

SITRANS FX330 Vortex flowmeter



Installation, assembly, start-up and maintenance may only be performed by appropriately trained personnel.



For use in hazardous areas, special codes and regulations are applicable which are supplied in a separate document that describes all hazardous area relevant information.



The responsibility as to the suitability, intended use and corrosion resistance of the used materials against the measured fluid of this device rests solely with the operator.



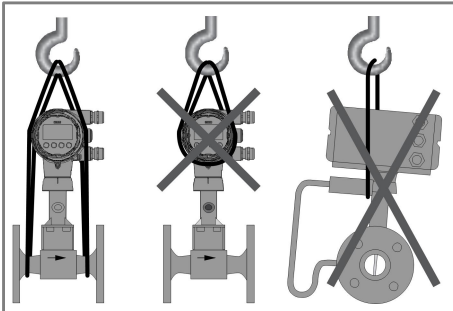
For complete documentation (manuals, supplementary manuals, data sheets and certificates) please refer to <http://www.siemens.com/processinstrumentation/documentation>.



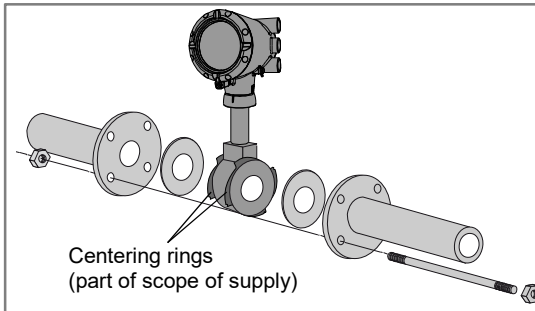
For devices used in SIL applications, additional safety notes apply.
For detailed information refer to the "Safety Manual".

1 Installation

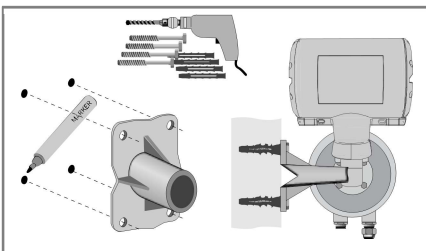
Transport



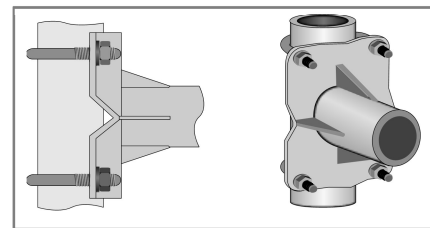
Sandwich design – centering rings



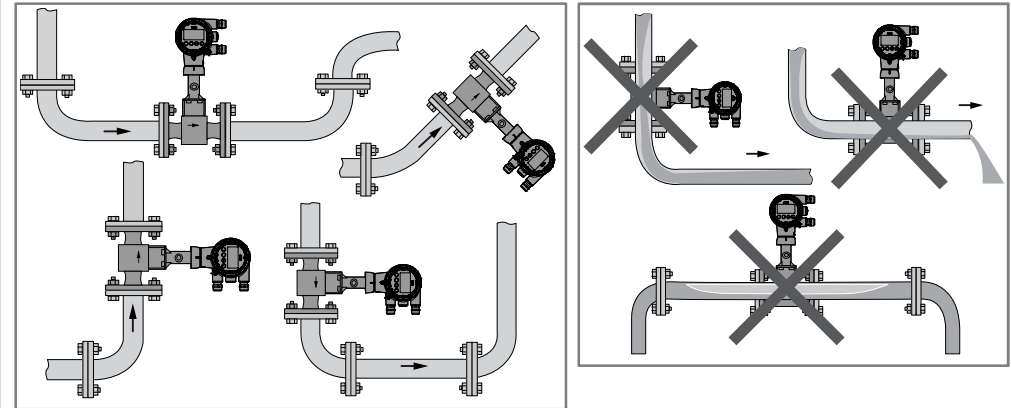
Remote: wall mounting of the field housing



