

Press Release

Innovative control for inflatable seats from EBRO ARMATUREN

INFLAS® PRO with microcontroller-driven process flow

Hagen, March 2022 – The Hagen-based industrial valves specialist EBRO ARMATUREN has launched INFLAS PRO, an innovative method of controlling inflatable seats in the series of INFLAS valves. The control unit, equipped with a microcontroller, not only cycles the full range of operations for opening and closing the valve, it also monitors all the relevant parameters. Thus, it can proactively detect potential malfunctions in advance and report them back to the PLC via a volt-free contact.

INFLAS valves with inflatable seat

The INFLAS sealing system was developed for use of the valve with flows of highly abrasive or highly sensitive substances. In the closed valve position the sealing seat is pressed against the valve disc pneumatically. If there are any scores that have already been caused by abrasion, they are closed off by the pressure of the seat. The valve remains tight. Consequently, any abrasion wear can be compensated over a lengthy period. When the valve is opened, the sealing seat relaxes and first opens a narrow gap between the valve disc and the collar. This considerably reduces friction, as a result of which the valve disc can be opened with minimal torque. When the valve is closed, the integrated control unit checks plausibility in fractions of a second and controls flow on its own: the valve disc is moved to the "Closed" position. At this point, the valve does not yet close completely. An annular gap between the disc and the valve body ensures that in the closing operation no abrasive substances are rubbed into the sealing seat and no sensitive products are crushed. Substance flow comes to a halt and the seat is gently pressed against the valve disc. The valve is completely closed. INFLAS valves are part of EBRO's standard portfolio. Therefore, spare parts are available worldwide at short notice.

Innovative and anticipatory

INFLAS PRO controls the entire process flow with a microcontroller. In doing so, each individual program step is monitored and potential malfunctions are reported. This further enhances process reliability. All the relevant parameters can be customised in the control unit at any time. The use of Hall effect sensors ensures that the values recorded, e.g. for detecting the angular position of the valve disc, are extremely precise.

Look-ahead function

INFLAS is particularly recommended for use on pressure transmitting vessels because

Press contact:

Diana Völkel | Public Relations

Tel.: +49 (0)2331 904-202 | Email: d.voelkel@ebro-armaturen.com

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owing to pressure surges even minute scores in the sealing element can soon create channels that can become a serious issue. Signals reported by the control unit make it possible to draw conclusions about the current state of the valve. As a result, any leaks in the seat or signs of wear on the valve disc, for example, are detected accordingly. The so-called look-ahead function enables preventive maintenance by reporting potential malfunctions even before the malfunctions occur. In this way it is possible to plan maintenance procedures in advance and avoid spontaneous system outages.

INFLAS PRO operates autonomously in the field. No PLC customisations are usually required for the installation as a whole, not even for a retrofit. The control unit is actuated conventionally using 24V DC.

INFLAS valves are ideal wherever a product being conveyed through them must not be crushed or if the substance flowing is highly abrasive. Extending the service life leads to a significant reduction in maintenance effort.

Virtually all EBRO valves lined internally with elastomers can be combined with INFLAS PRO.

Caption:

INFLAS PRO® controls the entire process flow with a microcontroller.

EBRO ARMATUREN

Since the company was founded in 1972, EBRO ARMATUREN has been developing, producing and selling shut-off and control valves as well as automation technology for industrial applications. More than 1,000 employees at two domestic and 30+ international subsidiaries ensure that EBRO products are available in over 100 countries worldwide. Within the global network, production takes place at the headquarters in Germany and in Italy, Sweden, China and Thailand with uniformly high manufacturing and quality standards. In 2005, the Swedish manufacturer Stafsjö Valves AB was acquired and the product range was extended by an extensive portfolio of knife gate valves. The owner-managed family business sees itself as a reliable, future- and value-oriented partner for its more than 35,000 customers worldwide: customer satisfaction, quality and safety are reflected in the range of more than 350,000 product variants, which are manufactured with high-precision technology and distributed with fast delivery performance for customers around the globe. For EBRO, it is a matter of course that, in addition to high-quality industrial valves, the corresponding drive and automation technology is also tailored as a complete unit precisely to the specific application and its requirements. This offers the customer further synergy effects in planning support, technical advice and documentation. EBRO has established itself in the global market with innovative solutions, especially for demanding applications and sectors such as the chemical and pharmaceutical industry, food and beverage industry and seawater desalination.

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