

# Halton Rex RXP, chilled beam – Installation, commissioning, and maintenance guide

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# 1 Introduction

## 1.1 Copyright and disclaimers

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## 1.2 About this document

This document provides the instructions on how to install, commission, and maintain the product. This document is intended for properly trained persons performing these tasks.

In the event of disputes regarding text translations, the original English text applies.

**Note:** Project-specific variations are possible.




## 1.3 Summary of changes

Release	Date	Description
3.0	09-July-2025	<ul style="list-style-type: none"><li>2 - Product description chapter removed as the "Technical description" document covers the topic.</li><li>3.1.1 Installation - updated text</li><li>3.1.2 Commissioning - Updated k-factors for Flexible and Autonomic models. For models delivered before 30.6.2025, see "Halton Rex RXP, chilled beam - k-factors before 30.06.2025" document in the "Downloads" section.</li><li>3.1.3 - Installation - updated text</li></ul>
2.0	5-Nov-2021	<ul style="list-style-type: none"><li>A new coil type added: cooling and heating.</li><li>A new duct connection size added: Ø 160 mm.</li></ul>
1.0	15-Sep-2021	First release



## 1.4 Safety notes

All information in this section is important and relevant for your safety. Pay special attention to these icons and the related safety texts when used later in context in this document.

### Cautions

	<div>⚠ CAUTION</div> <p>FALLING HAZARD Pay special attention and use proper equipment when working at height.</p>
	<div>⚠ CAUTION</div> <p>PERSONAL INJURY HAZARD Do not lift objects over 20 kg (44 lbs) alone. Use a lift or seek assistance.</p>
	<div>⚠ CAUTION</div> <p>PERSONAL INJURY HAZARD Follow all local health and safety regulations and use proper personal protective equipment.</p>

### Notices

	<div>NOTICE</div> <p>NOTICE All installation, commissioning, and maintenance work must only be carried out by qualified personnel.</p>
	<div>NOTICE</div> <p>NOTICE All electrical work must only be carried out by qualified personnel.</p>

## 1.5 Contact information

For contact information, see [www.halton.com](http://www.halton.com).

## 2 Transport, storage and handling

### 2.1 Pre-packing and packing

Prior to packing, Halton inspects all products thoroughly for any damages or physical faults. Halton inspects all nameplates and identification tags against the purchase order and the Halton order confirmation to eliminate the possibility of any mistakes or issues. Corrected if necessary.

Once the pre-packing procedure is complete, each product is sorted and packed according to weight and size. Depending on the shipping requirements, pack the products onto open pallets or pallets protected by wooden covers. Secure the products to the pallets with plastic wrapping and straps.

### 2.2 Shipping and handling

Check all packing and shipping documentation prior to loading the shipment.

One copy of the packing list is attached to each pallet, crate, or cardboard box in a waterproof plastic envelope. Add any additional copies of packing lists, customs invoices, shipping marks, and other documents according to the client and shipping company requirements.

Use a forklift for loading or unloading the pallets.

**Note:** Some of the components can be delivered to the site in separate shipments.

#### 2.2.1 Handling the product

To protect the product from damage or dirt, keep the product in its original box until the need for its installation. There is a product label in each box, which helps move the product to its correct location without the need for unboxing.

When you take the product out of the box, please do not lift the product by the pipes, as they damage easily, which leads to leaking coils.

### 2.3 Checking the received equipment

1. Inspect the pallet or cardboard box and the products for any damage or missing parts. If you detect any damage or the shipment is incomplete, immediately file a claim with the shipping company.
2. Confirm that the products that you received are the ones that you ordered. If the products are not the ones you ordered, see [\*\*Fault reporting and reclamations\*\*](#) for instructions.


### 2.4 Unpacking

#### Steps

Remove the straps and the plastic wrapping or other package covers from the pallets. Open the cardboard boxes. Avoid damaging the products when you unpack them.

**Note:** The visible surface of the unit is protected with removable plastic coating. It protects the surface from dust, dirt, and small scratches. It is recommended that you leave the plastic coating in place until the unit is taken into use.


## 2.5 Lifting the equipment


	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p><b>PERSONAL INJURY HAZARD</b> Do not lift objects over 20 kg (44 lbs) alone. Use a lift or seek assistance.</p>
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**Note:** For information on the weight of the product, see the "Dimensions and weight" section in "Halton Rex RXP, chilled beam - Technical description".

When you take the product out of the box, do not lift the product by the pipes, as they damage easily, which leads to leaking coils.

## 2.6 Storing the equipment

	<p style="text-align: center;"><b>NOTICE</b></p> <p><b>NOTICE</b> Do not expose the products to weather or store them outside.</p>
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	<p style="text-align: center;"><b>NOTICE</b></p> <p><b>NOTICE</b> Do no use any part of the products for climbing or support.</p>
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### Protecting against moisture


The pallets enable air circulation inside the plastic wrappings. You must store the products in a dry indoor environment and protect them from moisture in any junction box or other closed enclosure. A dry indoor environment should not create moisture in junction boxes. However, if necessary, the BUYER can install additional moisture protection, such as Silica Gel, on the junction boxes.


1. Store the products in a dry indoor area. Provide adequate mechanical protection at all times during storage and, installation and construction activities.
2. Periodically check the products for any damage and repair or replace any component, wiring or piping that shows signs of damage.

## 3 Installation


### 3.1 Before you start


#### 3.1.1 Safety during installation


	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p><b>FALLING HAZARD</b> Pay special attention and use proper equipment when working at height.</p>
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	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p><b>PERSONAL INJURY HAZARD</b> Do not lift objects over 20 kg (44 lbs) alone. Use a lift or seek assistance.</p>
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**Note:** For information on the weight of the product, see the "Dimensions and weight" section in "Halton Rex RXP, chilled beam - Technical description".

	<p style="text-align: center;"><b>⚠ CAUTION</b></p> <p><b>PERSONAL INJURY HAZARD</b> Follow all local health and safety regulations and use proper personal protective equipment.</p>
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	<p style="text-align: center;"><b>NOTICE</b></p> <p><b>NOTICE</b> All installation, commissioning, and maintenance work must only be carried out by qualified personnel.</p>
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	<p style="text-align: center;"><b>NOTICE</b></p> <p><b>NOTICE</b> All electrical work must only be carried out by qualified personnel.</p>
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#### 3.1.2 Installation process

The main steps in the installation process are the following:

- Determining the installation place and orientation of the unit from the design drawings.
- Installing the unit.
- Connecting the unit to ductwork.
- Connecting the water connections.

