C 5-SERIES

Your success counts

FLUIDWELL

Flow & Energy Computers

for steam, liquid and gas applications

Modbus

Application examples: *Boiler*

Heat exchanger

Field mount example

The C5-Series is a powerful range of single and dual stream Flow and Energy Computers for gas, steam or liquid applications. The comprehensive and rugged enclosure combines easy installation and operation, resulting in cost reduction. It works with any pulse, differential pressure or analog signal generating flow meter.

Advantages

- Robust IP66/67, Type4X aluminum field enclosure, withstands extreme weather and industrial conditions.
- Large, versatile display with bright backlight, all info at a glance.
- Easy-to-operate with 6 rugged industrial silicone buttons.
- User-friendly operation and configuration via the keypad and display or with the free available configuration software.

Media

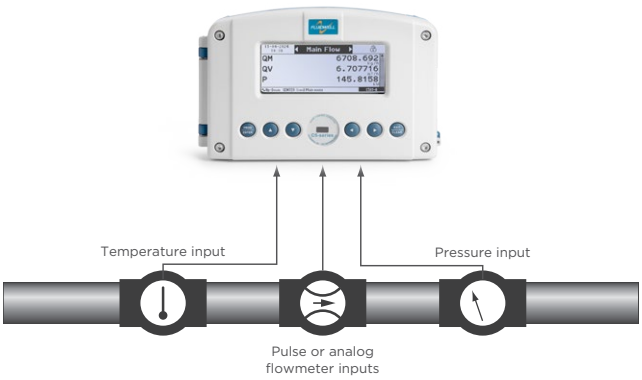
- Saturated and superheated steam.
- Gas such as: air, nitrogen, oxygen, hydrogen, carbon dioxide, natural gas and user defined gasses.
- Water, oil, fuels and user defined liquids.

Features

- Calculates mass flow, volumetric flow and power at actual and reference conditions for one or two streams.
- Determines compressibility, density, enthalpy and specific heat according to recognized standards such as AGA8, SGERG, IAPWS, API and more.
- Calculations for related and unrelated dual streams.
- Calculates power in each stream.
- Calculates totalized values for volume, mass and energy.
- Data logging of process parameters and calculated values.
- 11 point linearization of all inputs.
- Ability to process various flow inputs: pulse (pending), (stacked) differential pressure or other 4 - 20mA signals.
- 4 - 20mA inputs for pressure sensors.
- 4 - 20mA, Pt100 or Pt500 inputs for temperature sensors.
- 2 status inputs.
- Up to 2 analog outputs, 2 digital outputs, 2 relay outputs.
- Up to 3 communication ports: RS485, RS232 and USB.
- Power: 100 - 230V AC or 16 - 27V DC.
- Ambient temp.: -40°C to +55/+70 °C (-40°F to +131/+158°F).

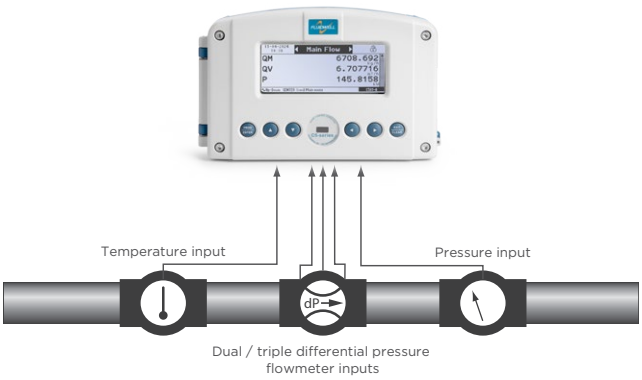
Single stream

Pulse / analog flowmeters



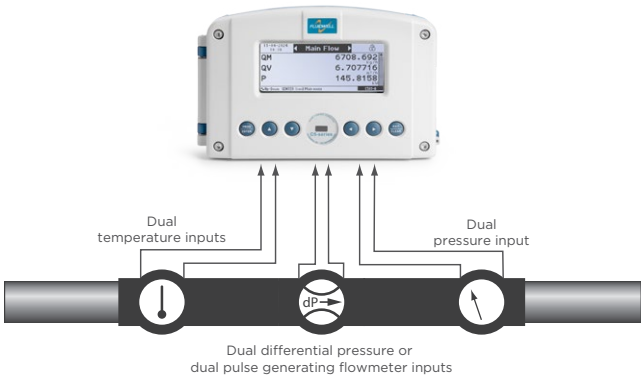
Media	Liquid	Gas	Water & Steam
Models	C561, C595	C571, C595	C581, C595

