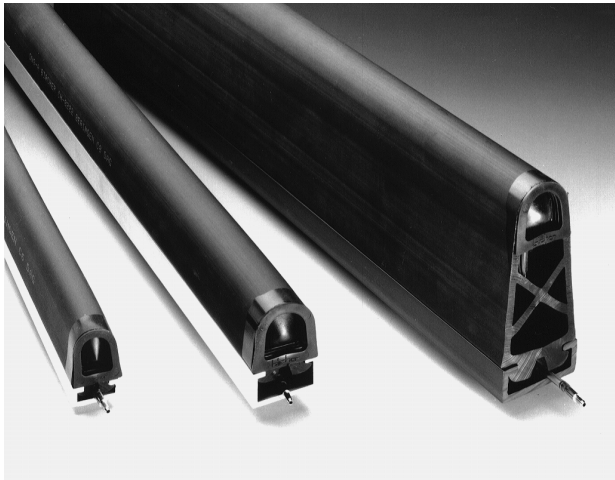


DW-Pressure Wave Sensors



**DWS-
DWS-ALU/-PVC
Contact Rails**

- Can be manufactured in any length
- Available in various materials
- Can be completed by customer

Pressure Wave Profiles

Deformation of the sensor (rubber profile, pressure socket, pressure button) causes the immediate compression of an air volume inducing a pressure wave impulse. This passes through the connecting hose to the DW-Switch.

DWS-Profiles

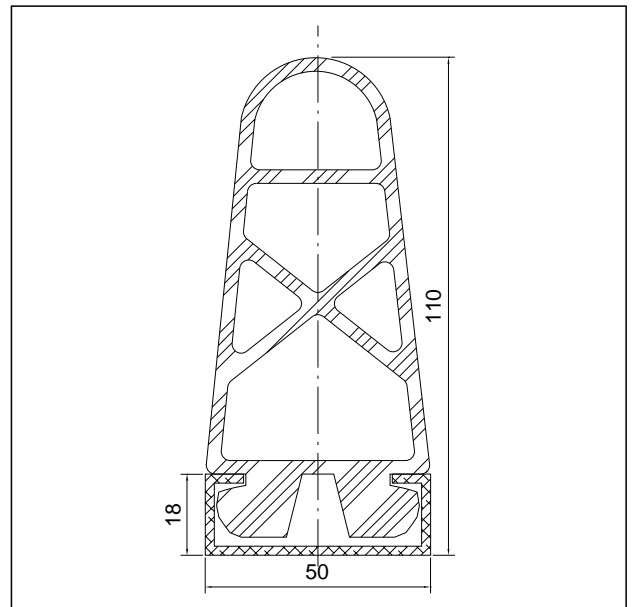
Switching Strips Type DWS

- are simple and robust sensors
- can be used in numerous applications

Model Selection

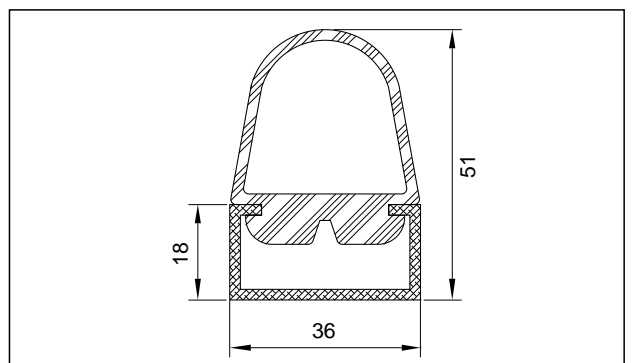
DWS-X

Material	PVC red and black
Air Cross-section	550mm ²
Deformation Distance	50mm
Weight	
with fixing rail	2.65kg/m
without fixing rail	2.15kg/m
Fixing Rail	Hard-PVC black
Allowable Length	6m



