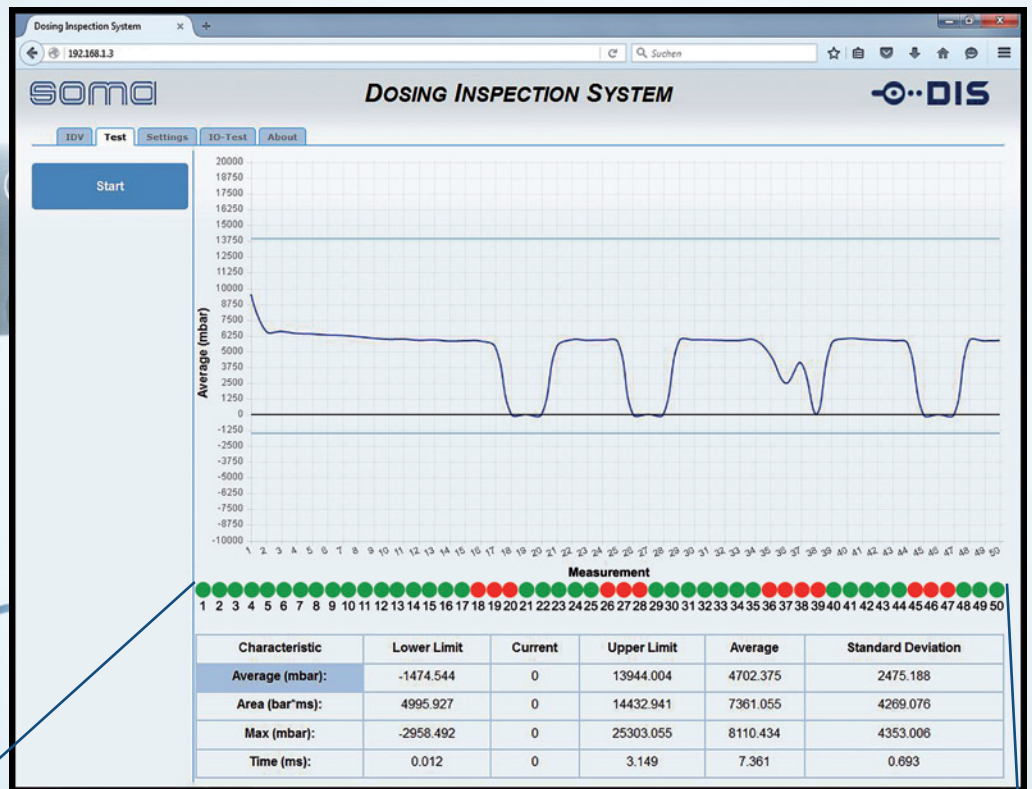
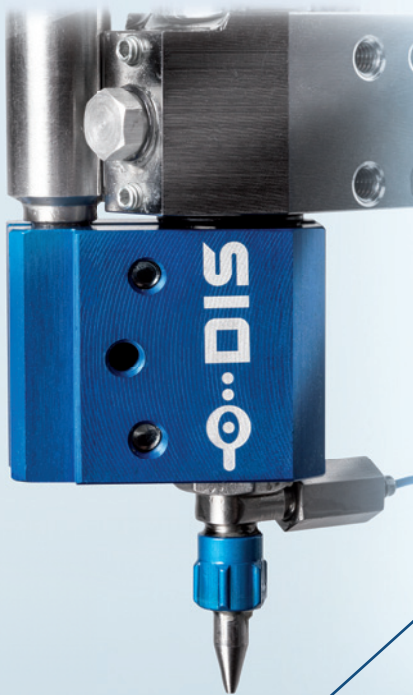
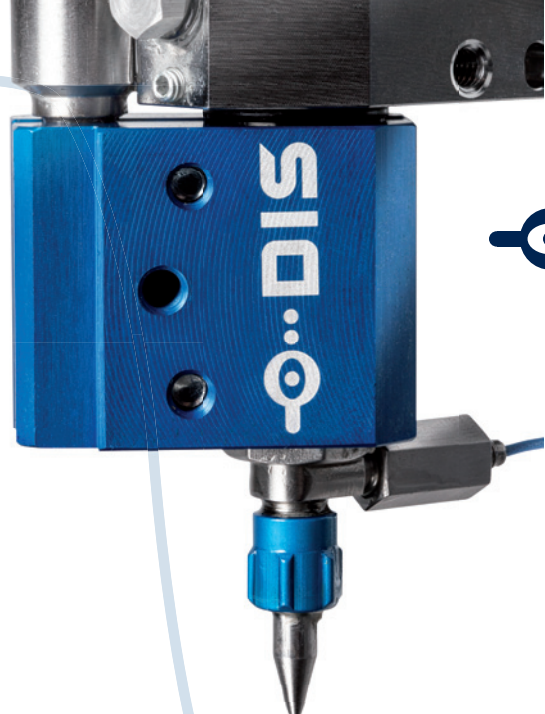