**Note:** When equipped with an electric actuator, the unit is part of a system. The needed wires are connected during the installation phase of the system.



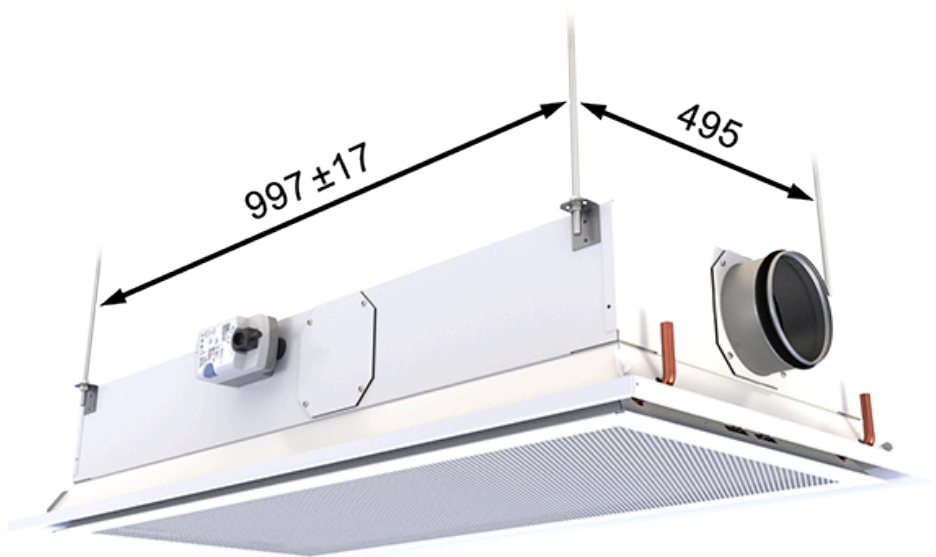
### 3.1.3 Installation

When planning the orientation of the Halton Rex RXP chilled beam, the location of the supply air and water circuit connections must be taken into account. The supply air spigot can be on either side of the unit or at the same end as the water connections. The location can be easily changed on-site, if needed. There are product model options with Halton Rex RXP 600, Flexible and Autonomic models to have water connections at the same or opposite end as straight air connections.

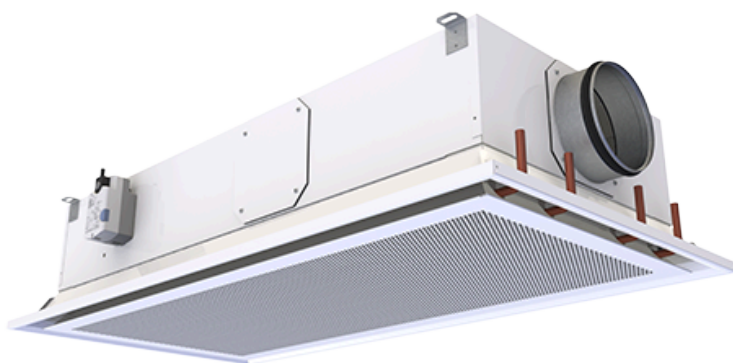
The location of HAQ control actuator (optional) must also be considered to ensure access to the airflow adjustment/actuator. The actuator is in the middle of the left side of the unit in the Halton Rex RXP chilled beam, Standard model. Similarly, the location of the actuator on the OMD control (manual or motorised models) must also be considered to ensure access to the airflow adjustment/actuator. The actuator is located at the end of the left side of the unit in Halton Rex RXP chilled beam, Flexible and Autonomic models. See the figures below of the location and details in section "Operating principle" of "Halton Rex RXP, chilled beam - Technical description".

The Halton Rex RXP chilled beam Standard/Flexible model can be installed directly to the ceiling surface ( $H = 220 \text{ mm} / 225 \text{ mm}$  standard/flexible model). The Autonomic model can be installed 10 mm from the ceiling surface due to the space required by the actuator ( $H = 225 \text{ mm}$  autonomic model + 10 mm space). Installation to the suspended ceiling can be done using threaded drop rods (8 mm). The brackets for ceiling installation are located at the sides of the unit.

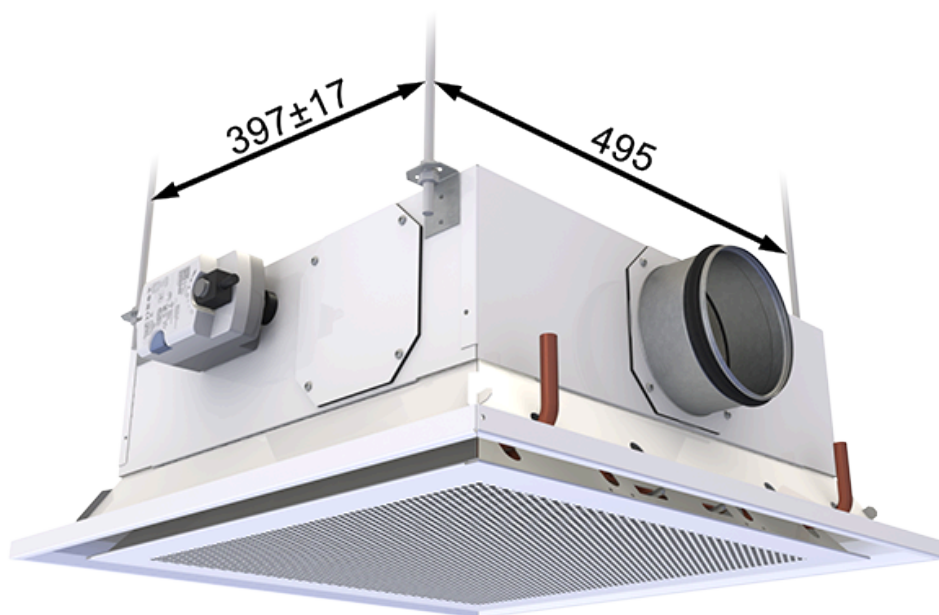
The Halton Rex RXP chilled beam can be integrated with a standard T-bar ceiling measuring 600x600 mm. The height of the unit's edges is 16 mm. If other suspended ceiling integrations are needed, please contact Halton sales for further information.



