



neptronic®

SKE4-N Steam Humidifier

Remote SDU Installation Guide



Dimensions and Weight

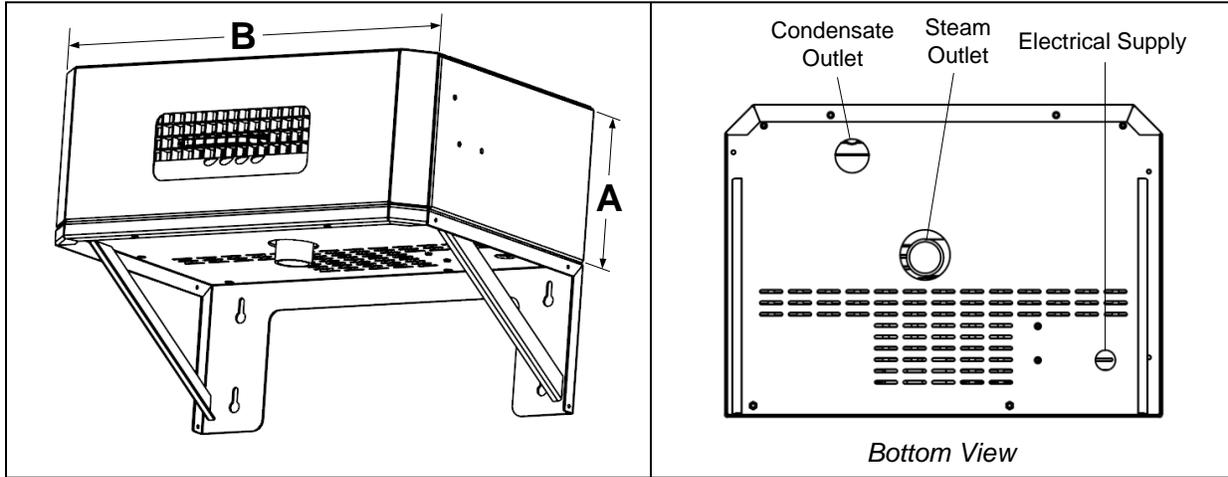


Illustration 1 - Remote SDU

Table 1 - Dimensions and Weight

Model	SDU	Dimensions (inch) [mm]		Steam Outlet		Weight (lb) [kg]
		A	B	Qty	Diameter (inch) [mm]	
SKE4-N02 SKE4-N04 SKE4-N06	SDU4-1	6 ¾ [171]	19 ⅜ [492]	1	1 ⅜ [35]	15 [7]
SKE4-N10 SKE4-N14	SDU4-2	7 ¾ [197]	22 ¼ [565]	1	1 ⅜ [35]	20 [9]
SKE4-N16 SKE4-N20 SKE4-N30	SDU4-3	11 ⅜ [289]	22 ¼ [565]	1	2 [51]	30 [14]

Mechanical and Piping Installation

Positioning

- The SDU must be installed in an environment where the air is relatively clean. This will prevent the blower from getting clogged with dust.
- The SDU must be mounted such that the SDU fan section is at least 78" (2 m) above the floor.
- Allocate a minimum clearance of 18" (0.45 m) from the ceiling to avoid ceiling and wall condensation.
- If additional ventilation is not present, ensure that the fan has a clearance of at least 54" (1.35 m) from the ceiling. Proper ventilation must be observed to avoid ceiling and wall condensation.

Remote Installation

To install the remote SDU, follow the guidelines and piping recommendations outlined below.

- Mount the SDU to the wall on brackets (supplied). Do not drill mounting holes through the cabinet of the SDU.
- Connect the steam hose to the bottom inlet of the SDU and to the humidifier steam outlet located on top of the cabinet.
- Secure the steam hose with the hose clamp (supplied).
- Connect the condensate hose to the bottom of the SDU and to an open drain or to the humidifier using the knockout hole located on the top of the cabinet.
- Connect the electrical wires from the SDU to the top of the humidifier. Field wiring must conform to local codes.
- The fan of the SDU will operate for a period of five minutes after steam production has stopped to prevent condensation.
- Avoid any obstruction of the ventilation openings on top of the SDU.

