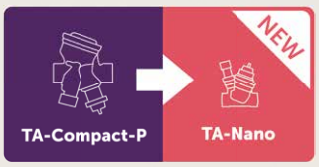
IMI

Climate Control

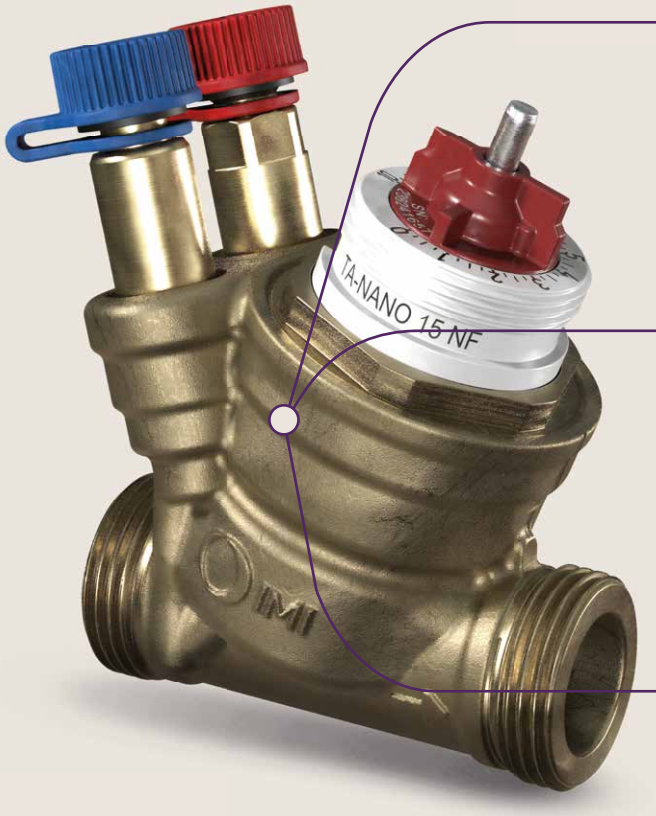
Think Big. Go Nano.
TA-Nano by **IMI TA**



Breakthrough engineering for a better world

Meet **TA-Nano**

Your super compact Pressure Independent Balancing and Control Valve (PIBCV) solution for tight spaces. Its ability to maintain desired flow rates, resist clogging, and minimise maintenance ensures long-term energy savings and system stability. Ideal for installations in tight spaces like fan coils, chilled beams, small AHUs, or as zone valves, TA-Nano adapts seamlessly to various terminal units, delivering unparalleled control wherever it is installed.



ROBUST

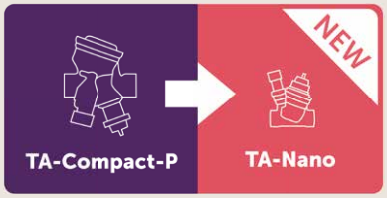
- Dirt resistant.
- Flushing capability.
- Tested above 150k cycle operation.

EASY TO INSTALL

- Super compact and lightweight.
- Quick and easy to install with ergonomic handwheel.
- Fits all piping requirements.

EFFICIENT

- Excellent minimal differential pressure versus flow.
- Set down to 10% of nominal flow while ensuring good measuring accuracy.
- Linear characteristic for all sizes.



TA-Nano – the evolution of TA-Compact-P.

Building on the success of its predecessor, TA-Compact-P, TA-Nano has evolved to deliver even more reliable, pressure-independent flow regulation in a smaller, easier-to-install valve. **Smaller and lighter than its predecessor**, it fits in spaces where other valves do not.

Why choose **TA-Nano**?