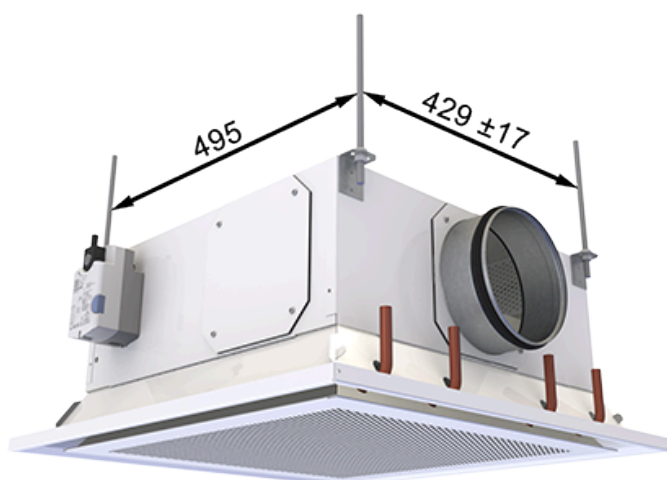
*Fig. 1. Installation points of Halton Rex RXP 1200, Standard, Flexible and Autonomic models. The location of the actuator in Halton Rex RXP 1200, Standard model*



*Fig. 2. The location of the actuator in Halton Rex RXP 1200, Flexible and Autonomic models*



*Fig. 3. Installation points and the location of the actuator of Halton Rex RXP 600, Standard model*



*Fig. 4. Installation points and the location of the actuator of Halton Rex RXP 600, Flexible and Autonomic models*

It is recommended that the main pipelines of the cooling and heating water circuits are installed above the level of the heat exchanger to enable venting of the pipework.

The maximum operating pressure for chilled/hot water pipework is 1.0 MPa.

### 3.1.4 Checks before installation

Make sure you have all the needed materials:

- The unit to be installed.
- Instructions (this document, design drawings)
- The needed tools, for example:
  - Board lifter
  - Ladder
  - Materials and tools needed for installing the unit to the ceiling.
  - Materials and tools needed for connecting the air and water connections.

**Note:** The materials and tools needed for installing or connecting the unit are not included in the delivery.

## 3.2 Step by step instructions

### 3.2.1 Installing the unit

#### Before you start

See also the following information:

- **Installation**
- **Lifting the equipment**

#### Steps

1. Make sure the unit is in good condition.
2. From the design drawings, determine the installation place.
3. From the design drawings, determine the orientation of the unit (the locations of the water circuit connections and supply air spigot).
4. From the design drawings, determine the height of the unit according to the planned suspended ceiling. The bottom surface of the unit should be on the same level as the bottom surface of the suspended ceiling.
5. Install the unit accordingly.

### 3.2.2 Connecting the unit to the ductwork

#### Steps

1. Remove any contamination from the ductwork.
2. Remove the plastic cover from the spigot of the unit.
3. Push the duct into the spigot of the unit. The spigot has a seal gasket.

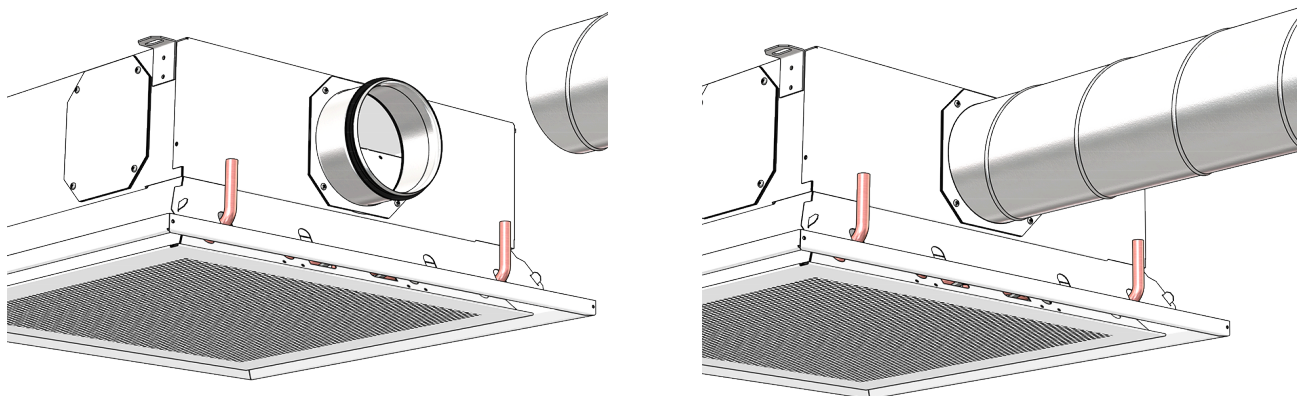


Fig. 5. Connecting the duct

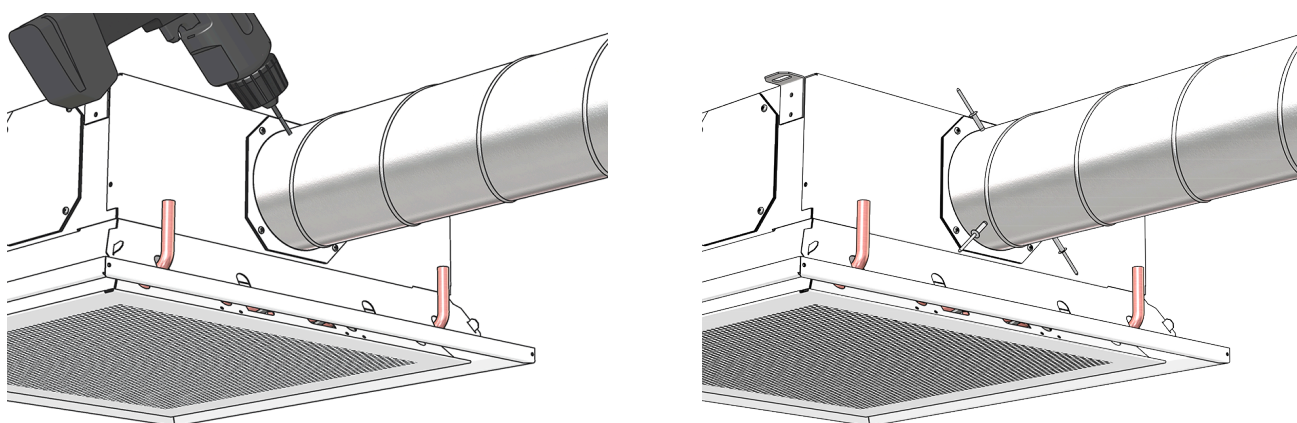


Fig. 6. Securing the duct with blind rivets

### 3.2.3 Connecting the water circuit connections

#### Before you start

If there are two connection pipes, the unit can be used for cooling or heating. If there are four connection pipes, the outer pipes are used for cooling and the inner pipes for heating.