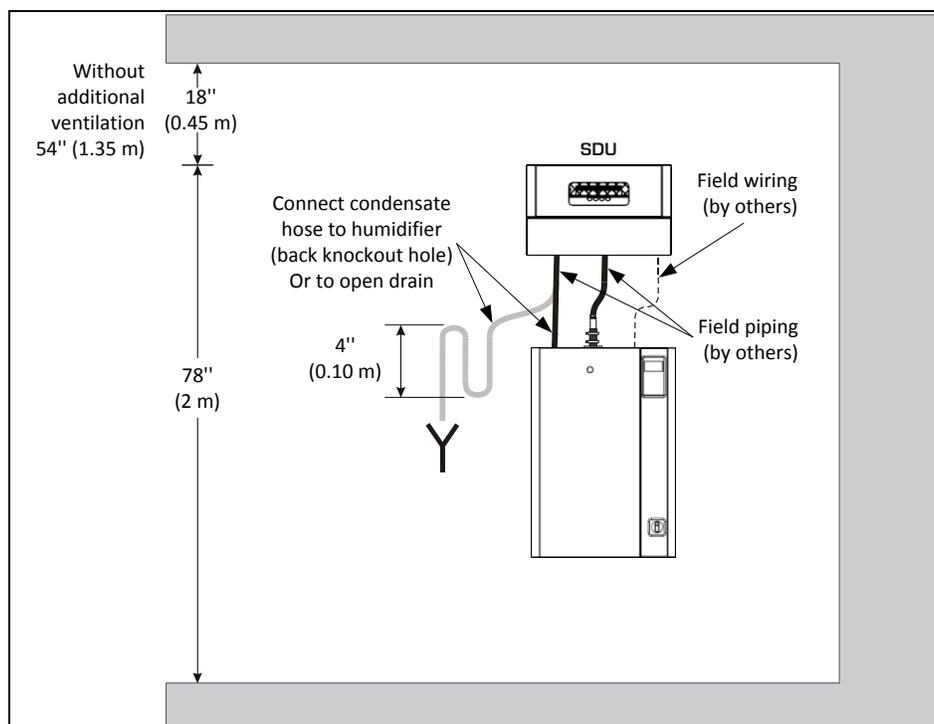


Illustration 2 - Remote SDU Installation

Connecting Condensate Hose to Humidifier

If connecting a condensate hose to the humidifier using the top knockout hole, remove the plug from the open silicone pipe near the water fill valve. Then, insert a ½" (DN15) fitting (not supplied) inside of the silicone pipe and connect the end of the ½" (DN15) condensate hose (not supplied) on the fitting. Use a hose clamp (not supplied) on each end of the hose to secure the connection.



