



## DDC-Regel **UNIT 9X** kompakt

Operating Manual  
Part 2 - RU 96.1F-110

release 2.1

**This operating manual consists of two parts:**

**Part 1: General information**

Construction, operation, mounting, installation, initialisation, maintenance, error messages, technical data (relevant for all types of controller)

**Part 2: type relevant information**

Control elements, system diagrams, terminal diagrams  
(relevant only for a specific type of controller)

**Note on safety:**



**Caution!**

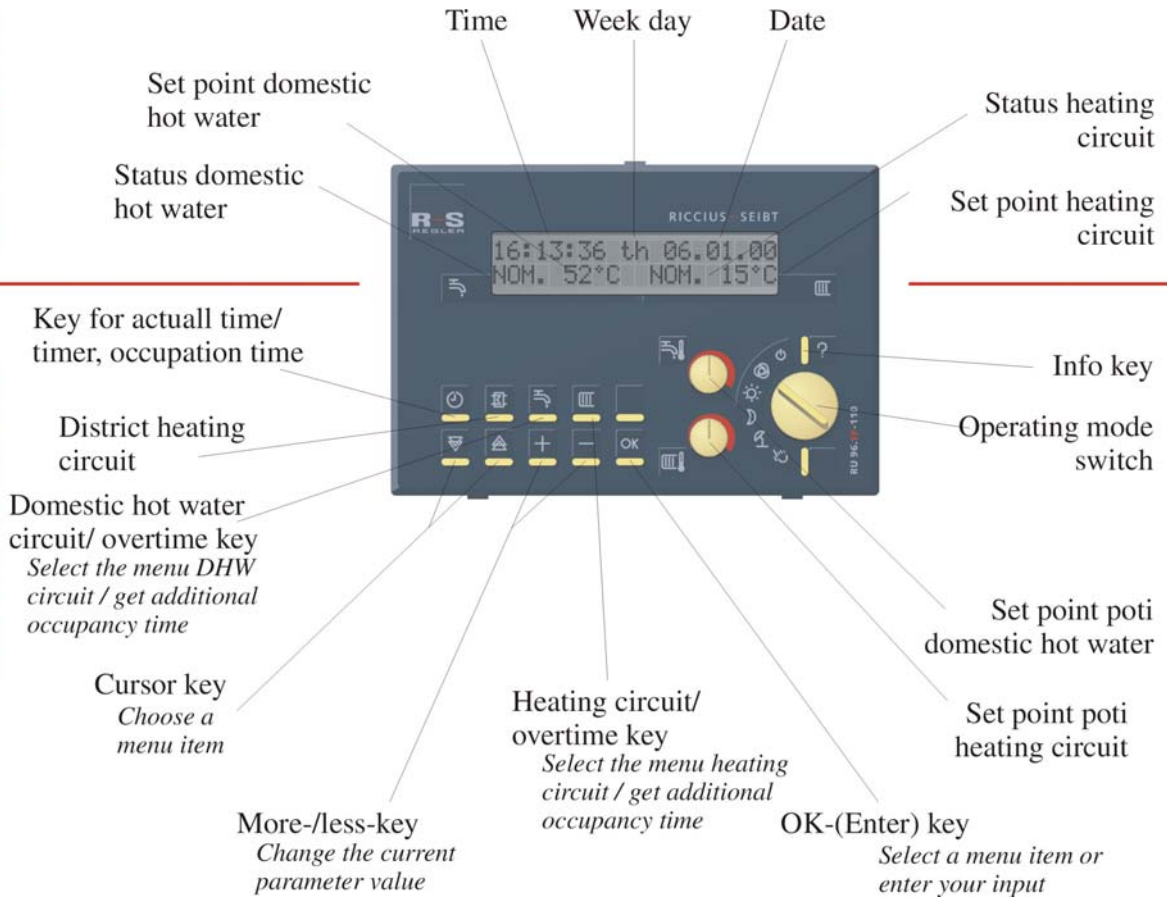
**Before removing the controller from the terminal socket:**

