

DRG

Low velocity terminal for small airflows



QUICK FACTS

- Adjustable spread pattern and affected area
- Simple installation
- Cleanable
- Available in a large number of special versions for optimum adaptation to the room
- Standard colour Black RAL 9005
 - 5 alternative standard colours
 - Other colours upon request

Technical description

Design

DRG is a rectangular low terminal consisting of two parts, the front plate and the mounting frame. The rectangular mounting frame is equipped with grooves in the short sides which fit the springs on the front plate. The perforated front plate has aerodynamically shaped discs. The front plate is pressed into the mounting frame and is held in place by the spring clips.

Materials and surface treatment

The mounting frame and the front plate are manufactured in galvanized sheet steel. The front plate is painted in the colour selected when the order is placed. The standard version is painted.

- Standard colour:
 - Black semi-gloss, lustre 35, RAL 9005
- Alternative standard colours:
 - Silver gloss, lustre 80, RAL 9006
 - Grey aluminium gloss, lustre 80, RAL 9007
 - White semi-gloss, lustre 40, RAL 9010
 - White semi-gloss, lustre 40, RAL 9003/NCS S 0500-N
 - Grey semi-gloss, lustre 30, RAL 7037
- Non-painted finish and other colours available on request.

Customisation

In addition to the standard version, these terminals are available in special dimensions, with or without discs, in different shapes etc. Please contact your nearest sales office for further information.

Planning

The spread pattern can be adjusted by turning the discs in the front panel.

Installation

The hole is cut as illustrated in the diagram. The mounting frame is placed in the hole and screwed to the framework through the short sides. The front plate is then pressed into place in the mounting frame. See Figure 2.

Commissioning

We recommend that the space underneath/behind the terminal should function as a pressure chamber. The supply air duct to each pressure chamber is then equipped with a measuring and commissioning damper. See Figure 3.

Maintenance

The terminal can be cleaned when necessary using luke warm water with detergent added. See Figure 3.

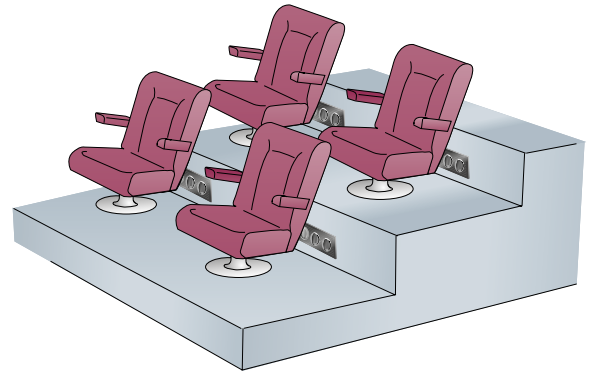


Figure 1. Principle DRG.

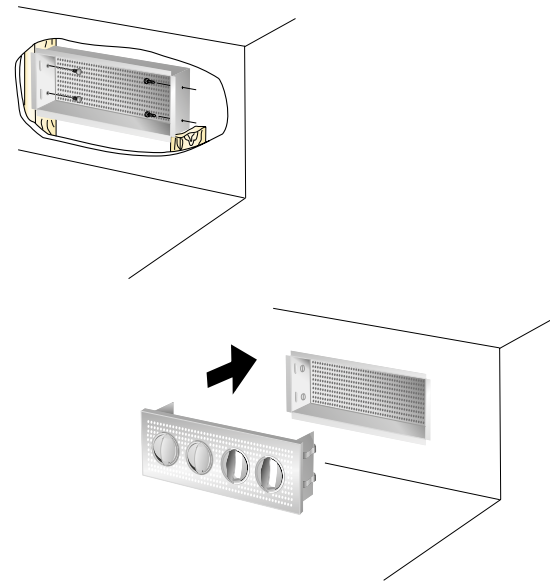


Figure 2. Installation.

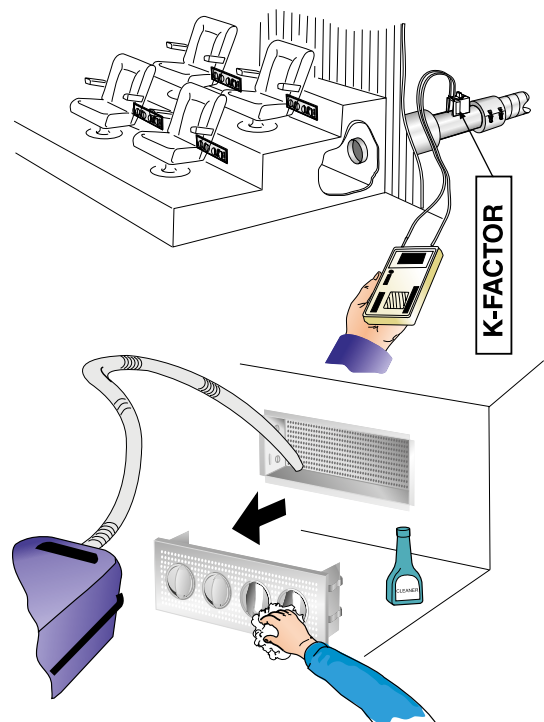


Figure 3. Commissioning. Maintenance.