DIS DOSING INSPECTION SYSTEM



DIS – Dosing Inspection System

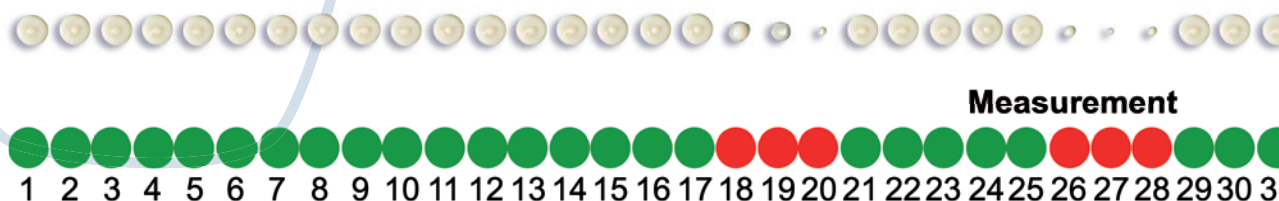
Intelligent monitoring of IDV dosing processes:
automatically, verifiably, in real time



DIS DOSING INSPECTION SYSTEM

Reproducible quality is the biggest challenge in industrial lubricant dosing.

Impurities or air inclusions in the lubricant influence the dosing process and can lead to poor results. The unique DIS dosing inspection system from SOMA detects poor dosing results automatically and safely, so that the affected products can be handled appropriately.



Ensure dosing quality

SOMA dosing components are the first choice when high demands are placed on precision and reproducibility of lubricant dosing processes. The patented IDV impulse dosing valve enables the accurate, contactless dosing of precise lubricant volumes.

The optional DIS dosing inspection system also allows you to monitor each individual dosing process and so ensure the quality of your products.

The DIS functioning principle

DIS is based on real-time pressure measurement at the nozzle outlet of the SOMA IDV impulse dosing valve. The chronological pressure curves are measured automatically during each individual dosing process. Numerical methods are used to determine the mean value of the characteristic parameters, pressure time integral, maximum pressure value and duration of the dosing pulse and compare them with set points. If the parameters are within specified limits, the dosing process is evaluated as "good".

The set points and their limits can be learned in advance in the Teach mode. For this purpose, the controller triggers 50 sample dosages, the pressure curves are measured, the set point and limit values of the statistical parameters

are calculated and stored in accordance with the MSA method 1. In addition to the automatic Teach mode, these values can also be entered manually.