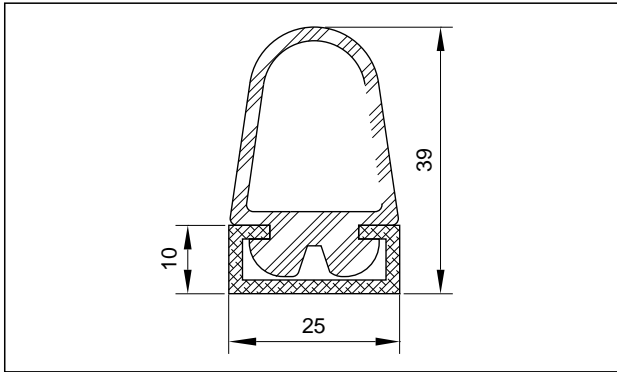
DWS-A

Material	PVC black, MVQ grey
Air Cross-section	550mm ²
Deformation Distance	20mm
Weight	
with fixing rail	1.3kg/m
without fixing rail	0.8kg/m
Allowable Length	6m

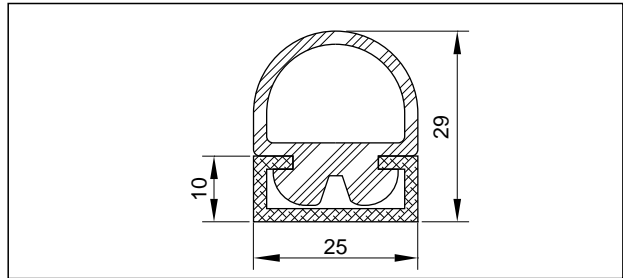


DWS-B

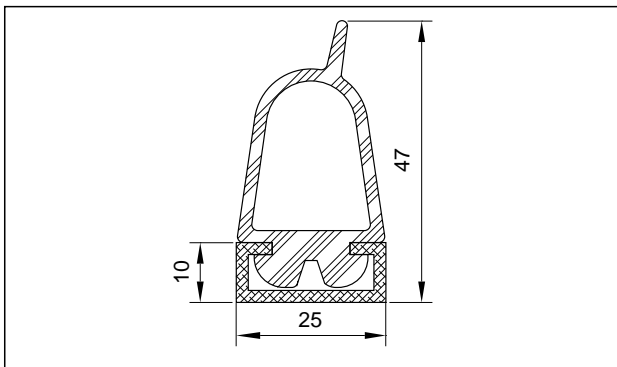
Material	PVC black, MVQ grey
Air Cross-section	400mm ²
Deformation Distance	15mm
Weight	
with fixing rail	0.75kg/m
without fixing rail	0.42kg/m
Allowable Length	6m

**DWS-C**

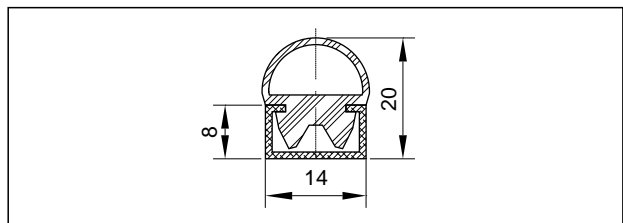
Material	PVC black, MVQ grey
Air Cross-section	180mm ²
Deformation Distance	10mm
Weight	
with fixing rail	0.66kg/m
without fixing rail	0.33kg/m
Allowable Length	6m

**DWS-Bs**

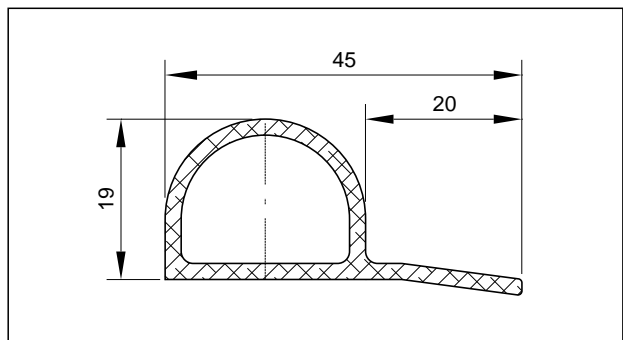
Material	PVC black, MVQ grey
Air Cross-section	400mm ²
Deformation Distance	15mm
Weight	
with fixing rail	0.78kg/m
without fixing rail	0.46kg/m
Allowable Length	6m

