



Features and Highlights

BACnet-compliant on MS/TP LAN at up to 76.8 Kbps.

Flexible programming capabilities.

Non-volatile memory requires no battery.

Software-configurable inputs and outputs.

Selection of six controllers to choose the appropriate I/O point count for any building.



Trend Control Systems IQeco product line features fully programmable unitary controllers that communicate with other IQeco controllers over the BACnet® MS/TP network and with IQ networking devices through Trend's IQ3xact BACnet Internetwork Node Controller (BINC). The IQeco offers an optional actuator and pressure sensor for use as a VAV controller. The IQeco product family has flexible I/O ranging from 10 to 18 programmable points. The available types include universal inputs, digital outputs and analog outputs.

The IQeco VAV versions come with a pre-loaded strategy that allows for efficient engineering and commissioning; however, all IQeco products are programmable with the Trend SET tool allowing a Trend Technology Center to customize the controller to meet the functional requirements of the customer's building.

The IQeco communicates over an MS/TP LAN so it operates as a fully-functioning BACnet unitary controller and, with the IQ3xact BINC, easily integrates with the building energy management system (BEMS).

Six versions of the IQeco BACnet controller provide a choice I/O point counts and strategies to fit any building's need.

Technical Data

- **Power:** 24 VAC+/-15%, 50/60 Hz, at up to 97 VA. The 24 VAC uses a half wave rectifier internal power supply unit. This enables multiple controllers with half-wave power supplies to be powered from a single grounded transformer but the supply polarity must be maintained across all units supplied from the same transformer.

Device	Digital Inputs	Thermistor Inputs	Universal Inputs	Analog Outputs	Triac Outputs	Relay Outputs	On-Board Pressure	On-Board Actuator	I/O Total
IQeco31	1	2	1	1	4	1	0	0	10
IQeco35	2	3	3	1	4	4	0	0	16
IQeco38	2	3	4	4	4	1	0	0	18
IQeco39	0	0	7	4	4	2	0	0	17
IQecoVAV P	0	0	4 *	2	4	2	1	0	13
IQecoVAV P A	0	0	4 *	2	2	2	1	1	14

*Note, one of the universal inputs on the IQecoVAV can only be selected for Thermistor or voltage.

- **Actuator Torque Rating:** 44 lb-in. or 5 nm.
- **Pressure Sensor:** 1.50" water column differential pressure sensor.
- **Processor & Memory:** Powerful 32-bit processor with extensive flash memory and RAM resources. Flash memory provides nonvolatile program and data storage, and allows for encrypted updates to the program for future product enhancements.
- **Dimensions:**
 IQeco31: 170 mm (6.69 in) x 89 mm (3.5 in) x 45 mm (1.77 in)
 IQeco35 and IQeco38: 205 mm (8.07 in) x 129 mm (5.08 in) x 63mm (2.48 in)
 IQeco39 and IQecoVAV P: 174 mm (6.84 in) x 159 mm (6.27 in) x 58 mm (2.25 in)
 IQecoVAV P A: 262 mm (10.315 in) x 159 mm (6.27 in) x 58 mm (2.25 in)
- **Terminators:** 18 AWG (0.82 mm) tinned copper shielded twisted pair cable with characteristic impedance between 100 and 120 Ohms.
- **Environmental:** Residential, commercial and light-industrial environments. 32-122 deg. F (0-50 deg. C). 0-95% RH, non-condensing.
- **Ratings:** UL 916 3rd Edition, Listed- Open Energy Management Equipment (PAZX). Listing includes U.S. and Canadian certification. FCC Part 15, Class B.
- **Communications:** BACnet MS/TP LAN up to 76.8 Kbps.

Trend Control Systems

Ordering Information

Product number	Description
IQE31-1201U50034	IQE31/P/BAC/NOSTRATEGY/24VAC- IQeco31 with 24 VAC input power supply fully programmable.
IQE35-1201U50035	IQE35/P/BAC/NOSTRATEGY/24VAC- IQeco35 with 24 VAC input power supply fully programmable.
IQE38-1201U50036	IQE38/P/BAC/NOSTRATEGY/24VAC- IQeco38 with 24 VAC input power supply fully programmable.
IQE39-3001K50210	IQECO39/BAC/PR/USA/24VAC- IQECO39, BACnet Comms, Programmable but shipped without a strategy, 24 Volt
IQEVA-3701K51210	IQECO VAV/VAV/BAC/P/PR/USA/24VAC- IQeco VAV shipped with a DegF VAV Strategy insidee, BACnet Comms, Pressure Sensor fitted (No Actuator), Programmable, 24 Volt
IQEVA-3701K52210	IQECO VAV/VAV/BAC/PA/PR/USA/24VAC- IQeco VAV shipped with a DegF strategy inside, BACnet Comms, Pressure Sensor and Actuator fitted, Programmable, 24 Volt

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