

# VARIFLEX COMFORTDRIVE

Fully automatic operating system for sound insulating partitions

### VARIFLEX COMFORTDRIVE.

# FULLY AUTOMATIC OPERATOR TECHNOLOGY FOR ADVANCED CONVENIENCE.

# Quick and easy spatial adaptation in prestige and commercial environments.

The Variflex ComfortDrive is the fully automatic partition within the Variflex portfolio – a model that offers outstanding convenience in flexible space utilisation. At the push of a button it enables offices and conference rooms to be adapted quickly and efficiently to daily changing requirements. With this system, multi-functional space management is a truly simple affair.

# Advanced technology – the ComfortDrive operating principle.

With the Variflex ComfortDrive, soundinsulating partition elements - transparent or panelled can be moved to their individually preprogrammed positions and their sealing strips extended or retracted under fully automatic control. The control interface takes the form of a userfriendly touch screen. Safety is ensured by an integrated monitoring system that stops the partition motions the moment contact is made with an obstacle.

### Spatial management at the push of a button.

The Variflex ComfortDrive can be controlled with just one finger operating a central touch screen.

Aside from the standard functions "Open", "Close" and "Stop", a number of special positioning modes such as "One element open" ("Personnel opening" function), "Gapped configuration" or various free positioning patterns can be individually programmed and selected.

#### Outstanding flexibility.

Made up of individually operable elements, the Variflex ComfortDrive can be adapted to almost any layout and architectural concept. The elements are available in several standard designs and can be provided with virtually any surface finish required. The stacking tracks/ parking arrangements for accommodating the elements at the end or side of the track are arranged in keeping with the requirements of the application and designed so that the stacked elements take up as little room as possible.

#### CONTENTS

Benefits	3
Technical data	4
Partition layout, operating behaviour	5
Track configurations, basic functions	6
Extended/special operating modes	6/7
Vertical sections	8
Track design details	9
Element types, element interconnection	10
Floor guides, track suspension systems	11
Stacking tracks	12/13
Touch panel	14
Cabling diagram	15





#### THE BENEFITS AT A GLANCE

- Fully automatic actuation at the push of a button
- Exceptional convenience with dynamic opening and closing speeds of up to 250 mm/s
- Easy operation with selfexplanatory touch screen
- Aesthetically elegant with slender track profile of just 98 mm in width
- Available in both panelled and transparent versions
- Several element types and partition systems can be combined within one layout
- Safety ensured by an integrated monitoring system that stops and reverses the partition on contact with an obstacle – TÜV safetytested.
- Satisfies German statutory requirements governing powered windows, doors, shutters and gates:
   BGR 232, UVV (accident prevention) and VDE (electrical safety)

- Smart control system: elements communicate while on the move
- Individually programmable for custom configuration
- Statutory microprocessor control (bus system) for activation and monitoring of the operational sequence and functions
- In the event of a power failure, the partition can be manually operated
- Up to 30 elements per partition system, with up to 50 metres of track
- Single element weights up to 500 kg
- High spatial configuration flexibility
- Sound insulation with Variflex 100 elements up to Rw = 57 dB (lab value)





#### TECHNICAL DATA

#### **General specifications**

Contrar specimeanons
Track width  With ceiling connection girder and quadruple-skin baffle
Operator heigh
Max. length with one control unit
Max. number of elements
Element width
Max. element height (depending on the sound insulation/weight)
Max. element weight
Radius (directional changes)
Hold-open time, personnel access
Travel speed
Force limited to
Parameterisation
Power consumption, stand-by mode
Max. power consumption (20 elements)
Electro-mechanical locking device
Manual unlocking
TÜV safety-tested
Line fuse
Power supply
Power supply within operator
Class of protection

98 mm
154 mm
241 mm
50 m
30
600 <sub>1</sub> - 1,250 mm
<del>10,000</del> mm
500 kg
150 mm
variable
dynamic response
up to 250 mm/s
150 N
with laptop
20 W
1,000 W
optional
•
•
16 A
230 VAC
36 VDC
T