**Switch off main voltage!**

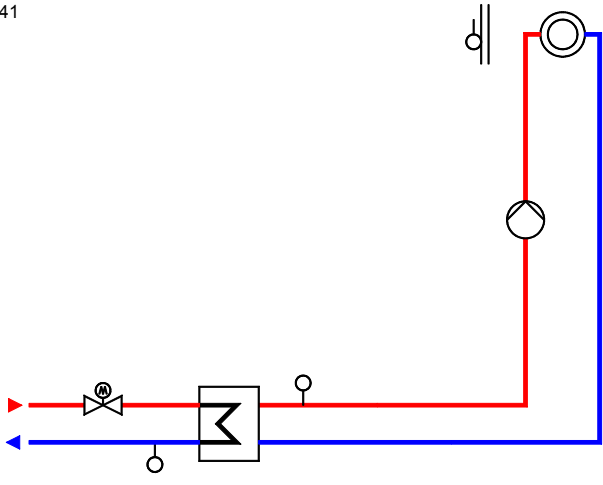
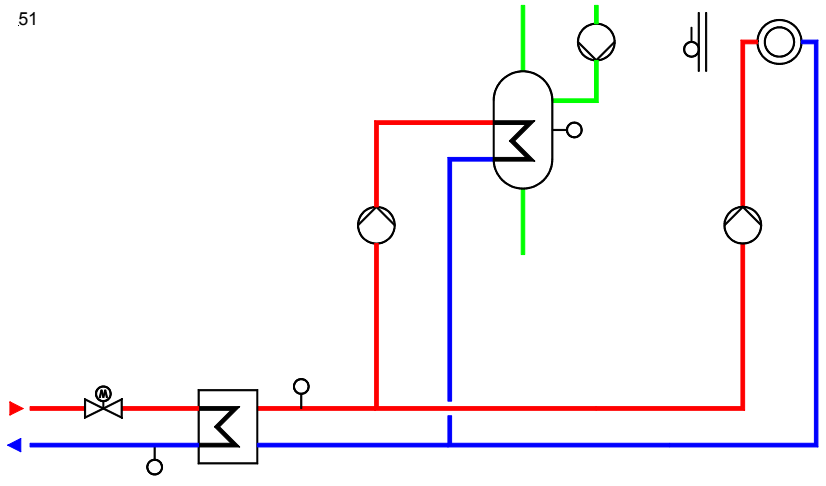
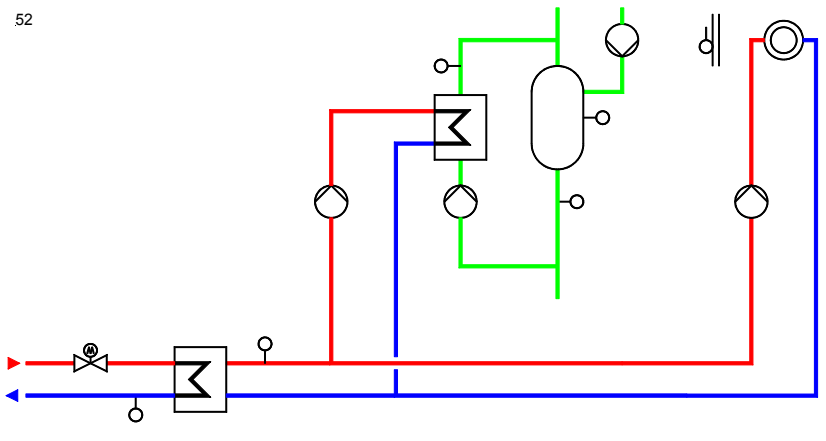
# 1 Control Elements

