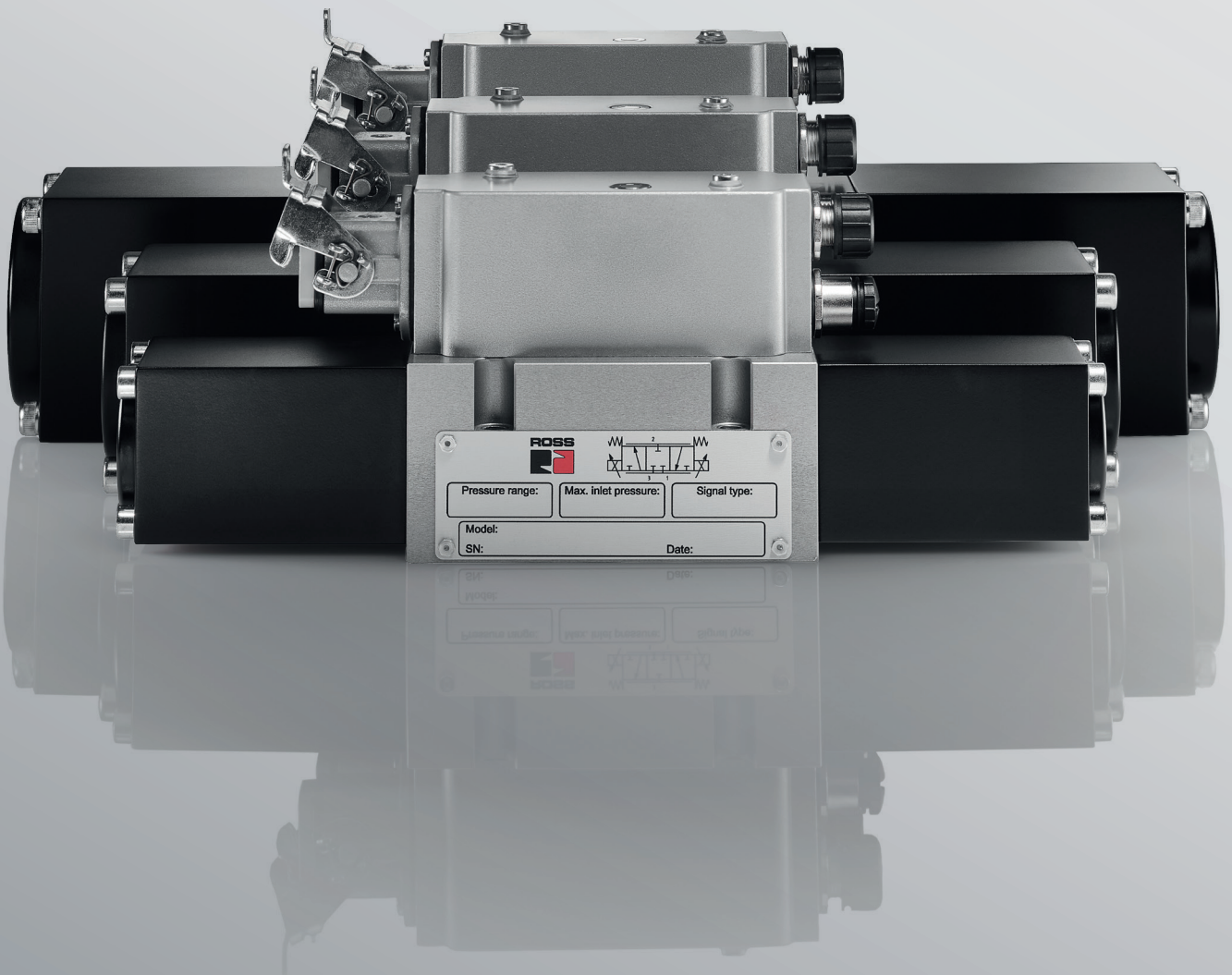




ROSS

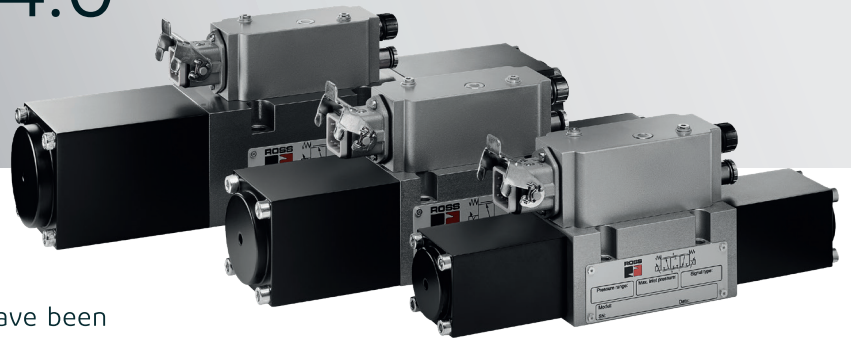
Proportional Pressure Control Valve

PV40



PROPORTIONAL PRESSURE CONTROL VALVES

The **Smart Valve** for the Glass Industry 4.0



ROSS proportional pressure control valves have been used successfully in the glass industry and in other industries for decades.

The valve's robust poppet design makes it dirt resistant and maintenance free. Besides long lifetime the valve features fast and precise pressure regulation.

The ROSS proportional pressure control valve is available in 4 sizes for different pressure ranges and maximal volume flow.

MAIN CHARACTERISTICS

- 1** DIRT RESITANT
- 2** VERY FAST REGULATION
- 3** HIGH VOLUME FLOW
- 4** SMART FUNCTIONS
- 5** COMMUNICATION CAPABILITY

Nominal Diameter	max. Working Pressure (bar)	max. Norm Volume Flow (NI/min.)
12	5	3.200
14	7	4.200
16	6	5.000
20	7	7.500

ADVANTAGES

- long life time without maintenance
- predictive maintenance (signal after 50 and 65 million cycles)
- analysis functions
- LED signaling
- Modbus communications



PROCESS FUNCTIONS

- Plunger-Up
- Counter-Blow / Plunger-Cooling
- Final Blow / Finish Cooling / Settle Blow

FEATURE COMPARISON

	GENERATION 4.0	CONVENTIONAL DEVICE
Pressure Regulation	●	●
Standard Electrical Interface	●	●
Smart Functions	●	
LED Signaling	●	
Modbus Communication Interface	●	

Smart Functions of the ROSS Proportional Pressure Control Valve – Generation 4.0

The ROSS Proportional Pressure Control Valve is unique worldwide regarding its extensive analysis- and communication features. The valve's Modbus communication interface allows for easy integration into control systems for the Industry 4.0. RS485 bus technology provides access to max. 254 valves on one machine.

