

AUTOMATIC PRISM WASH WITH INTEGRAL STEAM NOZZLE

Availability/Compatibility of features:

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Prism wash system with integral steam nozzle	PR-23-AP/GP

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 three cleaning options for these applications: prism wash with steam and prism wash with water or with high-pressure water. This note describes the wash system with steam.

The components of a steam wash system are a sensor with integral steam nozzle mounted at the sensor head, a shut-off valve for steam line and an indicating transmitter equipped with relays to drive the wash valves. A steam pressure reducing valve

and a strainer for the steam line are available as an option.

In the small picture below the steam wash flushes the prism surface effectively. The nozzle is installed near the side of the prism. The steam flush is parallel, so any damages to the prism due to steam shocks or impurities in the steam line are eliminated.

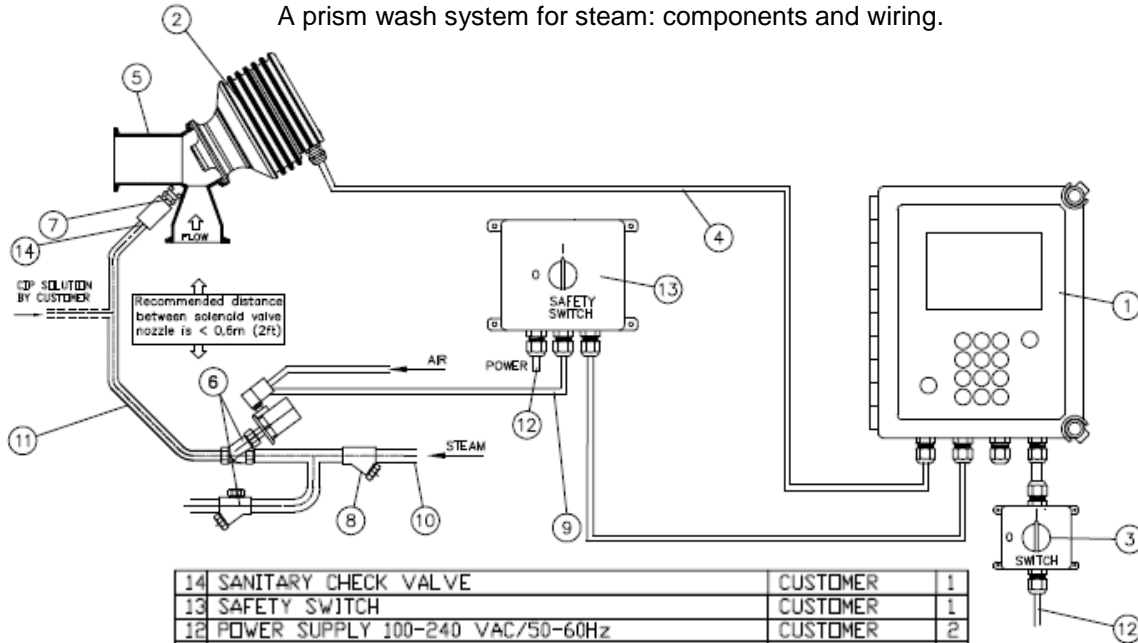


The built-in relays of the Indicating transmitter can be configured to control the prism wash cycle.

Recommended steam pressure and wash times:

Min. above process pressure	Max. allowed pressure	Wash time	Recovery	Interval
2 bar (30 psi)	4 bar (60 psi)	3 s	20-30 s	20-30 min

A prism wash system for steam: components and wiring.



14	SANITARY CHECK VALVE	CUSTOMER	1
13	SAFETY SWITCH	CUSTOMER	1
12	POWER SUPPLY 100-240 VAC/50-60Hz	CUSTOMER	2
11	STEAM PIPE 1/4"	CUSTOMER	1
10	STEAM PIPE 1/2"	CUSTOMER	1
9	SOLENOID CABLE, 3x1 (AWG 17)	CUSTOMER	1
8	STRAINER	K-PATENTS	1
7	STEAM NOZZLE	K-PATENTS	1
6	SHUT-OFF VALVE&STEAM TRAP PR-3340-230/110	K-PATENTS	1
5	FLOW CELL AFC-HSS-H10/15/20/25 -SI/RI-NC	K-PATENTS	1
4	CABLE BETWEEN DT-R AND SENSOR PR-8230-...	K-P/CUSTOMER	1
3	MAIN SWITCH	K-P/CUSTOMER	1
2	SENSOR PR-23-AC/AP/GP	K-PATENTS	1
1	INDICATING TRANSMITTER DTR	K-PATENTS	1
PART SPECIFICATIONS		SUPPLIED BY	