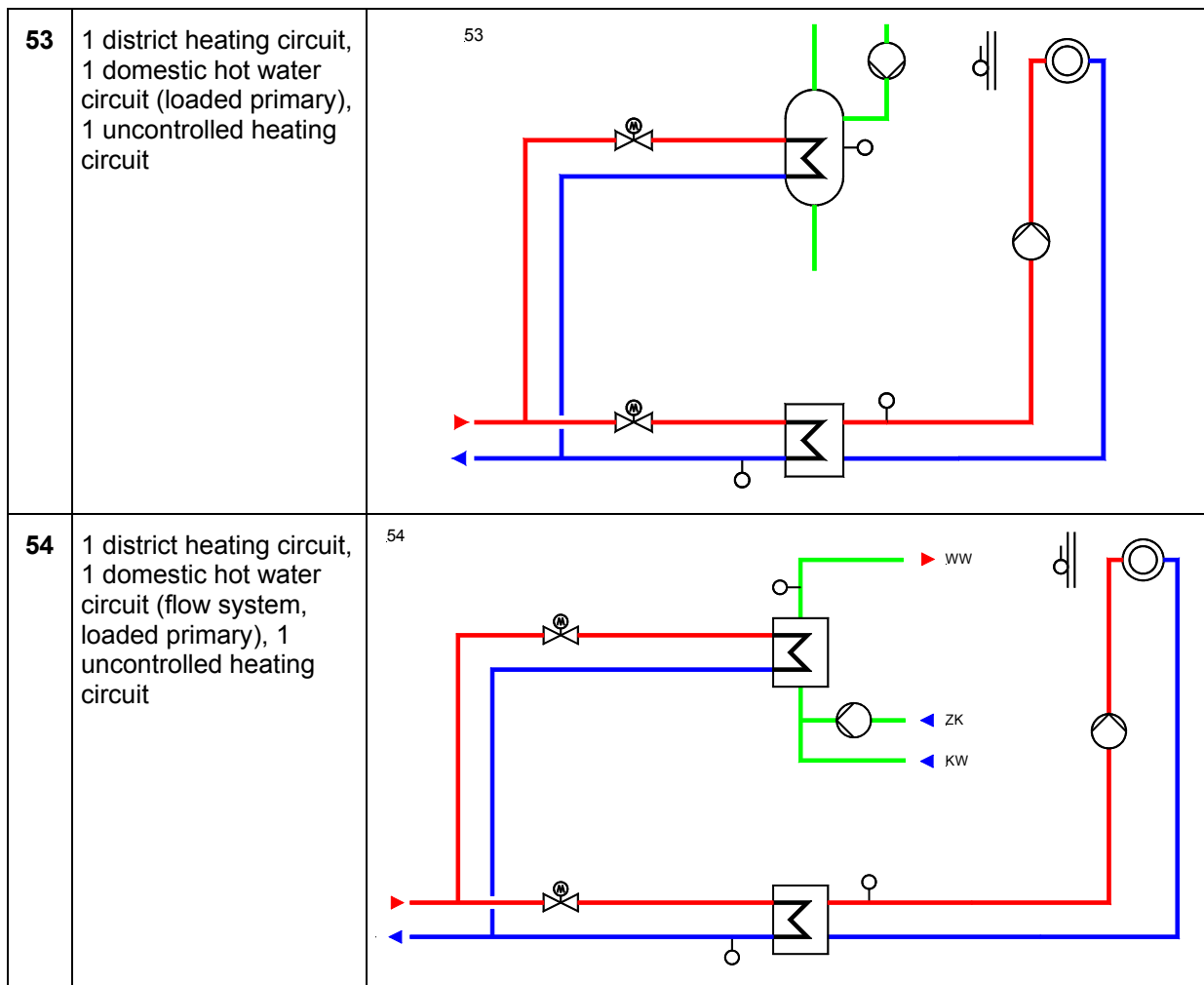
INFORMATION

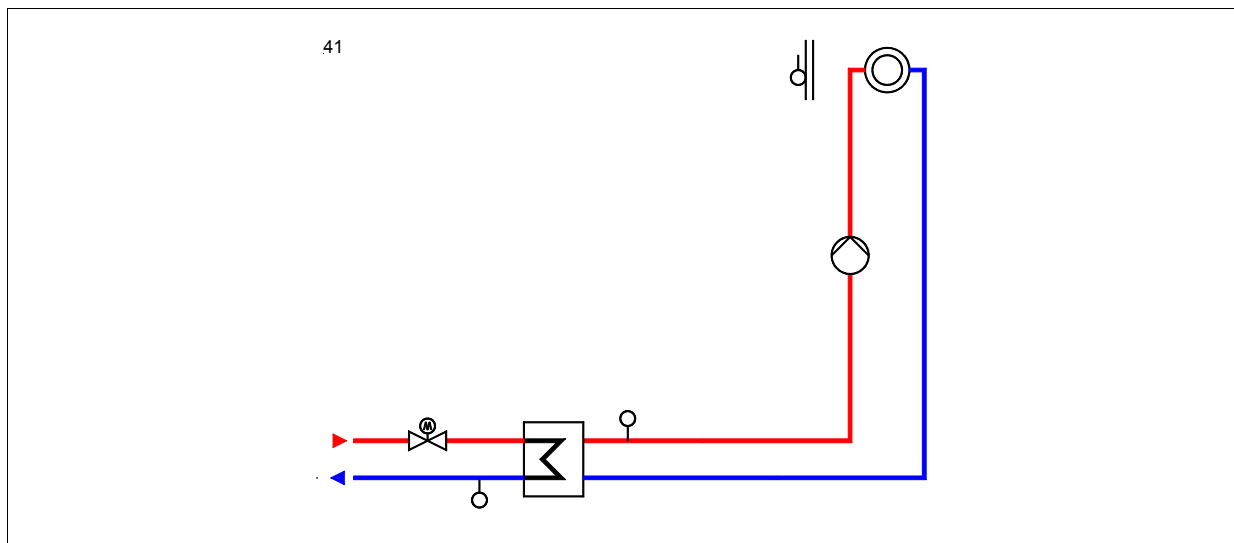
SIMPLE OPERATION



## 2 System Diagrams

41	1 district heating circuit, 1 uncontrolled heating circuit	<p>41</p> 
51	1 district heating circuit, 1 domestic hot water circuit, 1 uncontrolled heating circuit	<p>51</p> 
52	1 district heating circuit, 1 domestic hot water circuit (Storage loading system), 1 uncontrolled heating circuit	<p>52</p> 



**diagram 41: 1 district heating circuit, 1 uncontrolled heating circuit**

**terminal configuration RU 96.1F-110-41**

<b>outside temperature</b>	<b>17</b>	M-sensor	<b>16</b>	N	230 VAC
<b>sec.-flow temp.</b>	<b>18</b>	M-sensor	<b>15</b>	L	
<i>not assigned</i>	<b>19</b>	M-sensor	<b>14</b>		pump HC
<i>not assigned</i>	<b>20</b>	M-sensor	<b>13</b>		<i>not assigned</i>
<i>not assigned</i>	<b>21</b>	M-sensor	<b>12</b>		<i>not assigned</i>
<b>prim.-return temp.</b>	<b>22</b>	M-sensor	<b>11</b>		
<i>not assigned</i>	<b>23</b>	M-sensor	<b>10</b>		
drop pump HC	<b>24</b>	OC-Ausgang	<b>9</b>		
sensor ground	<b>25</b>	⊥	<b>8</b>		
CAN-Bus *)	<b>26</b>	CAN-H	<b>7</b>		
CAN-Bus *)	<b>27</b>	CAN-L	<b>6</b>		valve dist.heat. close
counter / M-Bus **)	<b>28</b>	M-Bus A / Z	<b>5</b>		
SSK ***)	<b>29</b>	A/TxD	<b>4</b>		
SSK ***)	<b>30</b>	B/RxD	<b>3</b>		valve dist.heat. open
power supply Bus	<b>31</b>	- SVB	<b>2</b>		
power supply Bus	<b>32</b>	+ SVB	<b>1</b>		<i>not assigned</i>