2 / 3 stacked or averaging analog flowmeters



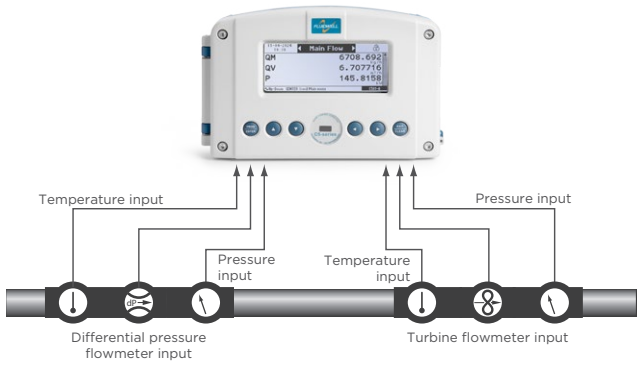
Media	Liquid	Gas	Water & Steam
Models	C561, C595	C571, C595	C581, C595

Semi redundant flow measurement



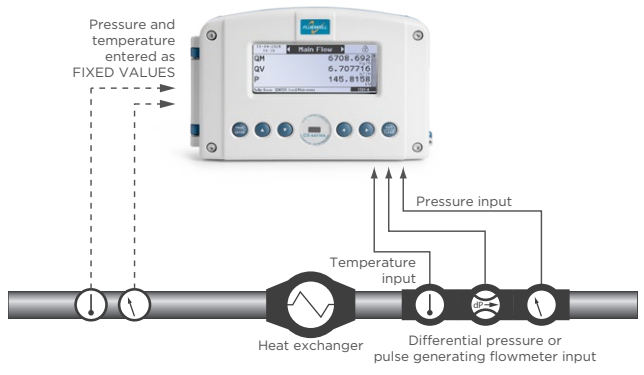
Media	Liquid	Gas	Water & Steam
Models	C562, C595	C572, C595	C582, C595

Redundant flow measurement



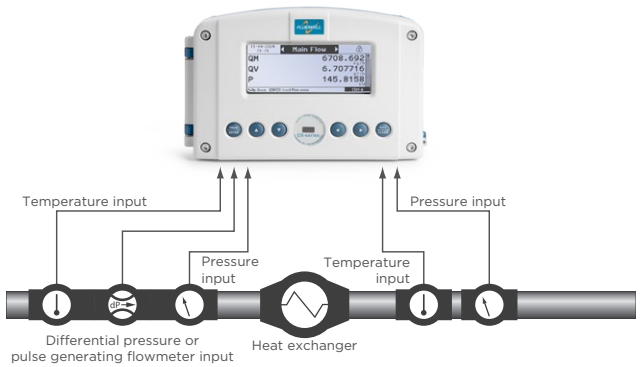
Media	Liquid	Gas	Water & Steam
Models	C562, C595	C572, C595	C582, C595

