Rack Monitoring Configuration Comparison

SynapSense® Wireless Monitoring and Cooling Control Solution provides four main configurations for monitoring racks. Each configuration enables different product features and will meet the diverse needs of data center operators, their goals and requirements.

	EZH 3/1	EZH 2/1	EZH 1/1	EZ 1/1
Sense Points	5	4	3	2
LiveImaging™ Layers	5	4	3	2
Top Temperature	Full	Full	Full	Full
Middle Temperature	Intake only	Intake only	None	None
Bottom Temperature	Intake only	None	None	None
Control Temperature	Full	Full	Full	Full
Relative Humidity	Full	Full	Full	None
Dew Point	Full	Full	Full	None
Subfloor Temperature	With sub-floor node	With sub-floor node	With sub-floor node	With sub-floor node
Humidity Sensor	Included	Included	Included	None
Rack Subfloor Temperature	With sub-floor node	With sub-floor node	With sub-floor node	With sub-floor node
Active Control™ Support	Included	Included	Included	Included
ASHRAE Rack Intake Data	Included	Included	None	None
Dew Point Metric	Included	Included	Included	None
RMI Hi/Lo	Included	Included	Included	None
RCI Hi/Lo*	Best	Better	Good	Good
Recirculation Air Metric*	Best	Better	Good	Good
Bypass Air Metric*	Best	Better	Good	Good
Average Rack Intake Temp	Best	Better	Good	Good
Air Flow Management Data	Best	Better	Good	Good
Rack Intake Alerts	Best	Better	Good	Good
Stratification Alerts	Best	Good	None	None
Physical Maintenance	Better	Better	Best	Best
Initial Hardware Cost	Good	Better	Best	Best

Main considerations are meeting air flow management needs like RCI or fully-populated LiveImaging™ layers, physical maintenance costs, if the data center is highly dynamic and price sensitivity.
All configurations support the Active Control™ feature of SynapSoft® software up to version 7.0.

EZH 3/1 – ASHRAE intake configuration and one top exhaust
Highest initial hardware investment
Calculates RCI Hi/Lo metrics
Supports all ASHRAE rack intake metrics
Detailed rack intake alerts
Supports Active Control
Top temperature and humidity LiveImaging – middle and bottom layer for intake side only
RMI (Rack moisture index) and dew point calculated
Relative humidity and dew point monitoring and alerts
Highly accurate average rack intake temperature
Good physical maintenance costs

EZH 2/1 – ASHRAE intake configuration minimal and one top exhaust
Modest initial hardware investment
Calculates RCI Hi/Lo metrics
Supports reduced ASHRAE rack intake metrics
Detailed rack intake alerts
Supports Active Control
Top temperature and humidity LiveImaging – middle layer for intake side only
RMI (Rack moisture index) and dew point calculated
Relative humidity and dew point monitoring and alerts
Highly accurate average rack intake temperature
Low physical maintenance costs

EZH 1/1 – Single top intake and one or fewer top exhaust
Low initial hardware investment
Supports Active Control
Top temperature and humidity LiveImaging
RMI (Rack moisture index) and dew point calculated
Relative humidity and dew point monitoring and alerts
Simple rack intake alerts capable
Lowest physical maintenance costs

EZH 1/1 – Single top intake and one or fewer top exhaust
Low initial hardware investment
Supports Active Control
Top temperature LiveImaging
Simple rack intake alerts capable
Lowest physical maintenance costs