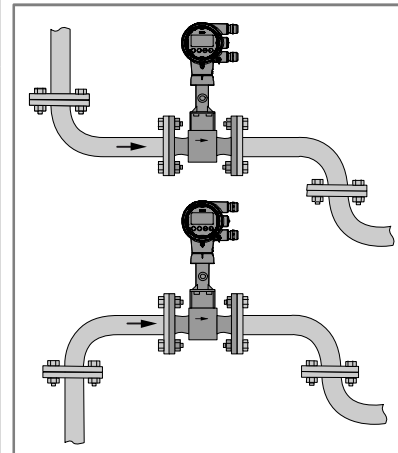
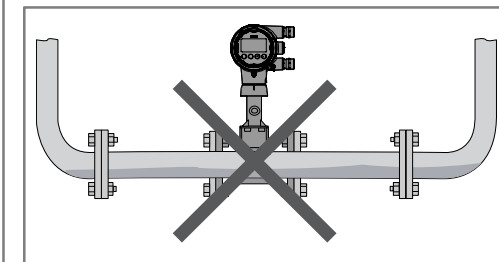
Remote: pipe mounting of the field housing



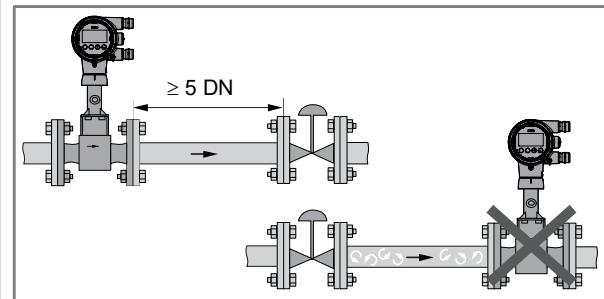
Liquids



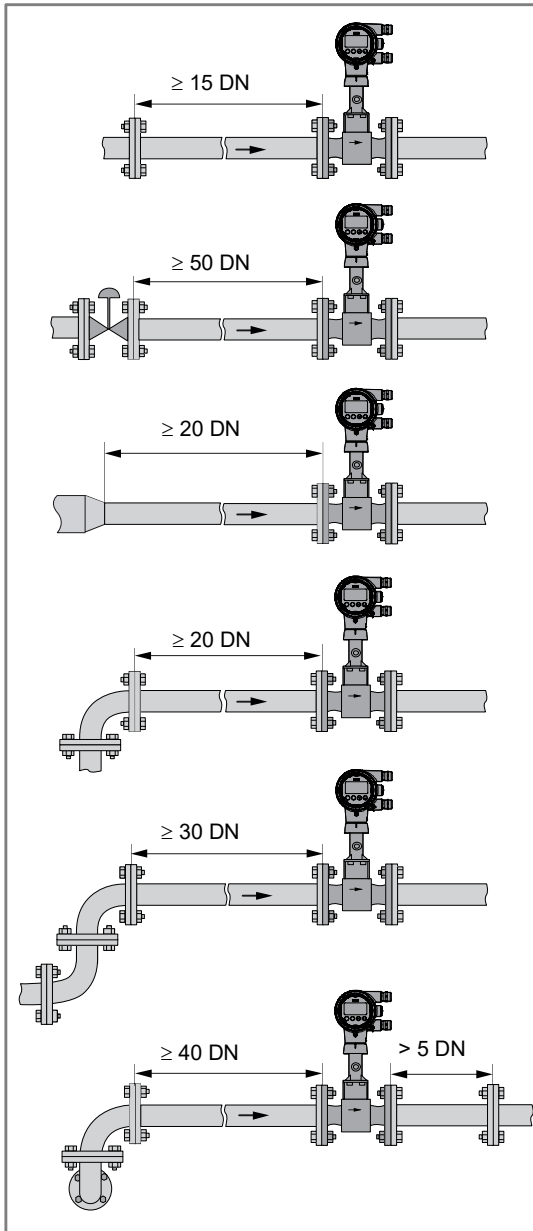
Steam & gases



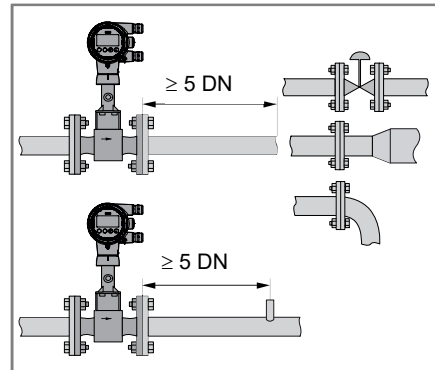
Pipelines with control valve



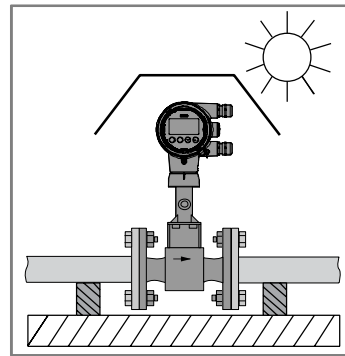
