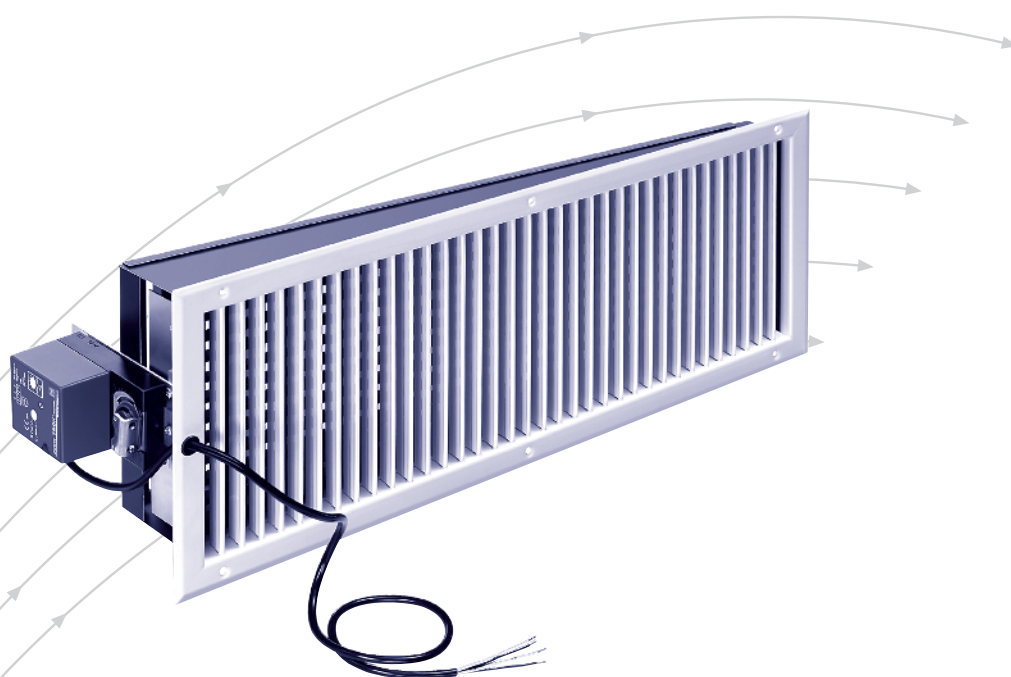


Diffusion grille

Type DGVAR



TROX® **TECHNIK**



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Contents · Application · Characteristics

Contents

- Application · Characteristics _____ 2
- Realisation _____ 3
- Advices for mounting · Dimensions _____ 4
- Recess · Areas of application _____ 5
- Electrical components · Installation examples _____ 6
- Order Details _____ 7 - 8

Diffusion grille which directs the jet of air according to the temperature.

