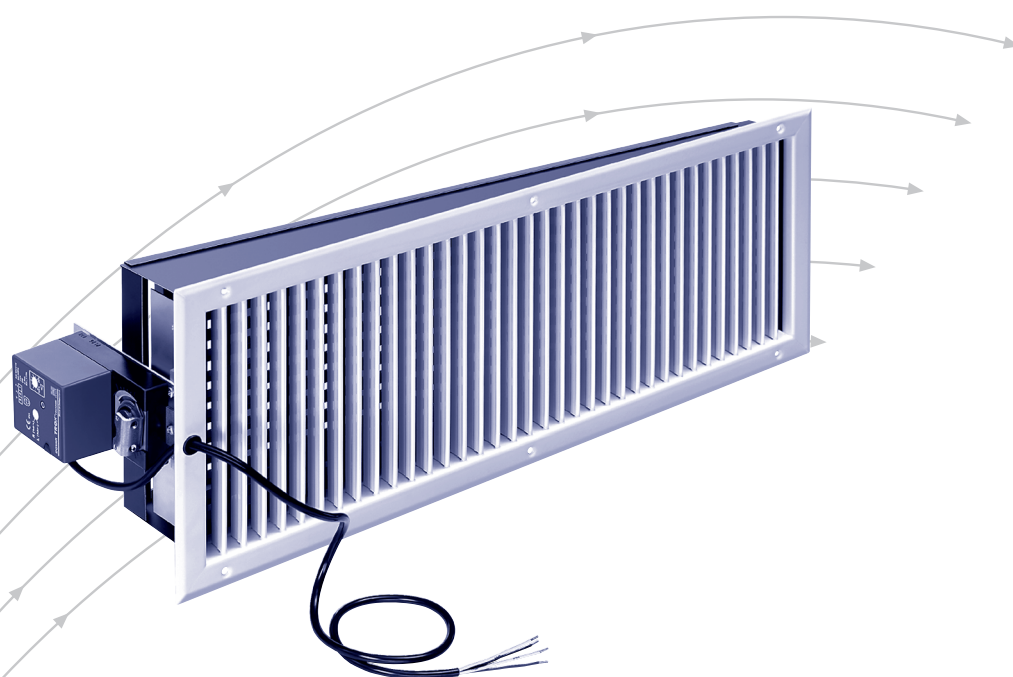


Ventilation grille

Type DGVAR



TROX[®] TECHNIK



The art of handling air

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Ventilation grille for temperature-dependent air jet control.

Application

For energy-saving supply air systems in halls (e.g. exhibition halls, production halls, multi-purpose halls, warehouses, etc.) where, in addition to effective air distribution and the elimination of temperature stratification, comfort in the occupied zone is also important at every operating point of the system.