#### NOTICE

NOTICE  
When tightening the fittings, be careful not to damage the pipes.

#### Steps

Connect the water circuit connections according to the design drawings. You can use, for example, push-fit fittings or compression fittings. With compression fittings, to avoid damaging the pipes, use two wrenches to tighten the fitting.

**Note:** It does not matter which way you connect the supply and return water connections. The flow direction in the coil does not affect the performance of the unit.

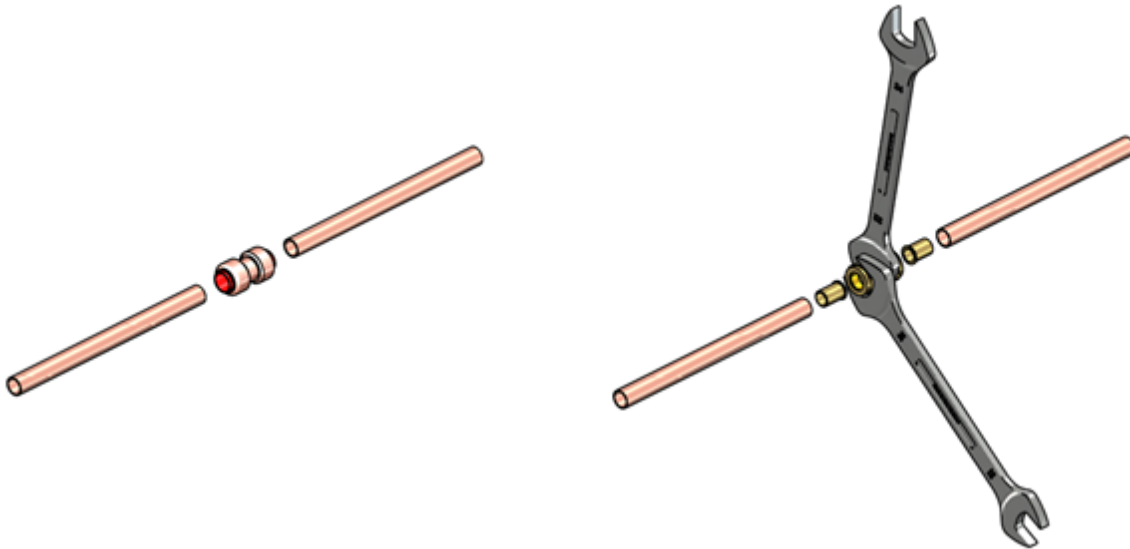


Fig. 7. Connecting the pipes. Left: Push-fit fitting. Right: Compression fitting.

### 3.3 Checks after installation

Before commissioning can start, make sure the following has been taken care of:


- The unit is installed correctly.
- The unit is connected to the ductwork correctly.
- The water connections are connected correctly.

**Note:** The visible surface of the unit is protected with removable plastic coating. It protects the surface from dust, dirt, and small scratches. It is recommended that you leave the plastic coating in place until the unit is taken into use.

## 4 Product name - Commissioning

### 4.1 Before you start

#### 4.1.1 Safety during commissioning

	<p style="text-align: center;"><b>NOTICE</b></p> <p>NOTICE All installation, commissioning, and maintenance work must only be carried out by qualified personnel.</p>
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#### 4.1.2 Commissioning process

Commissioning includes adjusting the settings and doing the required start-up tests. Commissioning is carried out by Halton Field Service or an approved partner.

**Note:** When equipped with an electric actuator, the unit is part of a system. The needed settings are adjusted during the commissioning phase of the system.

#### 4.1.3 Commissioning

##### Adjustment of the cooling capacity

The recommended cooling water mass flow rate is 0.02–0.10 kg/s, resulting in a temperature rise of 1–4 °C in the heat exchanger. To avoid condensation, the recommended minimum inlet water temperature of the heat exchanger is 14–16 °C.

##### Adjustment of the heating capacity

The recommended heating water mass flow rate is 0.01–0.04 kg/s, resulting in a temperature drop of 5–15 °C in the heat exchanger. The maximum inlet water temperature of the heat exchanger is 35 °C.

##### Balancing and control of water flow rates

The water mass flow rates of the Halton Rex RXP chilled beam are balanced with adjustment valves installed on the outlet side of the water loops. The cooling or heating capacity of the Halton Rex RXP chilled beam is controlled by regulating the water mass flow rate.

##### Adjustment of the supply airflow rate

With a Halton Rex RXP chilled beam Standard model (RXP/S) that does not have the Halton Air Quality (HAQ) control, the airflow depends on the chamber pressure and the selected nozzle. With the HAQ control included, the position of the HAQ control must also be taken into considered. The k-factors are given in the table below.

With a Halton Rex RXP chilled beam Flexible model (RXP/F), the position of the OMD control must be taken into account as shown in the table below.

The chamber pressure (RXP/S) or the OMD pressure (RXP/F) can be measured from a measurement tap under the front panel.