Application

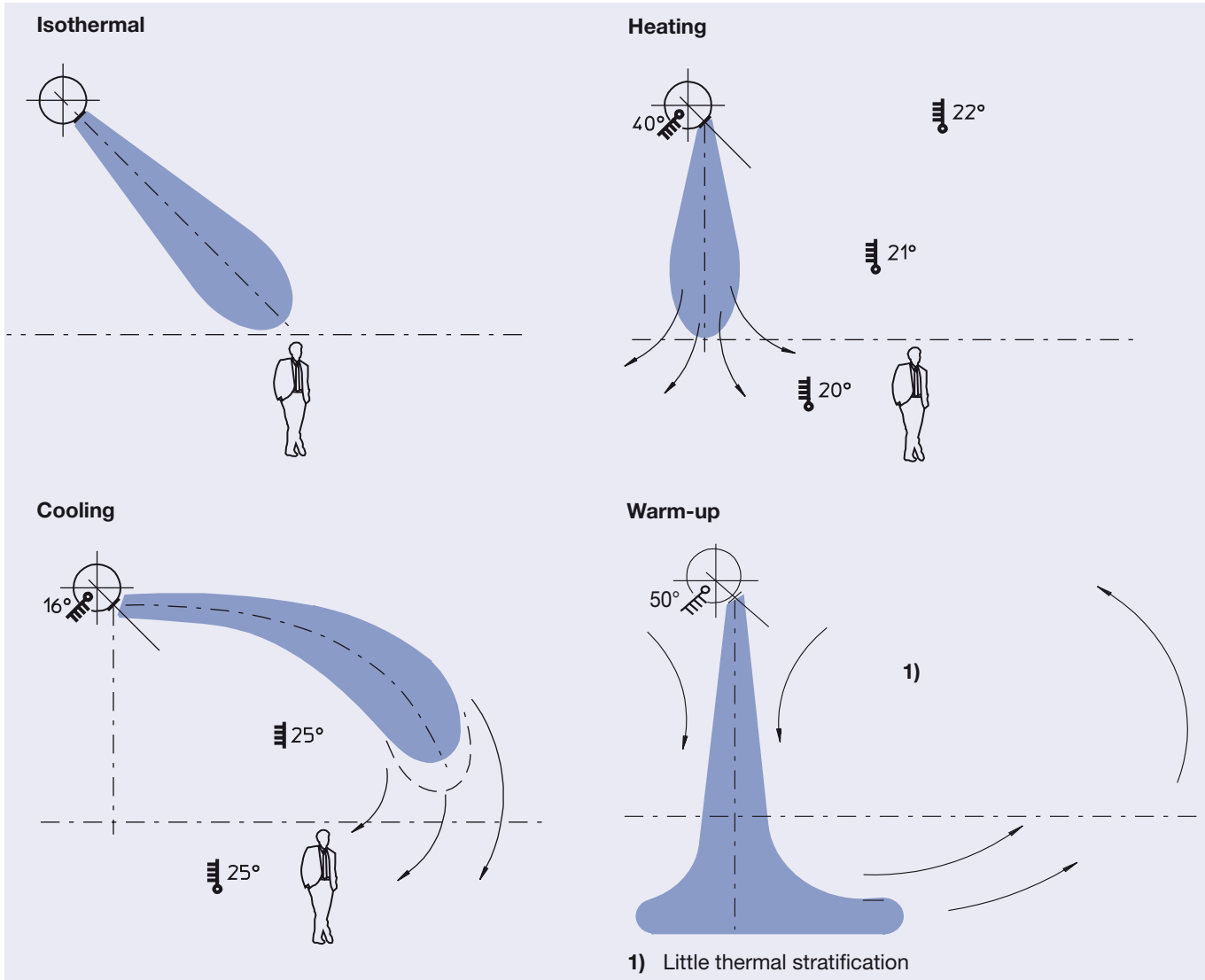
For energy-saving supply air systems in halls for (e.g. exhibitions, workshops, multi-purposes, warehouses etc.) where, apart from an effective distribution of air and the elimination of thermal stratification, great importance is attached to comfort in the working area at any point within the plant.