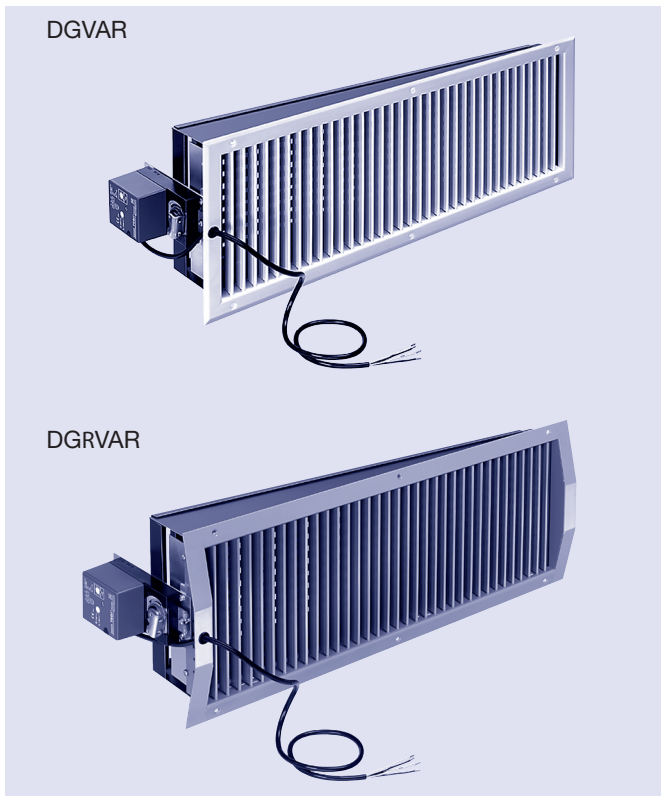
Characteristics

The DGVAR ventilation grilles are outlets where the horizontal blades are adjusted by a 24V ~ electric actuator. This allows a temperature-dependent air direction control, especially with large temperature differences (ΔT) between supply air and room air temperature. (The supply air temperature in the rectangular duct can be max. 50°C, this corresponds to the permissible continuous temperature of the actuator). In the following, certain grilles can be closed completely. This results in optimum air supply, even in systems with multi-stage air volume flow, at an almost constant supply air speed.

A part of the grille can be closed for the heating phase. For the rest, the air jet is directed downwards as steeply as possible. Increasing the blowing speed and the throw distance, and respectively the penetration depth, results in a shorter heating cycle. (energy saving, low temperature stratification).

For further detailed descriptions, see "DGVAR System description" L-02-3-03d.
"Commissioning" L-02-3-51.

Construction



Upon request

- DGVAR5 - without control module - for override control "OPEN - CLOSE"
- DGVAR5 with laterally non-protruding actuator, i.e. Internal actuator

DGVAR5

Steel, white powder-coated, RAL 9010, silky gloss, 60% gloss level, with screw holes, consisting of: ventilation grille steel DG5 with actuator 24V~ for the adjustment of the horizontal aluminium blade set.

DGLVAR5

Aluminium colourless anodised, with screwless fastening, consisting of:

Ventilation grille aluminium DGL5 with actuator 24V~ for the adjustment of the horizontal aluminium blade set.

DGRVAR5/DGRAVAR5 (pipe duct)

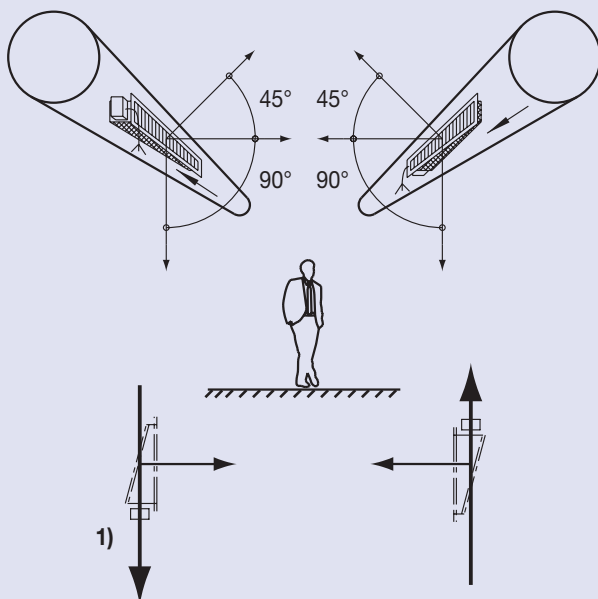
Powder-coated steel colour galvanised silver, matt, 25% gloss level, with screw holes and screwless fixing, consisting of:

Ventilation grille for ducts, steel, DGR5/DGRA5, with actuator 24V~ for adjustment of horizontal aluminium blades.

