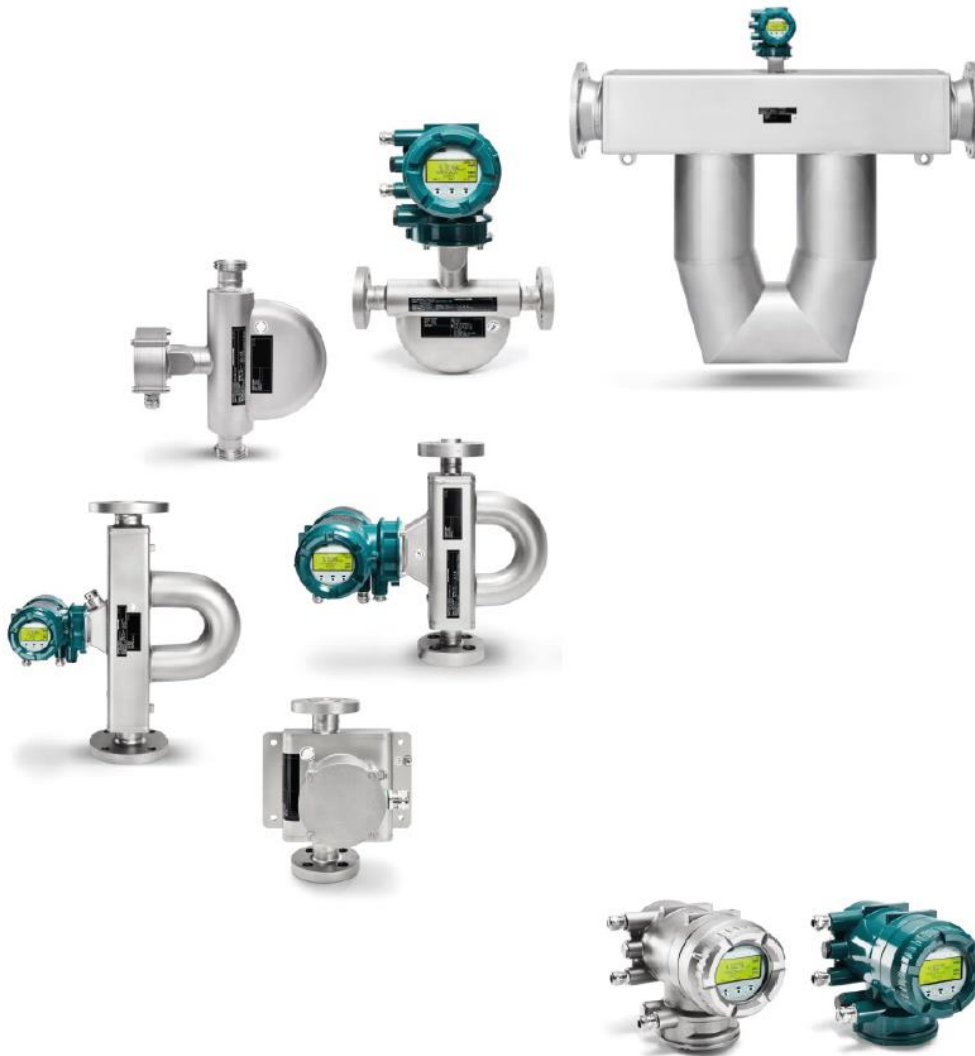


# General Specifications

GS 01U10B00-12EN-R

## ROTAMASS Total Insight Coriolis Mass Flow and Density Meter Addendum to General Specifications for PROFINET over APL



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# 1 Introduction

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## 1.1 General information

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This document is an addendum to the the General Specification as defined below. It describes the differences of the delivered product compared to the applicable specification that specifies standard devices of ROTAMASS Total Insight series. The deviations could be model code related, design or configuration only and are described on the next pages.

## 1.2 Applicable documents

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The following table indicates documents chapters supplemented with this addendum:

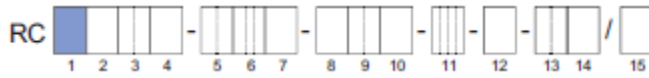
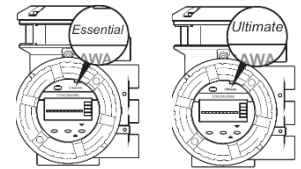
Original Document			Addendum
Title	Number	Chapter	Chapter
General Specifications Overview	GS01U10B00-00_ _ -R	3.1	2 Transmitter
General Specifications Nano, Supreme, Giga, Prime, Intense, Hygienic	GS01U10B01-00_ _ -R to GS01U10B06-00_ _ -R	1.4	2 Transmitter
		6.1	3.1 Electrical interfaces
		(6.2.7) <sup>1</sup>	3.2 PROFINET over APL
		7	4 Approvals
		8	5 Ordering information

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<sup>1</sup> New chapter, not yet existing

## 2 Transmitter

The sensor can be combined with different transmitters. The transmitter type is visible in the indicator.



