PICO Valve Cleaning Station

Technical Data



PICO[®] Jet Valve Cleaning station for mechanically cleaning the exterior of dirty nozzle plates.

Functionality

The cleaning station was developed for PICO jet valves to automate a mechanical cleaning of the exterior of the nozzle plate.

Cleaning paper on a roll is fed to a second roll by means of an elastic element. If a deposit of the fluid to be dispensed is present at the discharge opening of the valve, the nozzle plate of the valve is moved onto the elastic element and the valve is passed over it. Deposits on the nozzle plate are wiped onto the cleaning paper. At 50mm wide, several parallel cleaning lanes can be accessed before advancing cleaning paper roll forward.

After approx. 5 cycles the electric motor can be triggered to bring new cleaning paper in position for further cleaning cycles. After each cleaning cycle, the dispensing process can either be restarted, the valve can be brought to a parked position (sealed off from light) or to a location for purge dispense cycle.

The drive motor must be supplied with 24 V DC and has a power consumption of 65 mA.

Design and Changing Rolls

The rolls can be changed by removing the knurled screw (1). This allows the horizontal bracket the two guide discs (2) for the rolls (3) to be removed. Upon loosening the expansion screw (4), the empty roll and the used fleece roll can be pulled down, and the cleaning station can be reloaded.

Interface Assignment

4-pin built-in plug (company: Binder, Series 680) for mini round plug connectors with a threaded coupling in accordance with IEC 130-9

PIN	Signal	Level	Note
1	P24		For feeding 24 V DC
2			Not assigned
3			Not assigned
4	GND	0 V	GND









Technical Specifications

Item	Specification		
Dimensions	140w x 40н x 110p mm (32w x 25н x 26p")		
Weight	1.5 kg (3.3 lb)		
Power consumption	Maximum 2.5 VA		
Operating voltage	24 VDC, ±10%		
Ambient temperature range	+10° C to +35° C		
Connection operating voltage input	4-pin built-in plug (company: Binder, Series 680) with threaded coupling in accordance with IEC 130-9		
Mounting option	M6 in accordance with DIN 974 in a 30 mm grate		
Gear motor	19 U/minute torque: 200 mNm		
Width of the roll of fleece	50 mm		

Safety Guidelines

The described devices and machines are operational resources for use in industrial systems.

Those responsible for the safety of the system must therefore ensure that:

- Working on the devices and machines or in their proximity is prohibited for unqualified personnel.
- qualified personnel are commissioned to work on the devices and machines.
- These persons have access to the operating manual and the remaining documents from the product documentation, etc., for all respective work and are obligated to observe these documents consequently.

Qualified personnel are persons who, due to their training, experience, and instruction, as well as their knowledge of relevant standards, provisions, accident prevention regulations, and operating conditions, have been authorized by the person responsible for the safety of the system to perform the required tasks and, in the process, can identify and prevent potential risks (definitions for specialists according to VDE 105 or ICE 364).

No claim regarding the extent of completeness is provided for these safety guidelines.

Standards and Regulations

- 2006/95/EG, EC-Low Voltage Directive (LVD)
- 89/336/EWG, EC-Electromagnetic Compatibility Directive
- DIN EN 61010-1 (VDE 0411), Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use
- 2002/95/EC, Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS 2003-01-27)

Drawing





Appendix

Specifications subject to change without notice.



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