Sizing

- Sound pressure level dB(A) applies to rooms with 10 m² equivalent sound absorption area.
- Sound attenuation (ΔL) below is shown in the octave band. Orifice attenuation is included in the values.
- The affected areas $a_{0,20}$ and $b_{0,20}$ are measured at Δt -3 K and refer to the maximum velocity independence of the distance from the floor.
- Δt is the difference between the room temperature at 1.2 m above the floor and the supply air temperature.
- Recommended maximum under temperature 6 K.
- For calculating the width of the spread pattern, air velocities in the zone of occupation or sound levels in rooms with other dimensions, please refer to our calculation programme ProAir web, which is available for download at www.swegon.com.

L_w = Sound power level

L_{p10A} = Sound pressure level dB (A)

K_{ok} = Correction for producing the L_w value in the octave band

$L_w = L_{p10A} + K_{OK}$ gives the frequency divided octave band

Sound data – DRG

Sound power level L_w (dB)

Table K_{OK}

Size DRG	Mid-frequency (octave band) Hz							
	63	125	250	500	1000	2000	4000	8000
300x100	4	2	2	3	0	-6	-19	-25
Tol. \pm	2	2	2	2	2	2	2	2

Sound attenuation ΔL (dB)

Table ΔL

Size DRG	Mid-frequency (octave band) Hz							
	63	125	250	500	1000	2000	4000	8000
300x100	15	9	4	2	0	0	0	0
Tol. \pm	2	2	2	2	2	2	2	2

Engineering graphs – DRG

Air flow – Pressure drop – Sound level – Affected area

- The graphs illustrate data for a DRG terminal installed in the open space below the seats, that functions as a pressure chamber.
- The affected areas a and b are measured at Δt -3 K.
- The graphs are not to be used for commissioning.
- The dB(C) value is normally 6-9 dB higher than the dB(A) value.

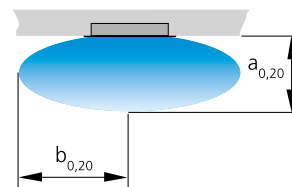
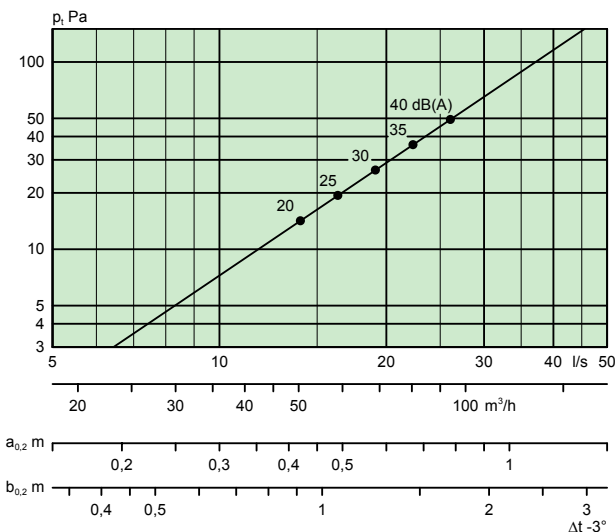


Figure 4 . Affected area.

DRG 300-100



Dimensions and weights

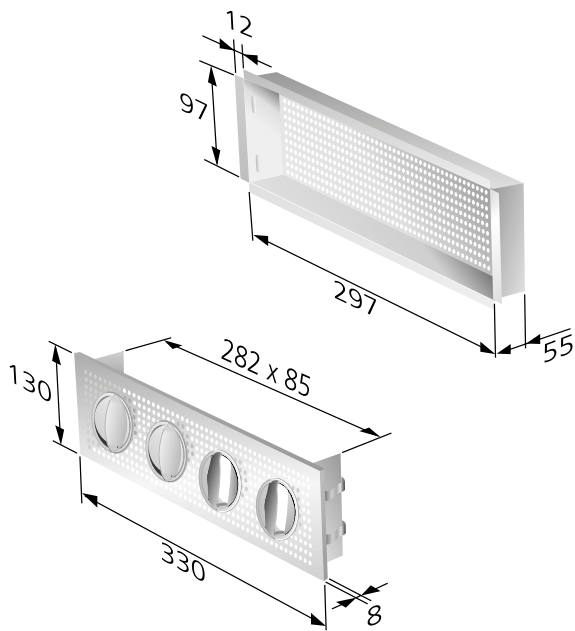


Figure 5. DRG with mounting frame.
Hole making size = 300 x 100 mm.
Weight: 1.1 kg

Order key

Product

Rectangular low velocity terminal for small air flows DRG b -aaa -bbb

Version:

Size: 300 x 100

Specification example

Swegon's rectangular low velocity terminal for small airflows of type DRG, with the following functions:

- Adjustable spread pattern and affected area
- Includes mounting frame
- Non-fouling
- Cleanable
- Painted in standard matt black, RAL 9005

Size: DRGb 300 x 100 xx items