Tracer[™] ZN523

Zone Controls

TRANE





Trane Zone Controls technology is the result of our worldwide experience in building comfort management and our commitment to continued product improvement. ZN523 zone controller is a unique solution designed to meet all our customers' space comfort needs:

- Application flexibility
- Scalable system design
- Temperature control
- Acoustic comfort
- Energy efficiency
- Easy installation
- Quick Return On Investment





ZN523 Zone controller





Trane Zone Controls Solution







Application flexibility

Trane Zone Controls solution has been specially designed to suit demanding needs in terms of quality and flexibility for hotels and office buildings.

ZN523 can be used to control water terminal units such as fan coil units, fan convectors, chilled beams or ceilings. It can control 2-pipe or 4-pipe units, with or without electric heaters. It can optimize performance with either 3-wire or hot wax valve actuators.

Modular system to fit your exact building requirements

Scalable zone control

controller

Trane Zone Controls technology offers a solution to control space comfort for temperature, noise, and lighting conditions.

Ancillary devices are available to control two lighting circuits and two sunblinds.

An extensive range of wall controls is available, with or without digital display, to meet all application needs.

Reliable systems for a lot more than 'just HVAC' solutions



Temperature control

Trane Zone Controls System uses cascade control based on room and discharge air temperature measure and monitoring. This system eliminates uncomfortable 'hot/cold shower' feelings.

ZN523 also integrates an automatic changeover solution based on entering coil water temperature, allowing smooth temperature transition, unperceivable to users.

Building zone comfort at all times



fan/valve opening algorithm



ZN523 mounted on water terminal unit

Energy efficiency

Trane Zone Controls can generate substantial electricity savings:

- Fan speed optimization resulting in up to 22% energy savings in fan operating costs.
- Random start limits power up demand.
- Demand limiting of electric heaters allows users to avoid peak time tariff periods.
- A window contact switches off the zone heating/cooling unit when a window is opened.

When used with Trane Tracer Summit[®] user interface, ZN523 indicates the electric heater running time.

Reduction of your building operating costs

Easy installation

Trane Zone Controls can be factory mounted to drastically reduce on site commissioning time and coordination efforts. Your HVAC unit is delivered with controller and accessories mounted, wired and tested.

Trane Zone Controls further reduces commissioning time by integrating a 230 V AC power supply, a direct drive of 230 V AC fan motors, valve actuators and solid state relays.

Removable terminal blocks and DIN rail mounting also reduce installation time. Water balancing and commissioning is aided by a power up function that overrides normal operation.

Lower installation time, costs, and risks

Acoustic control

The intelligent fan speed control function ensures that up to 65% of nominal capacity is available at low fan speed, reducing noise pollution.

ZN523 zone control also allows for fan cycling which turns the fan to the off position whenever the zone temperature is at comfort level.

A quiet working environment



Typical ZN523 factory mounting (metal cover removed)

Comprehensive service offer

Trane offers a wide range of services to support its products in the field including on-site maintenance and supply of spare parts.

Extended service for a constant optimization of your building performance

Model	ZN523	EXL	EXB
	(Water terminal controller)	(Light controller)	(Sunblind controller)
Power supply	230 V AC	230 V AC	230 V AC
Mounting	Din Rail	Din Rail	Din Rail
Size (LxHxW)	132 x 120 x 44	132 x 120 x 44	132 x 120 x 44
Binary inputs	3	None	None
Analog inputs	3	None	None
Binary outputs	8	2	2
B.O. rating / Type	230 V AC:		
	3 x Fan (Relay 3A)	230 V AC:	230 V AC:
	4x Valve actuators (Triacs: 0,3A) 1 x Elec heat (Relay 16A)	2 x lights circuits (Relays: 2 x 5A)	2 x blinds circuits (Relays: 2 x 5A)
Communication protocol	LonTalk®	ZN523 sub network	ZN523 sub network
Network Topology	FTT-10A	1 device per ZN523	1 device per ZN523
LonMark Profile	SCC 8501	NA	NA
Agency listing / compliance	Immunity EN 50082-1: 1997 - EN 50082-2: 1995 Emissions EN 50081-1: 1992 IP20 Compliant		



www.trane.com

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