Heater / cooler system with fixed inputs



Media	Liquid	Gas	Water & Steam
Models	C561, C595	C571, C595	C581, C595

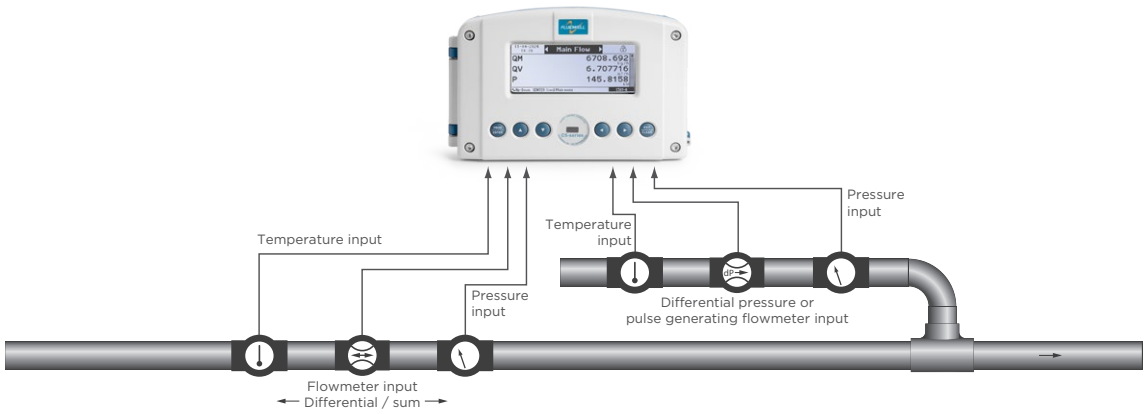
Heater / cooler system



Media	Liquid	Gas	Water & Steam
Models	C562, C595	C572, C595	C582, C595

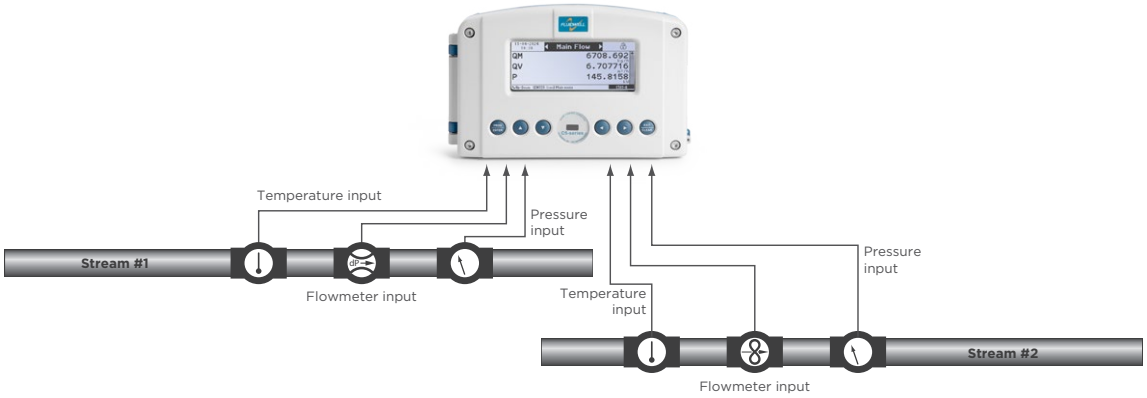
Dual streams

Differential / sum flow measurement with same media



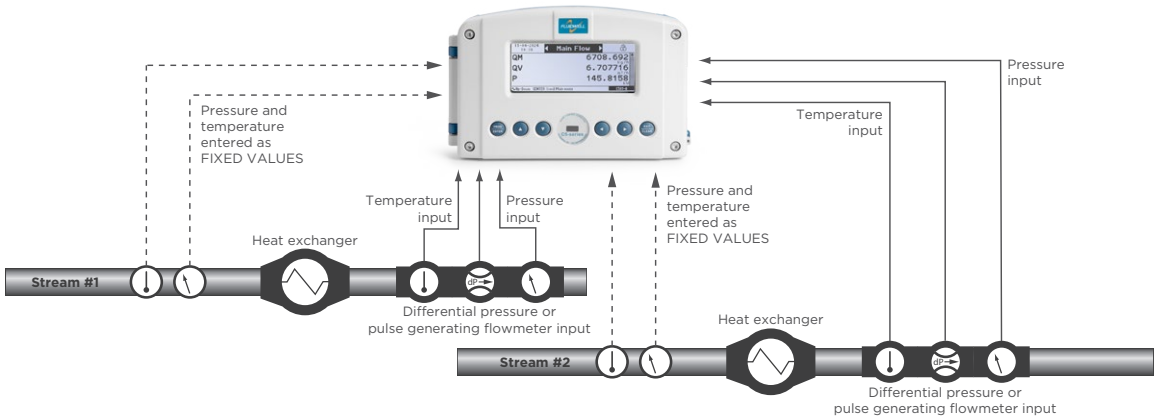
Media	Liquid	Gas	Water & Steam
Models	C562, C595	C572, C595	C582, C595