**DWS-D**

Material	PVC black, MVQ grey
Air Cross-section	77mm ²
Deformation Distance	5mm
Weight	
with fixing rail	0.27kg/m
without fixing rail	0.14kg/m
Allowable Length	6m

**DWS-P**

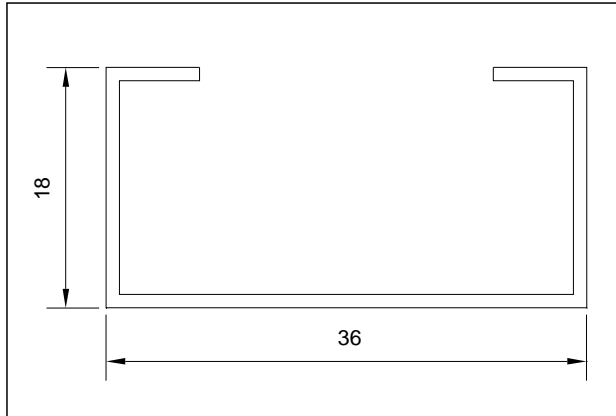
Material	PVC black
Air Cross-section	213mm ²
Deformation Distance	15mm
Weight	0.3kg/m
Allowable Length	6m



Model Selection Alu-Rails

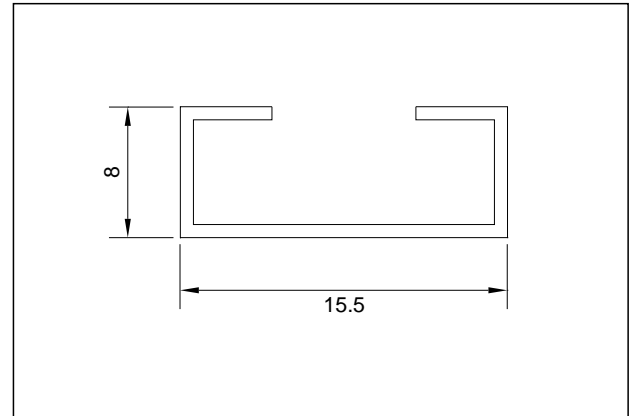
DWS-ALU-A

Material Alu (AlMgSi05)
Weight 0.54kg/m
Application DWS-A



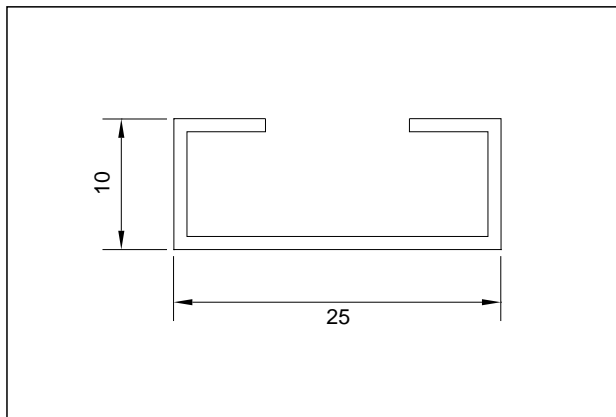
DWS-ALU-D

Material Alu (AlMgSi05)
Weight 0.32kg/m
Application DWS-D



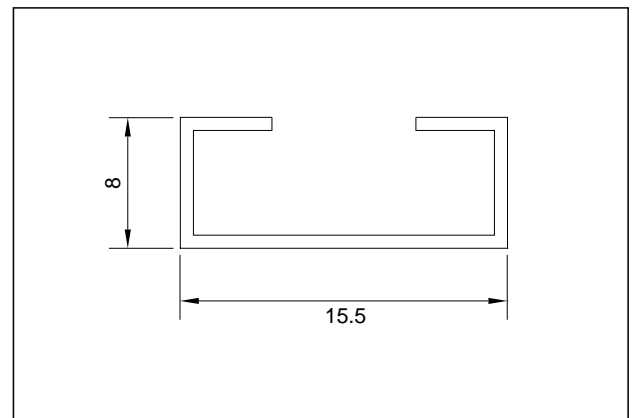
DWS-ALU-B/-C

Material Alu (AlMgSi05)
Weight 0.32kg/m
Application DWS-B/-Bs/-B2s/-C



DWS-PVC-X

Material PVC
Weight 0.24kg/m
Application DWS-X

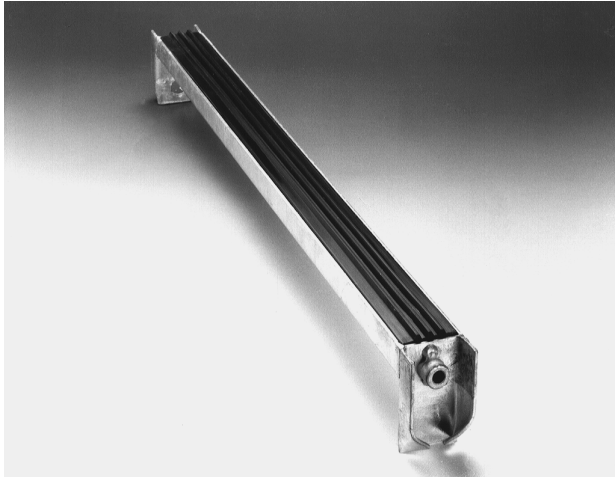


General Data

Profile Length	max. 6m
Length of DW	
Connecting Hose	max. 10m
	Diameter internal/external 2/4mm
