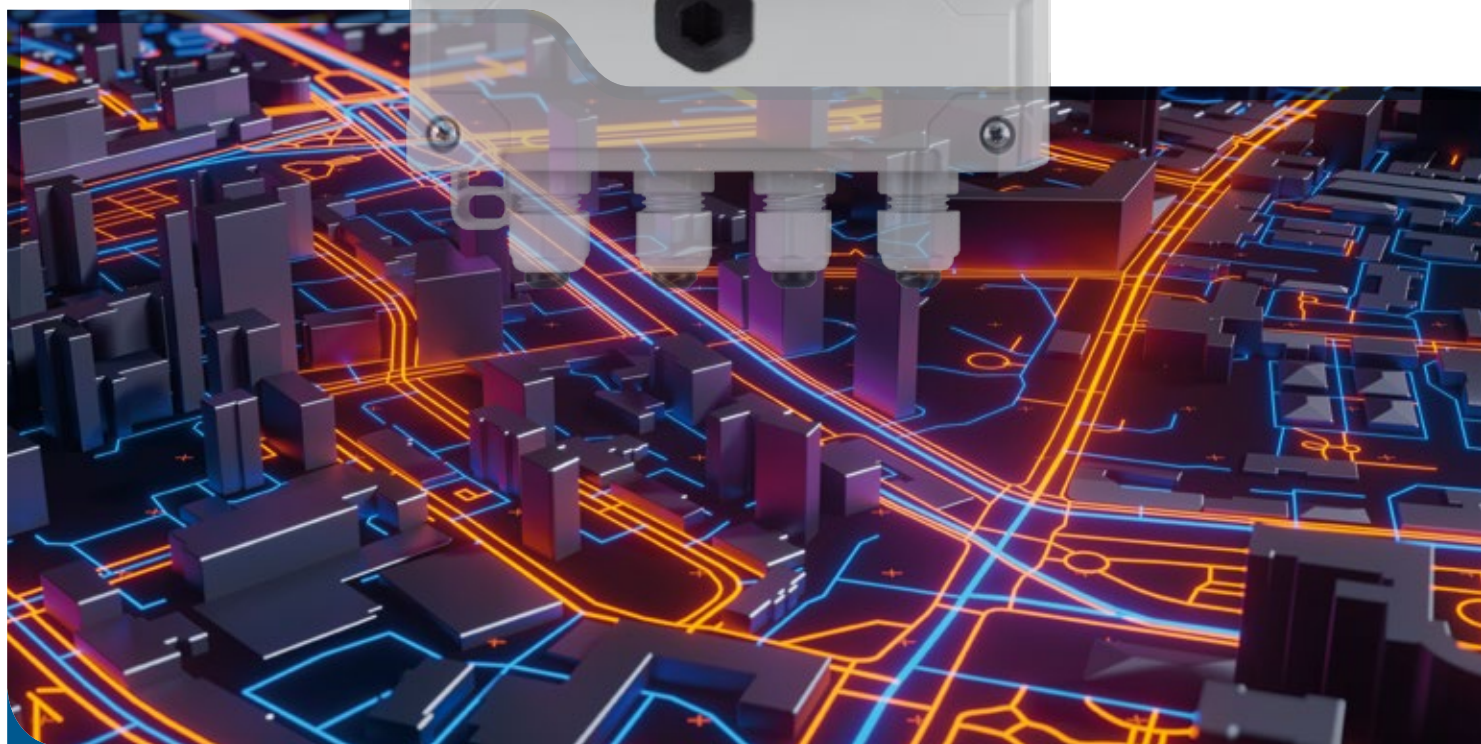


MV311

THERMAL ENERGY CALCULATOR AND P.I. CONTROLLER



Glycol coefficient approved MI004 - Up to 3 protocols simultaneously - Proportional Integral controller