Differential / sum flow measurement with independent media



Media	Liquid	Gas	Water & Steam
Models	C595	C595	C595

2 Channel heater / cooler with fixed inputs



Media	Liquid	Gas	Water & Steam
Models	C562, C595	C572, C595	C582, C595

		C5-Series						
		C561-EL*	C562-EL*	C571-EG*	C572-EG*	C581-ES	C582-ES*	C595-EZ*
Media	Liquid	•	•					•
	Gas			•	•			•
	Water & Steam (saturated / superheated)					•	•	•
Channels	Single stream	•		•		•		•
	Dual stream, same media		•		•		•	•
	Dual stream, independent media							•
Flow	Analog inputs	3	2	3	2	3	2	2**
	Pulse inputs	1	2	1	2	1	2	2
Additional	Status input	2	2	2	2	2	2	2
	Temperature input (Pt100/Pt500/4-20mA)	1	2	1	2	1	2	2
	Pressure input (4-20mA)	1	2	1	2	1	2	2**
Outputs	Analog output (active / passive, isolated)	1-2	2	1-2	2	1-2	2	2
	Configurable digital outputs: Pulse, alarm or switch	2	2	2	2	2	2	2
	Configurable relay output: Alarm or switch	2	2	2	2	2	2	2
Display	Large graphical display with adjustable backlight	•	•	•	•	•	•	•
	Mass, volumetric flow rate and power	•	•	•	•	•	•	•
	Mass, volume & energy totals	•	•	•	•	•	•	•
	Measured temperature and pressure	•	•	•	•	•	•	•
	Compressibility, density, enthalpy or specific heat value	•	•	•	•	•	•	•
	Differential / sum / average / ratio / percentage of the 2 channels		•		•		•	•
Determinations	Compressibility: SGERG88 and AGA8 G1, G2			•	•			•
	Density: Fixed values, formula or API table interpolated value	•	•	•	•	•	•	•
	Enthalpy: Fixed values, formula or table interpolated value	•	•	•	•	•	•	•
	Specific heat: Fixed values, formula or table interpolated value	•	•	•	•			•
Other	10 point linearization of all inputs	•	•	•	•	•	•	•
	Modbus RS485, RS232, USB	•	•	•	•	•	•	•
	Free configuration software	•	•	•	•	•	•	•
	USB Service port	•	•	•	•	•	•	•
	Data logging	•	•	•	•	•	•	•
	Robust aluminum field enclosure with 6 keys (IP66/67)	•	•	•	•	•	•	•

C5-Series Flow Computers

Our proven experience with instrumentation, the international design and the focus on user-friendly operation are combined in the most robust, accurate and easy-to-use field mount Single- and Dual-stream Flow & Energy Computers on the market.

Functionality

- **C561-EL***: Single stream flow and energy computer for liquid flow applications.
- **C562-EL***: Dual stream (same media) flow and energy computer for liquid flow applications.
- **C571-EG***: Single stream flow and energy computer for gas flow applications.
- **C572-EG***: Dual stream (same media) flow and energy computer for gas flow applications.
- **C581-ES**: Single stream flow and energy computer for water or saturated / superheated steam flow applications.
- **C582-ES***: Dual stream (same media) flow and energy computer for water and saturated / superheated steam flow applications.
- **C595-EZ***: Dual stream (independent media) flow and energy computer for liquid, gas, water and saturated / superheated steam flow applications.

* *These products are pending.*

** *In case of 3 stacked or averaging flow sensors, one pressure input can be used as flow input.*

			C5-Series						
			C561-EL*	C562-EL*	C571-EG*	C572-EG*	C581-ES	C582-ES*	C595-EZ*
Flow inputs	A	Analog inputs	3	2	3	2	3	2	
	P	Pulse inputs	1	2	1	2	1	2	
	Z	2 Analog and 2 pulse inputs		●		●		●	●
Analog	AI	Passive isolated analog output	1	2	1	2	1	2	
	AZ	Configurable analog outputs (active / passive isolated)	2	2	2	2	2	2	2
Communication	CB	1 x RS485 2-wire Modbus communication & 1 x RS232 communication	●	●	●	●	●	●	●
	CH	1 x RS485 2-wire Modbus communication	●	●	●	●	●	●	
	CH2	2 x RS485 2-wire Modbus communication	●	●	●	●	●	●	●
Media	EG	Flow equations for gas (incl. natural gas: SGERG & AGA8)			●	●			
	EL	Flow equations for liquids (inc. crude, refined products and lubrication oil according API)	●	●					
	ES	Flow equations for water and steam (saturated / superheated)					●	●	
	EZ	Flow equations for gas, water & steam and other liquids (EG, EL & ES combined)							●
Enclosure	HAA	Aluminum field mount enclosure; Cable entry: 8 x M16 and 2 x M20	●	●	●	●	●	●	●
	HAN	Aluminum field mount enclosure; Cable entry: 4 x ½"NPT	●	●	●	●	●	●	●
	HAX	Aluminum field mount enclosure; Custom cable entry	●	●	●	●	●	●	●
Additional	IA	Analog 4 – 20 mA inputs for pressure signals (active or passive selectable)	●	●	●	●	●	●	●
	IR	2 Status inputs	●	●	●	●	●	●	●
Digital	OR	2 x configurable relay outputs and 2 x configurable passive transistor outputs	●	●	●	●	●	●	●
	OT	2 x configurable passive transistor outputs	●	●	●	●	●	●	
Supply	PF	16 - 27V DC + sensor supply	●	●	●	●	●	●	●
	PM	100 - 230V AC + sensor supply	●	●	●	●	●	●	●
Temp.	TZ	Selectable Pt100 / Pt500 or analog 4 – 20 mA temperature inputs	●	●	●	●	●	●	●
Area	XX	Safe area only	●	●	●	●	●	●	●
Options	ZB	Adjustable backlight	●	●	●	●	●	●	●
	ZL	Data logging	●	●	●	●	●	●	●
Accessories	AMC01	Stainless steel 304 wall mounting kit	●	●	●	●	●	●	●
	AMC02	Stainless steel 304 pipe mounting kit (worm gear clamps not included)	●	●	●	●	●	●	●
	AMC03	Stainless steel 304 DIN rail mounting kit	●	●	●	●	●	●	●
	AMC04	Stainless steel 304 protective sun & rain shed + wall mounting kit	●	●	●	●	●	●	●
	AMC05	Stainless steel 304 protective sun & rain shed + pipe mounting kit (W-G clamps not incl.)	●	●	●	●	●	●	●