Profile Material	Polyvinyl chloride PVC Silicone MVQ Nitrile rubber NBR
Manufacturing Tolerances (at 20°C)	
Width/Height	±2mm
Lengths up to 1000mm	±3mm
up to 2000mm	±5mm
up to 4000mm	±9mm
up to 6000mm	±15mm

Order Information

e. g.	DWS-C L = 4500 PVC
Type (Sensor Complete)	_____
DWS-A	
DWS-B	
DWS-Bs	
DWS-C	
DWS-D	
DWS-X	
Length	_____
max. 6000mm	
Material	_____
PVC Polyvinyl chloride PVC	
NBR Nitrile rubber NBR	
MVQ Silicone	
e. g.	DWS-GC L = 3200 PVC
Type (Rubber Section)	_____
DWS-GA	
DWS-GB	
DWS-GBs	
DWS-GC	
DWS-GD	
DWS-GX	
Length	_____
max. 6000mm	
Material	_____
PVC Polyvinyl chloride PVC	
NBR Nitrile rubber NBR	
MVQ Silicone	



Ground Contact Sensors DGU

- Easily Fitted
- Standardised Lengths

Ground Contact Sensors DGU

The DGU-Ground Contact Sensor acts as a signal transmitter for pressure wave control systems and are ideally suited as control signal transmitters in automatic door and gate opening systems.