Note

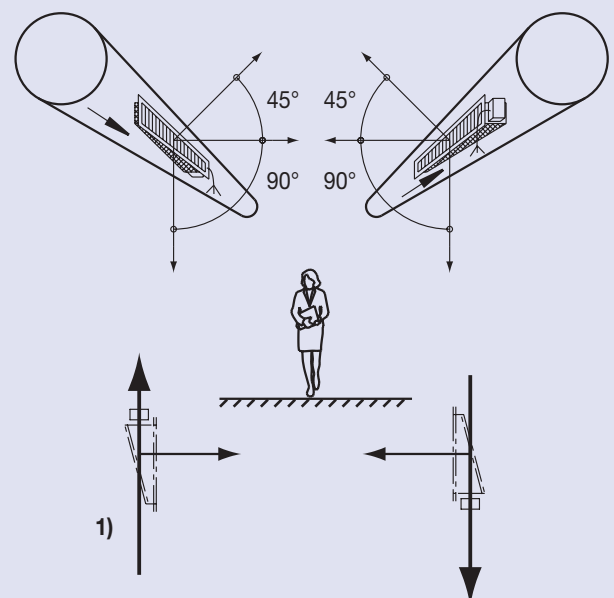
- Depending on the airflow direction in the duct, we distinguish between left (LE) and right (RI) constructions.
- The adjustable aluminium blade set has a rotation angle of the individual blades of 135°. This allows the DGVAR passage to be closed. The 24V~ actuator is equipped with a three-wire, approx. 1 m long connection cable.
- The electrical connection cables must have at least 4 wires (depending on the operating mode). In order to be able to use all advantages of the DGVAR system, we recommend to always use 5-core cables!

Nomenclature left/right grille type LE (left grille)



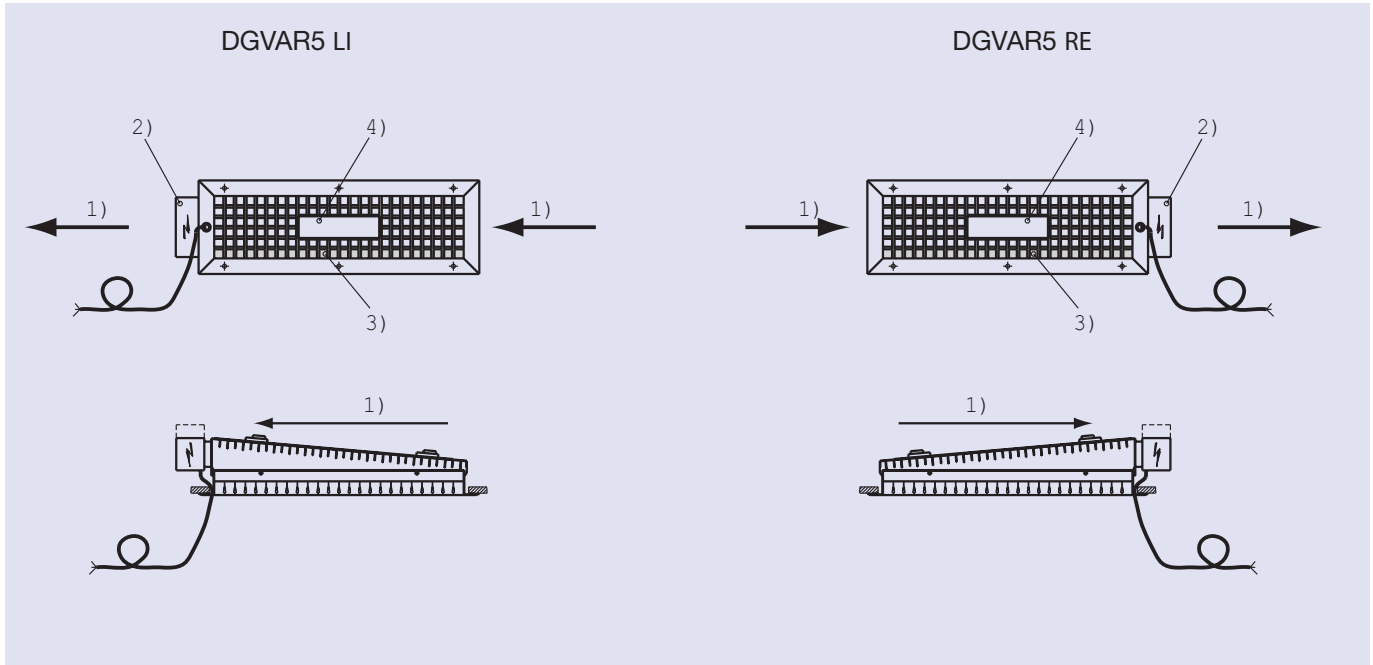
1) Airflow direction in tube

Nomenclature left/right grille type RI (right grille)



