

SPRAY SMART

Opportunities and Possibilities of
Digitalization in Dosing Technology

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The company

MISSION - VISION

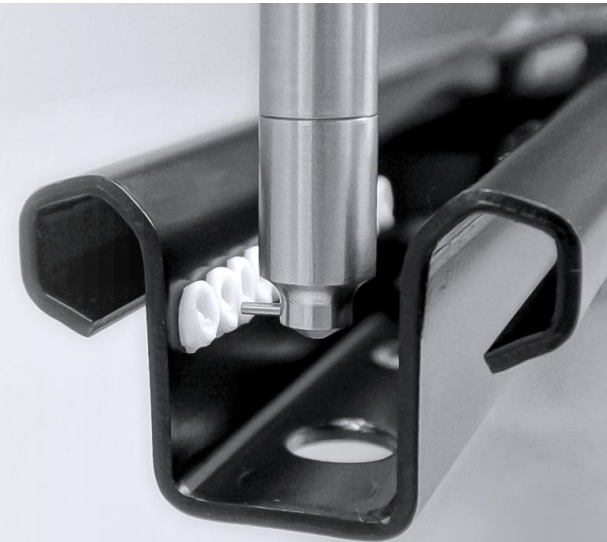


We are...

... your primary contact – from feasibility studies to fully automated assembly cells, we are sure to find your dispensing solution.

We aspire...

*... to be the innovation and technology leader
for conveying, metering and applying viscous media,
especially for lubricants and adhesives.*



The company

PORTFOLIO

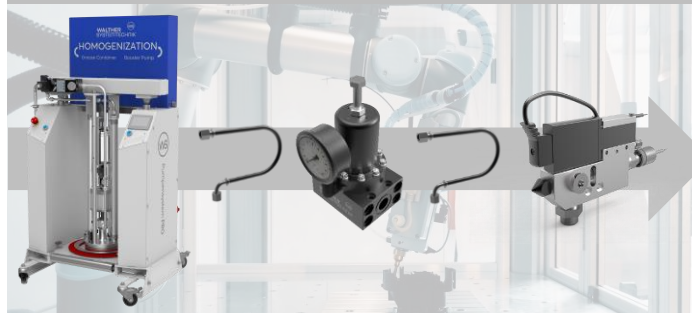


Fluid Components



- Individual components, spare parts and accessories
- Integration of the components into existing systems by the customer

Customized Fluid Systems



- Fluid systems designed for an application with matching components
- In-house assembly and tests

Special machines



- Turnkey solutions:
Special machine construction (e.g. frame, drive and control) incl. fluid system
- In-house assembly and tests

INTRODUCTION

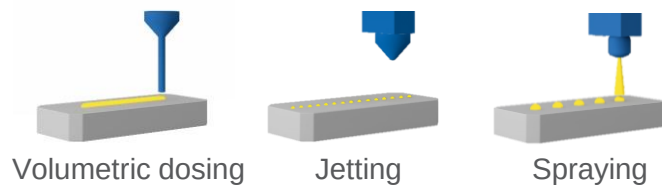
*„... I really like this grease,
but there must be better a solution than a toothbrush to apply it on my bearing ...“*

Chris Ludwig, CEO Air Flo Spray Equipment (2021)

INTRODUCTION

Dosing requirements

- Process stability
- Process monitoring and data storage
- Connectivity & usability
- Traceability
- Compact design
- Energy consumption

