

Technical data

Modul Unit

Sinus module unit consisting of hydronic junction and Sinus compact manifold in modular construction. Hydronic junction as a hollow profile with welded-in top and bottom. 2" threaded pipe for sludge removal and ½" coupling for temperature sensor. Supporting foot with slots for fixing to the floor. Sinus compact manifold as combined flow and return manifold with chambers made of black sheet steel S235 arranged adjacent to one another and separated by sinusoidal parting wall. ½" drainage couplings for flow and return chambers, connection between the flow pipes for the hydronic junction and the Sinus compact manifold by means of a flange adapter (90° elbow fitting). Direct connection of the respective return pipes. Pipes made from welded pipe with weld-neck flange (ANSI 150lbs or PN 16).

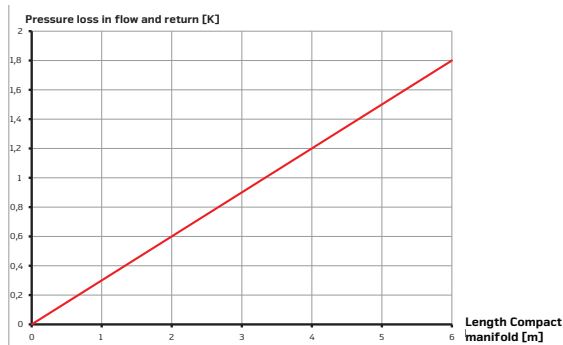
Contact certification	
Type	Modul Unit
Operating pressure	max. 6 bar or 87 psi
Operating temperature	max. 0/+110°C or 230°F
Contact	Sinus North America 321 Shoemaker St Kitchener, ON, N2E 3B3 CANADA

	Type	Capacity at ΔT 20 K		Heating water flow rate		Water content		Heat transfer at 70°C/50°C (158°/122°F)			Return increase	Weight basic body		Max. pipe/flange size (boiler connection)		Pipe distance (OC)		Wall thickness	
	[WxH]	[kW]	[MBH]	[m³/h]	[gpm]	[liter/rm]	[gal/rm]	[kW/rm]	[MBH]	[%]		[K/rm]	[kg/rm]	[lbs/rm]	[DN]	[in inch]	[mm]	[in inch]	[mm]
Compact manifold	160/80	250	853.0	10.8	48	10.9	2.9	3.7	12.6	1.5	0.3	16.4	36.2	65/80	2 ½"/3"	250/300/variable	9,8/11,8/variable	4	0.2
	180/110	400	1,364.9	17.2	76	17.6	4.6	4.2	14.3	1.1	0.2	20.5	45.2	80/100	3"/4"	250/300/350/variable	9,8/11,8/13,8/variable	4	0.2
	200/120	600	2,047.3	25.8	114	21.5	5.7	4.3	14.7	0.7	0.2	22.6	49.8	100/125	4"/5"	250/300/350/variable	9,8/11,8/13,8/variable	4	0.2
	280/180	1,250	4,265.2	53.8	237	45.0	11.9	7.8	26.6	0.6	0.1	46.8	103.2	125/150	5"/6"	300/350/variable	11,8/13,8/variable	6	0.2
	300/200	1,600	5,459.4	68.8	303	54.1	14.3	8.3	28.3	0.5	0.1	51.3	113.1	125/150	5"/6"	300/350/variable	variable	6	0.2
	400/200	2,100	7,165.5	90.0	398	72.9	19.3	10.6	36.2	0.5	0.1	61.2	134.9	150	6"	variable	variable	6	0.2
	450/250	3,500	11,942.5	150.0	663	101.5	26.8	11.5	39.2	0.3	<0.1	95.4	210.3	200	8"	variable	variable	8	0.3
	500/300	4,500	15,354.6	194.0	849	137.3	36.3	13.6	46.4	0.3	<0.1	113.0	249.1	250	10"	variable	variable	8	0.3
	600/400	6,200	21,155.3	267.0	1,174	216.5	57.2	13.1	44.7	0.2	<0.1	168.7	371.9	300	12"	variable	variable	12	0.5
	700/500	9,100	31,050.5	391.0	1,723	321.0	84.8	14.6	49.8	0.2	<0.1	261.9	577.4	350	14"	variable	variable	12	0.5

