User's Manual

ROTAMASS 3 Series Coriolis Mass Flow and Density Meter Integral Type RCCT3 Remote Type RCCF31 + RCCS3 American NTEP Custody Transfer Type (/Q20, /Q21)

IM 01R04B07-01E-E, additional manual to IM 01R04B04-00E-E

vigilantplant.



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1. About Rotamass NTEP Custody Transfer Type (/Q20, /Q21)

This user manual is additional to IM 01R04B04-00x-E for standard Rotamass 3 series.

This manual describes the special conditions for american NTEP custody transfer type (option /Q20, /Q21) which deviate from the standard flowmeter.

Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11 of IM 01R04B04-00x-E are also valid for Custody Transfer Type.

Chapter 2 of this manual is an addition to chapter 4 of IM 01R04B04-00x-E.



IMPORTANT

For explosion protected instruments and instructions for PED (Pressure Equipment Directive) see IM 01R04B04-00x-E.

Measuring Ranges in Custody Transfer Mode

	Qmin / Qmax in kg/min	Minimum measurable Flow rate in kg/min	Option
RCCS33	2 / 16	2	/Q20
RCCx34	5 / 32	5	/Q20
RCCx36	25 / 225	25	/Q20
RCCx38	50 / 450	50	/Q20
RCCx39	100 / 900	100	/Q20
RCCx39/IR	770 / 1900	770	/Q21
RCCx39/XR	770 / 1900	770	/Q21

Operating Conditions (deviating from standard specification)

Ambient temperature range : -40°C to +50°C

Installation : RCCx3x are for stationary or vehicle service.

RCCx39/IR and RCCx39/XR are for stationary use only.

Accuracy class : 0.3

Density range : (0.74 ... 1.4) kg/l

Measurement Variables in Custody Transfer Mode

- Mass unidirectional

- Volume unidirectional

Included Calibrations

Mass flow factory calibration with water.

Calibration Conditions:

- Water : 22.5°C ± 12.5°C - Ambient temperature : 22.5°C ± 12.5°C - Process Pressure : 1 to 2 bar abs

Installation RCCx33-38 : vertical
Installation RCCx39, 39/IR, 39/XR : horizontal

Documentation for Custody Transfer

Certificate: 12-080A1

12-080A2

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2. INSTALLATION

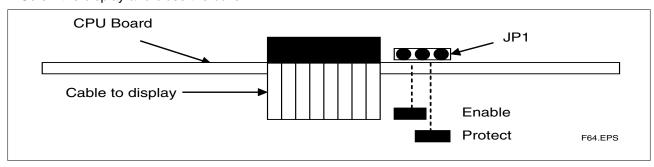
2.1 General

For installation see chapter 4 of IM 01R04B04-00E-E. Additional regard the following chapters 2.2 and 2.3 of this manual.

2.2 Hardware Write Protect

For use in custody transfer application the hardware write protection must be set after setup:

- Open the cover of the converter.
- Unscrew the 4 screws of the display and move the display aside.
- Set the jumper on JP1 of CPU-board as shown in the following picture.
- Screw the display and close the cover.



The hardware write protection is prior to any other write protection, and cannot be released by HART or other software means.



NOTE

If the Hardware Write Protect jumper is in the "Protect" position then all parameters and commands of the list in chapter 3.2 and the menu trees in 3.3 and 3.4 can only be read in "Read only" mode.

Any writing or execution is impossible (message "Write protect"). Also Autozero is not possible.

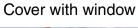
Apply the correct value for density offset before sealing the housing!

This hardware protection can not be removed without breaking the sealing.

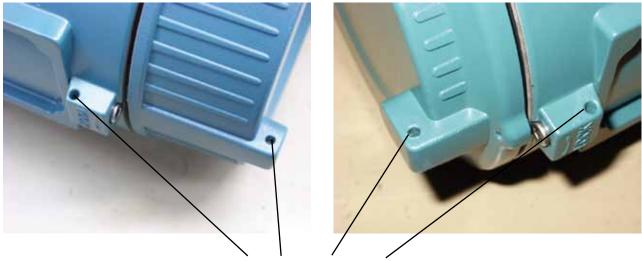
2.3 Sealing

Sealing is done by blocking the front window cover and the back cover of the converter using the attached wire seals.

The wire of the wire seal is put through the holes of the cover and the housing as shown in the figure below and then the wire is pulled through the seal again for fixing.







Holes for cover seals