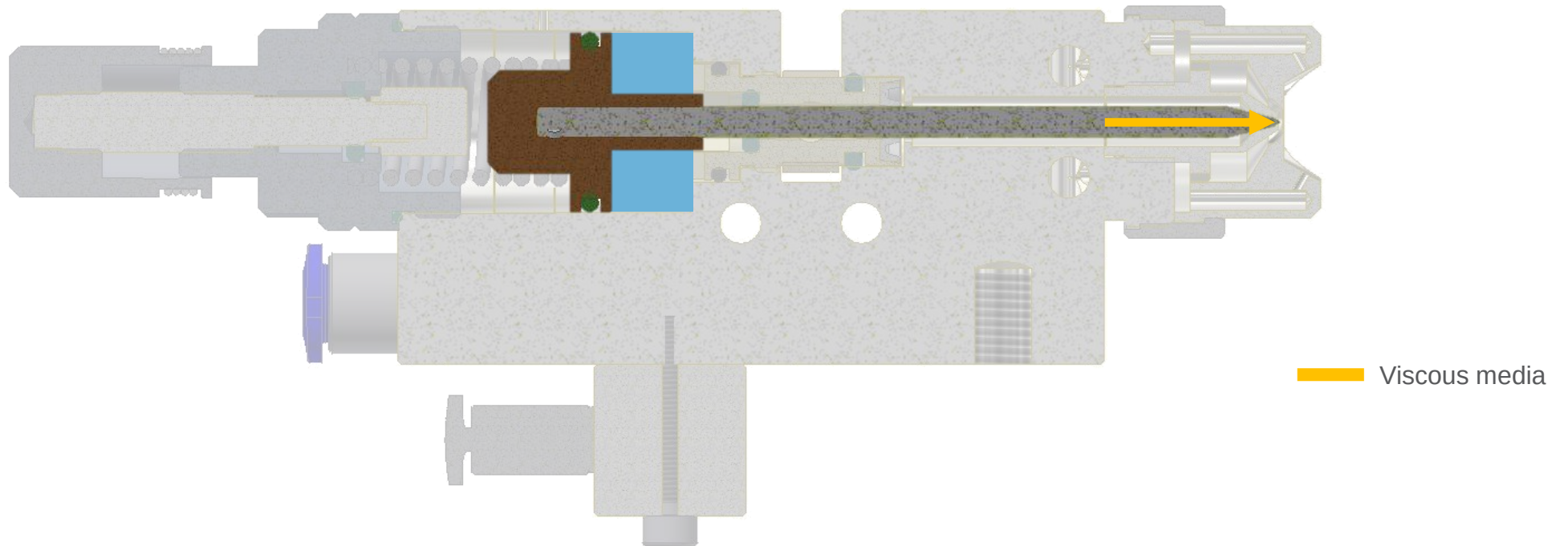


Spray valves are being used in the majority of applications.