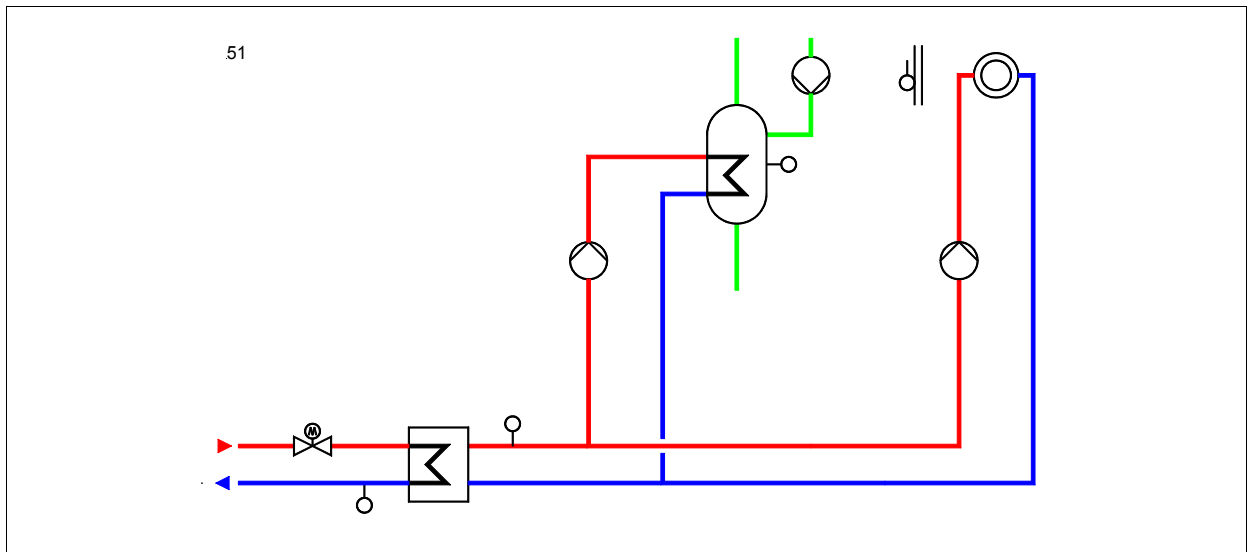
**bold** printed inputs **must** be connected.

*cursive* printed inputs and outputs can be connected after they have been assigned and the proper function was activated.

\*) only with controllers with CAN-interface

\*\*) only with controllers with M-Bus-interface

\*\*\*) only with controllers with interface for PC, Modem, Bus

**diagram 51: 1 district heating circuit, 1 domestic hot water circuit, 1 uncontrolled heating circuit****terminal configuration RU 96.1F-110-51**

<b>outside temperature</b>	<b>17</b>	M-sensor	<b>16</b>	N	230 VAC
<b>sec.-flow temp.</b>	<b>18</b>	M-sensor	<b>15</b>	L	
<i>not assigned</i>	<b>19</b>	M-sensor	<b>14</b>	pump HC	
<b>storage temp. DHW</b>	<b>20</b>	M-sensor	<b>13</b>	<i>not assigned</i>	
<i>not assigned</i>	<b>21</b>	M-sensor	<b>12</b>	DHW-loading pump	
<b>prim.-return temp.</b>	<b>22</b>	M-sensor	<b>11</b>		
<i>not assigned</i>	<b>23</b>	M-sensor	<b>10</b>		
drop pump HC	<b>24</b>	OC-Ausgang	<b>9</b>		
sensor ground	<b>25</b>	⊥	<b>8</b>		
CAN-Bus *)	<b>26</b>	CAN-H	<b>7</b>		
CAN-Bus *)	<b>27</b>	CAN-L	<b>6</b>	valve dist.heat. close	
counter / M-Bus **)	<b>28</b>	M-Bus A / Z	<b>5</b>		
SSK ***)	<b>29</b>	A/TxD	<b>4</b>		
SSK ***)	<b>30</b>	B/RxD	<b>3</b>	valve dist.heat. open	
power supply Bus	<b>31</b>	- SVB	<b>2</b>		
power supply Bus	<b>32</b>	+ SVB	<b>1</b>	circ.-pump	