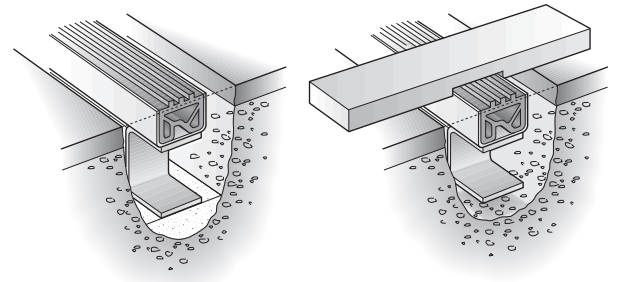
The main characteristics are:

- can be fitted in ground
- a galvanised rolled steel U-channel is used as a support
- allows the use of all types of vehicles
- 2 tons per wheel must not be exceeded
- is very robust

Installation

During installation care should be taken that:

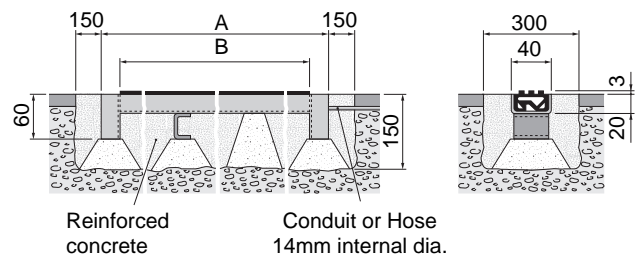
- the steel channel base is flush with the ground
- only the ribbed part of the rubber profile projects above the surface
- before setting in the concrete, place shims under the channel base
- the connecting cable is not removed from the steel frame



Types

The DGU-Ground Contact Sensor is available in six standardised lengths.

Standard Overall Length A mm	540	1040	1540	2040	3040	6040
Standard Effective Length B mm	500	1000	1500	2000	3000	6000



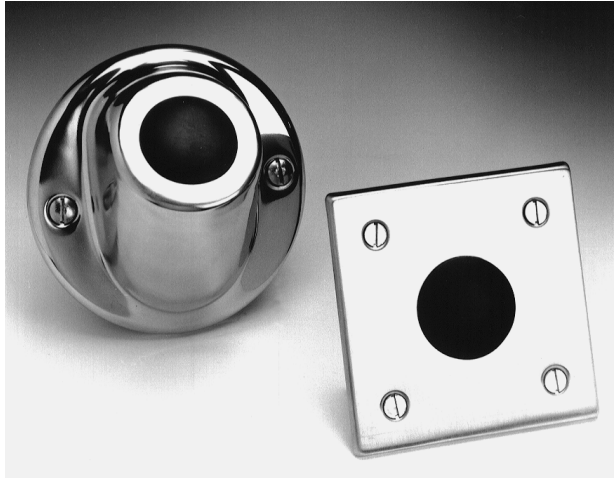
Technical Data

Length of Connecting Hose	max. 10m
Diameter of Connecting Hose	min. 2mm internal/ 4mm external
Ambient Temperature	-20°C to +60°C
Load Capacity	max. 2t
Traversing Speed	max. 30km/h
Materials	
- R.S.Channel	galvanised steel
- Rubber Profile	EPDM (Ethylene- Propylene-Dien)
Chemical Resistance Properties EPDM	
- Weather, ozon	very good
- Hydrolysis (water, steam)	very good
- Mineral oils, petrol	conditional good

Order Information

e. g.	DGU 3000
Type	_____
Ground Contact Sensor	
Length	_____
500mm	
1000mm	
1500mm	
2000mm	
3000mm	
6000mm	
e. g.	DGUG 1500
Type	_____
Rubber Profile for Ground Contact Sensor	
Length	_____
500mm	
1000mm	
1500mm	
2000mm	
3000mm	
6000mm	

DW-Pressure Wave Sensors



Foot/Hand Operated Button DT.. Tubular Profile DWSL

- Waterproof Construction
- Simple Installation

General

This type of sensor is ideally suited as

- command sensors in door and gate opening systems
- for applications in sanitary areas

Electrical switching can be controlled in damp or hazardous locations simply and securely

Function

When the sensor is operated

- it is compressed in accordance with the operating force
- the air in the hollow interior is compressed
- an over-pressure is induced
- the pressure wave passes through the connecting hose to the switch

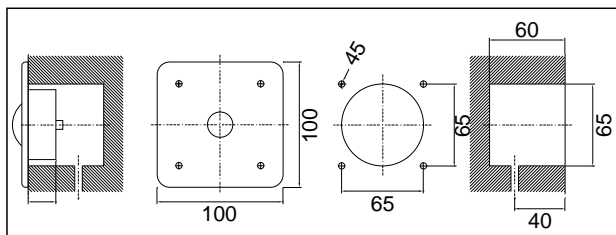
Model Selection

Foot Button DTFU

Hand Button DTFUW

- visible plate manufactured from chrome nickel steel
- black rubber button

The model DTFUW is a Hand Operated Button and has a special soft push-button.