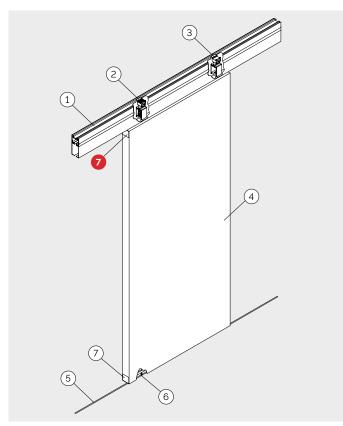
#### **Control functions**

Touch panel functions		
Basic functions		
OPEN		•
CLOSE		•
STOP		•
Extended basic functions		
Partial opening / Partial closing		0
Personnel opening		0
Gapped configuration		0
Special modes	_	
Zonal opening	_	0
Free positioning	_	0
Key switch for personnel access	_	0
Electronically controlled extension and retraction of sealing strips		•
Emergency power module		0
Floating contact		•
Bus interface		•
Status feedback signalling		•
Sound insulation		
Sound insulation in Rw*	Variflex 100	up to 57 dB

<sup>\*</sup> per EN 120140, lab values

• standard O option

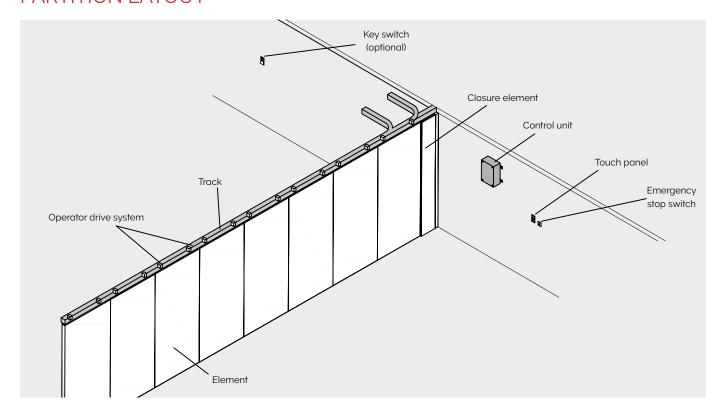
#### SYSTEM STRUCTURE



- 1. Ceiling-mounted loadbearing guide track with busbar system and cover
- 2. Driven carriers with element suspension mountings
- 3. Non-driven carriers with element suspension mountings
- 4. Partition elements of various designs and finishes
- 5. Floor-recessed guide track
- 6. Floor guide pin fitted to each partition element
- 7. Automatically controlled extending and retracting sealing strips



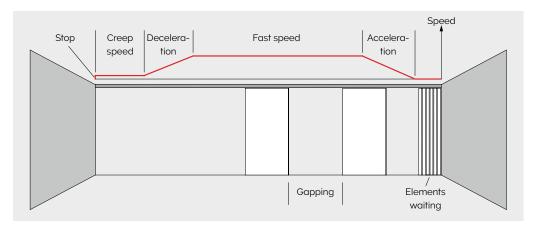
#### PARTITION LAYOUT



#### **OPERATING MODES**

In all operating modes, the partition elements are moved to their preprogrammed positions under fully automatic control. The operating behaviour is dynamically adapted according to where an element is currently located and where the preceding and following elements are positioned at any given moment in time. **The system operating behaviour can be adjusted by parameter reconfiguration**.

#### **OPERATING BEHAVIOUR**



**Acceleration:** As soon as an element receives the command to go, it checks to ensure that the way ahead is free and then accelerates to the preprogrammed speed.

**Fast speed**: If the way ahead is unimpeded over a good distance, the element is accelerated to the highest speed of travel.

**Creep speed:** The element switches to creep mode to travel the final few inches to its preprogrammed position.

**Deceleration:** As the element approaches its preprogrammed position, the speed is reduced to the required creep value.

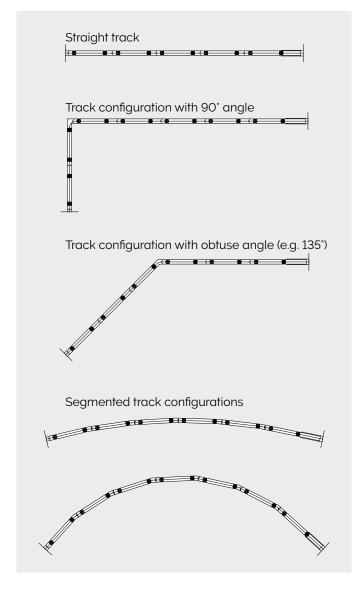
**Stop:** The element stops once it has reached its preprogrammed position. The top and bottom sealing strips are extended.

