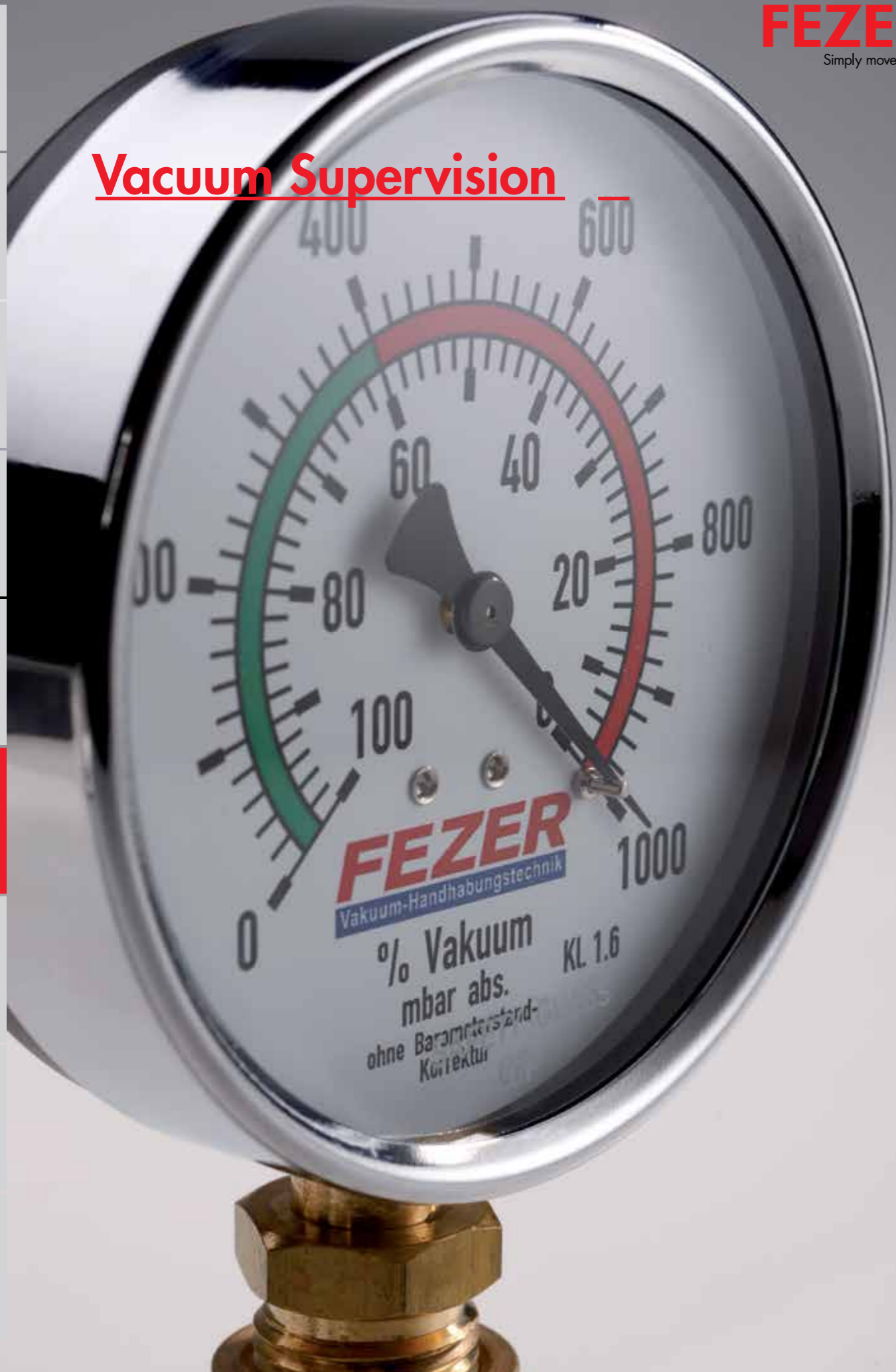











# Vacuum Supervision







## Vacuum Supervision

### Overview

Mechanical Vacuum Switch	Technical data	Description	Page
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 Vacuum switch VSP-1/8	Meas.range Switching exit Connections -0,85 ... -0,35 bar 1 x digital G1/8	pneumatical vacuum switch with adjustable switching point	6.7

Electronical Vacuum Switch	Technical data	Description	Page
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2. Suction Pads  
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4. Vacuum Generators  
5. Valve Technology  
6. Vacuum Supervision  
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8. Connection Elements  
9. System Technology

1. Basics  
2. Suction Pads  
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5. Valve Technology  
6. Vacuum Supervision  
7. Filter Elements  
8. Connection Elements  
9. System Technology

## Mechanical Vacuum Switch

electro-mechanical VSM-1/4

### Description

Robust, mechanical vacuum switch with membrane technology in stable aluminum housing. The switch has a preset, digital switching exit and a changeover contact and can both be used as an opener (NC) or closer (NO). The preset switching points can be adjusted if required. Supplied with connecting plug.