The total airflow rate is calculated using the formula below.

$$q_v = k\sqrt{\Delta p_m}$$

where

- $q_v$  = Airflow rate in l/s or m<sup>3</sup>/h.
- $\Delta p_m$  = Measured pressure (Pa)
- $k$  = The k-factor given as a function of mounting and diameter (see the tables below)



## Halton Rex RXP, Standard model

Position of HAQ control	Control signal voltage [V]	k-factor [l/s], total airflow (Standard model)					
		600			1200		
		C*	D*	E*	C*	D*	E*
0 / closed / no HAQ	0-1	1.11	1.56	2.51	2.05	2.89	4.69
0.5	1.5	1.39	1.84	2.79	2.33	3.17	4.97
1	2	1.67	2.12	3.07	2.61	3.45	5.25
1.5	2.5	1.94	2.39	3.34	2.88	3.72	5.52
2	3	2.21	2.66	3.61	3.15	3.99	5.79
2.5	3.5	2.47	2.92	3.87	3.41	4.25	6.05
3	4	2.72	3.17	4.12	3.66	4.50	6.30
3.5	4.5	2.97	3.42	4.37	3.91	4.75	6.55
4	5	3.21	3.66	4.61	4.15	4.99	6.79
4.5	5.5	3.44	3.89	4.84	4.38	5.22	7.02
5	6	3.67	4.12	5.07	4.61	5.45	7.25
5.5	6.5	3.89	4.34	5.29	4.83	5.67	7.47
6	7	4.11	4.56	5.51	5.05	5.89	7.69
6.5	7.5	4.23	4.77	5.72	5.26	6.10	7.90
7	8	4.52	4.97	5.92	5.46	6.30	8.10
7.5	8.5	4.72	5.17	6.12	5.66	6.50	8.30
8	9	4.91	5.36	6.31	5.85	6.69	8.49
8.5	9.5	5.10	5.55	6.50	6.04	6.88	8.68
9	10	5.28	5.73	6.68	6.22	7.06	8.86

Table 1. Halton Rex RXP, Standard model: k-factors with different HAQ control positions in l/s

\*Nozzle types: C = Medium, D = Large, E = Extra large

Position of HAQ control	Control signal voltage V	k-factor [m <sup>3</sup> /h], total airflow (Standard model)					
		600			1200		
		C*	D*	E*	C*	D*	E*
0 / closed / no HAQ	0-1	4.00	5.62	9.04	7.38	10.40	16.88
0.5	1.5	5.02	6.64	10.06	8.40	11.43	17.91
1	2	6.02	7.64	11.06	9.40	12.43	18.91

Position of HAQ control	Control signal voltage v	k-factor [m <sup>3</sup> /h], total airflow (Standard model)					
		600			1200		
		C*	D*	E*	C*	D*	E*
1.5	2.5	7.00	8.62	12.04	10.38	13.40	19.88
2	3	7.95	9.57	12.99	11.34	14.36	20.84
2.5	3.5	8.88	10.50	13.92	12.27	15.29	21.77
3	4	9.80	11.42	14.84	13.18	16.20	22.68
3.5	4.5	10.68	12.30	15.72	14.07	17.09	23.57
4	5	11.55	13.17	16.59	14.93	17.96	24.44
4.5	5.5	12.39	14.01	17.43	15.78	18.80	25.28
5	6	13.22	14.84	18.26	16.60	19.62	26.10
5.5	6.5	14.02	15.64	19.06	17.40	20.42	26.90
6	7	14.79	16.41	19.83	18.18	21.20	27.68
6.5	7.5	15.55	17.17	20.59	18.93	21.96	28.44
7	8	16.28	17.90	21.32	19.67	22.69	29.17
7.5	8.5	16.99	18.61	22.03	20.38	23.40	29.88
8	9	17.68	19.30	22.72	21.07	24.09	30.57
8.5	9.5	18.35	19.97	23.39	21.73	24.76	31.24
9	10	18.99	20.61	24.03	22.38	25.40	31.88

*Table 2. Halton Rex RXP, Standard model: k-factors with different HAQ control positions in m<sup>3</sup>/h*

\*Nozzle types: C = Medium, D = Large, E = Extra large

## Halton Rex RXP, Flexible model

Position of OMD control	Control signal voltage for electric actuator [V]	k-factor [l/s], total airflow (Flexible model)	
		600	1200
0.0		0.12	0.14
0.5		0.19	0.34
1.0		0.27	0.54
1.5		0.84	1.04
2.0		1.42	1.55
2.5		1.55	2.11
3.0		1.69	2.66
3.5		1.74	3.05
4.0		1.78	3.44
4.5		2.21	4.05
5.0		2.64	4.67
5.5		3.12	5.23
6.0		3.60	5.79
6.5		4.10	6.38
7.0		4.60	6.97
7.5		5.05	7.49
8.0		5.50	8.02
8.5		5.88	8.47
9.0		6.25	8.92
9.5		6.38	9.11
10.0		6.51	9.30

**Table 3.** Halton Rex RXP, Flexible model: k-factors with different OMD control positions in l/s

**Note:** For the k-factors of the products delivered before 30.06.2025, refer to the " Halton Rex RXP, chilled beam - k-factors before 30.06.2025 " document in the "Downloads" section.

Position of OMD control	Control signal voltage for electric actuator [V]	k-factor [m <sup>3</sup> /h], total airflow (Flexible model)	
		600	1200
0.0		0.42	0.51
0.5		0.69	1.22
1.0		0.97	1.94
1.5		3.03	3.76

Position of OMD control	Control signal voltage for electric actuator [V]	k-factor [m <sup>3</sup> /h], total airflow (Flexible model)	
		600	1200
2.0		5.10	5.59
2.5		5.60	7.58
3.0		6.09	9.57
3.5		6.25	10.98
4.0		6.42	12.39
4.5		7.97	14.59
5.0		9.52	16.80
5.5		11.23	18.81
6.0		12.95	20.83
6.5		14.76	22.96
7.0		16.58	25.09
7.5		18.20	26.97
8.0		19.82	28.86
8.5		21.16	30.48
9.0		22.50	32.11
9.5		22.98	32.79
10.0		23.45	33.48

**Table 4.** Halton Rex RXP, Flexible model: k-factors with different OMD control positions in m<sup>3</sup>/h

**Note:** For the k-factors of the products delivered before 30.06.2025, refer to the " Halton Rex RXP, chilled beam - k-factors before 30.06.2025 " document in the "Downloads" section.

## Halton Rex RXP, Autonomic model

Control signal voltage for electric actuator [V]	k-factor [l/s], total airflow (Autonomic model)	
	600	1200
0.0	0.08	0.21
0.5	0.24	0.43
1.0	0.40	0.64
1.5	0.89	1.01
2.0	1.38	1.37
2.5	1.51	1.76
3.0	1.65	2.16
3.5	1.69	2.58
4.0	1.73	3.01
4.5	2.01	3.38
5.0	2.29	3.76
5.5	2.73	4.23
6.0	3.18	4.70
6.5	3.64	5.23
7.0	4.09	5.75
7.5	4.51	6.27
8.0	4.93	6.79
8.5	5.31	7.28
9.0	5.69	7.77
9.5	6.05	8.22
10.0	6.40	8.68

**Table 5.** Halton Rex RXP, Autonomic model: k-factors with different OMD control positions in l/s

**Note:** For the k-factors of the products delivered before 30.06.2025, refer to the " Halton Rex RXP, chilled beam - k-factors before 30.06.2025 " document in the "Downloads" section.