**Staggered travel mode:** The element follows the preceding element at a defined distance as they move into their respective positions.

**Waiting:** Elements receiving the command to go remain in the waiting mode until the way ahead is free

#### TRACK CONFIGURATIONS

#### Example applications



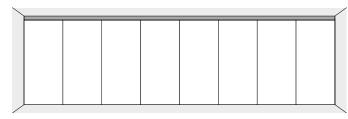
#### **BASIC FUNCTIONS**

#### **OPEN**



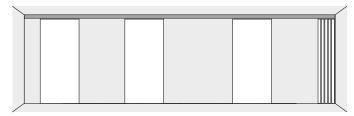
Automatic retraction of sealing strips. All elements move under fully automatic control to the OPEN position.

#### **CLOSE**



All elements move under fully automatic control to the CLOSED position. Automatic extension of sealing strips.

#### **STOP**



Immediate interruption of all travel functions.





#### **EXTENDED BASIC FUNCTIONS**

(optional)

#### PARTIAL CLOSE

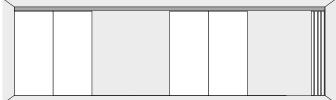


Partial opening or closing of partition. The number of elements affected can be preset by parameter configuration.

#### SPECIAL OPERATING MODES

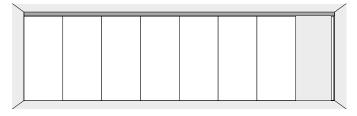
(optional)

#### **ZONAL OPENINGG Example 1**



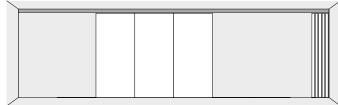
Certain areas of the partition can be opened. The position and number of elements can be preset by parameter configuration.

#### PERSONNEL OPENING



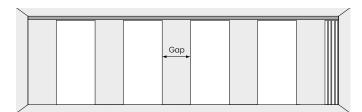
Partial open mode (personnel access). The number of elements that open or close can be preset by parameter configuration.

#### **ZONAL OPENING Example 2**



Certain areas of the partition can be opened. The position and number of elements can be preset by parameter configuration.

#### **GAPPED**



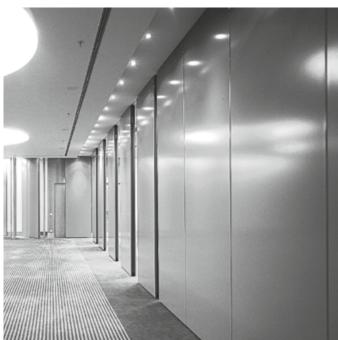
Positioning of the elements at a preprogrammed distance apart. The number of elements and the gapping distance can be preset by parameter configuration.

#### FREE POSITIONING



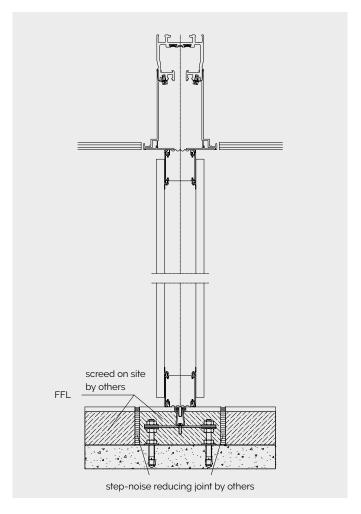
This mode offers the possibility of placing the elements at any track location.



