





Add-on Manifold with flow and temperature monitoring

FLOW MANIFOLD

An add-on flow Manifold with precise temperature monitoring

ICS Cool Energy's new and innovative Flow Manifold has been designed to provide reliable measurement and monitoring of fluid flow rates in all parallel-connected temperature control units. With the ability to connect up to 4 or 8 individual circuits, this type of Manifold allows users to split the TCU main flow 4 or 8 ways and adjust the flow and monitor temperature of each individual flow channel into the mould.

Slight changes in the flow rates of individual channels can affect the temperature in the mould cavity, and in turn lead to problems in product quality and/or slow down cycle times, the Flow Manifold however, guarantees reliable distribution of the flow rates delivered. Combined with the ability to track the activity of each individual circuit via the unit's 3.5" touchscreen interface, the Flow Manifold can be relied upon to produce high quality products.

Precise and reliable

- Continuous monitoring of flow and temperature per circuit
- Ability to set limit values of the flow and temperature per circuit
- Alarm functionality for when tolerance bands are exceeded
- Smallest flow rates from 1Lt
- Highest temperatures up to 120°C
- Uniformity in temperature distribution
- Made from corrosion resistant materials
- Separate temperature control in the return line, per circuit

• 4 or 8 circuits are connected by a simple attachment to the temperature controller

Intelligent and convenient

• Operation is communicated via 3.5" touchscreen on the temperature controller

• Real-time monitoring via the central display provides automatic feedback with built-in tolerance band setting

- Displays process performance per circuit
- Recording of data via SD card and analysis in Excel

Efficient and cost-saving

• Fewer temperature control units are required

1%

Flow #1

Flow #2

Flow #3

Flow #4

• Semi-automated system reduces the need for manual monitoring

60.0

8.2

8.9

9.5

7.3

65.0

66.0

58.0

59.0

-2.9

-3.8

1.3

0.5

Maintenance-free

• Precision control ensures minimal water and energy wastage, making the Flow Manifold one of the top economic products on the market

DESIGN	MACHINE ATTACHMENT	MACHINE ATTACHMENT
Extension for Temperature controller	Size 1* and 2**	Size 2**
Medium	WATER	WATER
Maximum temperature	120°C	120°C
Flow control range per medium return in l/min	1,0 up to 15,0 (2,0 up to 40.0)	1,0 up to 15,0 (2,0 up to 40.0)
Temperature range per medium return in ^o C	120	120
Maximum ambient temperature in $^{\circ}\text{C}$	75	75
Maximum operating pressure	16 Bar	16 Bar
Connection of circulation medium supply and return	G ¹ /2	G ¹ /2
Connection per circulation medium supply and return	Ball-valve	Ball-valve
Data transfer addressable (signal)	TTL	TTL
Measuring accuracy - full scale range ≤2%	+/- 2,0	+/- 2,0
Number of monitoring circuits	4	8
Dimensions supply Manifold (LxWxH)	129 x 227 x 152 mm	129 x 227 x 152 mm
Dimensions return collector (LxWxH)	261 x 227 x 126 mm	261 x 400 x 126 mm
Weight	17 kg	34 KG

COMPATIBILITY

The flow rate measurement Manifold is compatible with all i-Temp units excluding the following:

i-Temp wd 60/400/500 cooling Unit, i-Temp wd 60/400/500, i-Temp wi 400/500, i-Temp wi 400/500 heating Unit and i-Temp wi 400/500 cooling Unit.



UNIT	COMPATIBLE WITH:	
	4-CIRCUIT	8-CIRCUIT
i-Temp ci90t9	YES	NO
i-Temp ci90t18	YES	YES
i-Temp ci 90t36	YES	YES
i-Temp cd90t	YES	YES
i-Temp cd120t	YES	YES
i-Temp ci140t9	YES	NO
i-Temp ci140t18	YES	NO
i-Temp ci160t9	YES	NO
i-Temp wi 100	YES	YES
i-Temp wi 150	YES	YES
i-Temp wi 250	YES	YES
i-Temp wi 100 heating Unit	YES	YES
i-Temp wi 150 heating Unit	YES	YES
i-Temp wi 250 heating Unit	YES	YES
i-Temp wi 100 cooling Unit	YES	YES
i-Temp wi 150 cooling Unit	YES	YES
i-Temp wi 250 cooling Unit	YES	YES
i-Temp wd 100	YES	YES
i-Temp wd 150	YES	YES
i-Temp wd 250	YES	YES
i-Temp wd 100 cooling Unit	YES	YES
i-Temp wd 150 cooling Unit	YES	YES
i-Temp wd 250 cooling Unit	YES	YES
i-Temp wd 400 cooling Unit	NO	NO
i-Temp wd 500 cooling Unit	NO	NO
i-Temp wi 400	NO	NO
i-Temp wi 500	NO	NO
i-Temp wi 400 heating Unit	NO	NO
i-Temp wi 500 heating Unit	NO	NO
i-Temp wi 400 cooling Unit	NO	NO
i-Temp wi 500 cooling Unit	NO	NO
i-Temp wd 60	NO	NO
i-Temp wd 400	NO	NO
i-Temp wd 500	NO	NO
i-Temp wd 60 cooling Unit	NO	NO

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