Characteristics

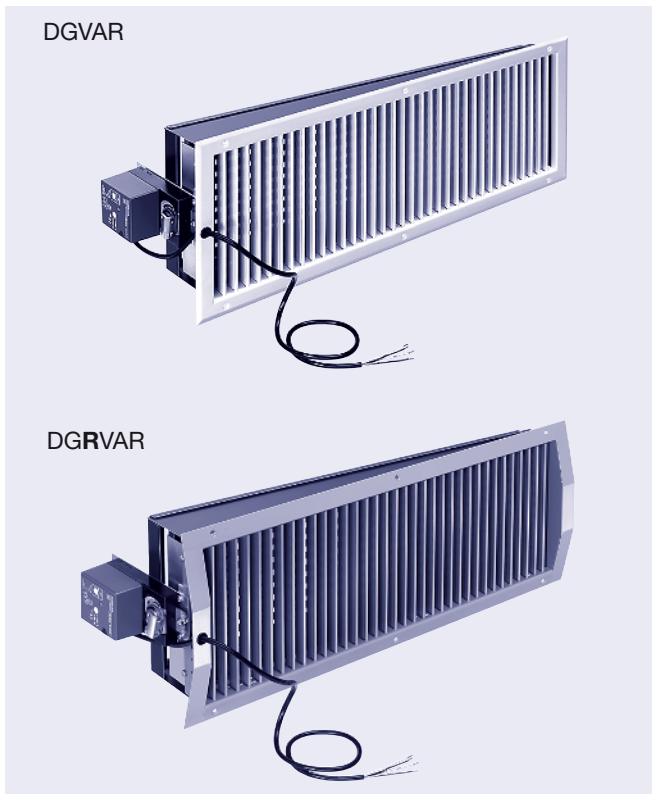
The DGVAR diffusion grilles are supply air outlets in which the horizontal blades are adjusted by a 24V ~ electric motor. This makes it possible for the direction of the air jet to be temperature-controlled, especially when there are large differences in temperature (ΔT) between the supply and the room air. (The maximum temperature in the duct = 50° C, the upper limit for long-term usage of the motor). It is also possible to close certain grilles completely. Also in the case of installations with a multi-stage variable volume air flow, it produces optimal diffusion of air, with an almost constant air-flow speed.

For the warm-up phase, some of the grilles can be closed. In the others the air-jet is directed as steeply downwards as possible. The increase in exit speed and range or penetration results in a shorter warm-up time (economy of energy, little thermal stratification).

For further detailed descriptions see „Description of DGVAR systems“ L-02-3-02e.



Realisation



DGVAR5

Steel, white powder-coated RAL 9010, silky sheen, 60% brilliance, with screw holes, consisting of: diffusion grille steel DG5 with adjustable horizontal set of aluminium blades, with 24V ~ adjustment drive.

DGLVAR5

Colourless anodised aluminium, attachment by clips, consisting of: diffusion grille aluminium DGL5 with adjustable horizontal set of aluminium blades., with 24V ~ adjustment drive.

DGRVAR5 / DGRAVAR5 (circular duct)

Steel, powder coated, galvanised silver, mat, 25% brilliance, with screw holes, attachment by clips, consisting of: diffusion grille DGR5 /DGRA5 of steel for pipe ducts, with adjustable horizontal set of aluminium blades, with 24V ~ adjustment drive.

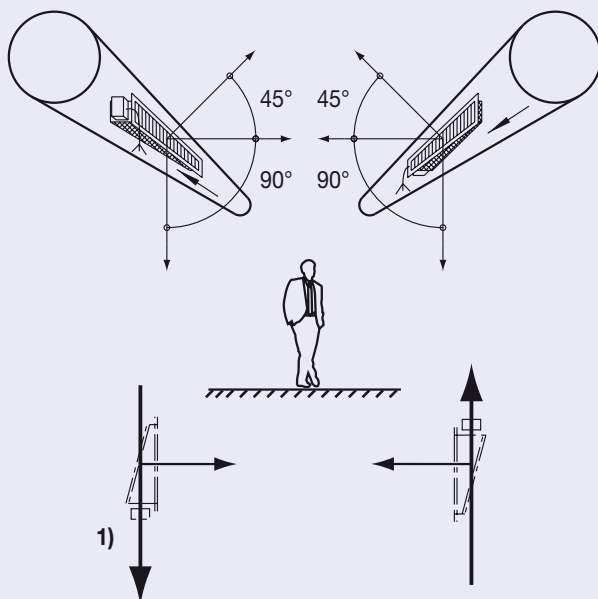
Advices

- Depending of the direction of air in the duct, we make a distinction between left (**LI**) and right (**RE**) versions.
- The set of adjustable blades in aluminium has an angle of turn of the individual blades of 136°. It can be used to close the DGVAR outlet. The 24V ~ adjustment drive is fitted with a 3-cored connecting cable of approx. 1 m in length.
- The electrical connecting cables must be at least a 4-cored cable (depending of the operating mode). To profit of all advantages of the DGVAR system, we recomande to take always 5-cored cables !