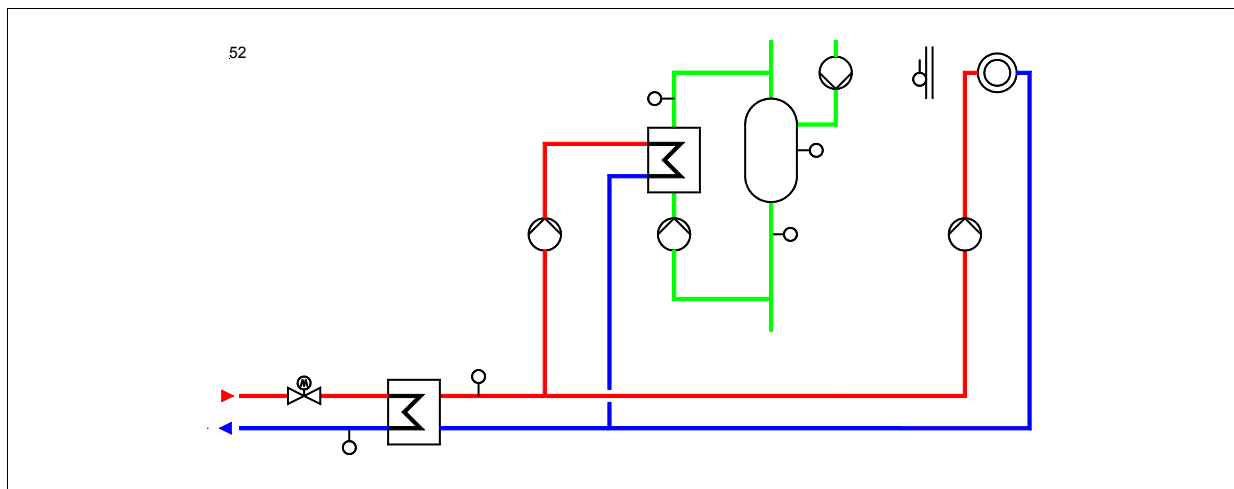
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\*) only with controllers with CAN-interface

\*\*) only with controllers with M-Bus-interface

\*\*\*) only with controllers with interface for PC, Modem, Bus

**diagram 52: 1 district heating circuit, 1 domestic hot water circuit, 1 uncontrolled heating circuit****terminal configuration RU 96.1F-110-52**

<b>outside temperature</b>
<b>sec.-flow temp.</b>
<i>not assigned</i>
<b>storage temp. DHW</b>
<b>storage temp.2 DHW</b>
<b>prim.-return temp.</b>
<b>flow temp. DHW</b>
drop pump HC
sensor ground
CAN-Bus *)
CAN-Bus *)
counter / M-Bus **)
SSK ***)
SSK ***)
power supply Bus
power supply Bus

17	M-sensor		16
18	M-sensor		15
19	M-sensor		14
20	M-sensor		13
21	M-sensor		12
22	M-sensor		11
23	M-sensor		10
24	OC-Ausgang		9
25	⊥		8
26	CAN-H		7
27	CAN-L		6
28	M-Bus A / Z		5
29	A/TxD		4
30	B/RxD		3
31	- SVB		2
32	+ SVB		1

N	230 VAC
L	
	pump HC
	storage loading pump
	exchanger loading pump
	valve dist.heat. close
	valve dist.heat. open
	DHW-circ.-Pump