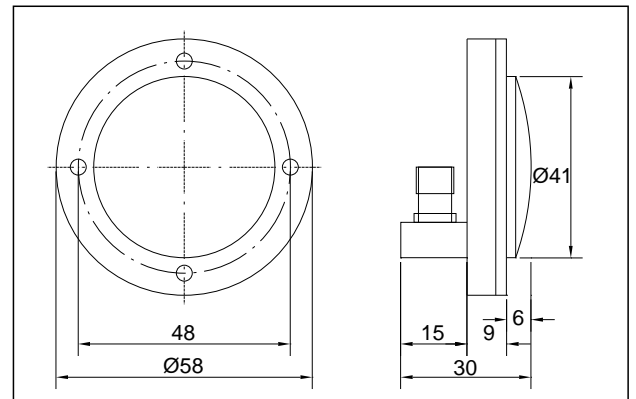


Dimension Sheet

Drilling Plan

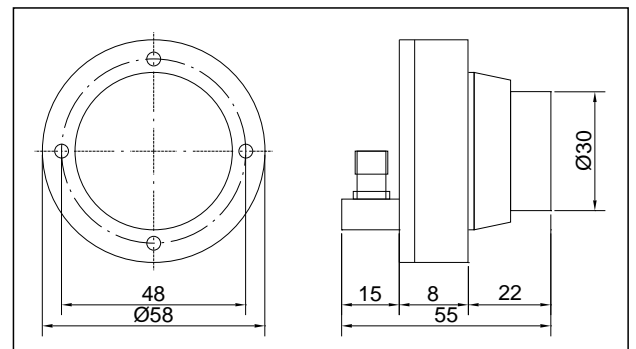
Push-button DTW

- the model DTWR has a red rubber button
- the model DTWB has a blue rubber button



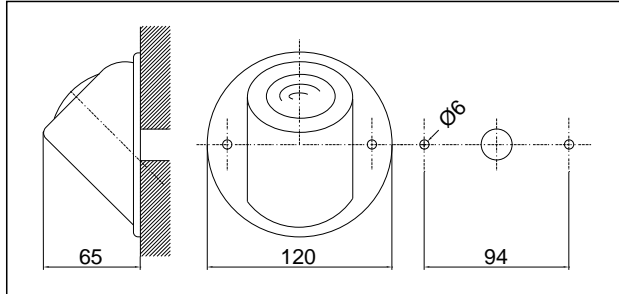
Push-button DTH

- hermetically sealed construction
- DTHB has a blue push-button



Foot Button DTFA

- visible components manufactured from chrome nickel steel

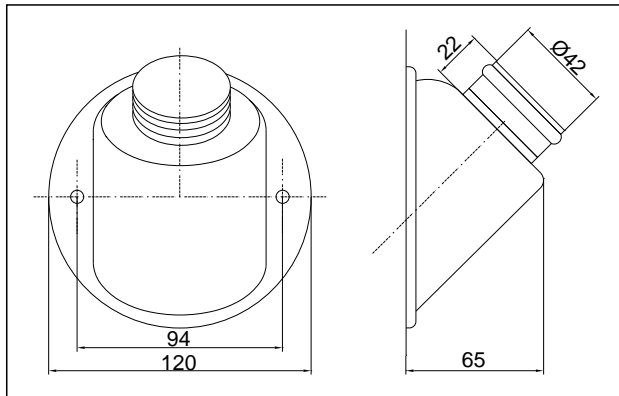


Dimension Sheet

Drilling Plan

Foot Button DTFV

- heavy-duty construction
- visible components manufactured from chrome nickel steel