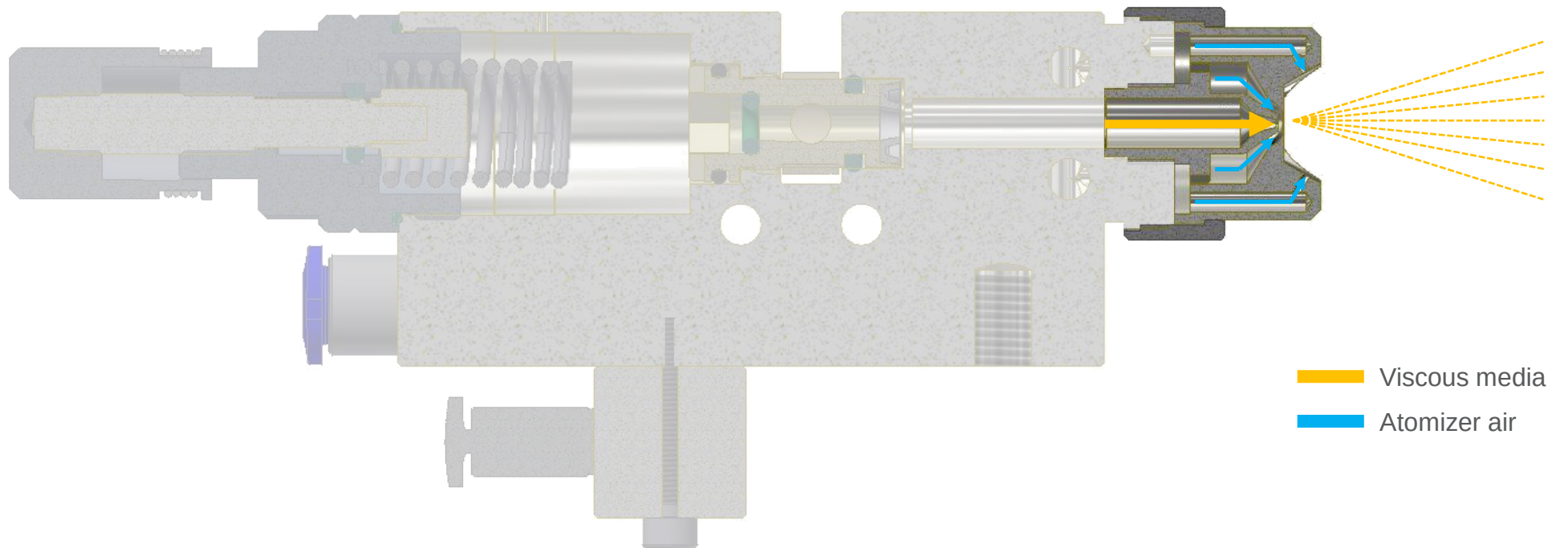
STATE OF THE ART

Electropneumatic valves



STATE OF THE ART

Media atomization



STATE OF THE ART

Process control

- Valve control unit:
 - Signals for needle stroke
 - Signals for atomizer air
 - Pressure control for atomizer air

Process stability

- Heating plate
- Temperature sensor
- Temperature control unit:
 - Regulation of the valve temperature

Process monitoring

- Pressure Sensor
- Needle Stroke sensor
- Process monitoring unit:
 - Data analysis & transmission



OBJECTIVE

Objective

Development of a novel modular valve system for the configuration of application valves.

Establish a valve platform incl.
functional units

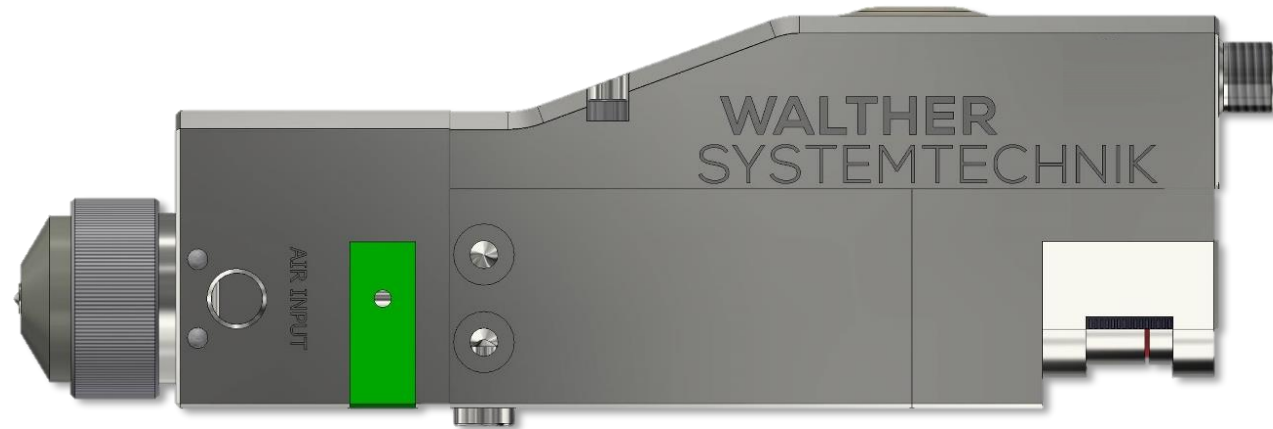
Integration of all accessories
into the valve

Increasing the monitoring
functionality and usability

Spray Smart - Digitalization in Dosing Technology

MODULARITY

WALTHER
SYSTEMTECHNIK



MODULARITY & FUNCTION INTEGRATION

Spray head

- Pressure sensor
- Heating element
- Temperature sensor
- RGB-LED (status indication)

44 [mm]



Control unit

- Valve, temperature control & process monitoring unit
- Manual spraying button
- Digital IO's & Ethernet connection



97,5 [mm]

