

T.VIS[®] Monitoring Systems for VESTA[®] Sterile Valves

T.VIS[®] V-1 / V-20 position indicator / control module
T.VIS[®] P-1 / P-20 position controller



Pure valve technology by GEA Tuchenhagen

Process Equipment

GEA Tuchenhagen

T.VIS® V-1 and V-20 position indicator / control module

The T.VIS® concept (Tuchenhagen Valve Information System) now complements the pneumatic VESTA® sterile valve series with a smart, modular system for valve monitoring, actuation and control – adapted to the hygienic design of the sterile valve.



T.VIS® V-1



T.VIS® V-1 with solenoid valve






T.VIS® V-20

The T.VIS® V-1 / V-20 is an electrical position indicator with feedback system and optionally integrated solenoid valves for linear process valves with a stroke up to 30 mm.

The luminous cap integrated in the control head indicates the status of the process valve – clearly to be identified locally. The information is transferred to the PLC via the 3 binary outputs, integrated as a standard feature.

This means that the OPEN and the CLOSED position of the process valve and the failures or faults are constantly monitored.

	Yellow LED	OPEN position
	Green LED	CLOSED position
	Red LED	Fault / Failures

The automated end position programming for the T.VIS® V-1 / V-20 can be activated alternatively using the buttons or the programming input (integrated as a standard feature) in just a few seconds. Due to the buttons and plug-in connections it is not necessary to open the T.VIS® V-1 / V-20.

Thanks to its modular design, the T.VIS® V-1 / V-20 can be customized to the customer's specific requirements:

- without solenoid valve
- with one solenoid valve (for single-acting actuators – with spring, only T.VIS® V-1)
- with two solenoid valves (for double-acting actuators – without spring, only T.VIS® V-1)



Benefits

- Automated end position programming
- Easy and safe operation without tools, no need to open the module
- Modular design
- Manual operation of the process valve is possible
- OPEN and CLOSED feedback signals as standard
- Accuracies can be set
- Option: AS Interface & DeviceNet(T.VIS® V-1 / V-20)

T.VIS® P-1 and P-20 position controller






The T.VIS® P-1 / P-20 is a compact position controller for pneumatic process valves.

By specifying a setpoint (4-20 mA), transferred e.g. by the PLC, the process valve can be brought to any position.

A setpoint can also be entered locally with buttons to bring the process valve to the required position. This is achieved by internally adjusting the actual position of the process valve (actual value) to the setpoint.

The position is detected by a position sensor and adjusted by two integrated solenoid valves.

The local LEDs indicates clearly the status of the valve:

	Yellow LED	OPEN position
	Green LED	CLOSED position
	Blue LED	Position adjusted
	Flashing blue LED	Position not adjusted
	Red LED	Fault / Failures

Of course all these messages can also be evaluated in the PLC via the actual value output as well as optional available three binary outputs, provided as standard features.



T.VIS® P-1



T.VIS® P-20

Technical data of the T.VIS® monitoring systems

• Operating voltage	24 V DC
• Binary outputs (CLOSED / OPEN / Fault)	24 DC / 200 mA
• Setpoint input (T.VIS® P-1 / P-20)	4 -20 mA
• Actual value output (T.VIS® P-1 / P-20)	4-20 mA
• Pressure range	0-8 bar (temporarily 9 bar)
• Protection class	IP66 / IP67
• Ambient temperature	-20 to +70 °C (without solenoid valve) -10 (P-20 ±0 °C) to +50 °C (with solenoid valve)
• Housing material	PA / PET / TPE resistant to the typical cleaning agents and disinfectants



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