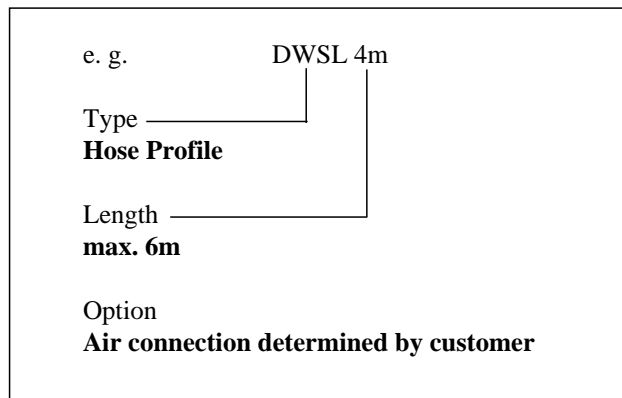
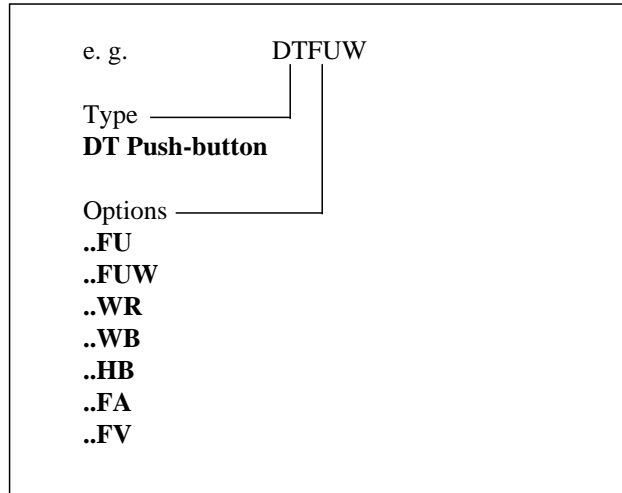
Tubular Profile DWSL

This rubber profile, with closed ends and a DW-Hose connection of 50mm on one side.

Is suitable as a pressure wave generator

- for remote control
- for accident prevention when operated unintentionally

Order Information



DGD Pressure Sensitive Cell

- High Mechanical Load Capacity
- Small Overall Height
- Fast Response

General

DGD-Pressure Sensitive Cells act as pressure transmitter units for pressure wave control systems.

When the DGD-Pressure Sensitive Cell is compressed, the air volume inside is also immediately compressed and induces a pressure wave impulse.

DGD-Pressure Sensitive Cells have the following characteristics:

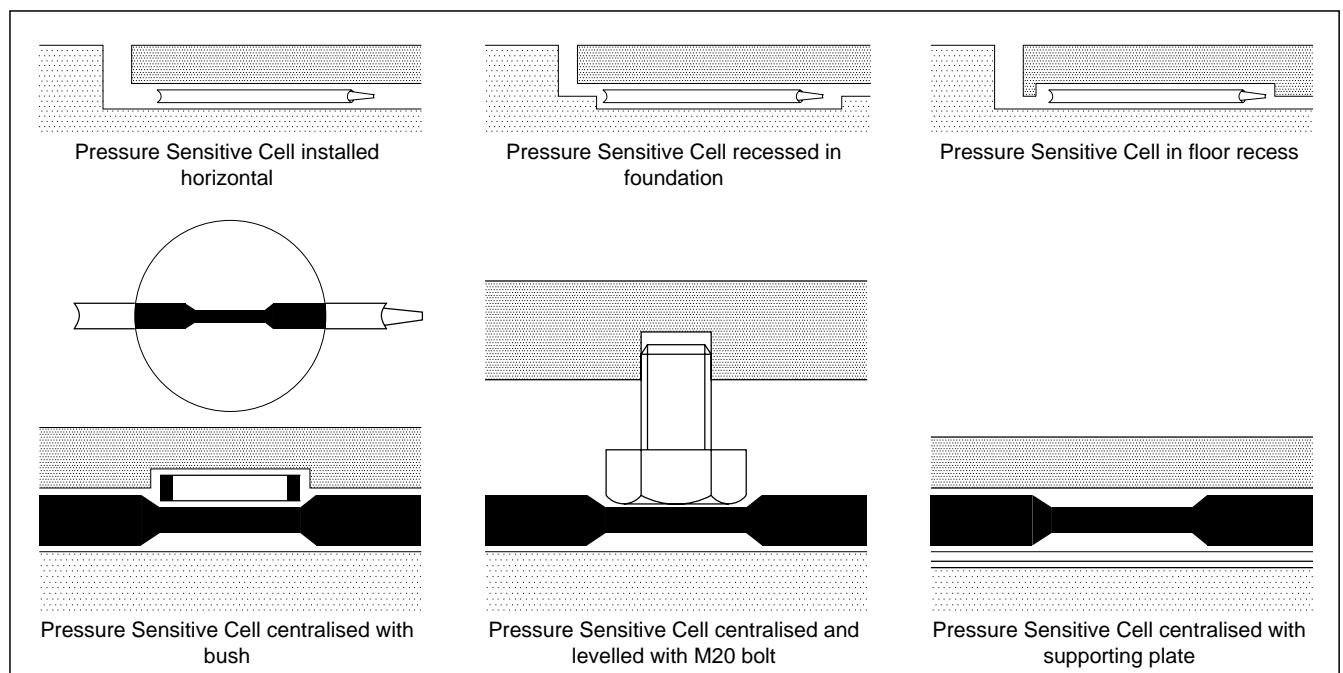
- small Overall Height
- fast Response
- very small travel/high pressure
- high Mechanical Load Capacity

Instructions

When installing the Pressure Sensitive Cell the following should be observed:

- the moving part of the system must return mechanically to its initial position
- the Pressure Sensitive Cell must only be fixed on one side
- the choice of DW-Switches is dependent on the pressure level

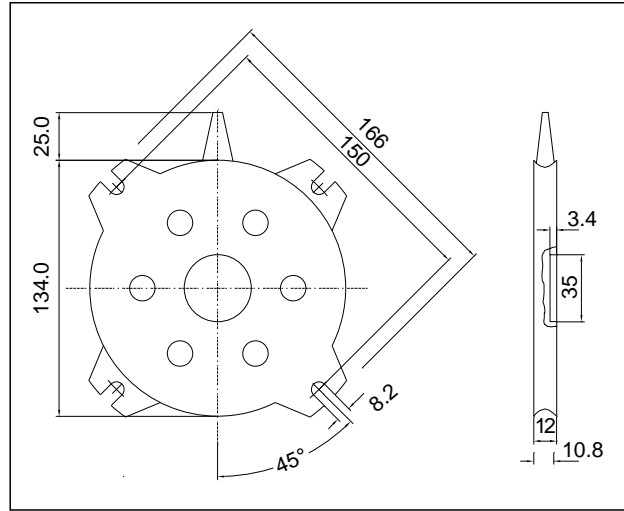
Application Examples



Technical Data

Max. Load	5t/Unit
Max. Pre-load	40kg/Unit
Actuating Weight	approx. 5kg/Unit
Max. Deflection Travel	1.2mm at 600N
Deflection Travel	0.2mm/100N
Number of Units per System	Max. 8
Ambient Temperature	-20°C to +70°C
Materials Used	Galvanised steel Natural rubber ring protected by silicone

Dimension Sheet



Order Information

e. g.	DGD
Type _____	_____
DGD Pressure Sensitive Cell	

DGD-6.E-10G