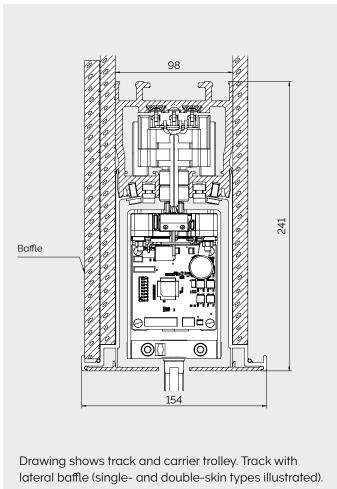


#### **VERTICAL SECTIONS**

### Vertical section with a Variflex element



## Vertical section through track with cover and baffle

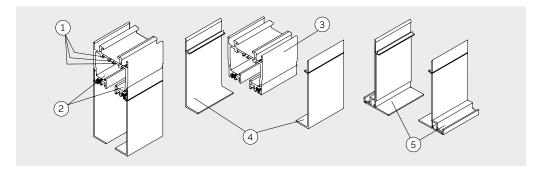






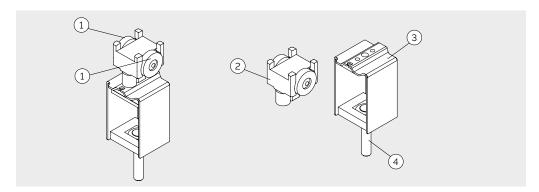
#### TRACK DESIGN DETAILS

#### Track rail



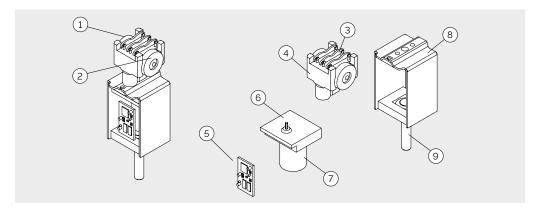
- 1. Busbars (contact rails)
- 2. Running surfaces
- 3. Track profile
- 4. Track covers
- 5. Track covers for lateral baffle in sound-insulating partitions

#### Non-driven carrier



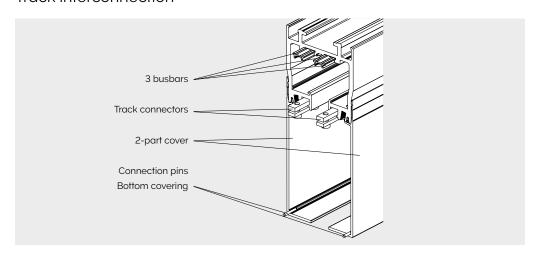
- 1. Non-driven roller
- 2. Roller head
- 3. Support frame
- 4. Carrier pin

#### Driven carrier



- 1. Driven roller
- 2. Non-driven roller
- 3. Collector
- 4. Roller head
- 5. PCB
- 6. Drive gear
- 7. Motor
- 8. Support frame
- 9. Carrier pin

#### Track interconnection



#### **ELEMENT TYPES**

#### Fullwall element



**Passdoor within element** 



**Corner element** (flexible positioning)



Angle element



Telescopic element





Glass element



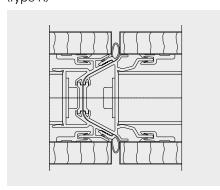
Pass door with vision panel



#### **ELEMENT INTERCONNECTION**

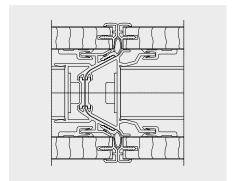
Visible edge

(type K)



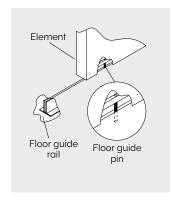
**Edge protection profiles** 

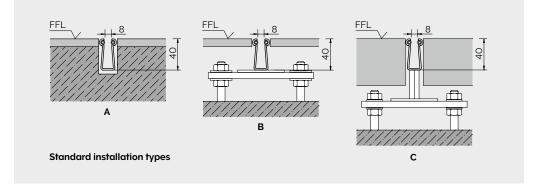
(type U)