Remove the plug



Connect the condensate hose

Illustration 3 - Condensate Hose Installation



Wall Mounting the Remote SDU

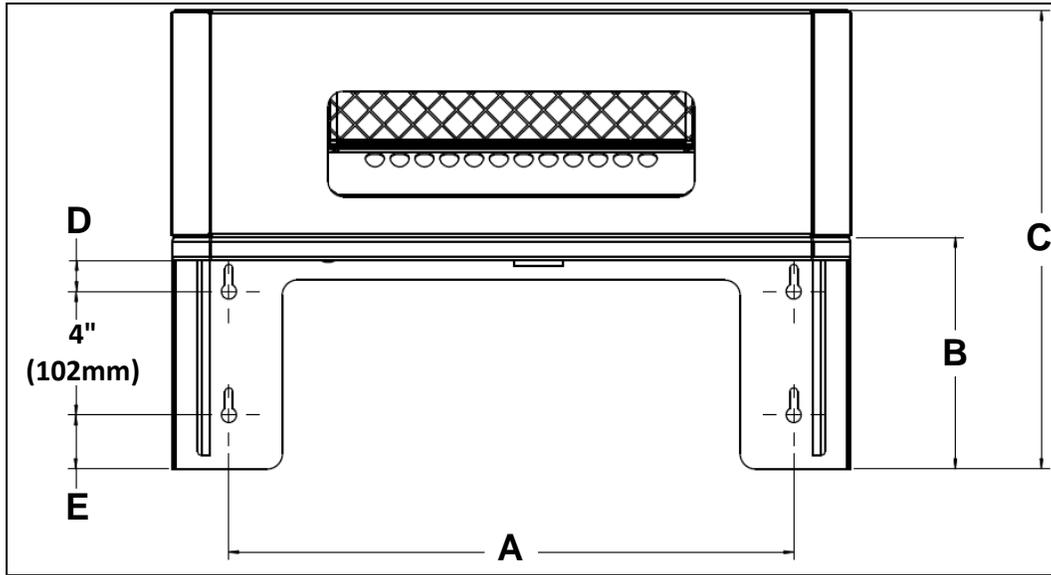


Illustration 3 - Remote SDU Mounting Bracket

Table 2 - Remote SDU Mounting Bracket Dimensions

Model	SDU	Dimensions (inch) [mm]				
		A	B	C	D	E
SKE4-N02 SKE4-N04 SKE4-N06	SDU4-1	16 [406]	6 ¾ [171]	13.7 [348]	¾ [19]	1 ⅛ [29]
SKE4-N10 SKE4-N14	SDU4-2	18 ½ [470]	7 ½ [191]	14.9 [377]	1 [25]	1 ¾ [45]
SKE4-N16 SKE4-N20 SKE4-N30	SDU4-3	18 ½ [470]	7 ½ [191]	18.9 [480]	1 [25]	1 ¾ [45]

Remote SDU Cover Installation (Option)

Perform the following steps to install the optional remote SDU cover:

- 1) Secure the two side covers onto the remote SDU mounting bracket by fastening them with 3x 6-32 (M3.5 x 0.6) nuts (supplied).
- 2) Secure the front cover onto the remote SDU mounting bracket by fastening it with 6x 8-32 (M4 x 0.7) screws (supplied).

