

GRL_C

Installation – Commissioning – Maintenance

20191028

Accessories

Commissioning box:

TRG. Manufactured in galvanized sheet steel. It includes a removable damper, mounting frame with air distribution plate, fixed measurement tapping and sound absorbent insulation covered by a reinforced surface layer, to Fire Resistance Class B-s1,d0 according to EN ISO 11925-2.

Mounting frame with damper

FHA. Manufactured of galvanised sheet steel, with a slide damper in the rear. Can be used of the TRG as a simpler alternative. N.B.! No flow measurement function.

Mounting frame

FHB. Made of galvanised sheet steel. Used if no commissioning box is installed. N.B.! No flow measurement function.

Installation

The grille requires the fitter to cut an opening according to the nominal width and height dimensions specified. Press the mounting frame (FHA/FHB) into the duct and secure it in position with blind rivets. Then press the grille into the mounting frame. If a TRG commissioning box is used, pull the telescopic mounting frame out of the box. Push the box from the rear into the opening and secure the box to the building structure with mounting brackets or hangers. Push the telescopic mounting frame into the box from the room side and secure it to the sides with blind rivets. Then press the grille into the mounting frame. If the sum of the width and height of the grille exceeds 700 mm, the grille will have to be secured with screws to the wall via the countersunk screw holes.

Commissioning

Commissioning must be carried out with the grille installed. The measurement tubes and damper cords pulled through the grille.

The k-factor is found in the product label and can also be found in the relevant k-factor guide which is to be found at www.swegon.com.

Free area

To obtain the free area, the nominal area of the grille is multiplied by the factor $f=0.91$.

Example:

Grille: GRL 400-200

Nominal area of grille:

$$(0.4 - 0.02) \times (0.2 - 0.02) = 0.0684 \text{ m}^2$$

$$\text{Free area of grille: } 0.91 \times 0.0684 = 0.062 \text{ m}^2$$

Maintenance

The grille can be cleaned when necessary using lukewarm water and detergent. If the TRG commissioning box is used, the inside of this should be vacuum cleaned when needed. The duct system is accessible without the use of tools. The grille is first pulled off the mounting frame. The measurement plate is then taken out of the mounting frame and the damper unit is removed by turning the damper out its bayonet fastener.

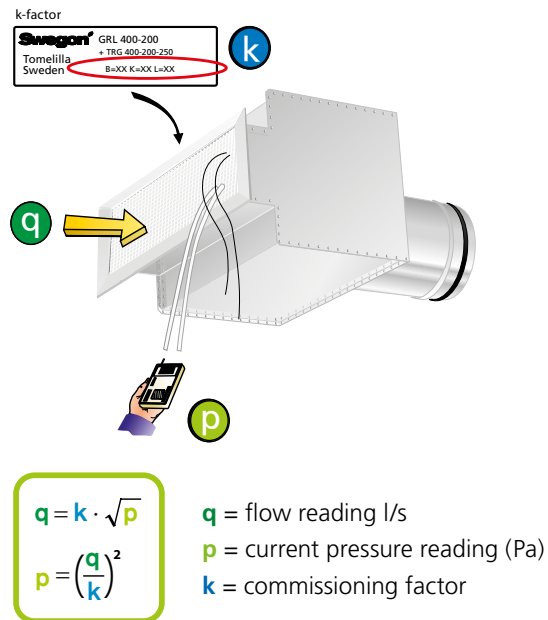


Figure 1. Commissioning.

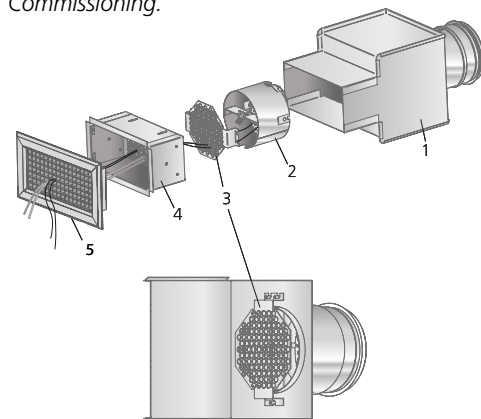


Figure 2. Installation. Commissioning.

To secure the damper action (2) in the duct connection and to secure the octagonal perforated face plate (3) against the duct connection.

1. Commissioning box
2. Damper action
3. Octagonal air distribution plate
4. Mounting frame
5. Grille

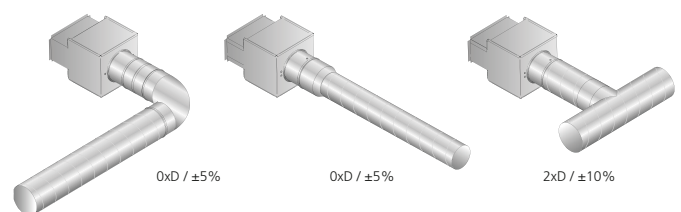


Figure 3. Installation alternatives, applies for all connections (B, K, L)