**bold** printed inputs **must** be connected.

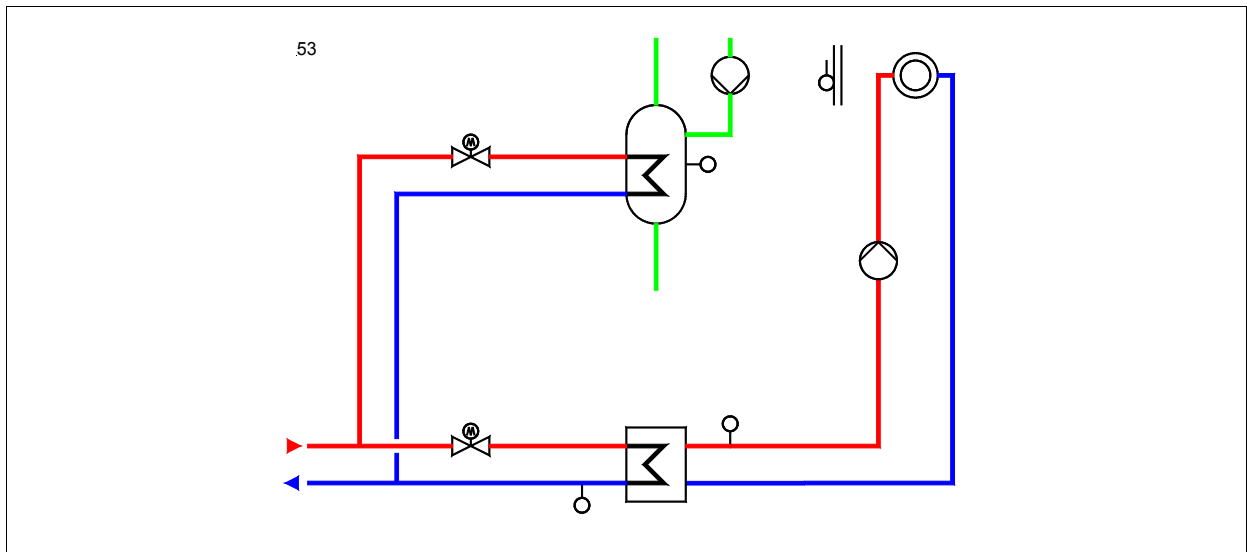
*cursive* printed inputs and outputs can be connected after they have been assigned and the proper function was activated.

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\*\*) only with controllers with M-Bus-interface

\*\*\*) only with controllers with interface for PC, Modem, Bus



**diagram 53: 1 district heating circuit, 1 domestic hot water circuit, 1 uncontrolled heating circuit****terminal configuration RU 96.1F-110-53**

<b>outside temperature</b>	<b>17</b>	M-sensor	<b>16</b>	N	230 VAC
<b>sec.-flow temp.</b>	<b>18</b>	M-sensor	<b>15</b>	L	
<i>not assigned</i>	<b>19</b>	M-sensor	<b>14</b>		
<b>storage temp. DHW</b>	<b>20</b>	M-sensor	<b>13</b>		pump HC
<i>not assigned</i>	<b>21</b>	M-sensor	<b>12</b>		valve DHW close
<b>prim.-return temp.</b>	<b>22</b>	M-sensor	<b>11</b>		valve DHW open
<i>not assigned</i>	<b>23</b>	M-sensor	<b>10</b>		
drop pump HC	<b>24</b>	OC-Ausgang	<b>9</b>		
sensor ground	<b>25</b>	⊥	<b>8</b>		
CAN-Bus *)	<b>26</b>	CAN-H	<b>7</b>		
CAN-Bus *)	<b>27</b>	CAN-L	<b>6</b>		valve dist.heat. close
counter / M-Bus **)	<b>28</b>	M-Bus A / Z	<b>5</b>		
SSK ***)	<b>29</b>	A/TxD	<b>4</b>		
SSK ***)	<b>30</b>	B/RxD	<b>3</b>		valve dist.heat. open
power supply Bus	<b>31</b>	- SVB	<b>2</b>		
power supply Bus	<b>32</b>	+ SVB	<b>1</b>		DHW-circ.-Pump