#### **FLOOR GUIDES**

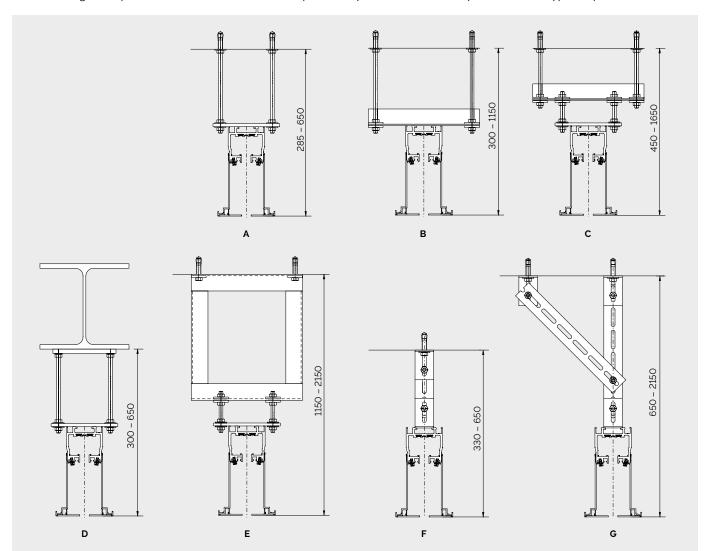




#### SUSPENSION SYSTEMS

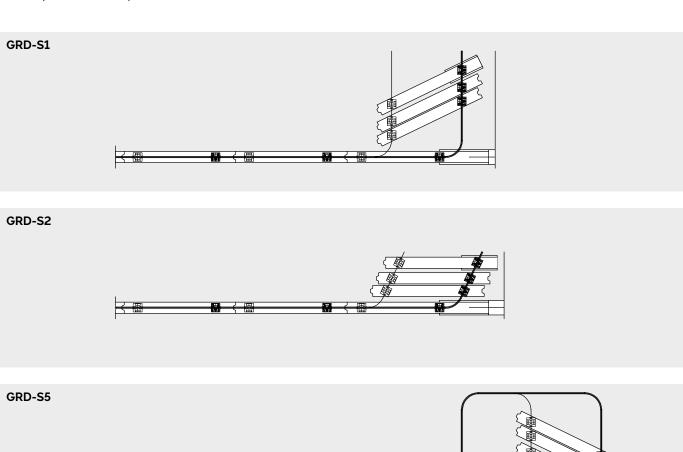
The track suspension system is selected on the basis of the specific application requirements.

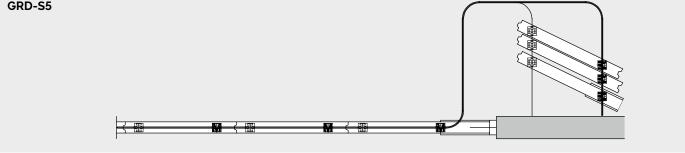
The following examples show the most common suspension systems used for the partition track type in question.

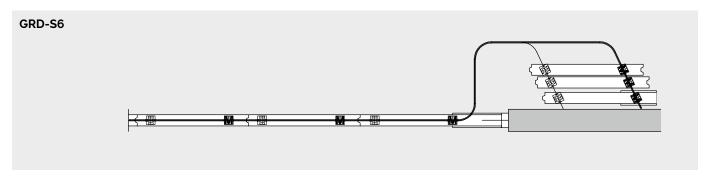


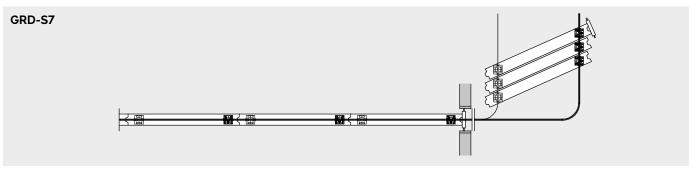
#### STACKING TRACK OPTIONS

The stacking tracks serve to store the elements in a compact stack and can – depending on the room size and shape – be located within a very small area for maximum spatial efficiency. The low weight of the elements and the advantages that this brings in terms of the structural building requirements that need to be fulfilled are particularly beneficial in the stacking areas. The following shows our standard stacking track arrangements. Custom solutions to meet specific requirements can also be provided on request.