Dimensions and weights

Table of dimensions TRG

Size	A	B	C	ØD	F	I	G	Weight,kg
200-100	203	100	80	124	175	98	195	2.7
300-100	303	100	100	159	210	115	230	3.9
400-100	403	100	100	159	210	115	230	4.7
500-100	503	100	120	199	245	135	270	7.5
300-150	303	150	120	199	270	135	270	5.3
400-150	403	150	145	249	305	160	320	6.8
500-150	503	150	145	249	305	160	320	7.8
400-200	403	200	145	249	330	160	320	8.5
500-200	503	200	180	314	360	194	387	9.8
600-200	603	200	180	314	360	194	387	11.0
600-300	603	300	215	399	495	244	487	13.2

Table of dimensions and weights (kg)

Size	Weight ,kg
200-100	0,3
300-100	0,4
400-100	0,5
500-100	0,6
300-150	0,5
400-150	0,6
500-150	0,7
400-200	0,7
500-200	0,8
600-200	0,9
600-300	1,0

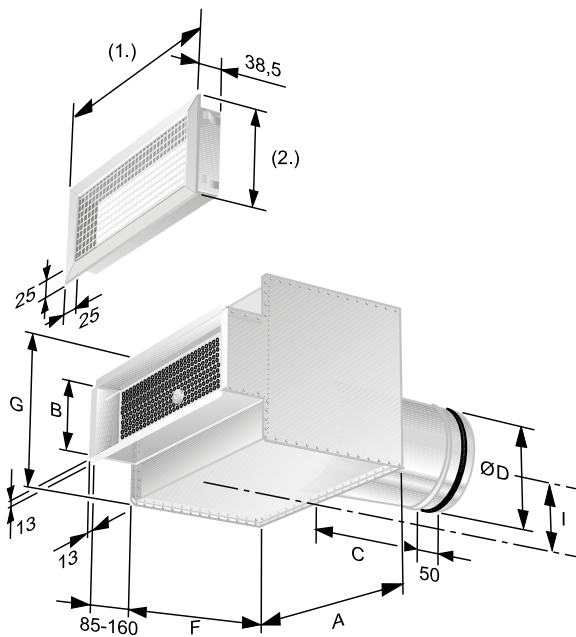


Figure 4. GRL.
 1. = Nom. width + 30 mm
 2. = Nom. height + 30 mm

In order to obtain the exact dimensions of the grille, the figures in the GRL diagram above must be added to the nominal dimensions. Hole making size, fixing frame FHB = nominal dimensions. (Grille size designation.)
 Size of the opening, TRG= nominal dimensions + 5 mm (Size designation of the grille + 5mm).

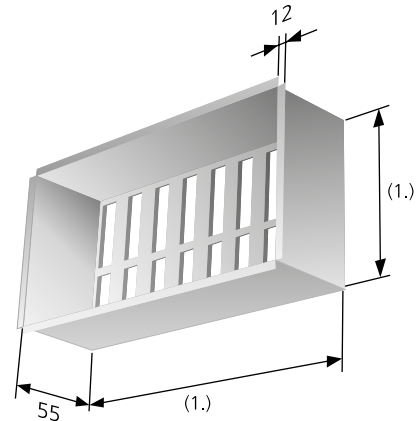


Figure 5. Fixing frame with sliding damper FHA.
 1. = Nom. -3 mm

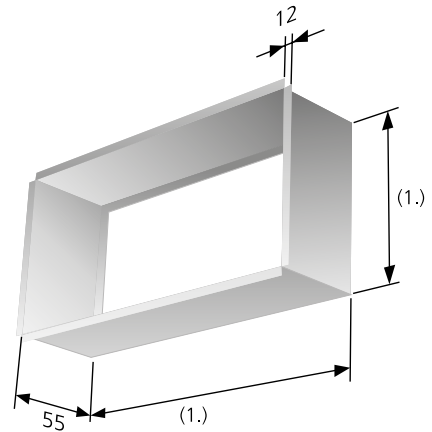


Figure 6. Fixing frame FHB.
 1. = Nom. -3 mm

K-factor (COP)

TRG Size	GRL – extract air		
	Conn. B	Conn. K	Conn. L
200-100-125	7.9	8.5	7.0
300-100-160	13.3	13.2	11.8
400-100-160	18.9	18.5	16.9
500-100-200	23.2	23.3	21.0
300-150-200	21.0	20.9	18.5
400-150-250	29.1	28.4	25.3
500-150-250	36.6	35.7	32.4
400-200-250	46.6	42.9	39.8
500-200-315	56.8	55.4	47.9
600-200-315	70.0	68.5	59.4
600-300-400	109.0	107.0	104.0

Number of measuring tubes: 2. Connection alternative B = Rear, K = Short side, L = Long side

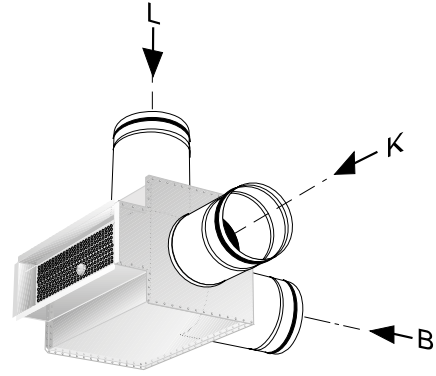


Figure 7. Connection alternative on the TRG.
 B = Rear connection
 K = Connection on short side
 L = Connection on long side