Installation information · Dimensions

Installation information



- 1) Airflow direction in duct
- 2) Actuator
- 3) Blind blade "below"
- 4) Assembly information (observe sticker)

Dimensions

Grille size: width W 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				

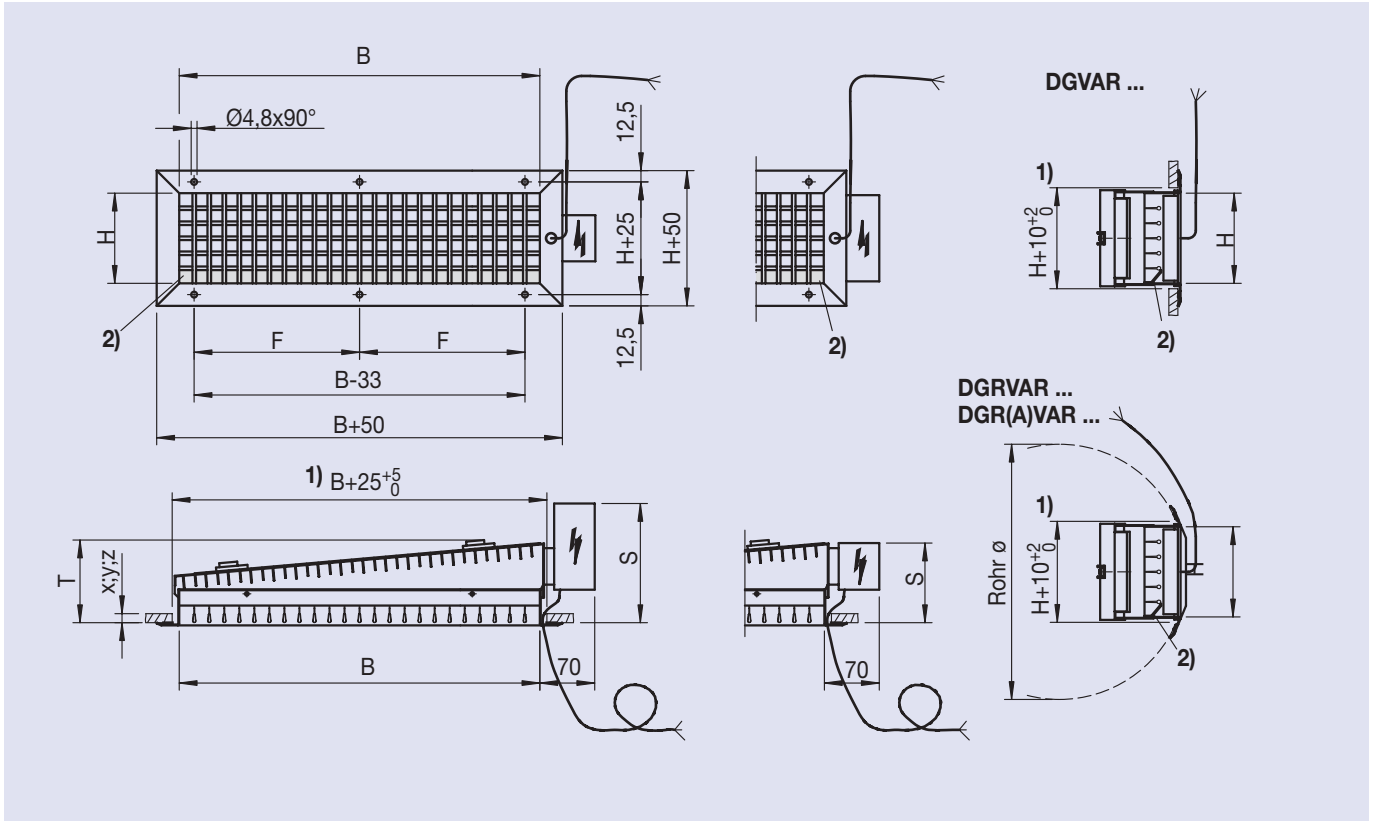
DGRVAR DGRAVAR	B	F	T	x	z
	[mm]	[mm]	[mm]	[mm]	[mm]
	600	283,5	125	max.	max.
	750	358,5	145	15	3
	H	S			
	[mm]	[mm]			
	100	204			
	150	210			
	200	108			
	250	113			

