



AUTOMATIC PRISM WASH WITH HIGH PRESSURE WATER

Availability/Compatibility of features:

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Prism wash system with high pressure water	PR-01-S

INTRODUCTION

For any refractometer it is necessary to keep the prism surface clean. Due to the K-Patents self-cleaning design, two out of three of all applications can be measured without any prism cleaning. In some applications the process flow does not keep the prism clean because of sticky process medium or low flow velocity. K-Patents has developed two cleaning options for these applications: prism wash with steam and prism wash with high-pressure water. The prism wash with high pressure water works in applications where conventional wash is insufficient to remove the coating, e.g.: in starch, beer worth, green liquor, and directly after evaporation in the sugar industry.

The components of a high pressure water system are a sensor with integral water nozzle mounted at the sensor head, a high pressure pump together with a power relay unit and an indicating transmitter

equipped with a relay unit. The power relay unit drives the high-pressure pump and the water valve.

The water nozzle design is optimum for effective prism cleaning even in difficult scaling conditions. The small picture below shows how the high-pressure water jet reaches precisely its target: the prism surface.



The built-in relays of the Indicating transmitter can be configured to control the prism wash cycle.

K-Patents has increased the intelligence of the wash systems by implementing prism wash diagnostics. The prism wash is automatically prevented, if the process temperature is below the set low process temperature limit or, if the TEST value (raw data on measurement) is 240 or higher. In addition, it is possible to configure one switch input for prism wash preventing signal.

A prism wash system for high pressure water with Wash control unit -WR: components and wiring.