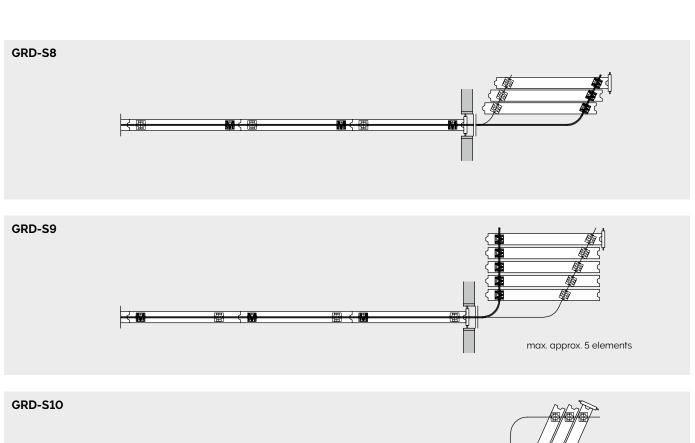


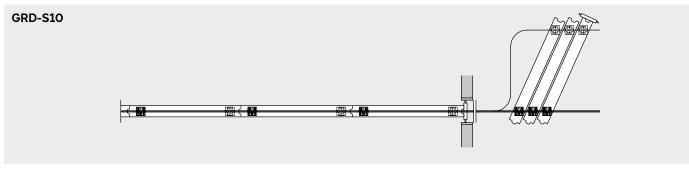


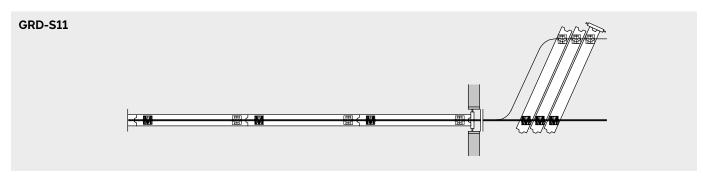


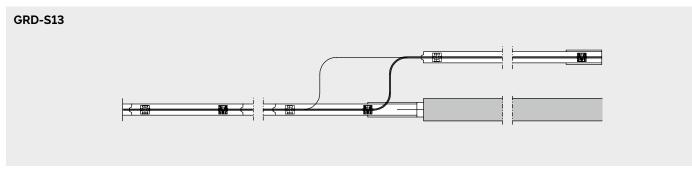










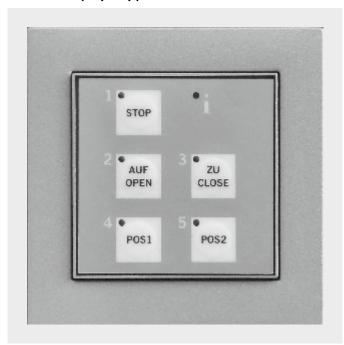


#### **AUXILIARY EQUIPMENT**

#### Touch panel with display for control and programming functions

All the functions of the Varitrans ComfortDrive can be controlled with just one finger operating the buttons of the central touch screen. Aside from the standard functions "Open", "Close" and "Stop", a number of special positioning modes such as "Personnel opening", "Gapped configuration" or various free positioning patterns can be individually programmed and selected. A bus link with the building control system can also be provided.

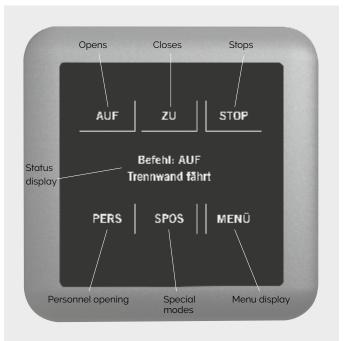
#### Standard display: Key pad





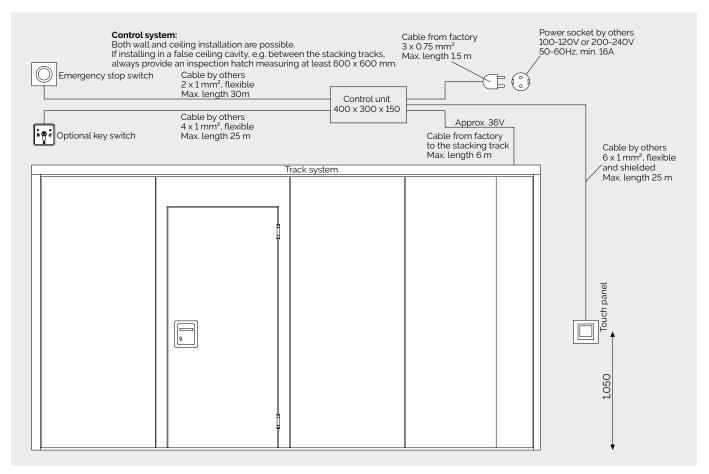
#### Premium display: Touch display







#### Cabling/wiring diagram



#### COMFORTDRIVE FOR GLASS PANEL PARTITIONS

Fully automatic glass panel partition system as a room divider. For more information, please see the brochure: "Varitrans ComfortDrive – Fully automatic operating system for glass panel partitions". If you don't have the brochure, we will be glad to send you one.









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