Minimum inlet section



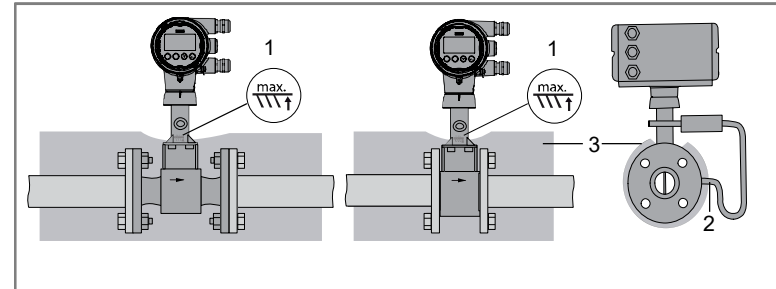
Minimum outlet section



Sunshade



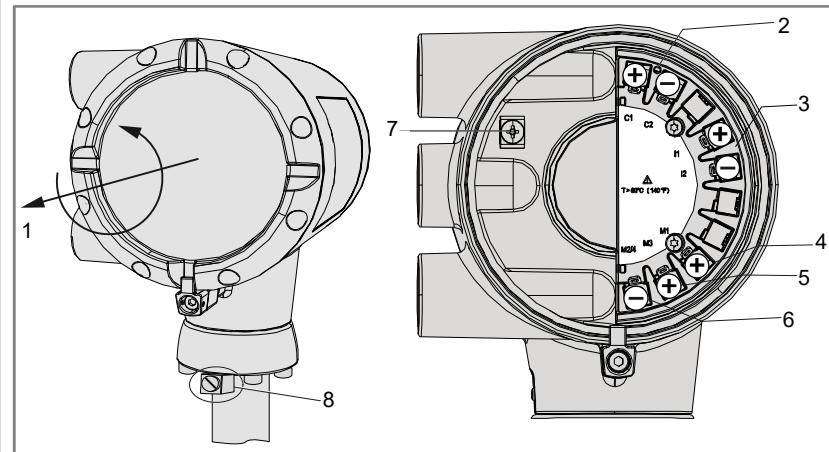
Heat insulation for $T_{\text{medium}} > +160^\circ\text{C} / +320^\circ\text{F}$



- 1 Marking of max. height of the insulation
- 2 Max. thickness of the insulation up to the bend of the pressure pipe
- 3 Insulation