The valve's **basic function** (pressure regulation) as well as the standard electrical interface (supply, set-point, feedback) are **always** available independent of smart functions.



SMART FUNCTIONS

SELF DIAGNOSIS	Pressure Buildup Analysis	analysis of pressure build-up and report to control system
	Adaptive Disturbance Control	automatic reaction to supply disturbance (pressure, voltage)
	Data Logging	Short-term logging of up to 6 process values (supply pressure, supply voltage, set-point, working pressure etc.)
SYSTEM DIAGNOSIS	Inlet Pressure Analysis	continuous monitoring of supply pressure and signaling if insufficient
	Supply Voltage Analysis	continuous monitoring of supply voltage and signaling if insufficient
	Leakage Detection	detection of suspected leakage if above supplies sufficient
COMMUNICATION	LED Signaling	signaling of 14 different possible problems via LED
	Modbus Communication	Modbus communication interface for parametrization and data transfer
	Process Monitoring	process monitoring and analysis with reporting functionality

ROSS Diagnostics Tablet for Proportional Pressure Control Valves - Generation 4.0

The unique diagnosis and communication functions of the ROSS Proportional Pressure Control Valve are supplemented by the ROSS Diagnostics Tablet.

The tablet supports connectivity to max. 254 valves utilizing a single communication bus allowing continuous monitoring and event logging for all connected valves.



MAIN FEATURES (valve diagnosis)

- 1 VALVE STATE INDICATION
- 2 ERROR SIGNALING AND WARNINGS
- 3 PROCESS DATA LOGGING AND DISPLAY
- 4 PARAMETRIZATION

ADDITIONAL FEATURES (process monitoring)

- 1 CONTINUOUS VALVE MONITORING
- 2 ERROR EVENT LOGGING
- 3 PROCESS DATA LOGGING

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