Control signal voltage for electric actuator [V]	k-factor [m <sup>3</sup> /h], total airflow (Autonomic model)	
	600	1200
0.0	0.29	0.75
0.5	0.86	1.53
1.0	1.44	2.31
1.5	3.21	3.62

Control signal voltage for electric actuator [V]	k-factor [m <sup>3</sup> /h], total airflow (Autonomic model)	
	600	1200
2.0	4.98	4.94
2.5	5.45	6.35
3.0	5.92	7.77
3.5	6.07	9.30
4.0	6.22	10.84
4.5	7.23	12.18
5.0	8.23	13.53
5.5	9.84	15.23
6.0	11.44	16.93
6.5	13.09	18.82
7.0	14.74	20.71
7.5	16.24	22.58
8.0	17.74	24.45
8.5	19.11	26.20
9.0	20.49	27.95
9.5	21.77	29.59
10.0	23.05	31.23

**Table 6.** Halton Rex RXP, Autonomic model: k-factors with different OMD control positions in m<sup>3</sup>/h

**Note:** For the k-factors of the products delivered after 30.06.2025, refer to the " Halton Rex RXP, chilled beam - k-factors before 30.06.2025 " document in the "Downloads" section.

#### Example 1:

The measured static chamber pressure is 70 Pa for RXP/S-E-600, and the position of the HAQ control is 3. The total airflow rate is  $4.12 \cdot \sqrt{70} \approx 34.3$  l/s.

#### Example 2:

The OMD pressure measured from the measurement tap in RXP/F-F-600 S3 is 75 Pa. RXP/F-F-600 S3 is equipped with the manual actuator. The positions of the manual actuator can be moved with the handle shown in Fig. 27. When the handle is moved to the position 3 (position of the handle according to the scale in the sticker behind the handle). For calculating the total airflow rate, the k-value is taken from Table 5, and calculated with the equation  $1.95 \cdot \sqrt{75} \approx 17$  l/s.



*Fig. 8. Adjustment of the manual actuator position in Halton Rex RXP, Flexible model*

## 4.2 Step by step instructions

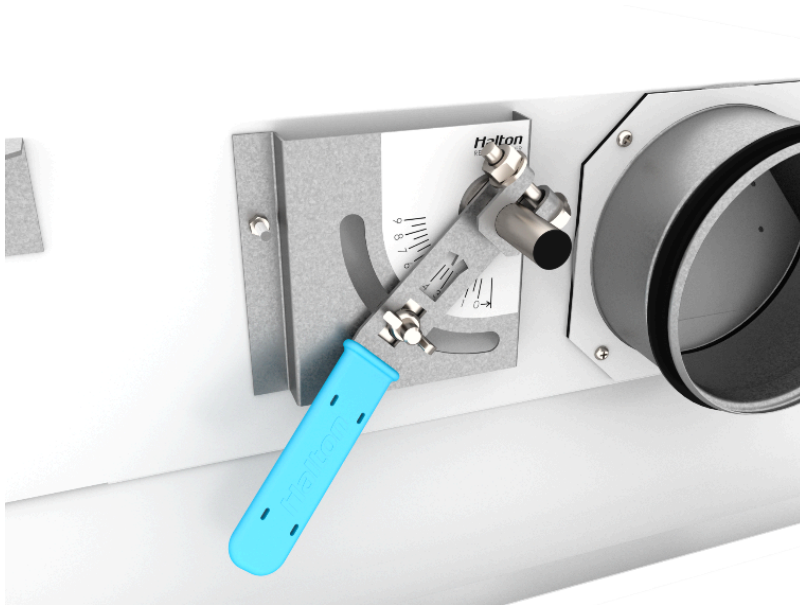
### 4.2.1 Adjusting the position of the manual actuator of HAQ control

#### Before you start

**Note:** By default, the manual actuator of HAQ control is closed.

#### Steps

Adjust the position of the manual actuator of HAQ control according to the HVAC plan of the building.




*Fig. 9. Manual actuator of HAQ control*



## 5 Maintenance

### 5.1 Before you start

#### 5.1.1 Safety during maintenance

	<table border="1"><thead><tr><th data-bbox="314 425 1481 477">NOTICE</th></tr></thead><tbody><tr><td data-bbox="314 477 1481 602"><p>NOTICE All installation, commissioning, and maintenance work must only be carried out by qualified personnel.</p></td></tr></tbody></table>	NOTICE	<p>NOTICE All installation, commissioning, and maintenance work must only be carried out by qualified personnel.</p>
NOTICE			
<p>NOTICE All installation, commissioning, and maintenance work must only be carried out by qualified personnel.</p>			

#### 5.1.2 Checks before maintenance

Make sure you have the following:

- A list of the ID numbers and locations of the units
- Access to the units

#### 5.1.3 Maintenance

The front panel of the Halton Rex RXP chilled beam is removable, allowing for general maintenance and cleaning.

For more information, please download the Halton Rex RXP, Standard model – Installation, commissioning and maintenance guide.


### 5.2 Maintenance schedule

Carry out scheduled maintenance according to the maintenance plan of the building.

