

EBV

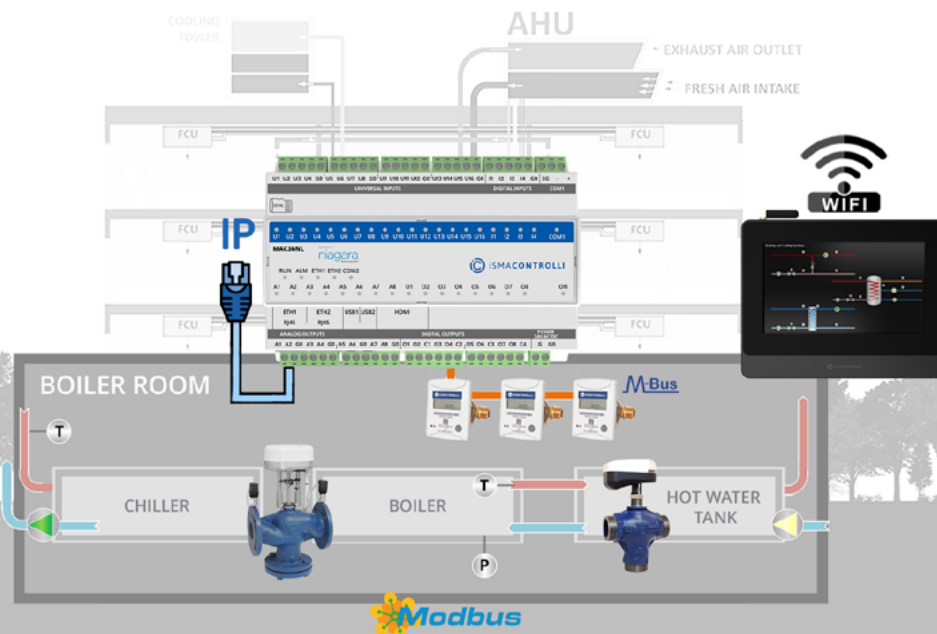
Smart Balancing Control Valve



 **ismacontrolli**

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ACCURATE ENERGY AND FLOW CONTROL



EBV

- ◆ EBV is a unique smart device **integrating** many intelligent functions.
- ◆ Pressure independent flow control to avoid energy wastes related to unbalanced hydraulic circuits.
- ◆ On-Board **PID** temperature loop allowing significant savings because the DDC controller is not necessary.
- ◆ **Energy Control** and Energy Monitoring to deliver only the energy actually needed by the system and always keep the consumption under control.
- ◆ Modbus for direct **integration into BMS**.
- ◆ ΔT control to avoid energy wastes coming from low ΔT or uncontrolled return temperature.

Two available configurations

PICV

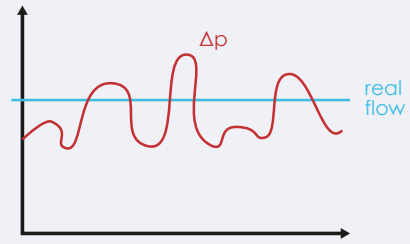
Smart actuator

Pressure sensors

Control valve



Pressure sensors for pressure independent flow control

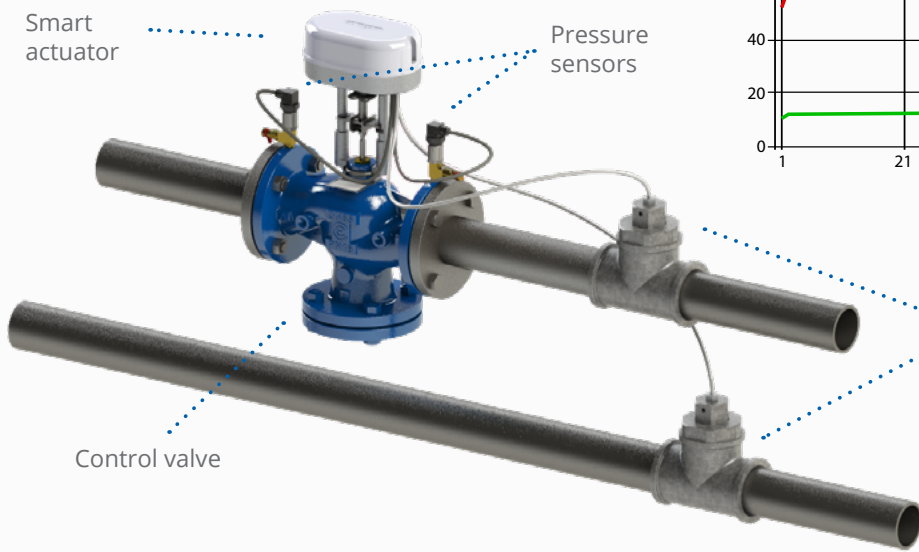


ENERGY CONTROL VALVE

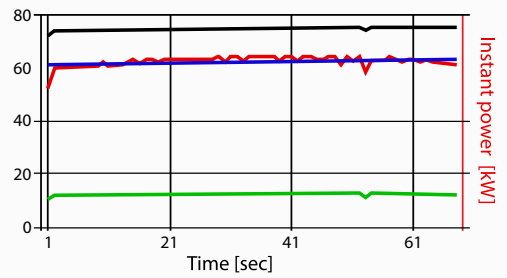
Smart actuator

Pressure sensors

Control valve



Supply & Return Temperature sensor for Energy Monitoring and ΔT Control



Connectivity Modbus RS-485

COMMISSIONING



CONV-USB-RS485

CONFIGURATOR TOOL



OPERATION



TOUCH PANEL



MODBUS MASTER DEVICE



Other relevant features:

- » Compact solution compared to competitors; perfect for upgrading existing systems
- » More competitive price with respect to competitors energy valve
- » Full set of data available through Modbus (supply & return temperature, delta T, Instantaneous flow and power, Energy historical data)
- » Possibility of controlling the valve by simple analog signal or Modbus protocol

Models

CODE	DN	MIN FLOW [m ³ /h]	MAX FLOW [m ³ /h]	PN	MAX ΔP [kPa]	POWER SUPPLY
EBV65	65	12	37	16	35-800	24 Vac/dc 230 Vac
EBV80	80	25	59			
EBV100	100	45	77			
EBV125	125	61	118			
EBV150	150	80	177			

FEATURES	EBV_0	EBV_1
Pressure independent flow control	✓	✓
Flow rate calculation	✓	✓
Minimum and maximum flow value setting	✓	✓
Modbus connectivity	✓	✓
DeltaT (temperature diff. between supply and return water) control loop	-	✓
Power (kW) and energy (kWh) monitoring and control	-	✓
Local PID control (embedded in the actuator) on T or ΔT	-	✓
Configuration through micro USB	✓	✓

65 = DN65, max flow 37 m³/h
 80 = DN80, max flow 59 m³/h
 100 = DN100, max flow 77 m³/h
 125 = DN125, max flow 118 m³/h
 150 = DN150, max flow 177 m³/h

024 = Power supply 24 Vac/dc
 230 = Power supply 230 Vac

EBVXX-XXX-X0X

0 = No emergency return
 1 = With emergency return

0 = Modbus connection

0 = No temperature sensors
 1 = With temperature sensors

Example: **EBV65-024-001** → Max flow 37 m³/h, DN65, 24 Vac/dc, No emergency return, with Modbus connection, with Energy function enabled and 2 temperature sensors included