sensor is calibrated **FOUR** times:*



Saunders-VUE Sensors deliver 90% savings in pre-commissioning!

POST-COMMISSIONING

*In post-commissioning, a sensor is calibrated **TWO** times:*



Saunders-VUE Sensors deliver 95% savings in post-commissioning!

Payback time = **FOUR** diaphragm changeouts

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*Based on the assumptions that a switchbox is calibrated every time a diaphragm is changed and labor rate is $100.00 an hour.
* For a facility consisting of 2800 diaphragm valves with switchbox replacing diaphragms once a year.

Saunders® M-VUE Sensor Key Features

CONTINUOUS SENSING TECHNOLOGY
SOLID STATE HALL EFFECT SENSORS

REMOTE CALIBRATION
SAVING MAINTENANCE COSTS

SELF CALIBRATION
SIMPLE OPERATION

VISUAL INDICATOR
MECHANICAL AND LED

COMPACT DIAPHRAGM VALVE SENSOR
EASY & QUICK INSTALLATION

ACCURATE OPERATION
NO MECHANICAL PARTS

Accurate Operation

Saunders® M-VUE uses Continuous sensing technology via solid state hall effect sensors, providing accuracy of 0.3 millimeters. Continuous sensing technology eliminates false alarms by detecting the exact status of the valve.

Self Calibration

Saunders® M-VUE can perform self calibration to set the open and closed position of the valve. Using this feature, a valve position can be calibrated by one person in three minutes, either at the valve (using magnetic key) or remotely via industrial network (without the need to open the switch enclosure).

Saunders® M-VUE Sensor Technical Details

Saunders® M-VUE has been engineered to compensate for the behavior of diaphragm valves under multiple processing conditions including process, CIP, SIP and varying operating air supply.

Valve Size Range	0.25"–2.00" (DN8-DN50)
Sensing Technology	Continuous sensing via five solid state reed sensors
Target	Composite ferrous magnet
Stroke	3-22mm
Sensitivity	Less than 0.3mm (0.012")
Position Indication	Green LEDs - Open Red LEDs - Closed Physical position indicator
Feedback Options	24VDC P2P AS-i version 2.0 standard access AS-i version 2.1 extended access AS-i version 2.0 extended access (optional) DeviceNet
Local Programming	Via magnetic key
Remote Programming	At control panel (networking versions only)
Standard Connection	P2P: M12 5 pin
Approvals	NEMA 4X, IP66, CE

Materials of Construction

Mounting Base	Glass Reinforced Polybutylene Terephthalate (PBT)
Electronics Module	Polycarbonate (PC)
Target	Composite Ferrous Magnet
Seals	Buna N (Nitrile)

Optional Integral Solenoid

Solenoid Case	PBT
Type	3/2 way
Voltage	24VDC, 2.5W
Air Connections	1/8" BSP or 1/8" NPT
Optional	Solenoid exhaust block

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Saunders® I-VUE Sensor Key Features

CONTINUOUS SENSING TECHNOLOGY
SOLID STATE HALL EFFECT SENSORS

REMOTE CALIBRATION
SAVING MAINTENANCE COSTS

SELF CALIBRATION
SIMPLE OPERATION

VISUAL INDICATOR
MECHANICAL & LED

DIGITAL CYCLE COUNTER
TO ASSIST IN PREDICTIVE MAINTENANCE

ENHANCED DIAGNOSTICS
ADDING INTELLIGENCE TO A DIAPHRAGM VALVE

Self Calibration

Saunders® I-VUE can perform self calibration to set the open and closed position of the valve. Using this feature, a valve position can be calibrated by one person within three minutes—either at the valve (using a magnetic key) or remotely via industrial network (without the need to open the switch enclosure).

Digital Cycle Counter

This feature counts the number of cycles completed by a valve. Users can generate an alarm when a specified number of cycles are reached, notifying the operator to perform preventive maintenance. The Digital Cycle Counter feature can also be used to identify the life of a diaphragm for any particular applications.

Saunders® I-VUE Sensor Technical Details

The Saunders® I-VUE has been engineered to compensate for the behavior of diaphragm valves under multiple processing conditions including: process, CIP and SIP, and varying operating air supply.

Valve Size Range	0.25"–4.00" (DN8-DN100)
Sensing Technology	Continuous sensing via five electro-magnetic coils
Target	Composite ferrous magnet
Sensitivity	Less than 0.2mm (0.008")
Position Indication	Green LEDs - Open Red LEDs - Closed Physical position indicator
Feedback Options	24VDC P2P AS-i version 2.0 standard access AS-i version 2.1 extended access AS-i version 3.0 extended access (optional) DeviceNet
Local Programming	Via magnetic key
Remote Programming	At control panel (Networking versions only)
Standard Connection	P2P with SOV:M12 5 pin P2P without SOV:M12 4 pin AS-i:M12 4 pin DeviceNet: Mini 5 pin
Approvals	NEMA 4x, IP66, CE, Class 1 Div 2 (FM approved), ATEX Zone 2

Materials of Construction

Module Housing	Polycarbonate
Connection Box	Polycarbonate
Target	Composite Ferrous Magnet
Seals	Buna N (Nitrile)

Optional Integral Solenoid

Body	Anodized Aluminum or Stainless Steel
Type	Piloted, 3/2
Voltage	24VDC 0.6W
CV	0.9 (0, 8 Kv)
Flow Rate	400 Nl/m
Air Connections	1/8" BSP, 1/8" NPT
Manual Override	Standard design with lock out feature

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STOCKHAM® Triangle® UNI-CHEK® wta® XOMOX®

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