### 5.3 Step by step instructions

#### 5.3.1 Cleaning the unit

Before you start

	<table border="1"><thead><tr><th data-bbox="314 1570 1481 1621">NOTICE</th></tr></thead><tbody><tr><td data-bbox="314 1621 1481 1738"><p>NOTICE Be careful not to damage the fins of the coil.</p></td></tr></tbody></table>	NOTICE	<p>NOTICE Be careful not to damage the fins of the coil.</p>
NOTICE			
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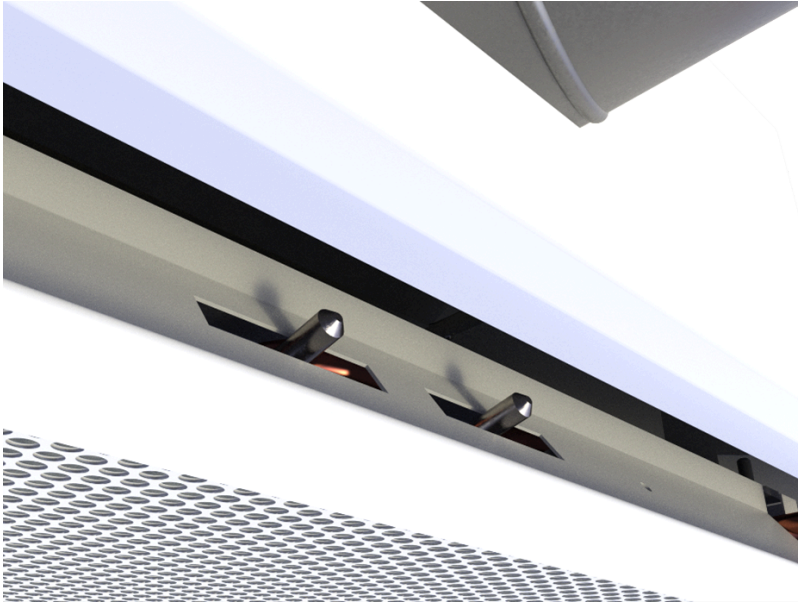
#### Steps

1. Vacuum the front panel and coil periodically. The period depends on the room properties, often being once a year. For instructions on opening the front panel, see *[Opening the front panel](#)*.
2. After vacuuming, replace the front panel.

### 5.3.2 Opening the front panel

#### Before you start

The latches for opening the front panel are located at both ends of the front panel.



*Fig. 10. Front panel latches*

#### Steps

To open the front panel, press the latches towards each other.

### 5.3.3 Filling in the maintenance documents

#### Steps

Fill in the maintenance documents required by your organisation.


## 5.4 Checks after maintenance


Make sure you have filled in the maintenance documents.

## 6 End of life

### 6.1 Removing the product from use

Before you start

	<p style="text-align: center;"><b>NOTICE</b></p> <p>NOTICE All installation, commissioning, and maintenance work must only be carried out by qualified personnel.</p>
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	<p style="text-align: center;"><b>NOTICE</b></p> <p>NOTICE All electrical work must only be carried out by qualified personnel.</p>
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#### Steps

1. Disconnect the wiring.
2. Disconnect the duct connection.
3. Disconnect the water connections.
4. Dismount the unit.

### 6.2 Recycling and waste disposal

Carry out all recycling and waste disposal in accordance with the law and regulations of each country. Observe the specific requirements enforced by the legislation and local authorities of each country. Keep the environment clean.

#### Packaging waste

Packaging materials that can be recycled are listed below. They must be disposed of in conformity with existing local regulations.

- Polyethylene: outer protective film
- Cardboard: angle protections, cardboard boxes etc.
- Wood: pallet, plywood etc.

#### Electronic and other components

Any electronic and other corresponding components of the product should be assessed for the most suitable recycling route in accordance with local regulations.

#### Recycling after decommissioning

Recycle the product and its components upon decommissioning. Follow the local laws and regulations when disposing of electrical components and steel materials. The following instructions are general.

- Disconnect and dismount all electrical and/or pneumatic components (such as actuator, junction box, switches, cables etc.).
- Recycle electronic and other corresponding components of the product in accordance with WEEE

provisions.

- Recycle the steel frame and steel parts in accordance with steel recycling provisions.

If you require more details for recycling and waste disposal concerning a product, contact Halton.

## 7 Troubleshooting

### 7.1 Troubleshooting

Problem	Possible cause	Possible solution
Poor air quality in the room.	The airflow rate is too low.	Check and, if needed, adjust the chamber pressure. Check and, if needed, adjust the position of the HAQ control.
Cooling or heating does not work properly.	The airflow rate is too low.	Check and, if needed, adjust the chamber pressure.
Cooling or heating does not work properly.	The water valve does not work.	Check the operation of the water valve.
The unit makes a loud or whistling noise.	The airflow rate is too high.	Check and, if needed, adjust the chamber pressure.

### 7.2 Fault reporting and reclamations

For fault reporting and reclamations, contact Halton.

Provide the following information for easier service:

- Product type and serial number
- Customer name/project
- Order confirmation number (purchase or sales order number)
- Serial numbers of faulty components
- Reclamation description
- Pictures

### 7.3 Spare parts

For spare parts for your specific product, contact Halton.

Provide the following information for easier service:

- Product
- Customer name/project
- Order confirmation number (purchase or sales order number)
- Description
- Pictures

## 8 Technical reference data

### 8.1 Connection diagrams

Halton Rex RXP, Standard model

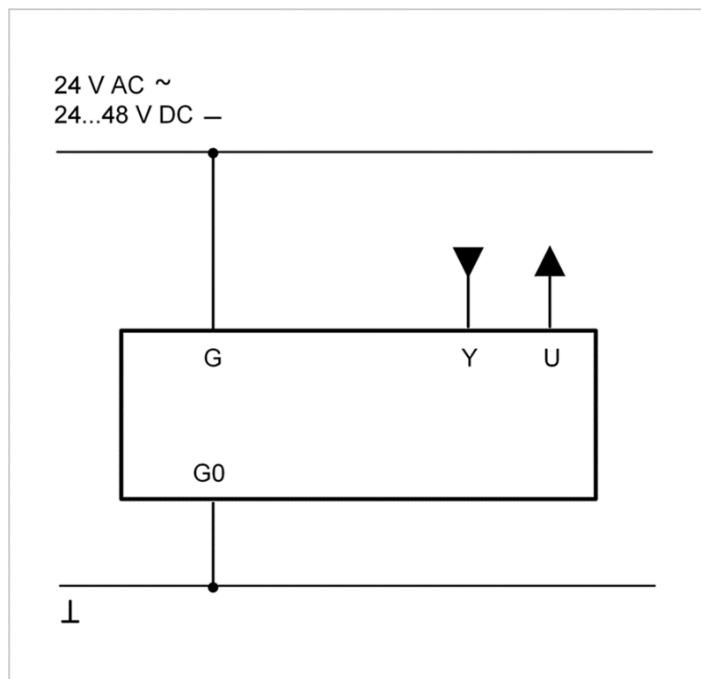


Fig. 11. Connection diagram for Halton Rex RXP, Standard model HAQ control

Connection	No.	Colour	Comment
G	1	Red	24 V AC/24...48 V DC
G0	2	Black	Ground
Y	8	Grey	0...10 V DC. Control signal in for HAQ position. The voltage corresponds to the HAQ openings and k-factors.
U	9	Pink	0...10 V DC. Feedback signal out indicating the HAQ position.

