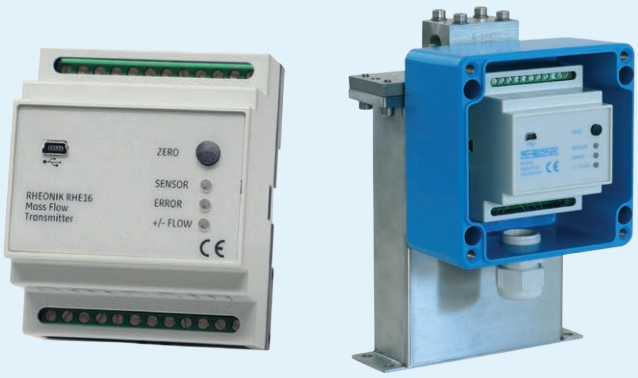


RHE16

Compact Multifunction Coriolis Flow Meter Transmitter

Features

- Extremely compact footprint – ideal for embedding into small systems and machines
- Mount remotely or in compact form
- Low installation cost
- High accuracy measurement through state-of-the-art signal processing
- Fully featured MODBUS communication with fast update rate
- 4-20 mA output
- Dual pulse outputs up to 10 kHz
- Low power consumption (< 3W)
- DIN rail mounting for easy integration in control cabinets and enclosures
- Front panel LED's give real time measurement status
- RHE16COM PC software for simple configuration, setup, trending, data logging and diagnostics
- Multifunction – mass, volume, density and temperature measurement

Applications

Typical applications include:

- Pump control for blending / mixing of liquids
- Fast filling of liquids and gases
- Additive Dosing
- General flow control
- Dispensing

Benefits

- USB connection for configuration and maintenance
- Easy access electrical and signal terminals
- Supports multi-drop MODBUS-over-RS485 for multiple unit communication
- Connects and operates with all Rheonik RHM Mass Flow Sensors
- Compact mount version for cost and time effective installation
- Version for installation in ATEX Zone 2 available

RHE16 General Specifications

Measurements:	Mass flow, volumetric flow, density, temperature
Totalizers:	Forward, reverse, net (mass flow and volumetric flow)
Units:	Configurable in both ANSI and metric units
Enclosure Type:	IP20 / IP66 as compact version
Enclosure Material:	Plastic (PC / PPO)
Electrical Connections:	12 dedicated terminals for mass flow sensor connection (remote mount) 12 terminals for power and I/O
Temperature Limits:	Operating: -20 to 60°C / -4 to 140°F Storage: -40 to 85°C / -40 to 185°F
Max. Humidity:	95% non-condensing
Vibration:	Compliant to: IEC60068-2-6, 60068-2-27, 60068-2-32
Power:	12 to 28 VDC, 3W
Communications:	One mini USB (type B) service port (galvanically isolated) One MODBUS via RS 485 port (fully isolated, 2 wire connection)
Input:	Any Rheonik RHM mass flow sensor
Outputs:	Two user programmable pulse, double pulse, frequency (galvanically isolated) Two user programmable status outputs (galvanically isolated) One user programmable active 4-20 mA
RHECom Software:	Fully featured configuration and diagnostic software package supplied with each RHE16 transmitter. Functions include: configuration, diagnostics, data logging and data trending plus transmitter maintenance functions such as firmware update and tag number storage
Hazardous Area:	ATEX rating Zone 2: Ex II 3 G Ex nA IIC T4 Gc - only as compact version
Weight:	0.19kg / 0.45lb
Packing:	Packing size (H x W x D): 70 x 120 x 95mm / 2.75 x 4.72 x 3.74 inch Total weight incl. packing: 0.23kg / 0.52lb