Recess mass · Areas of application

Recess mass

Grille size: width W x height H in mm

DGVAR5 / DGLVAR5 / DGRVAR5 / DGRAVAR5



- 1) Recess
- 2) Blind blade below

- x DGVAR, DGRVAR u. DGRAVAR with screw fixing. y DGVAR with SL fixing
- z DGRVAR and DGRAVAR with SL fastening

Applications

The table below shows the tube diameter ranges for which the corresponding grille height H can be used.

- 1) Rated grille height H = 250 mm is available for types DGR and DGRA no stock size

Gitternennhöhe H	Grille	Rohr Ø																	
		*100	125	*160	*200	*250	*315	*400	*500	*630	*800	*1000	*1250	1400	1800	2000			
250	DG																		
	DGR																		
	DGRA																		
200	DG																		
	DGR																		
	DGRA																		
150	DG																		
	DGR																		
	DGRA																		
100	DG																		
	DGR																		
	DGRA																		

- = extremer Bereich
- * = Rohr Ø nach EN 1506 u. EN 12220 (früher: DIN 24 154, Bl. 2 Vorzugsreihe)

Electrical components · Installation examples

Electrical components

see "DGVAR system description" L-02-3-03d.

Touch display STG3DIS

Simple and convenient touch display in 16:9 format.

STG3VAR control module

Control module with clamp fixings for all outputs of the grilles, as well as the inputs for supply air and room air temperature.