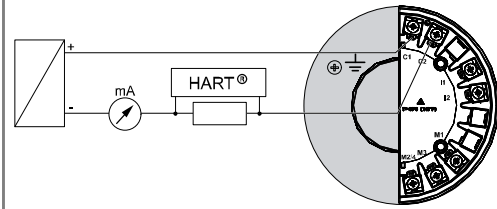
2 Electrical connection

Connecting the signal converter



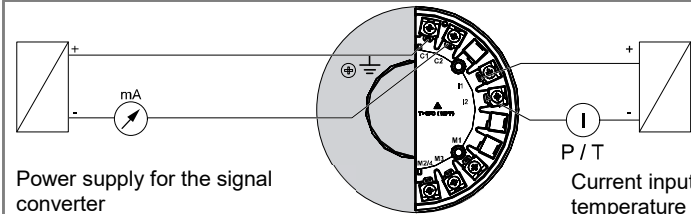
- 1 Open the housing cover of the electrical terminal compartment using the key
- 2 Signal converter supply and 4...20 mA loop
- 3 4...20 mA current input, - external transmitter, optional
- 4 Terminal M1 binary (high current)
- 5 Terminal M3 binary (NAMUR)
- 6 Terminal M2/4 binary, common minus connection
- 7 Ground terminal in housing
- 8 Ground terminal on connection piece between flow sensor and signal converter

Current output



Connect current loop 4..20 mA to terminals C1+ and C2-

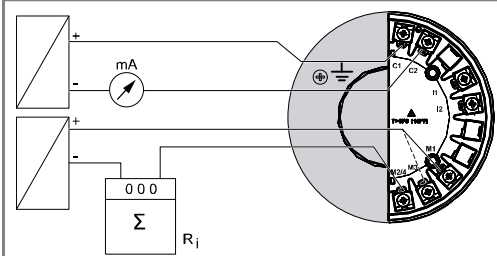
Current input



Power supply for the signal converter

Current input (I1+ and I2-) of an external temperature or pressure transmitter

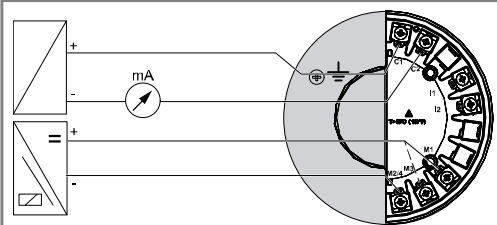
Pulse output / frequency output



The maximum frequency of both pulse output and frequency output is 1000 Hz

The connection is made between terminal M2/4 Common (-) and M1 for Hi Current (+) or M3 NAMUR (+)

Limit switch output



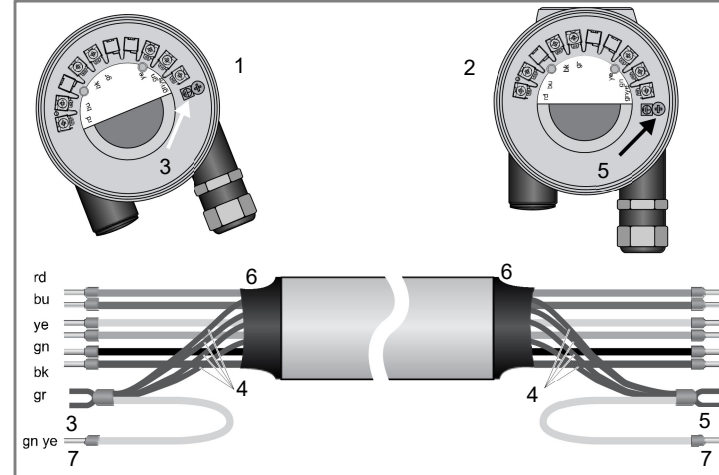
Connection NAMUR:
M2/4 (common); M3 (open collector)

Connection transistor output:
M2/4 (common); M1 (open collector)

Status output

The connection is made between terminal M2/4 Common (-) and M1 for Hi Current (+) or M3 NAMUR (+)

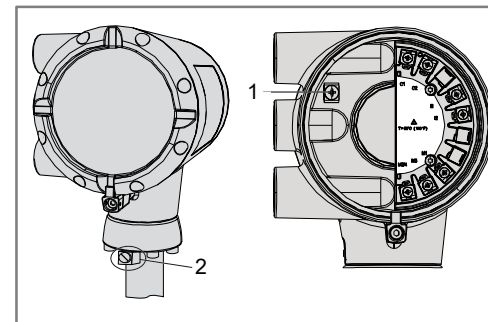
Connection of remote version



Terminal	Strand colour
rd	red
bu	blue
ye	yellow
gn	green
bk	black
gr	grey
gn ye	Shielding