On request

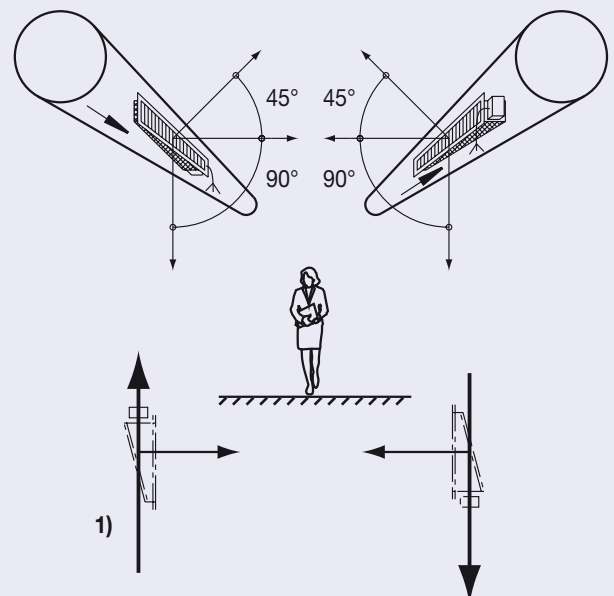
- DGVAR5 - sans control unit - for forced control "Open - Closed"
- DGVAR5 with inside adjustment drive, that means the adjustment drive **is not projecting**.

Definition of left / right grilles type LI (left grille)