Duct air temperature sensor KTF3VAR

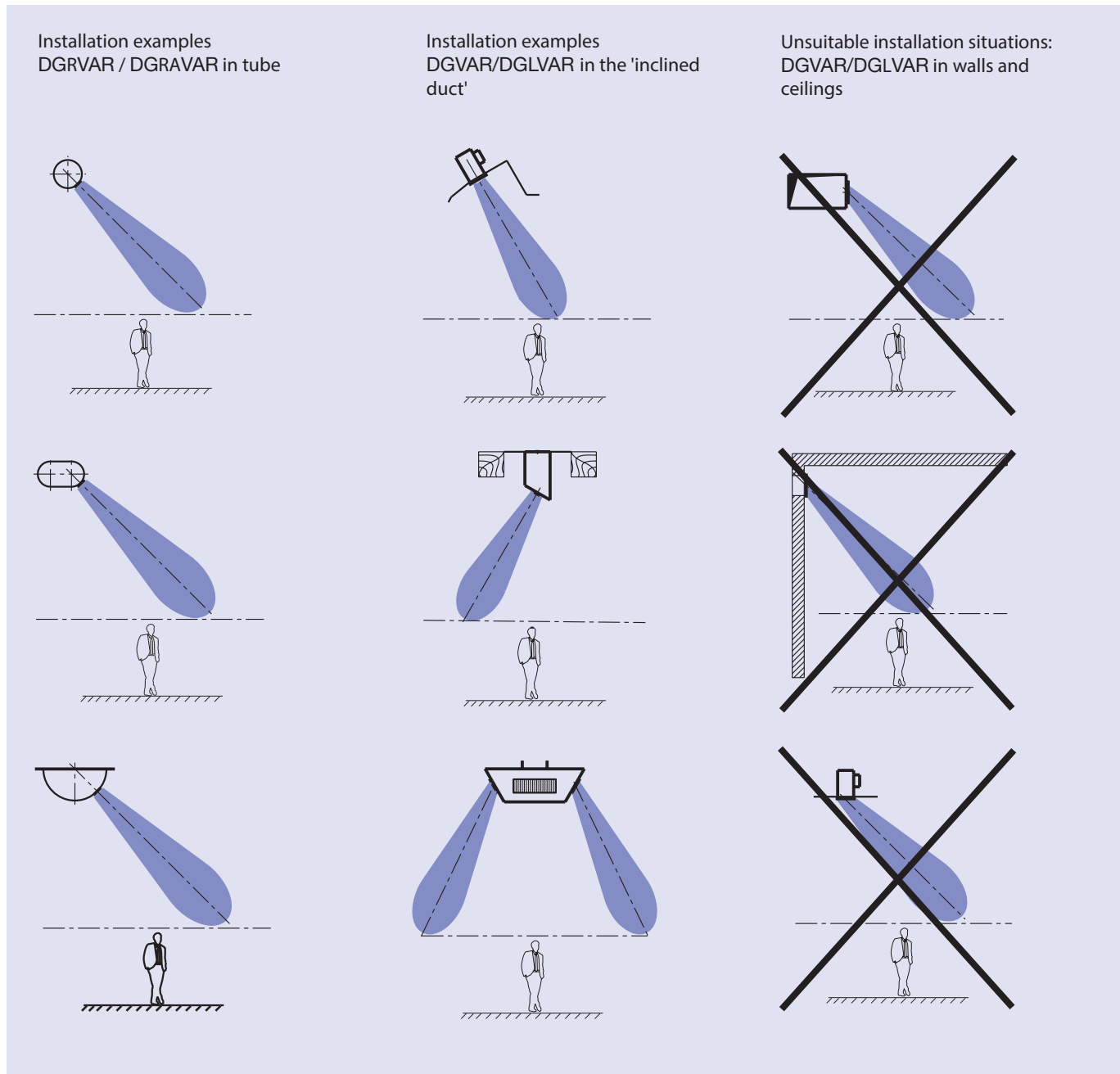
Room air temperature sensor RTF3VAR

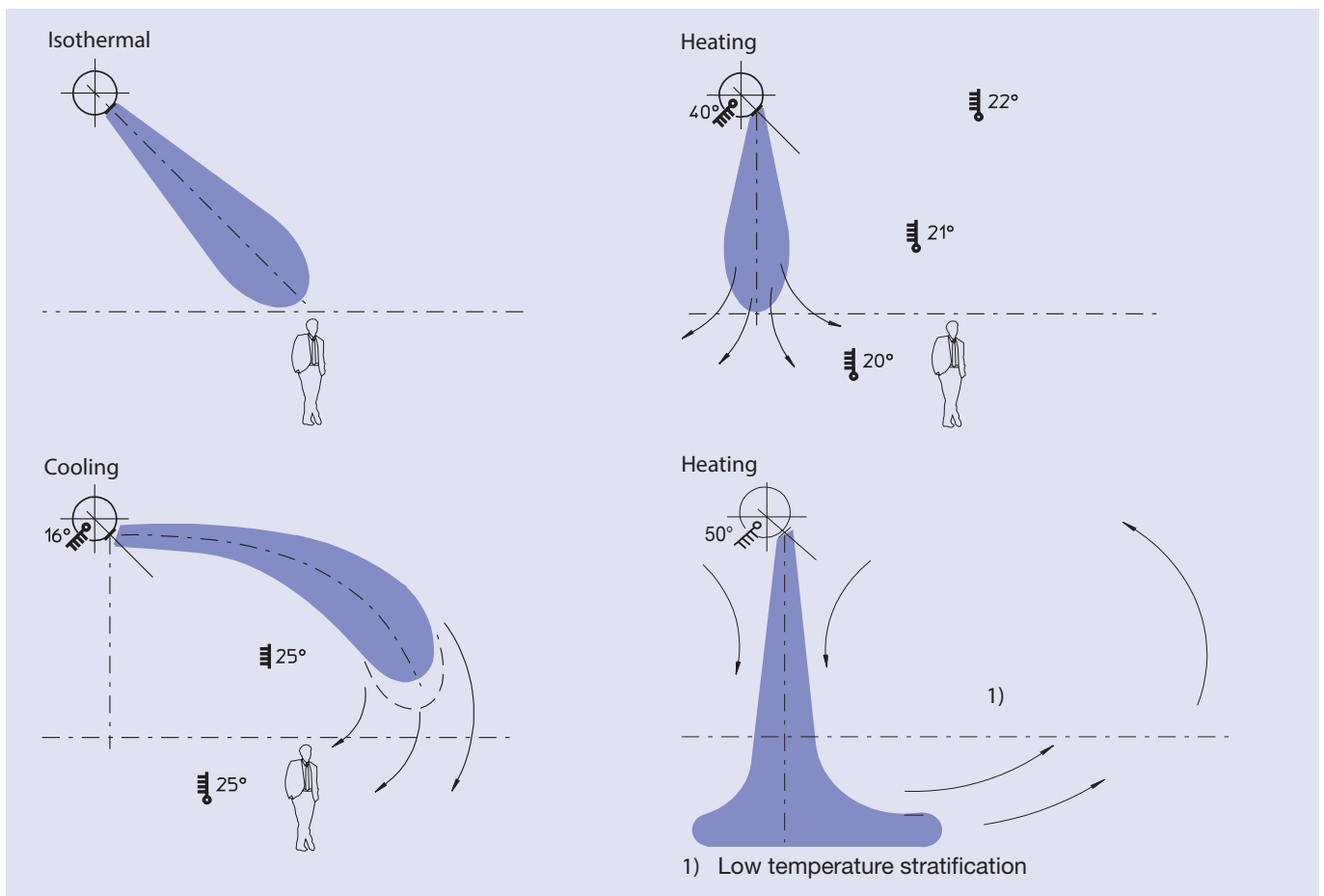
Position transmitter SGA3VARE

Electronic position transmitter with setting potentiometer, suitable for DGVAR air inlet system (manual adjustment) 24 V~ (max. connection possible; 50 pcs. DGVAR).

Plastic casing

Size: 80 × 82 × 55 mm (B x H x T)





Specification text

DGVAR5

Ventilation grille for temperature-dependent air direction control with front vertical blades with 24V~ electric actuator for adjustment of horizontal aluminium blades. With attached inclined aluminium slide box as damper unit.

Type DG VAR 5 (LE or RIE)

Steel white powder-coated RAL 9010, silky gloss, 60% gloss level, with screw holes.

Sizes: B × H mm

Position of the front blades: 0°, 44°, 84°, 110° or 140° diverging or against one another.

DGLVAR5

See description above

Type DGL VAR 5 (LE or RI)

Aluminium colourless anodised, with screwless fixing.

Sizes: B × H mm

Position of the front blades: 0°, 44°, 84°, 110° or 140° diverging or against one another.

Danger

Do not use acidic products for smoke tests!

DGRVAR5 / DGRAVAR5

Ventilation grilles for installation in pipe ducts for temperature-dependent... (see description above).

Type DGR VAR 5 (LE or RI)

Powder-coated steel colour galvanised silver, matt, 25% gloss level, with screw holes and screwless fixing.

Sizes: B × H mm

Position of the front blades: 0°, 44°, 84°, 110° or 140° diverging or against one another.