Space Efficiency

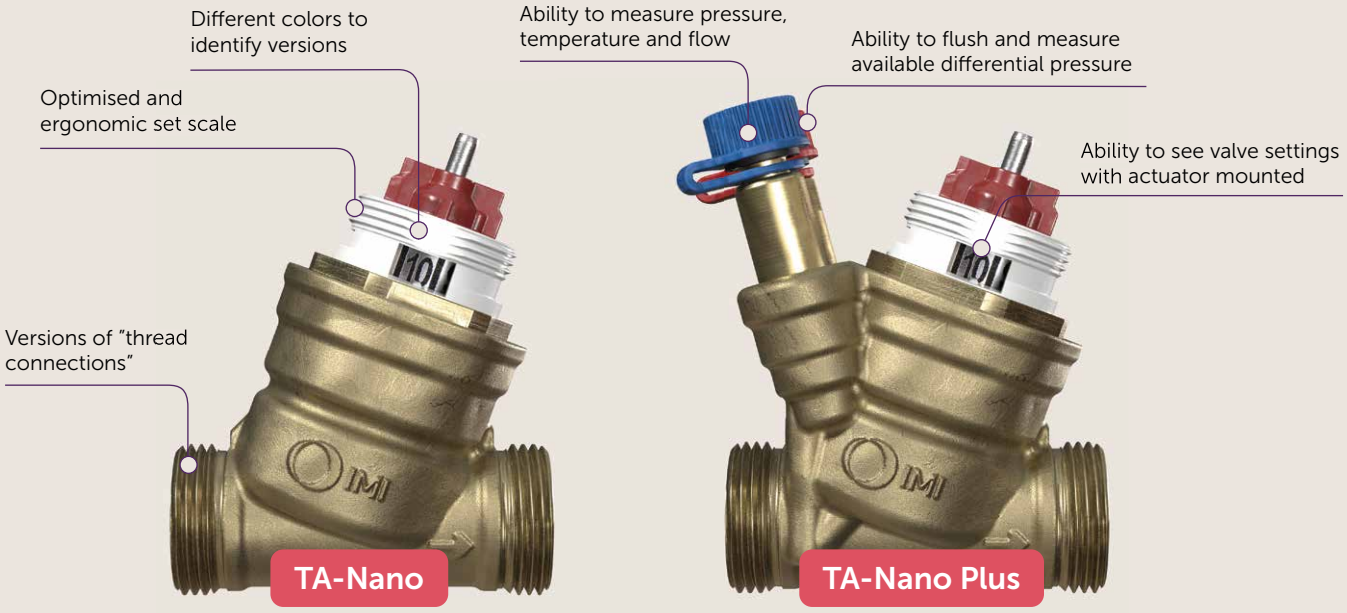
Fan coil units often face space constraints, making efficient component integration challenging. TA-Nano addresses this issue with its small design, fitting seamlessly into tight spaces without sacrificing performance. Its small size streamlines system integration, simplifying installation while ensuring optimal functionality.

Energy Effiency

TA-Nano's minimal differential pressure requirements lower energy consumption and pump head, ensuring reduced operational costs and a smaller environmental footprint. By thinking big and going nano, you achieve powerful performance while saving time, energy, and money—proof that even the smallest innovations can make the biggest impact.

Resistance to Dirt

TA-Nano ensures efficient operation without the risk of clogging. This not only reduces maintenance needs and costly downtime but also guarantees optimal system performance over the long term. With TA-Nano, building owners and facility managers can enjoy uninterrupted, high-efficiency HVAC performance, providing peace of mind and maximum return on investment.



Available for all control modes

On/Off

EMO-T

- Easy and quick to install.
- Cost-effective solution.
- Ideal for small terminal units.
- Available in 24VAC and 230VAC.

Modulating

TA-Slider 160

- Fully configurable actuator with stroke recognition.
- Precise, continuous flow adjustment.
- Maximises energy efficiency.
- Available in different configuration (bus, relay, fail-safe).

3-point

TA-TRI

- Ideal for mixing circuit.
- Easy and quick to install.
- Available in 24VAC and 230VAC.

Key features

5 YEAR WARRANTY*

Easy to Install, Set and Adjust

Pipe connections for all customer requirements, Visibility of the settings even when the actuator is mounted, Ergonomic handwheel.

Dual-Membrane Technology

Best P-Band hysteresis in the market, Low minimal differential pressure and unmatched proportional band.