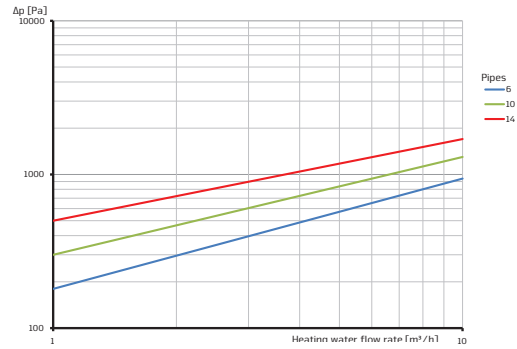
Heat transfer and pressure drop between supply and return chamber

Heat transfer diagrams illustrating the return temperature increase in Kelvin [K] per meter Manifold length and pressure loss diagrams illustrating the respective pressure drop depending on the water flow rate at given numbers of pipes.

Type 120/80

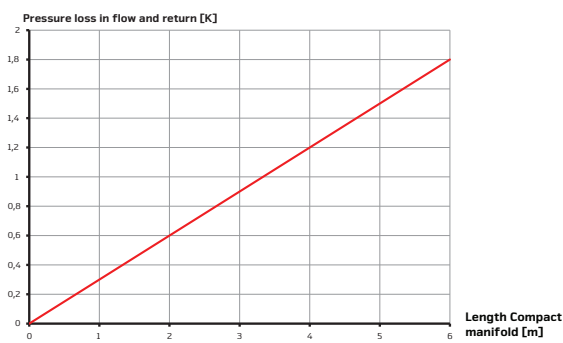


Heat transfer between supply and return

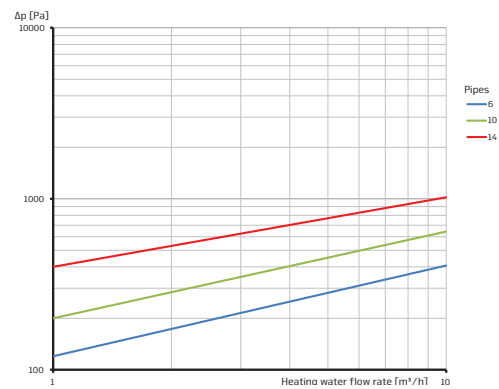


Pressure loss in flow and return

Type 160/80

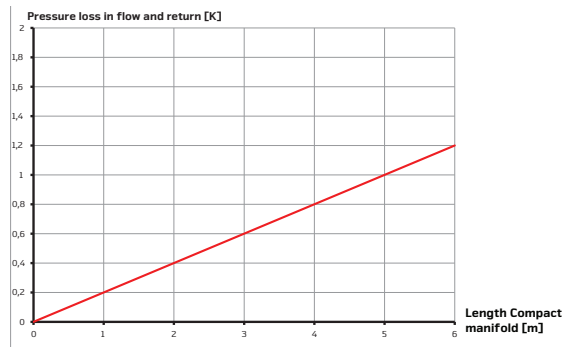


Heat transfer between flow and return

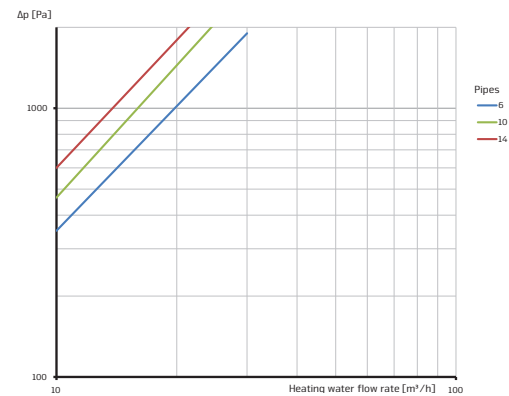


Pressure loss in flow and return

Type 180/110