ISO NRG[®]
Managing energy

KEY FEATURES

EN1434 and MID - **MI004** - 2014/32/EU also for water and **glycol mixtures**

Compatible with **any flow meter** technology

Suitable for both **new** and **retrofit systems**

Proportional integral control

Up to **3 simultaneous protocols**

Configurable in stand-alone mode via usb

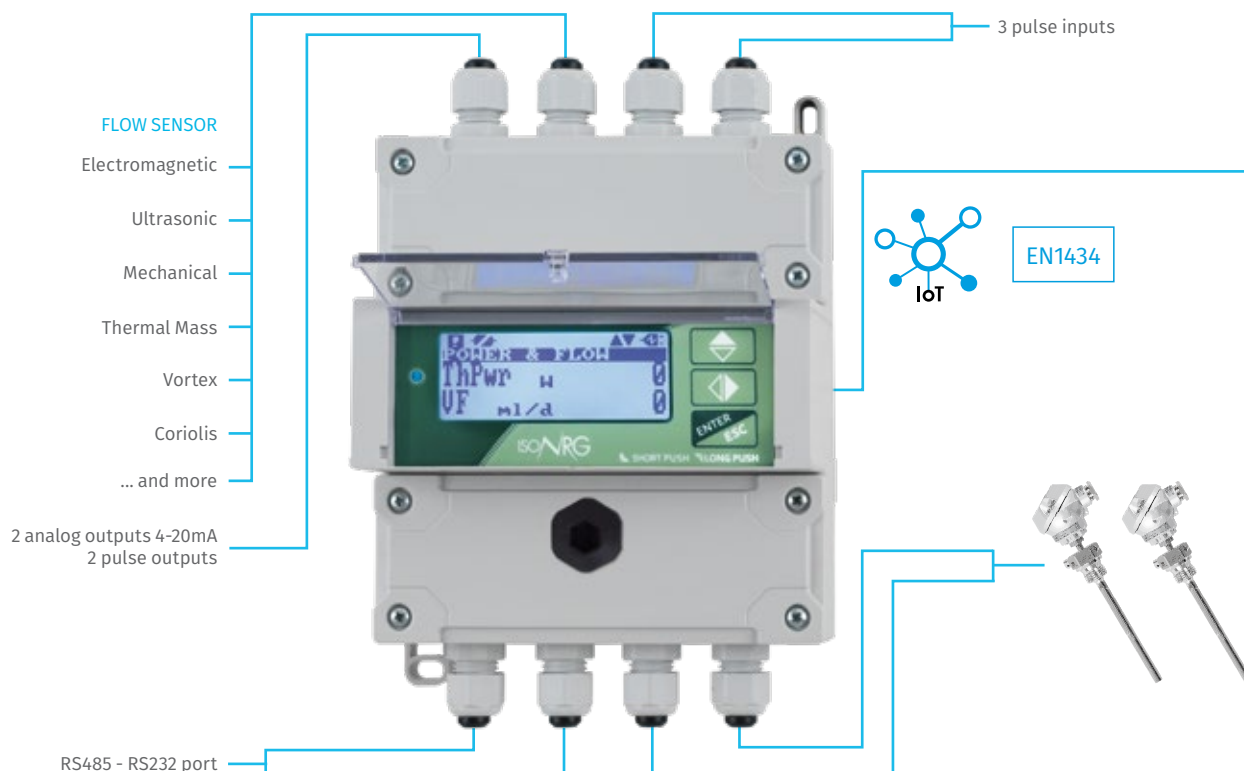
4GB – data, event and alarm **logger**

Long range multicolor led status indicator

Ethernet connection (IP65)

PoE (power supply over ethernet)

Webserver and FTPServer connections can be protected with password and cryptography TLS 1.2 (*optional*)



HVAC & R



- Energy measurement and distribution
- Energy efficiency
- Custody Transfer
- Co and Tri-generation
- Hot and chilled water
- Data Center
- District heating
- Building Automation

Application

Designed for industrial applications, the MV311 energy calculator offers unparalleled flexibility thanks to the **"Quick Setup"** function with multiple unique options. It delivers fast calculations, precise measurements, and exceptional **ease of use**. Engineered for high-accuracy applications in both **heating and cooling systems**.

MV311 I/O MODULES AND CERTIFICATIONS

PROTOCOLS

BACnet M-Bus Modbus

PULSES

4-20mA

CERTIFICATIONS





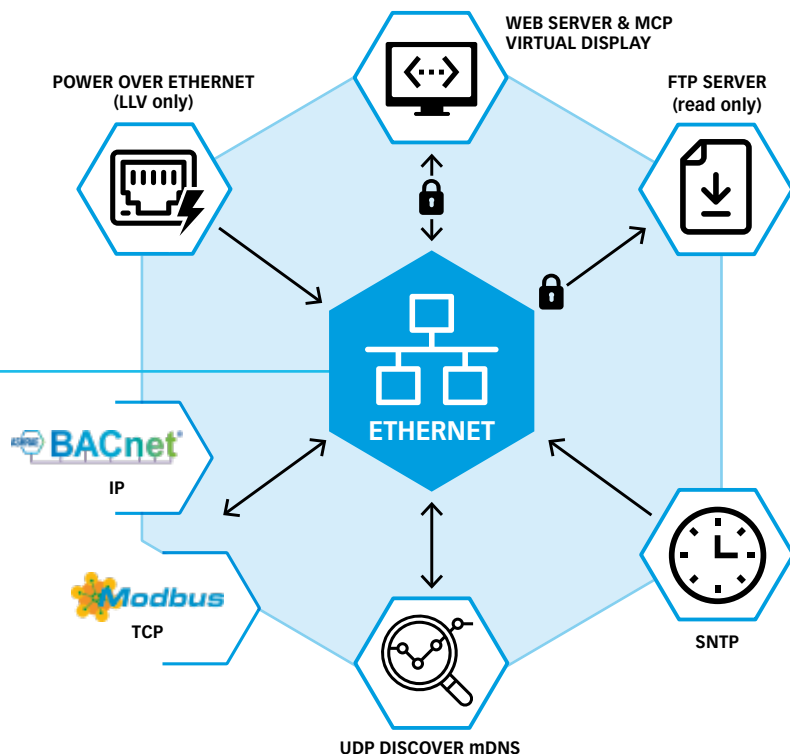
MV311 ENERGY CALCULATOR

PoE and Ethernet services

The **PoE** (Power over Ethernet) option enables both power supply and **communication protocol** transmission over the **same RJ45 cable**.