Tackling Dirt with Advanced Technology

TA-Nano minimizes the impact of debris in the system, preventing clogging and ensuring uninterrupted operation. In addition, TA-Nano plus has a flushing capability.

Proven Durability: Over 150,000 Cycles

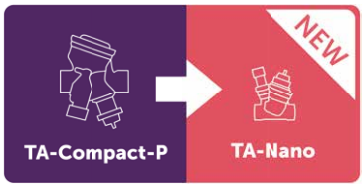
TA-Nano is robust and will withstand even the most challenging system conditions.

* Conditions apply. For more information please contact your local IMI representative.

Dual-Membrane Technology

Thanks to its dual membrane technology, TA-Nano can withstand even the most challenging system conditions while guaranteeing a low pump head and a low hysteresis. This feature further adds to the TA-Nano's contribution to meeting big goals such as certification targets and energy efficiency.

The dual membrane technology consists of an inner soft and sensitive membrane and an outer hard membrane reinforced with fiber. The hard outer membrane supports pressures up to 6 bar. This solution offers the possibility for a very low hysteresis and excellent differential pressure controller proportional band while offering robust resistance to higher system differential pressure.



TA-Nano
- the evolution of TA-Compact-P

The smallest valve for the most **powerful results.**

TA-Nano replaces the existing TA-Compact-P solution, bringing new features and improvements to address the evolving demands of HVAC designers and installers in the market.

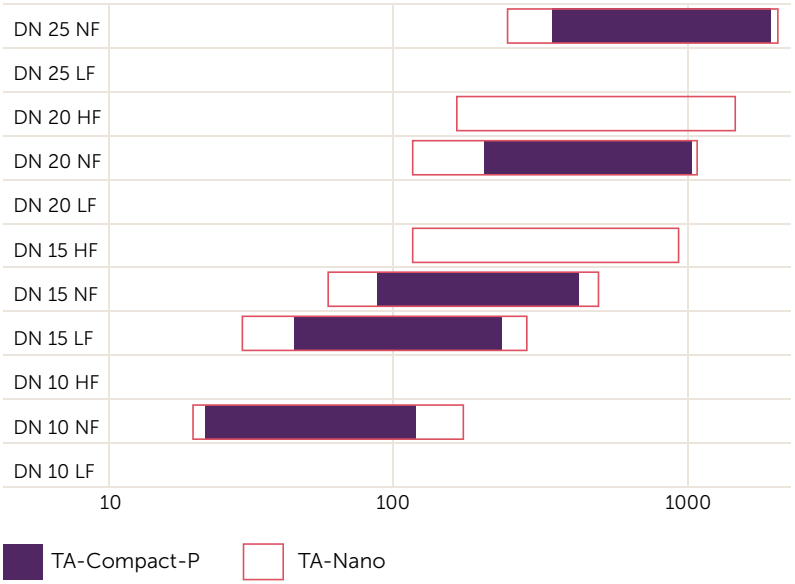
By building on the success of its predecessor, the new TA-Nano valve sets a new standard in compact, efficient PIBCV design. Smaller and lighter than the TA-Compact-P, it is easier to install, set up, and control.

TA-Nano is available in DN10-25 with Low Flow, Normal Flow or High Flow options, covering flows from 18-2300 l/h up to 6 bars differential pressure. It offers a wide range of connection possibilities, including internal and external threads, to fit all your piping configurations.

	TA-Compact-P*	TA-Nano* NEW
Year	2014	2025
Weight (g)	520	**468**
Measuring points	with	**with+without**
Thread	EXT	EXT + **INT**
Length (mm)	74	**70**
Height (mm)	110	**85**
Pressure class	PN16	**PN25**
Max. diff. pressure (kPa)	400	**600**
Min. diff. pressure (kPa)	15	15
Q set min (% q nom)	20	10
Temperature range (°C)	-10 to 90	**-10 to 120**
Leakage rate (EN 60534-4)	Class IV	**Class IV**
Flushing	Yes	Yes
P1, P2 measurement	Yes	Yes
Delta H measurement	Yes	Yes
Resistance to dirt	Yes	Yes
Pre-setting	Pre-set top	Pre-set top
View of pre-setting		**Side bonnet**