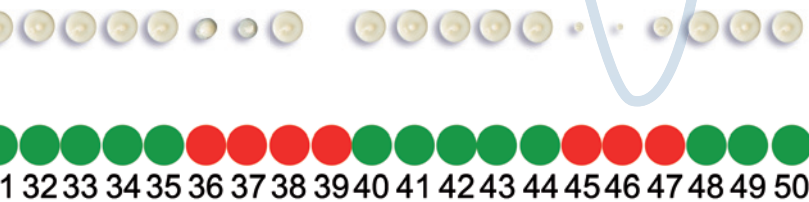
DIS hardware

The DIS dosing inspection system includes the DIS pressure sensor for attachment to the SOMA impulse dosing valve and the DIS controller to which the sensor is connected. An integrated microcontroller controls the dosing processes, records the measurements, calculates the results and evaluates them, communicates with higher-level systems and provides a browser-based operator interface.

soma

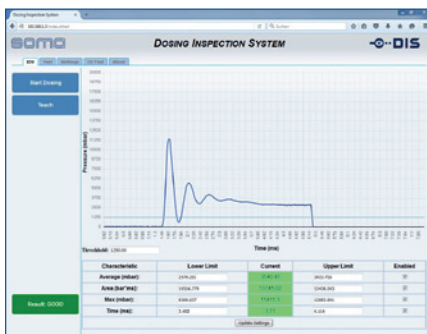
DIS – Dosing Inspection System

Intelligent monitoring of IDV dosing processes:
automatically, verifiably, in real time



PC connection →

PLC connection →



Technical data

Power supply:
24V DC, power consumption 2.5 W
Dimensions:
200 mm x 60 mm x 300 mm

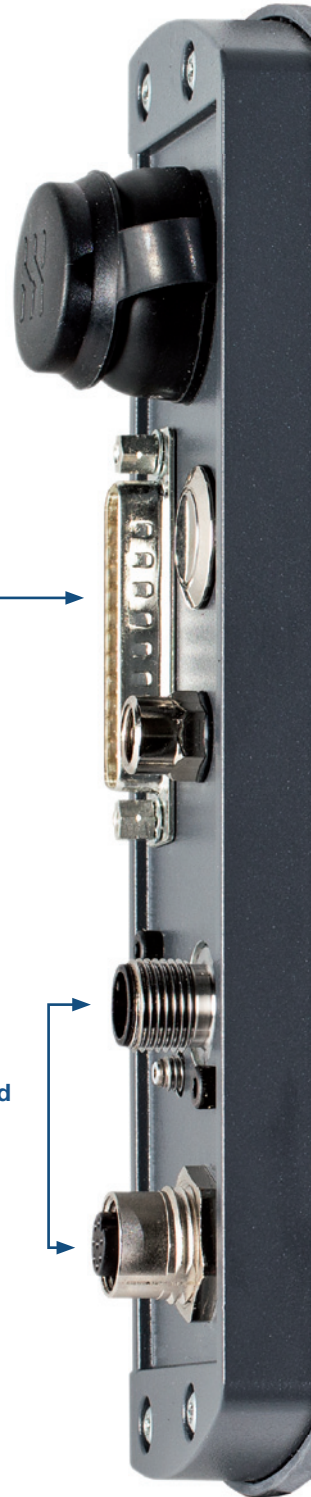
DIS parameterization software

DIS can be parameterized and operated via an installed web interface from a connected PC or laptop or optionally with mobile terminals via WLAN. The easy-to-use user interface is divided into several menus and allows, among other things, the direct display of the pressure curves with the evaluation of the relevant parameters. The system is also configured in the operating software; self-test functions as well as the Teach mode complete the range of functions. In normal dosing mode, the DIS is self-sufficient and is activated, for example, via binary signals from an external controller (PLC); in this case no PC is required for operation.

DIS features at a glance

- ❖ Automatic monitoring of the dosing processes of the SOMA IDV impulse dosing valves
- ❖ Patented process monitoring at the nozzle outlet via pressure sensor
- ❖ Standalone system, parametrisable via web interface
- ❖ Automatic process status determination
- ❖ Teach mode for limit value determination
- ❖ Robust design for industrial use
- ❖ Can be retrofitted in existing SOMA IDV applications
- ❖ Integrated charge amplifier with calibration port
- ❖ Digital I/O for PLC connection
- ❖ LAN interface
- ❖ Installed SCPI command set

Measurement and calibration ports





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