Heat transfer between flow and return

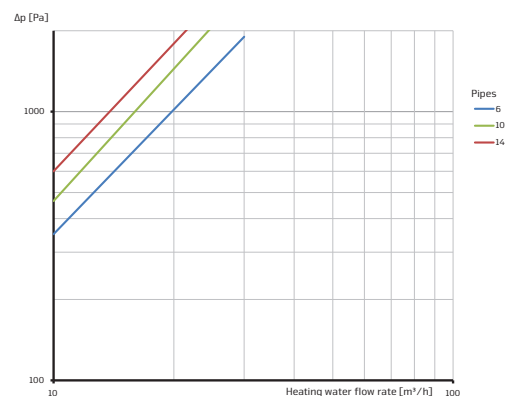


Pressure loss in flow and return

Type 200/120

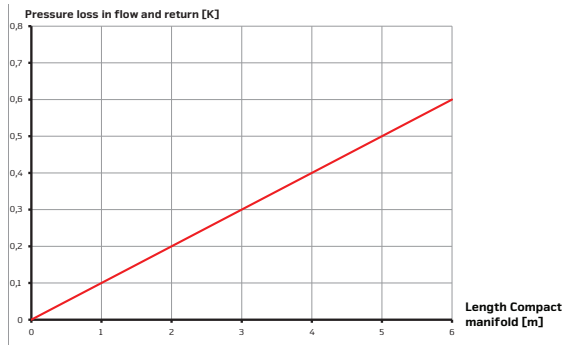


Heat transfer between flow and return

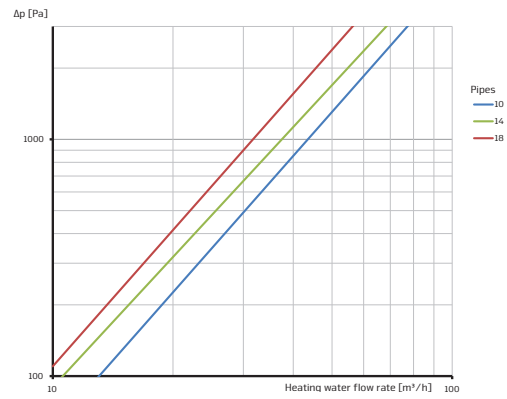


Pressure loss in flow and return

Type 280/180

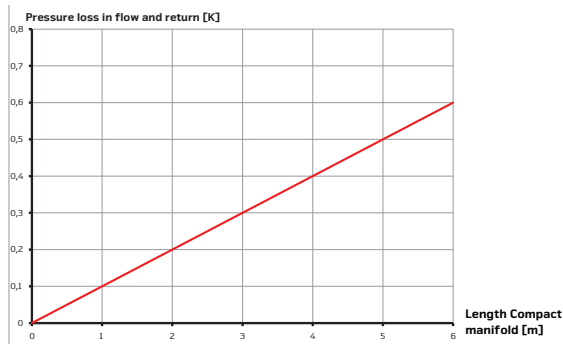


Heat transfer between flow and return

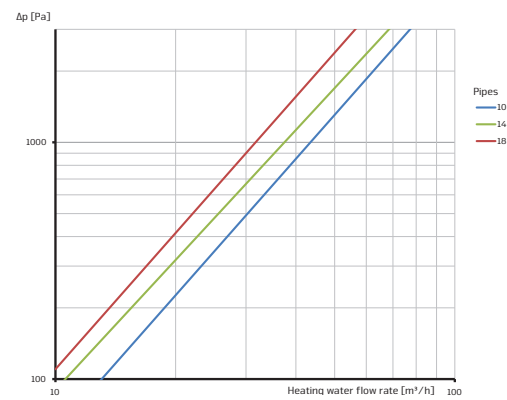


Pressure loss in flow and return

Type 300/200

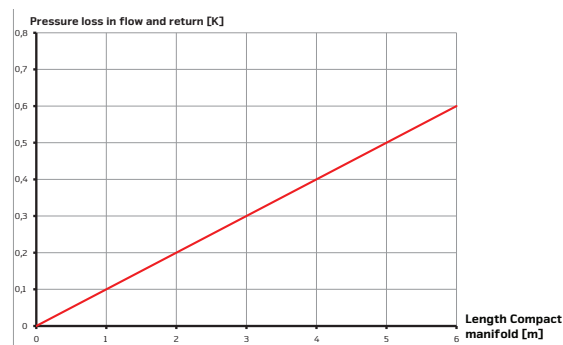


Heat transfer between flow and return

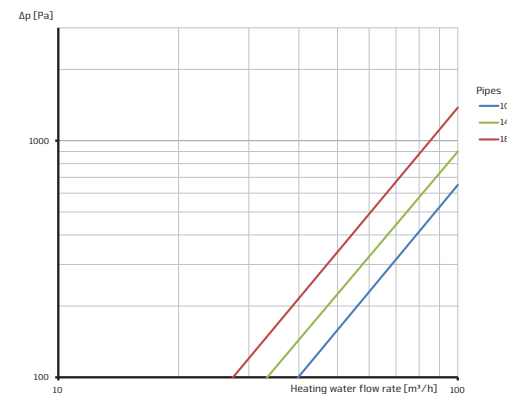


Pressure loss in flow and return

Type 400/200

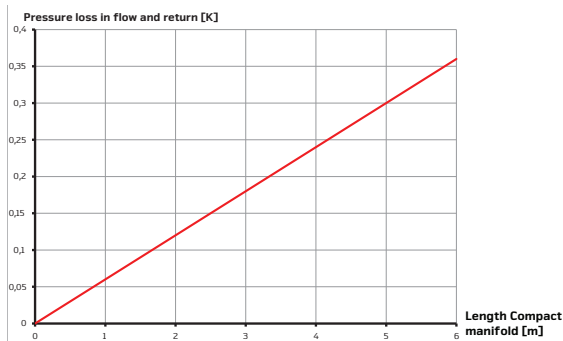


Heat transfer between flow and return