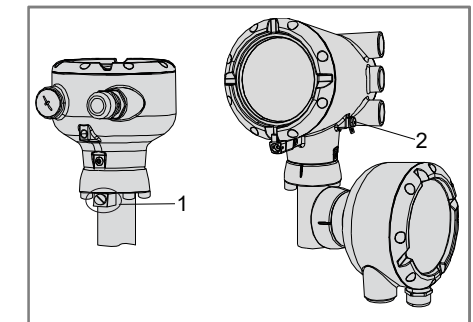
- 1 Connection terminal flow sensor
- 2 Connection terminal signal converter
- 3 Connection shielding flow sensor
- 4 Shielding (drain wire and overall shield)
- 5 Connection shielding signal converter
- 6 Heat shrink tubing
- 7 Shielding

Grounding of compact version



- 1 Ground terminal in housing
- 2 Ground terminal on connection piece between flow sensor and signal converter

Grounding of remote version

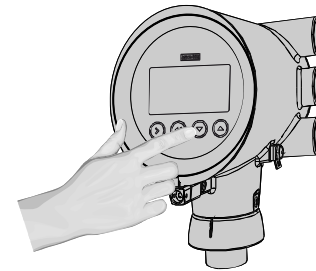


- 1 Ground terminal on flow sensor
- 2 Ground terminal on signal converter housing

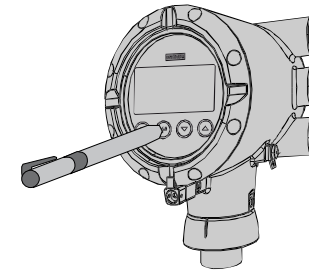
3 Quick Setup

Meas.	Menu A	Submenus
>	↓ ↑	> ↓ ↑
└	A Quick Setup	└
		A1 Language
		A2 Contrast
		A3 Login
		A4 Tag
		A5 Long Tag
		A6 Message View
		A7 Fluid
		A8 Medium
		A9 Units
		A9.1 Volume Flow
		A9.2 Cst. Vol. Flow
		A9.3 Norm. Vol. Flow
		A9.4 Cst. N.Vol.Flow
		A9.5 Mass Flow
		A9.6 Cst. Mass Flow
		A9.7 Power
		A9.8 Cst. Power
		A9.9 Volume
		A9.10 Cst. Volume
		A9.11 Norm. Volume
		A9.12 Cst. Norm. Volume
		A9.13 Mass
		A9.14 Cst. Mass
		A9.15 Energy
		A9.16 Cst. Energy
		A9.17 Pressure
		A9.18 Cst. Pressure
		A9.19 Temperature
		A9.20 Cst. Temp.
		A9.21 Density
		A9.22 Cst. Density
		A10 Meter Type
		A11 Application Assistant
		A11.1 Liquids
		A11.2 Saturated Steam
		A11.3 Superheated Steam
		A11.4 Heat Measurement
		A11.5 Gas
		A11.6 FAD
		A12 Cluster Checks
		Cluster 1...12

Operation with **open** front cover



Operation with **closed** front cover (with bar magnet)



Access level	Default password	Permissions
User	0000 (any unassigned password)	<ul style="list-style-type: none"> View device information Configure the display (C5), including changing the display language and the content of the measurement pages
Operator	0009	<ul style="list-style-type: none"> All rights of "User" access level Configure binary output (C2.2) Configure all HART[®] communication options (C3) with the exception of "C3.1.1 Current Loop Mode" Change "Operator" password (C6.2.2) – note that the new password must have three leading zeroes ("000") Activate a different meter type
Expert	0058	<ul style="list-style-type: none"> All configuration rights, especially process setup (C1) and current output (C2.1) Change "Expert" password (C6.2.2) – note that the new password must have two leading zeroes ("00")

Manuals and certificates:



Personal contact

If you have additional questions about the device, please contact your Siemens personal contact at:

- Partner (<http://www.automation.siemens.com/partner>)

To find the personal contact for your product, go to "All Products and Branches" and select "Products & Services > Industrial Automation > Process Instrumentation".