Halton Rex RXP, Flexible model

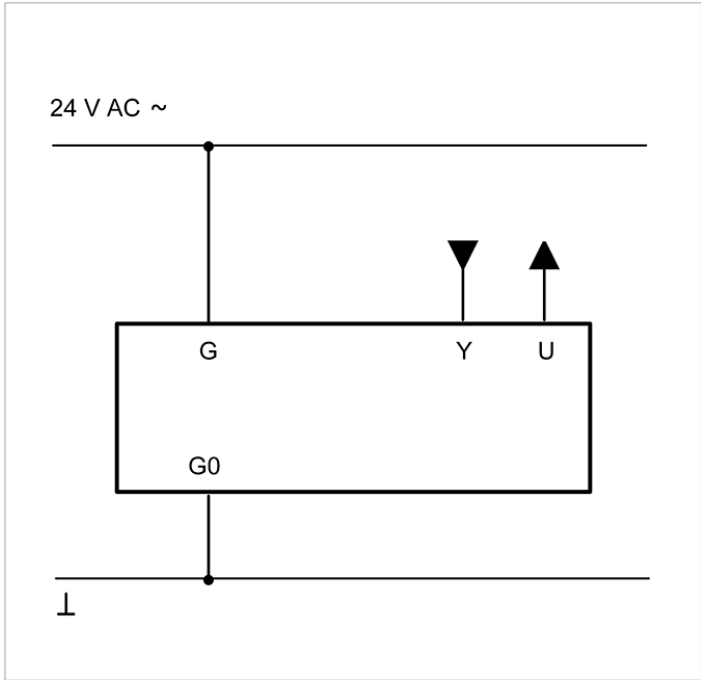


Fig. 12. Connection diagram for Halton Rex RXP, Flexible model OMD control

Connection	No.	Colour	Comment
G	1	Red	24 V AC
G0	2	Black	Ground
Y	8	Grey	0...10 V DC. Control signal in for OMD position. The voltage corresponds to the OMD openings and k-factors.
U	9	Pink	0...10 V DC. Feedback signal out indicating the OMD position.

Halton Rex RXP, Autonomic model

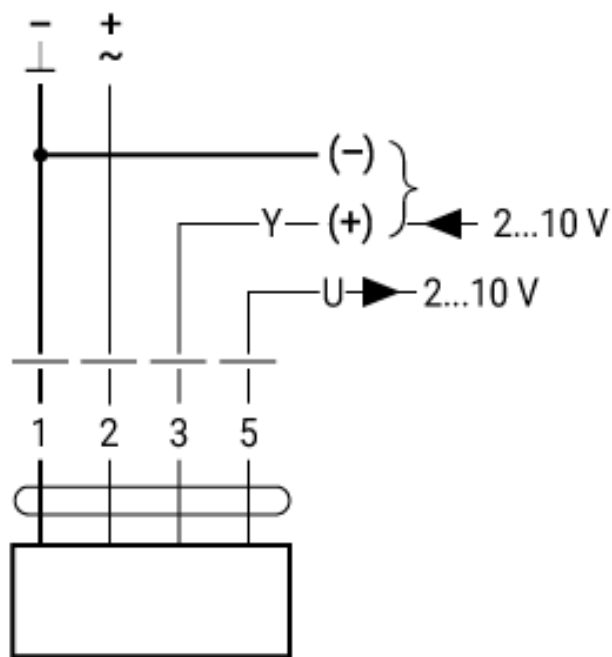


Fig. 13. Connection diagram analog for Halton Rex RXP, Autonomic model

No.	Designation	Cable colour	Function
1	⊥ -	Black	AC/DC 24 V supply
2	~ +	Red	
3	◀ Y	White	Reference signal/Override/Sensor
5	▶ U	Orange	- Actual value signal - MP-Bus connection



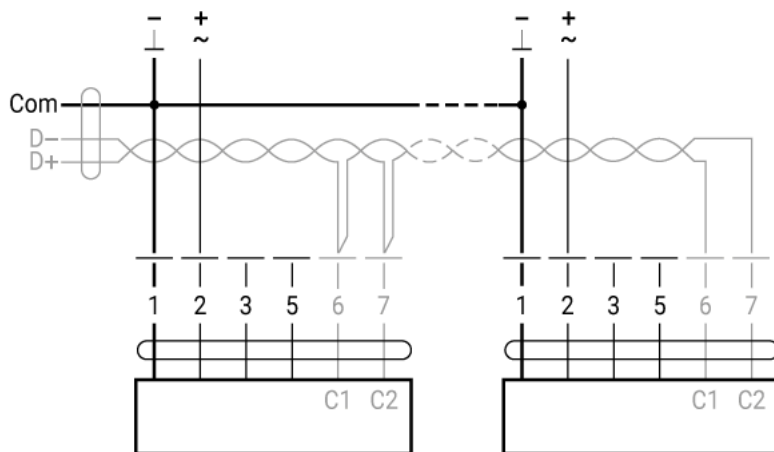


Fig. 14. Connection diagram BACnet/Modbus for Halton Rex RXP, Autonomic model

No.	Designation	Cable colour	Function
1	⊥ -	Black	AC/DC 24 V supply
2	~ +	Red	
6	D-	Pink	BACnet/Modbus (RS485)
7	D+	Grey	

## Terminals

Terminal	Name	Comment
1	GND	Ground
2	24 V DC/AC	Power supply input
3	GND	Ground
4	Standard RS-485 B	Data receive/send line B -
5	Standard RS-485 A	Data receive/send line A +
6	GND	Ground
7	AI3	Input for NTC 10k temperature sensor
8	GND	Ground
9	AI1	Input for airflow or damper control signal
10	GND	Ground
11	AO1	Output for airflow or damper feedback signal
12	AI2	Analog actuator feedback signal

Terminal	Name	Comment
13	AO2	Analog actuator reference signal
14	GND	Ground
15	24 V DC/AC	Power supply output for the analog actuator