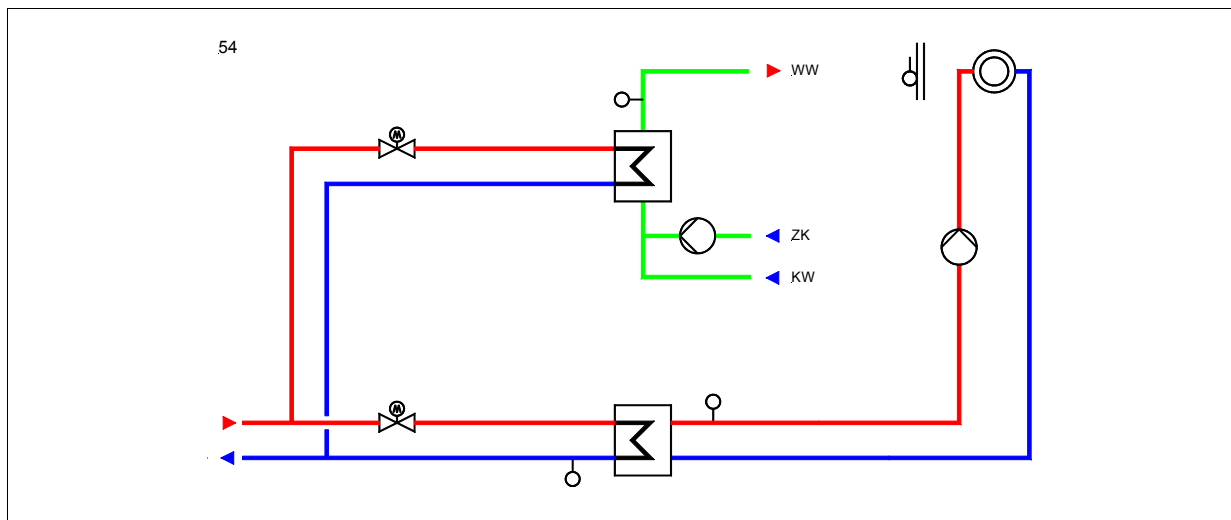
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\*\*\*) only with controllers with interface for PC, Modem, Bus

**diagram 54: 1 district heating circuit, 1 domestic hot water circuit, 1 uncontrolled heating circuit****terminal configuration RU 96.1F-110-54**

<b>outside temperature</b>	<b>17</b>	M-sensor	<b>16</b>	N	230 VAC
<b>sec.-flow temp.</b>	<b>18</b>	M-sensor	<b>15</b>	L	
<i>not assigned</i>	<b>19</b>	M-sensor	<b>14</b>		pump HC
<i>not assigned</i>	<b>20</b>	M-sensor	<b>13</b>		valve DHW close
<i>not assigned</i>	<b>21</b>	M-sensor	<b>12</b>		valve DHW open
<b>prim.-return temp.</b>	<b>22</b>	M-sensor	<b>11</b>		
<b>flow temp. DHW</b>	<b>23</b>	M-sensor	<b>10</b>		
drop pump HC	<b>24</b>	OC-Ausgang	<b>9</b>		
sensor ground	<b>25</b>	⊥	<b>8</b>		
CAN-Bus *)	<b>26</b>	CAN-H	<b>7</b>		
CAN-Bus *)	<b>27</b>	CAN-L	<b>6</b>		valve dist.heat. close
counter / M-Bus **)	<b>28</b>	M-Bus A / Z	<b>5</b>		
SSK ***)	<b>29</b>	A/TxD	<b>4</b>		
SSK ***)	<b>30</b>	B/RxD	<b>3</b>		valve dist.heat. open
power supply Bus	<b>31</b>	- SVB	<b>2</b>		
power supply Bus	<b>32</b>	+ SVB	<b>1</b>		DHW-circ.-Pump

**bold** printed inputs **must** be connected.

*cursive* printed inputs and outputs can be connected after they have been assigned and the proper function was activated.

\*) only with controllers with CAN-interface

\*\*) only with controllers with M-Bus-interface

\*\*\*) only with controllers with interface for PC, Modem, Bus



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