Stroke unit

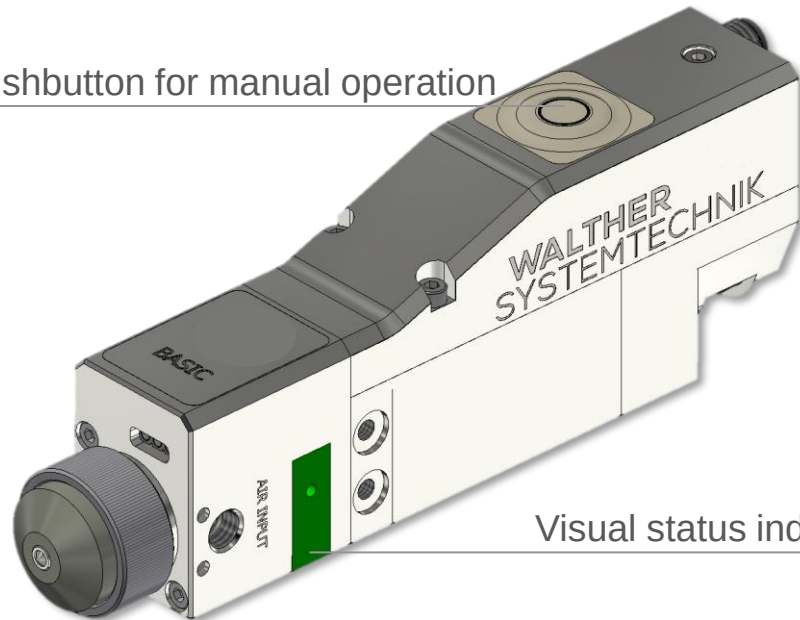
- Electromagnetic needle actuator
- Needle stroke sensor
- Visual needle-stroke adjustment
- Needle stroke adjustment SAFE