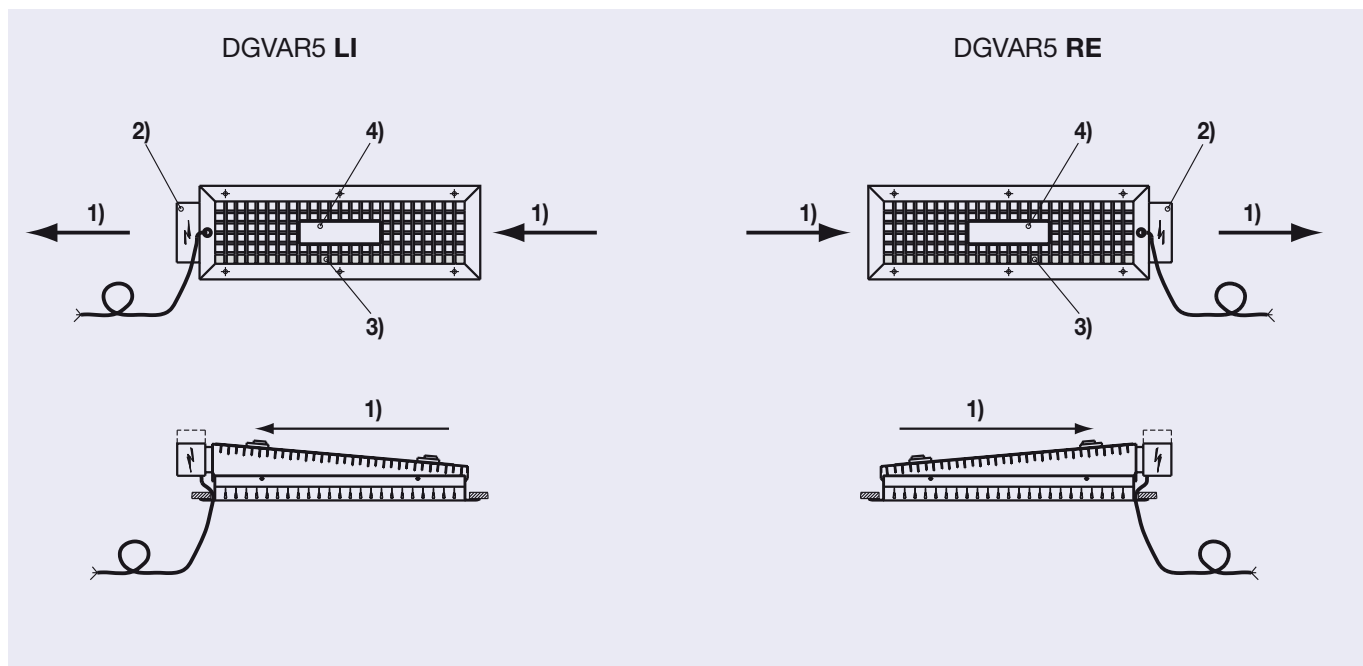
1) Direction of air flow in the duc

Definition of left / right grilles type RE (right grille)



Advices for mounting · Dimensions

Advices for mounting



- 1) Direction of air in the duct
- 2) Adjustment drive
- 3) Blind blades "below"
- 4) Mounting description "red = LI", "green = RE"
(please take away after mounting)

Dimensions

Nominal dimensions of the grille: width B x height H in mm

DGVAR5 / DGLVAR5 / DGRVAR5 / DGRAVAR5

DGVAR
DGLVAR

B	F	T	x	y
[mm]	[mm]	[mm]	[mm]	[mm]
600	283,5	110	max.	max.
750	358,5	130	15	8
900	433,5	150		

H	S
[mm]	[mm]
100	200
150	
200	93
250	

DGRVAR
DGRAVAR

B	F	T	x	z
[mm]	[mm]	[mm]	[mm]	[mm]
600	283,5	125	max.	max.
750	358,5	145	15	3

H	S
[mm]	[mm]
100	204
150	210
200	108
250	113

Electrical components · Installation examples

Electrical components

Type KTF2VAR

Electronic duct temperature sensor, suitable for HESCO DGVAR ventilating system.

Plastic case with distance tube and sensor

Manufactured by: TROX HESCO

Dimensions: 82 x 80 x 255 mm

Type STG2VAR

Electronic control unit with 5 setting value potentiometer, suitable for DGVAR ventilating system 24V ~. (Max. no. of connections 100 DGVAR).

Plastic case made of 2 pieces and servicing covers.

Manufactured by: TROX HESCO

Dimensions: 193 x 143 x 105 mm

Type PAS2VAR

Adder - Subtractor + / - 2 Volt, plastic case

Manufactured by: TROX HESCO

Type SGA2VAR

Electronic position transmitter with setting value potentiometer, suitable for DGVAR ventilating system (manual adjustment)

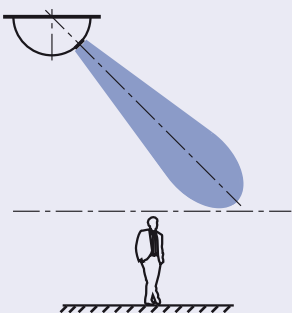
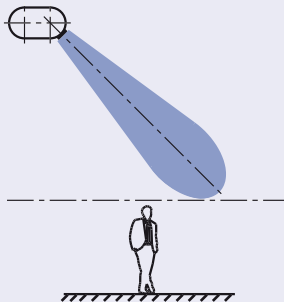
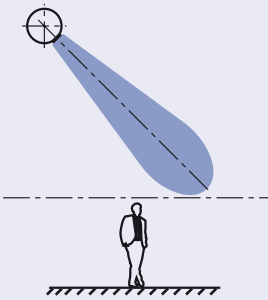
24V ~. (Max. no. of connections 100 DGVAR).

