INFORMATION SHEET

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Valves water intended for human consumption

	DIN		ANSI
Valve size	**DN 15 to 500**	·	**NPS 1 to 20**
Pressure rating	**PN 10 to 40**	·	**Class 150 and 300**
Temperature	**–10 to +220 °C**	·	**14 to 428 °F**

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Applications involving water intended for human consumption

The strict hygiene requirements which are placed on valve materials that come into contact with water intended for human consumption are particularly challenging.

National and international regulations stipulate various requirements which must be observed for valves used with water intended for human consumption.

The SAMSON Type 3226 Valve as well as the Type 43-3 Temperature Regulator in the versions listed in this document fulfill these requirements making them suitable for used in installations for water intended for human consumption.

German ordinance on the quality of water intended for human consumption

The German ordinance on the quality of water intended for human consumption (TrinkwV 2001) includes provisions concerning protection to human health from the adverse influences resulting from any contamination of water intended for human consumption. The German national legislation corresponds to the Directive 98/83/EC on the quality of water intended for human consumption.

The German ordinance basically stipulates that water intended for human consumption must meet the limits and requirements of the ordinance.

Domestic distribution systems are required to distribute and store water intended for human consumption. Such systems include the related pipework, fittings and appliances which are installed between the point at which the water passes from the supply network to the user and the tapping point (section 3 in the German ordinance TrinkwV 2001). As a result, SAMSON valves fall within the scope of the German ordinance on water intended for human consumption. Section 17 of the ordinance regulates the approval of materials that come into contact with water, e.g. materials in pipelines, gaskets and valves. It is important that the materials do not leach substances into the water (e.g. as a result of corrosion) and impair the quality of the water. The German environmental protection agency has drawn up a positive list of approved materials.

SAMSON solutions

We recommend the following SAMSON products in installations for water intended for human consumption:

- **Type 43-3 Self-operated Temperature Regulator:** three-way valve with control thermostat (see Fig. 1)
  - Three-way valve as diverting valve
  - Valve body made of red brass
  - DVGW tested according to DVGW W 270
  - Soft-seated valve plug
  - For the diversion or supply of cold water in storage tanks or heat exchangers for domestic hot water

- **Type 3226 Three-way Valve** with pneumatic or electric actuator (see Fig. 2)
  - Three-way valve as mixing or diverting valve
  - Valve body made of red brass
  - DVGW tested according to DVGW W 270
  - Soft-seated valve plug
  - For use in domestic distribution systems for water intended for human consumption

- **SAMSON VETEC Type 72 and Type 82** Rotary Plug Valves with pneumatic piston actuator or rotary actuator, e.g. AIR TORQUE double-piston rotary actuator (see Fig. 3)
  - Double-eccentric valve
  - Bidirectional flow
  - Metal or soft-seated valve plug
  - FDA compliance and compliance with EC Directive 1935/2004 for wetted gaskets
  - For the use in public water systems

Fig. 1: *Type 43-3 Temperature Regulator*

Fig. 2: *Type 3226 Three-way Valve with Type 5824 Electric Actuator*

Fig. 3: *Type 72.3 Rotary Plug Valve with AIR TORQUE double-piston rotary actuator*

Table 1: *Type 43-3 and Type 3226 for applications involving water intended for human consumption*

• Standard version; o Special version/option

		Type 43-3	Type 3226
Three-way valve	Mixing valve		•
	Diverting valve	•	•
Standard version	DIN	•	•
Valve size	DN	G ½ to G 1 DN 15 to 50	G ½ to G 1 DN 15 to 50
Pressure rating	PN	10	10
Body material	CC499K	•	•
Other materials	Wetted gasket	EPDM	EPDM
Connection	Female thread	•	•
	Male thread	•	•
	Flange	•	
Plug	Soft seal	• (leakage class IV)	• (leakage class IV)
Temperature range	in °C	5 to 90	5 to 90
Compliance	CE	•	•
	DVGW tested	•	•
Actuators	Pneumatic		o
	Electric		•
	Electric actuators with process controllers		o
	Manual override	o	
Valve accessories [1]	Positioner		o
	Solenoid valve		o
	Limit switch		o
	Supply pressure regulator		o
Associated Data Sheets		▶ T 2173	▶ T 5863

[1] In combination with pneumatic actuators

Table 2: *SAMSON VETEC Type 72 and Type 82 for applications involving water intended for human consumption*

• Standard version; o Special version/option

Rotary plug valves		**Type 72 and Type 82**
Standard version	DIN	•
	ANSI	•
	JIS	•
Valve size	DN	25 to 500
	NPS	1 to 20
Pressure rating	PN	10 to 40
	Class	150 to 300
Body material	Cast stainless steel 1.4408	•
Other materials	Wetted gasket	EPDM/PTFE FDA compliance
Connection	Flange	•
	Welding ends	
	Special connection	On request
Plug	Metal seal	•
Leakage class	Metal seal (standard)	IV
	Soft seal	VI
Temperature range	in °C	–10 to +220
Compliance	CE	•
	EAC	•
	FDA	• [2]
	EC 1935/2004	• [2]
Actuators	Pneumatic	•
	Electric	o
	Manual override	o
	Other	o
Manual override	Top	
	Side	o
Valve accessories	Positioner	o
	Solenoid valve	o
	Limit switch	o
	Supply pressure regulator	o
Associated Data Sheets		▶ SAMSON VETEC rotary plug valves

1) Compliance with EC Directive 1935/2004
2) FDA compliance and compliance with EC Directive 1935/2004 for wetted gaskets only