COMMUNICATION: INTUITIVE USER INTERFACE

Hardware

Pushbutton for manual operation



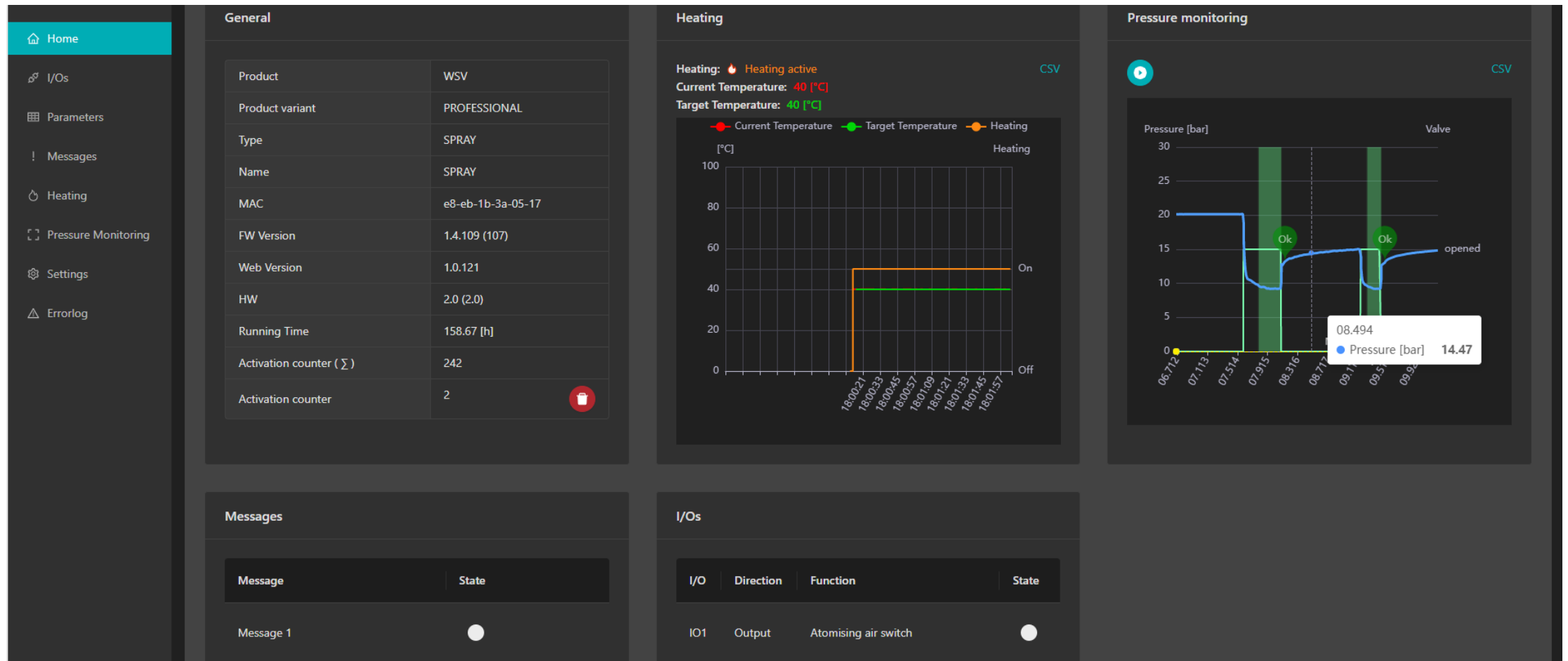
Visual status indication

Software

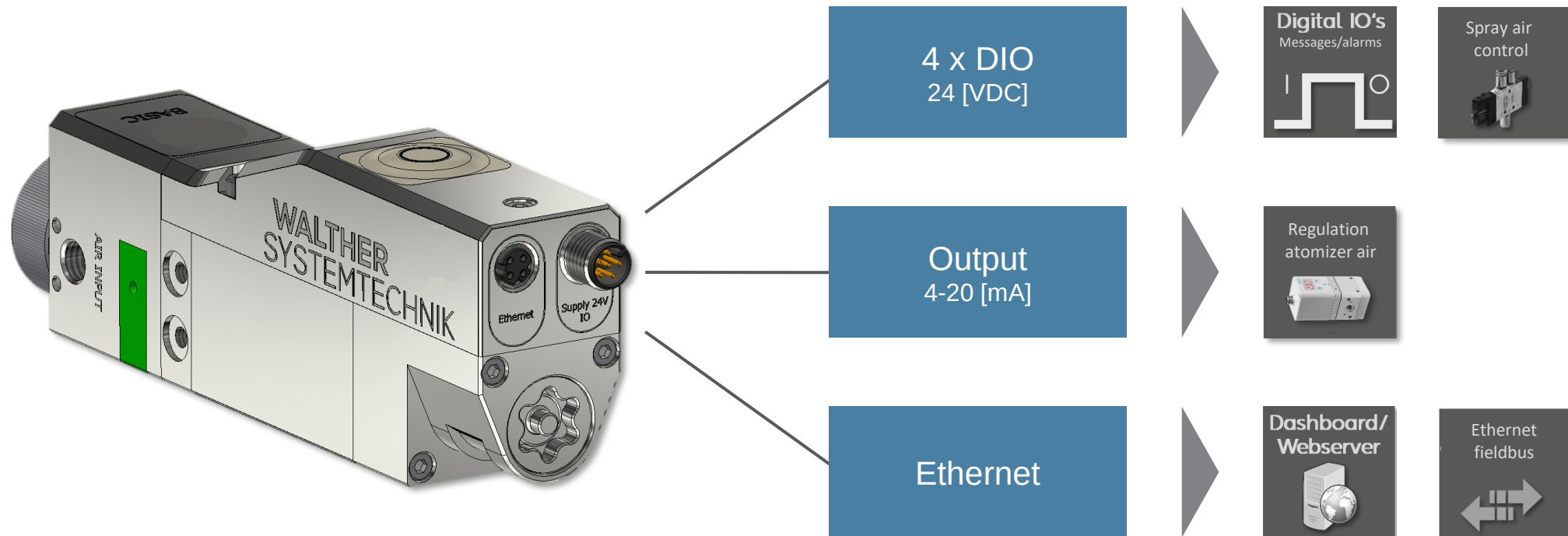
Browser based dashboard



COMMUNICATION: MONITORING CAPABILITIES



COMMUNICATION: CONNECTIVITY



Entire parametrization & data access via Ethernet interface

FÖRDERN. DOSIEREN. AUFTRAGEN.

WALTHER SYSTEMTECHNIK

DOSING TECHNOLOGY TAILORED TO YOUR NEEDS

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LUBRICANT EXPO 2022



The background image is a photograph of a factory interior, dimmed to serve as a backdrop for the text. It shows several industrial machines, some with yellow and black safety markings, and workers in dark clothing. A large overhead crane is visible at the top. The floor is polished and reflects the overhead lights. A clock is mounted on the wall in the background.

**THANK YOU VERY MUCH
FOR YOUR ATTENTION.**