Glycol

Advanced calculation for water and glycol mixture, both ethylene and polypropylene **up to 40%** concentration, according to EN1434 and **MID certified 2014/32/EU - MI004**.

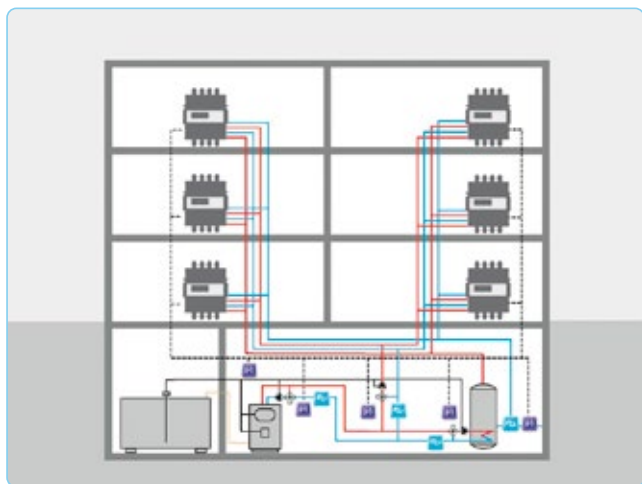


QUICK SETUP FUNCTION

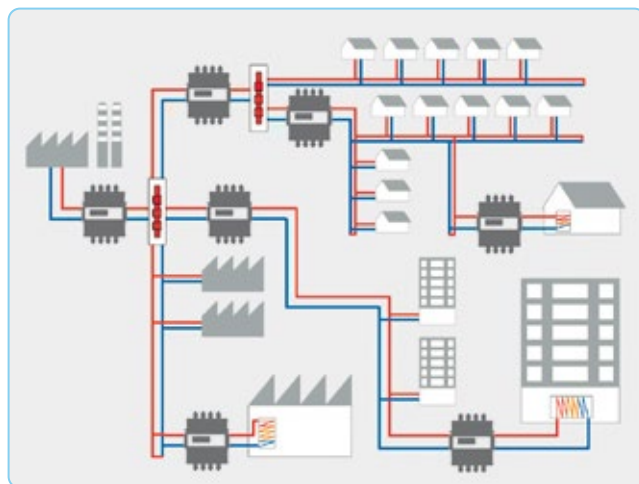
A unique function that guides the user through an initial configuration menu by changing the editable parameters. At the end of the menu the energy calculator is sealed compliant with the indications of the MID Directive.

Memory

The MV311 calculator can include a **4GB memory** that allows **1 second interval recording** of all measured values, alarms, and events. Stored data can be transferred and processed through the freely available MCP management software. With a storage **frequency of 15 minutes** the memory capacity is **over 50 years**.



Typical application: building automation (commercial, offices, shopping malls, airports, large residential buildings...).



Typical application: building automation for complete districts or facilities.

TECHNICAL FEATURES

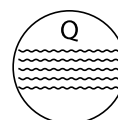
Power supply	24-36Vac; 45-66Vdc, 110-240Vac, PoE Backup battery
Protection rate	IP65
Temperature probes	PT100, PT500, and PT1000
Temperature probes connections	2 or 4 wires
Digital inputs	4 (one for thermal vector)

Analog input	1 (only for thermal vector)
Digital outputs	2
Analog outputs	2
Memory	4Gb as option
Accuracy system	$0.20\% * (0.18 + \Delta\theta_{min} / \Delta\theta)$

MV311 SMART CONTROL



The new **ISONRG MV311 SMART CONTROL** can have different and **freely programmable regulation variables** which are used to keep control according to a precise command hierarchy. Variables and **set points** can be **programmed** by the user or the **BMS** to meet specific application requirements.



Flowrate



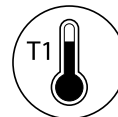
Thermal Power



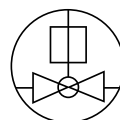
Temperature Difference



Return temperature - T2



Supply temperature - T1



TEMPERATURE PROBES

DSPPS

TECHNICAL FEATURES

Class	B
Approval	MID MI004

Ball valve

Pocket
(85 mm, 120 mm, 210 mm)

PL

TECHNICAL FEATURES

Class	A
Approval	MID MI004

Pocket
(85 mm, 120 mm, 210 mm)
www.isoil.it

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