Electrical accessories for DGVAR system

STG3VAR control module 24V~

STG3DIS Touch display, automatic control

KTF3VAR Duct temperature sensor PT1000

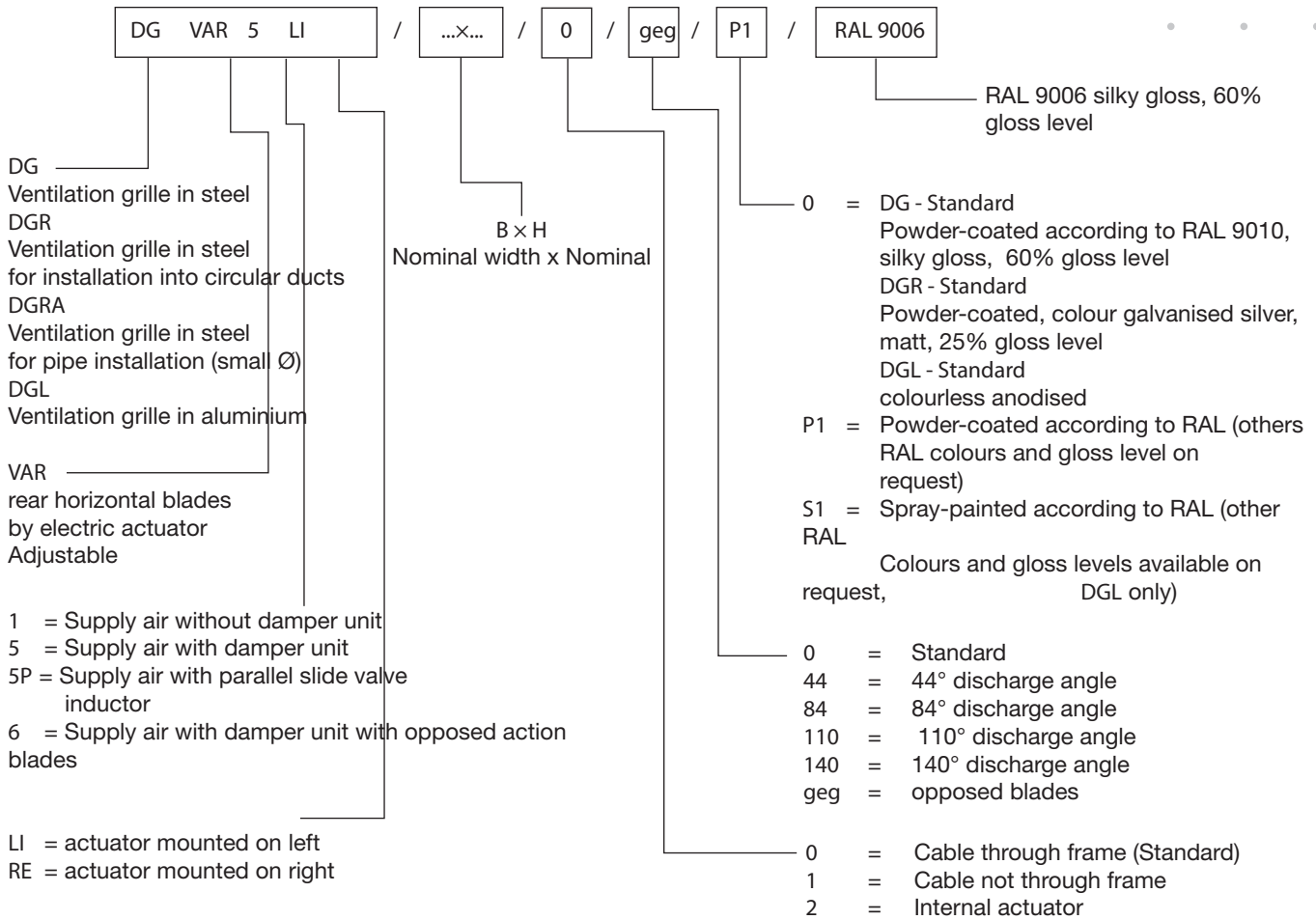
RTF3VAR Room air temperature sensor PT1000

Rating

Technical data see L-02-1-05d 'Rating of TROX HESCO ventilation grilles' (isothermal case).

Order Details

Order code



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