* Reference DN15

Broader Flow Range



Broad portfolio to fit all types of applications

	TA-Nano							TA-Nano Plus						
	DN10	DN15LF	DN15NF	DN15HF	DN20NF	DN20HF	DN25	DN10	DN15LF	DN15NF	DN15HF	DN20NF	DN20HF	DN25
EXT-EXT														
INT-INT	⊗							⊗						
NPT INT	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗						

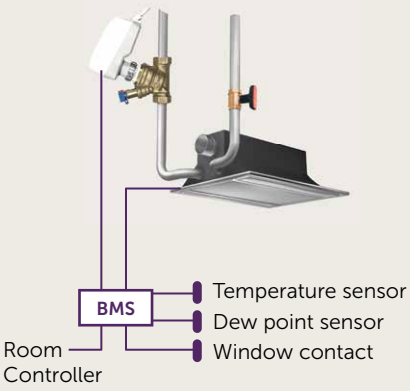
Applications

FAN-COILS

TA-Nano
+ EMO-T

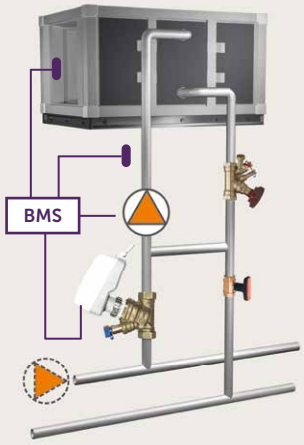
CHILLED BEAMS

TA-Nano
+ TA-Slider 160



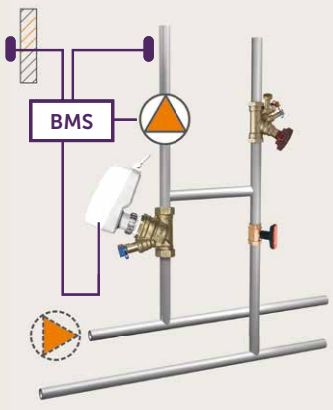
AIR HANDLING UNITS

TA-Nano
+ TA-Slider 160



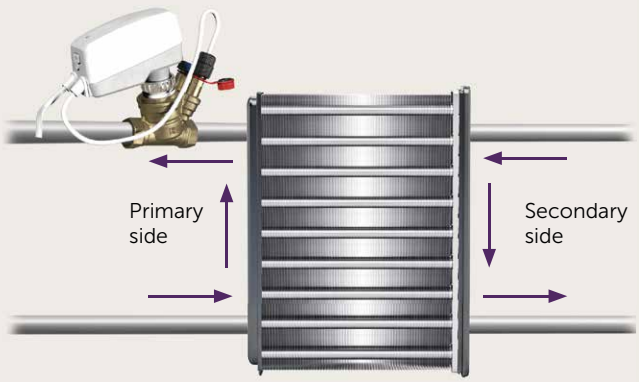
PRESSURE INDEPENDENT MIXING CIRCUITS

TA-Nano
+ TA-Slider 160



HEAT EXCHANGER

TA-Nano
+ TA-Slider 160 T



Complete Control for Every Corner of Your HVAC System

At IMI, we offer a broad range of solutions designed to optimise the performance, efficiency, and comfort of your HVAC system. From balancing valves and pressure-independent balancing control valves (PIBCVs) to advanced pressurisation equipment, our products ensure precise control of flow rates and temperatures, energy-efficient operation, and reliable system performance.

Balancing

Ensure a well-balanced hydronic system.

Heating & Cooling Controls

Integrated control systems for Heating and Cooling at homes.

Pressure Independent Balancing and Control Valves (PIBCVs)

Optimise energy efficiency and system performance by maintaining precise flow rates, ensuring consistent comfort.

Pressurisation & Water Quality

Provide the right amount of pressure in the system at the right time ensuring that the water remains free of air, gas, dirt and magnetite

Control & Actuation

Control water flow with smart control valves and digitally configurable actuators.