Hazardous Area Installation Overview

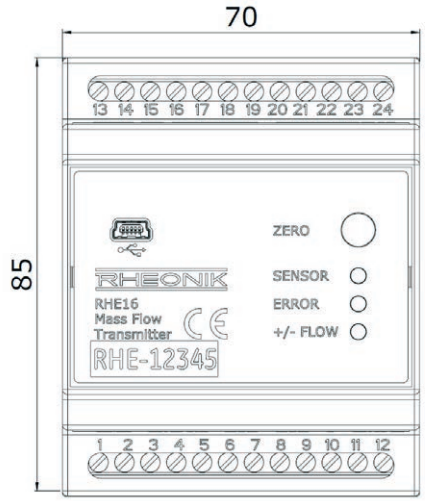
Zone 0/1	ATEX Zone 2	Safe Area
		
N/A	Part Number Code A2	Part Number Code NN

RHECom Configuration Software

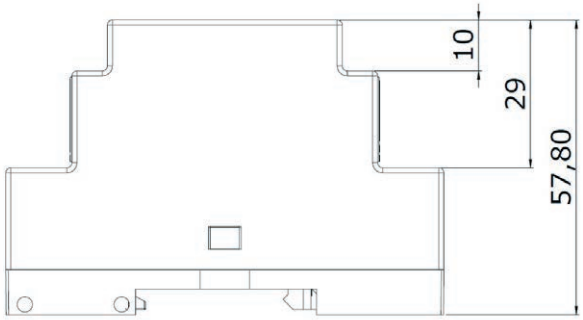
RHECom is a simple-to-use PC interface used for configuration and diagnostic review purposes. Its intuitive dashboard provides a fast, visual snapshot of instrument condition and performance and shortcut access to main functions. Behind the dashboard is detailed access to the comprehensive set of in-depth configuration and diagnostic functions within the RHE16 designed to provide the utmost in flexibility across the widest possible set of applications. Usability functions such as data logging and data trending are included in RHECom to further enhance the use of the mass flow meter in plant and pilot applications. Connection to the transmitter is via a mini-USB connection direct to PC or through dedicated screw terminals on the transmitter.

RHE16 Dimensions

Top View



Side View



RHE16 Part Number Code

Construction Type

T1 Remote Standard - DIN Rail Mount IP20 for sensors RHM015 up to RHM60

T2 Remote Premium - DIN Rail Mount IP20 for sensors RHM80 up to RHM160

C1 Compact Standard - RHE16 Mount inside terminal box of RHM015 up to RHM60

C2 Compact Premium - RHE16 Mount inside terminal box of RHM80 up to RHM160

Supply Voltage

D1 12 to 28 VDC

Software Function Package

MN Modbus via RS 485 galvancially isolated - Standard OP system

MD Modbus via RS 485 galvancially isolated - Density Measurement OP system

I/O Configuration

NN RS 485 (Modbus) - no discrete outputs

AN As above + 4 Digital Outp. (programmable - pulse, double pulse, error, set-points)

BN As above + 1 analog 4-20 mA (flow or temperature or density)

Hazardous Area Certifcation

NN Without

A2 ATEX rating Ex II 3G Ex nA IIC T4 Gc for zone 2 (only for Compact Mount C1, C2)

Measurement Certification

NN Without

Options for RHE16

NNN None / All standard

RHE16		D1				NN	NNN

RHE16 Accessories

Part Number	Description
ARHE16-RS	Mini-USB to USB PC interconnection cable – 5m
ARHE16-SO	RHE16COM PC software on USB memory stick
ARHE16-PW	DIN rail mount power supply module 85-250VAC to 240VDC, 15W
ARHE16-C5	Rheonik mass flow sensor-transmitter interconnection cable (specify length)

RHE16 Compact Mount

The RHE16 can be supplied preinstalled in a local electrical box mounted on any RHM flow sensor. Neat and convenient, the unit has a tiny footprint and represents installation savings. For high and low temperature applications, the electrical box is set off of the sensor body (only for sensors RHM06 and larger) to protect the transmitter from temperature extremes and to allow for the sensor to be fully insulated. Compact mount versions can be installed in ATEX Zone 2 areas. See RHM sensor data sheets for full dimensions and ordering details.

Flow Sensor Range

Some of the many RHM mass flow sensors available

The RHM range of mass flow sensors features

Line sizes	From DN6 to DN300 / ¼" to 12"
Pressure ratings	Up to 1637 bar / 23743 psi
Temperature ratings	From -200°C to 350°C / -328°C to 662°F
Wetted materials	Stainless Steel, Alloy C22, Duplex, Super Duplex, Tantalum, Others

The RHE16 can be connected to all RHM Flow Sensors for a high performance measurement.

For specific details on any size of meter, please see the relevant specification sheet.

About Rheonik

Rheonik has the single purpose: to design and manufacture the very best Coriolis meters available. Our research and engineering resources are dedicated to finding new and better ways to provide cost effective accurate mass flow solutions. Our manufacturing group care for each and every meter we produce from raw materials all the way to shipping and our service and support group are available to help you specify, integrate, start-up and maintain each and every Rheonik meter you have in service. Whether you own just one meter or have hundreds, you will never be just another customer to us, you are a valued partner. Need a special configuration for your plant – don't compromise with a "standard" product from elsewhere, if we can't configure it from our regular product range, we can build you what you need as a custom meter.

Rheonik only make Coriolis meters – we are **The Coriolis Experts** – contact us for all of your Coriolis meter requirements.