Plastic case

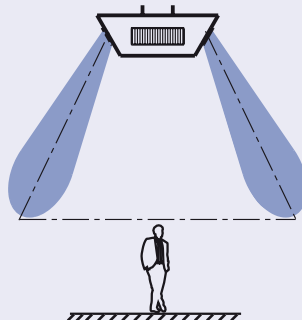
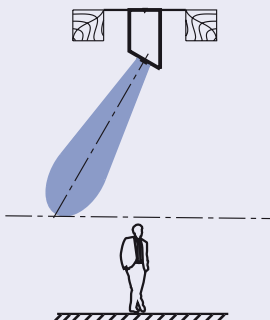
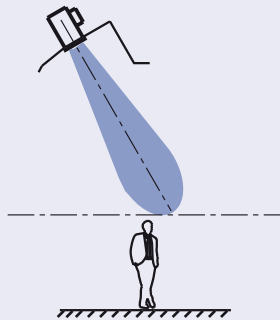
Manufactured by: TROX HESCO

Dimensions: 82 x 80 x 55 mm

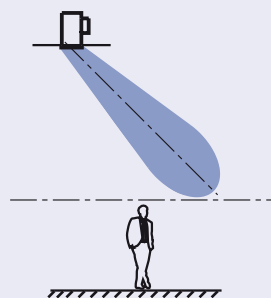
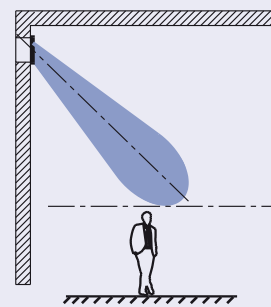
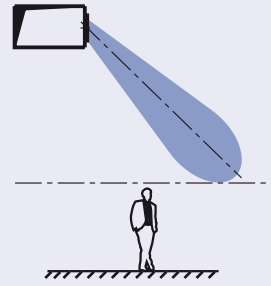
Installation examples DGRVAR / DGRAVAR in the duct



Installation examples DGVAR / DGLVAR in a sloping duct



Installation examples DGVAR / DGLVAR in the wall or ceiling



Text for tendering purposes

DGVAR5

Diffusion grilles for temperature-dependent air stream deflection with vertical front blades which can be adjusted individually with a key. Rear horizontal blades self-adjusting by a 24V~ adjustment drive. Diagonally mounted aluminium slide box as throttle control.

Type DG VAR 5 (LI or RE)

White steel, powder-coated RAL 9010, silky sheen, 60% brilliance, with screw holes.

Dimensions: B x H mm

Position of front blades: divergent by 0°, 44°, 84°, 110° or 140° or opposing.

DGLVAR5

Description as above

Type DGL VAR 5 (LI or RE)

Colourless anodized aluminium, attachment by clips.

Dimensions: B x H mm

Position of front blades: divergent by 0°, 44°, 84°, 110° or 140° or opposing.

Caution

In smoke test never use acid-containing substances!

DGRVAR5 / DGRAVAR5

Diffusion grilles for temperature-dependent air stream deflection... (description as above).

Type DGR VAR 5 (LI or RE)

steel, powder coated, galvanised silver, mat, 25% brilliance, with screw holes and attachment by clips.

Dimensions: B x H mm

Position of front blades: divergent by 0°, 44°, 84°, 110° or 140° or opposing.

Electrical accessories for DGVAR systems

KTF2VAR Duct temperature sensor

STG2VAR 24V ~ control unit (automatic control)