Model code position 1	Transmitter type	Description	Communication Interfaces
E	Essential	Basic functions	HART, Modbus
U	Ultimate	Advanced functions	HART, Modbus, PROFIBUS PA, FOUNDATION Fieldbus, PROFINET over APL

### Advanced functions and Features on Demand (FOD)

Functional Scope	Communication interface
	PROFINET over APL
Standard concentration measurement	●
Advanced concentration measurement	●
Net Oil Computing (NOC)	●
Tube Health Check	●
Batching function	–
Viscosity function	●
Calorific measurement	●

Meaning of "–": Not available

Meaning of "●": Available

To order these functions refer to the related general specifications for FOD functions (GS01U10B00-00\_ \_-R).

## 3 Electrical Specification

### 3.1 Electrical interfaces

Model code position 13	Interface protocol	IO1 +/-	IO2 +/-	IO3 +/-	IO4 +/-
T3 <sup>1</sup>	PROFINET over APL	PROFINET over APL	PROFINET over APL Shield (+)	Passive Pulse Output	-

Details about inputs, outputs and communication interfaces are specified in the following chapters.

### 3.2 PROFINET over APL

PROFINET over APL interface is available with intrinsically safety. Intrinsically safe outputs are only available in combination with selecting Ex approval of the device.

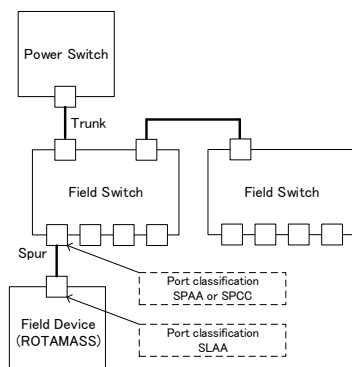
Model code position 13	Connection terminal assignment				
	I/O1 +/-	I/O2 +/-	I/O3 +/-	I/O4 +/-	WP
T3 <sup>1</sup>	PROFINET over APL	PROFINET over APL Shield (+)	Pulse Passive	-	-

#### Output signal

Digital communication signal according to IEC IEEE802.3cg (10BASE-T1L: Single Pair Ethernet). Electrical specification according to port profile class SLAA.

Electrical characteristics parameter	Value
Power supply	9 to 15 VDC
Current draw (max)	20 to 55.56 mA
Power load (max)	0.5W

For Ethernet-APL connection, it must comply with power class matching. Maximum voltage and correct polarity must be observed for wiring. Port profile SLAA can be connected either to a field switch port with classification SPAA or SPCC.



<sup>1</sup> Only with Ultimate Transmitter

## Supported Functions

- Conformance Class B (CC-B PA), including
  - Network diagnostics function
  - S2 redundancy
- Self-Monitoring and Diagnosis of Field Devices (NE 107)
- Profile PA Rev. 4.02
- Webserver supporting real-time monitoring and parameter configuration
- Update period: Minimum 16ms

Function Blocks		Description
Analog Input <sup>1</sup>	AI1	Mass flow
	AI2	Density
	AI3	Temperature
	AI4	Volume flow
	AI5	Reference density
	AI6	Corrected volume flow
Totalizer <sup>1</sup>	TOT1	Mass
	TOT2	Volume
	TOT3	Corrected volume
Analog Output <sup>2</sup>	AO	Pressure

Manufacturer ID	Device-ID	Description
0x0037	0x0300	Rotamass TI
0xF100	0xB333	Coriolis mass flowmeter

Meaning of "●": available

## Security

The device is supported as covered only if it is installed and used in a control and field network. The operator must be responsible for the IT security of the equipment connected to the device and the device must not be connected to the IT network. Parameter settings can also be locked by either software write protection or hardware write protection.

<sup>1</sup> Factory default setting. Assignment can be changed by parameter "Input selector".

<sup>2</sup> Factory default setting. Assignment can be changed by parameter "Flow units" and "External function"

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## 4 Approvals

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### 4.1 Communication interface standard

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Approval Type	Approval or certificate
PROFINET	Certification in progress at PROFIBUS Nutzerorganisation e.V acc. to PA-Profile 4.0

### 4.2 Hazardous Area

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Type	Approval or certificate
ATEX	CLC IEC/TS 60079-47
IECEX	IEC TS 60079-47

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## 5 Ordering information

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### 5.1 Model code description

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Model code position	Model code	Description
13	T3	PROFINET over APL intrinsically safe, 1 passive pulse output

### 5.2 Available model codes per basic model

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Code T3 is available for all Ultimate transmitters (RCU \_ \_ \_ -)

### 5.3 Ordering instructions

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#### Serial and tag numbers

Parameter	Default Value
PROFINET Software Tag up to 32 characters	'FT2001'
PROFINET IP Address	'192.168.1.210'
PROFINET Subnet mask	'255.255.255.0'
PROFINET Default gateway IP address	Empty



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**Trademarks**

PROFINET	Registered trademark of PROFIBUS and PROFINET International
Ethernet-APL	Registered trademark of FieldComm Group, ODVA, OPC Foundation, and PROFIBUS Nutzerorganisation e.V.

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Manufacturer:

Rota Yokogawa GmbH & Co. KG  
Rheinstr. 8  
D-79664 Wehr  
Germany

For the actual manufacturing location of your device refer to the model code and/or serial number.