Standard configuration example: C581-A-AI-CH-ES-HAA-IA-IR-OT-PM-TZ-XX-ZB-ZL.

Options indicated in **BLUE** are optional available.

C 5-SERIES

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Feature overview

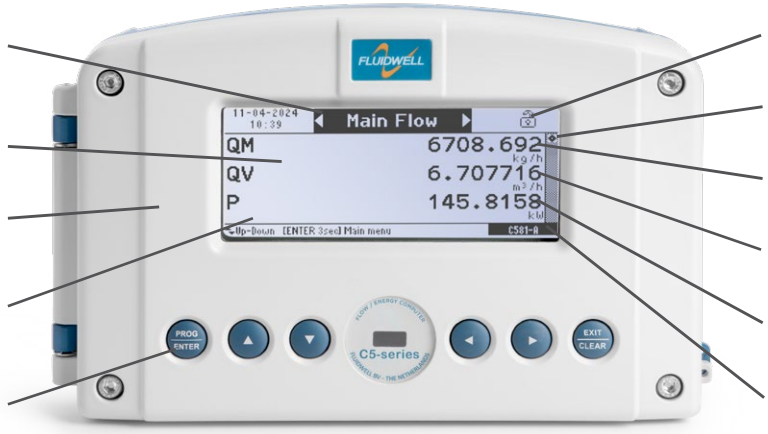
Status bar with actual stream indication

Operational screen

Robust aluminium enclosure

Large graphical display with bright backlight

Easy-to-operate keypad



Status icons

Scroll bar

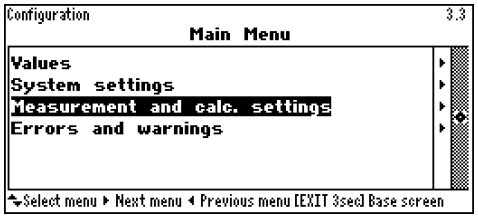
Mass flow

Volumetric flow

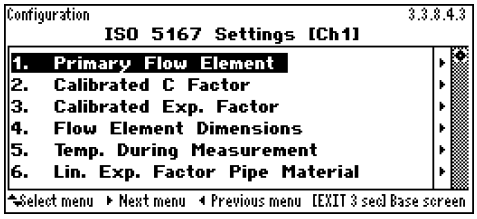
Energy consumption

Customer ID number

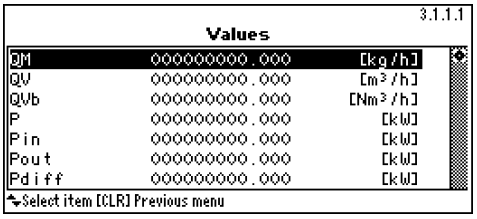
Display examples



Main menu



Sub menu



List of actual values

Mounting examples: *Pipe*

Wall

DIN rail

All info at a glance

Easy to install

Easy to program

Know one know them all!

Reliable

User-friendly

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www.fluidwell.com

Important: specifications are subject to change without notice.
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