PAS2VAR Adder- Subtractor + / - 2 Volt

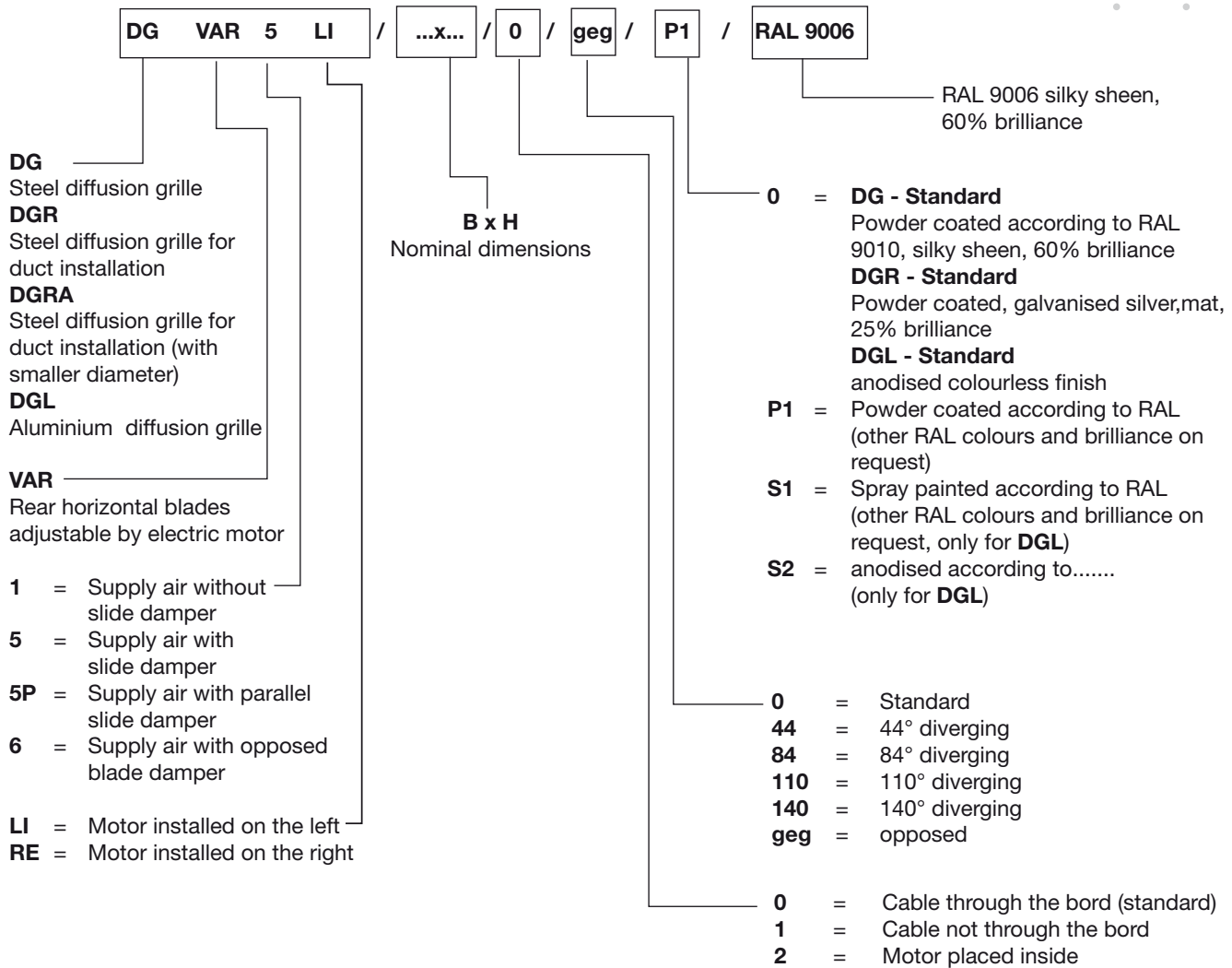
SGA2VAR 24V ~ position transmitter (for manual adjustment)

Dimensioning

See dimensioning of TROX HESCO L-02-1-05e diffusions grilles (isothermal case).

Order Details

Order codes



Order examples

- 25 pcs DG VAR 5 RE / 900 x 200 / 84
- 20 pcs DGR VAR 5 RE / 750 x 150 / 2 / 110 / P1 / RAL9006
- 19 pcs DGL VAR 5 LI / 750 x 150 / 2 / S2