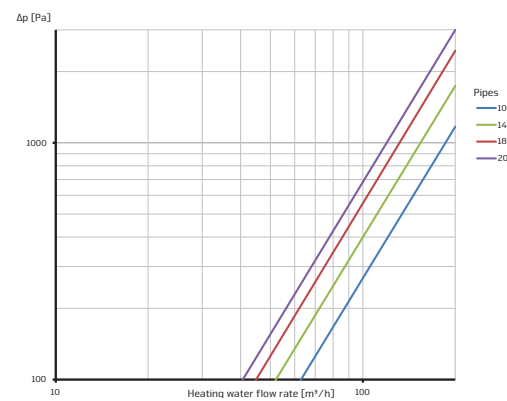


Pressure loss in flow and return

Type 450/250

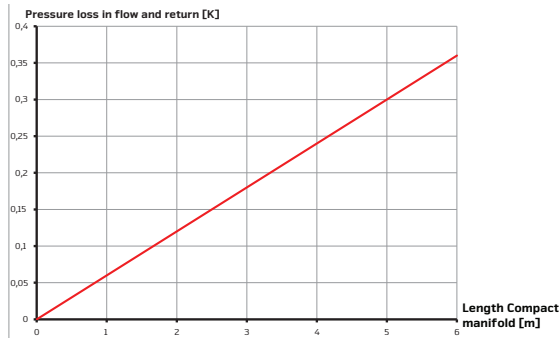


Heat transfer between flow and return

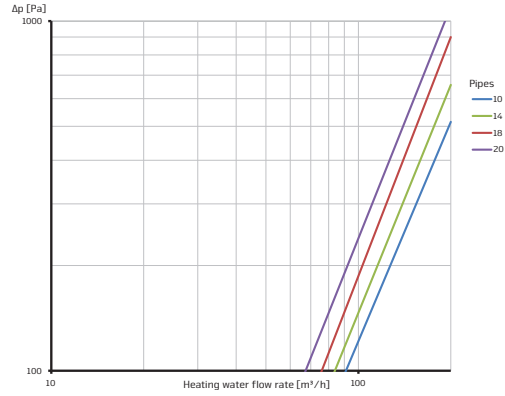


Pressure loss in flow and return

Type 500/300



Heat transfer between flow and return

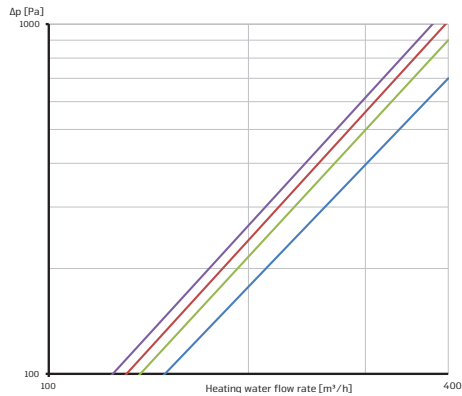


Pressure loss in flow and return

Type 600/400

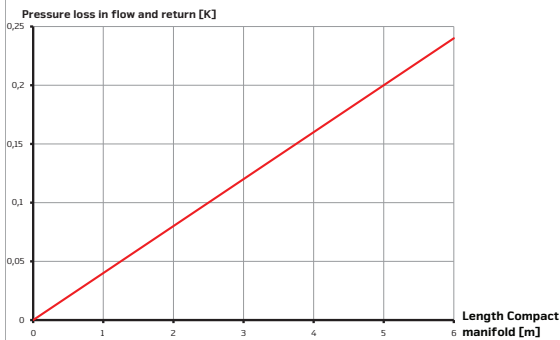


Heat transfer between flow and return

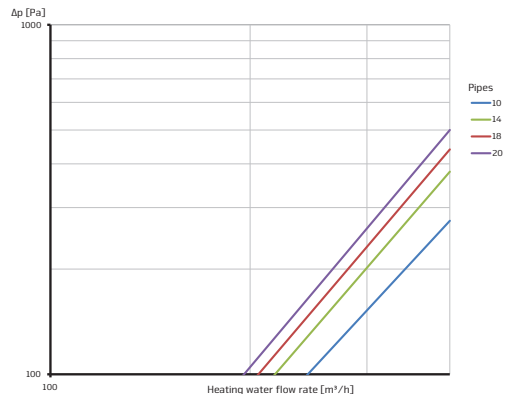


Pressure loss in flow and return

Type 700/500



Heat transfer between flow and return



Pressure loss in flow and return

Hydronic Junction

Width/height	Flow rate		Water content		Weight		Total height		Connection		Wall thickness	
	[mm]	[m³/h]	[gpm]	[liter]	[gal]	[kg]	[lbs]	[mm]	[in inch]	[DN]	[in inch]	[mm]
160/80	10	44	15.5	4.1	57	125.4	1,440	56.7	65	2.5"	4.0	0.2
200/120	18	80	30.8	8.1	73	160.6	1,450	57.1	80	3"	4.0	0.2
250/150	27	118	55.3	14.6	96	211.2	1,470	57.9	100	4"	4.0	0.2
300/200	43	189	79.1	20.9	142	312.4	1,480	58.3	125	5"	6.0	0.2
400/200	57	251	107.6	28.4	176.5	388.3	1,495	58.9	150	6"	6.0	0.2
450/250	85	374	152.0	40.2	235	517.0	1,520	59.8	200	8"	8.0	0.3
500/300	110	484	246.1	65.0	268	589.6	1,820	71.7	200	8"	8.0	0.3
600/400	170	749	395.2	104.4	376	827.2	1,845	72.6	250	10"	12.0	0.5
650/450	235	1,034	496.6	210.4	510	1,122	1,945	76.6	300	12"	12.0	0.5
700/500	300	1,320	719.0	189.9	646	1,421.1	2,290	90.2	350	14"	12.0	0.5