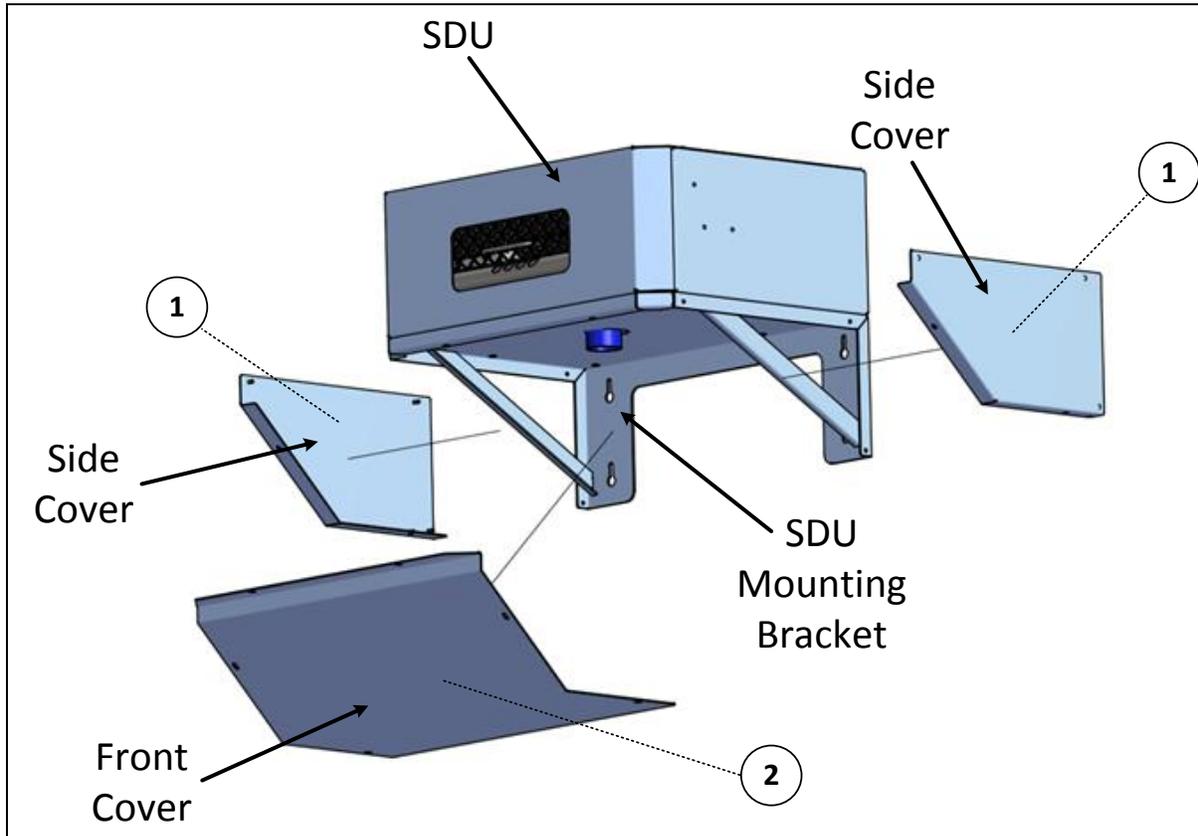


Illustration 4 - Remote SDU Cover Installation

Electrical Installation



CAUTION: Risk of electric shock. Disconnect the SDU from the electric supply before proceeding with the connection.

- The wiring to the SDU must be done by a qualified electrician and must conform to the procedure, regulation and local codes.
- Use copper conductors only.
- An external over current protection must be installed on the supply, adjacent to the SDU. It is also recommended to install a circuit breaker.
- To provide strain relief to the supply cable, install a knock-out (not supplied) at the bottom of the SDU.
- Ensure that the size of the wire conductors is appropriate for the current supplied.
- Ensure that each terminal connection is properly secured.
- Ensure that the ground conductor is equipped with a ring terminal and is connected directly to the electrical panel.

Table 3 - SDU Power Supply Specifications

Model	SDU	Amperage (A)				
		120V/1ph	208V/1ph	240V/1ph	480V/1ph	600V/1ph
SKE4-N02	SDU4-1	0.3	0.2	0.2	0.1	0.1
SKE4-N04		-	0.2	0.2	0.1	0.1
SKE4-N06		-	0.2	0.2	0.1	0.1
SKE4-N10	SDU4-2	-	0.4	-	0.2	0.2
SKE4-N14		-	0.4	-	0.2	0.2
SKE4-N16	SDU4-3	-	0.4	-	-	0.2
SKE4-N20		-	-	-	0.2	0.2
SKE4-N30		-	-	-	0.2	0.2

Safety Contact Connections

Ensure that there is no wire connected to pin 2 of terminal TB3 on the humidifier PCB, as the SDU already has an internal airflow switch used to verify the operation of the fan.

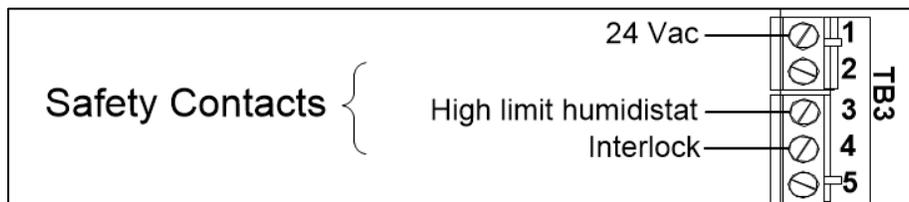


Illustration 5 - Safety Contacts

Controller Configuration

Using the control panel, access the *Installation* menu by entering the password 4433. Navigate to the *Extended Config* sub-menu, then select the *FanTrgt* setting and modify its value to *SDUFan*.

