## Energy Efficiency with Large-sized Valves Smart pilot-operated valves





## Type 233X Pilot-operated Valves in sizes up to DN 400

 For use in heating or cooling circuits together with TROVIS 5724-8 Electric Actuators with Process Controller

 Differential temperature control with return flow temperature limitation as well as many other applications

 Communication connection using RS-485 two-wire bus with Modbus RTU protocol

 Other functions (e.g. pressure, differential pressure or flow rate control) possible through the installation of other or additional pilot valves



**SAM**° DISTRICT ENERGY

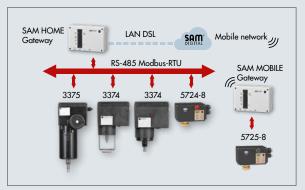


## Energy Efficiency with Large-sized Valves

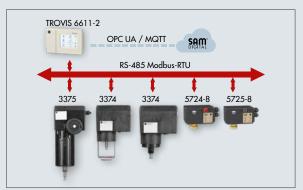
## Smart pilot-operated valves

Pilot-operated applications with Type 233X Valve in combination with a TROVIS 5724-8 or TROVIS 5725-8 Electric Actuator with Process Controller, optionally with RS-485 communication for smart control solution, for valve sizes up to DN 400; PICV or valve with electric actuator with process controller up to DN 50.

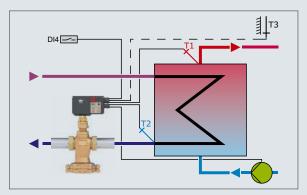
Min. differential pressure range of Type 233X Valves	
DN	Approx $\Delta p_{min.}$ depending on application
125	1.1 to 1.3 bar
150	0.7 to 0.9 bar
200	0.4 to 0.6 bar
300	0.5 to 0.7 bar
400	0.3 to 0.5 bar



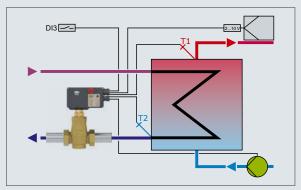
Cloud topology with gateway for bus connection



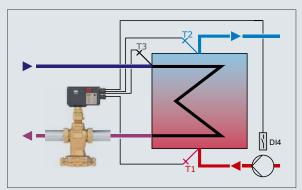
Cloud topology with PLC and bus connection



Example: district heating



Example: position transmitter with temperature closed-loop control upon failure



Example: district cooling



SAMSON AKTIENGESELLSCHAFT

Weismuellerstrasse 3 · 60314 Frankfurt am Main, Germany

Phone: +49 69 4009-0 · Fax: +49 69 4009-1507

 $E\text{-mail: samson@samsongroup.com} \cdot Internet: www.samsongroup.com$