### Application

- Supervision of vacuum circuits
- in vacuum load lifting devices
- compact design, any mounting position

### Article number

Type	
VSM-1/4-0,1	1.52.1.0009
VSM-1/4-0,25	1.52.1.0011
VSM-1/4-0,35	1.52.1.0012
VSM-1/4-0,6	1.52.1.0001
VSM-1/4-0,7	1.52.1.0008
VSM-1/4-0,8	1.52.1.0002

### Technical data

Type		VSM-1/4- ...
Measure medium		dry, oilless unaggressive gases
Media resistance		air, oil, petrol
Measuring range	(bar)	-1 ... 1
Overpressure safety	(bar)	10
Fluid connection		G1/4
Switching exit digital		1x
Switching logic		changeover switch NO / NC
Switching range		5 ... 95% adjustable
Switching point, preset		10%, 25%, 35%, 60%, 70%, 80%
Switching exit analogous	(V)	---
Condition display		---
Repeat precision		+/- 5 %
Reaction time	(ms)	< 400
Voltage	(V)	12 ... 250
Current consumption	(A)	---
max. current	(A)	2
Electrical connection		DIN 43650, Pg 9
Protection class		IP55
Temperature range	(°C)	-10 ... +50
Weight	(kg)	

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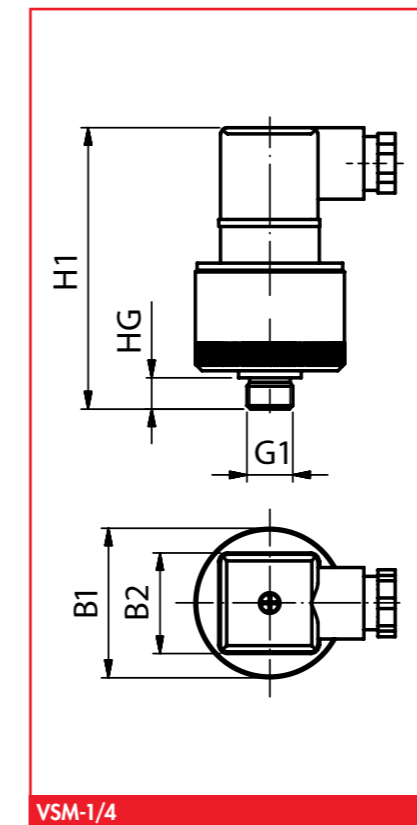
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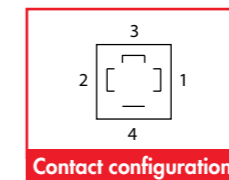
VSM-1/4

## Mechanical Vacuum Switch

electro-mechanical VSM-1/4



VSM-1/4



Contact configuration

- 1 Voltage entrance
- 2 Switching exit NO
- 3 Switching exit NC
- 4 PE

### Dimensions

Type	B1	B2	H1	G1	HG1
VSM-1/4	45	27	84	G1/4	9

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## Mechanical Vacuum Switch

electro-mechanical VSMH-1/4

### Description

Robust, mechanical vacuum switch with membrane technology in stable aluminum housing. The switch has a preset, digital switching exit and a be used both as opener (NC) or closer (NO) via a changeover contact. The preset switching points can be adjusted if required. Supplied with connection plug.

### Application

- supervision of vacuum circuits
- in vacuum load lifting devices
- compact design, any mounting position



### Article number

Type	
VSM-1/4-0,6	1.52.1.0010

### Technical data

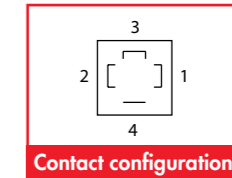
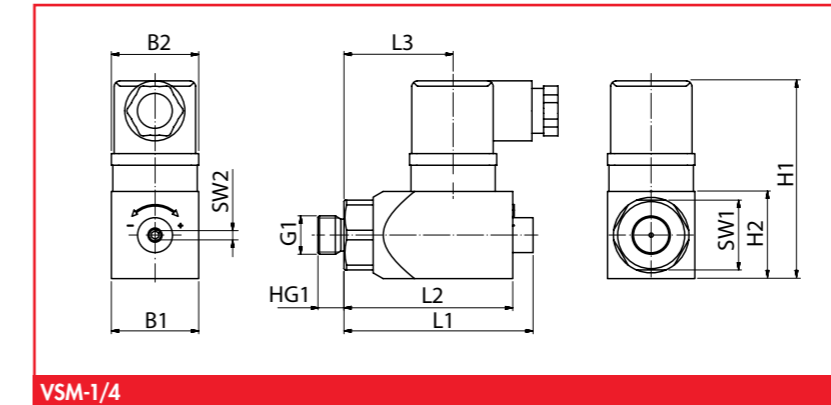
Type		VSMH-1/4-0,6-20%
Measure medium		dry, oilless unaggressive gases
Media resistance		air, oil, petrol
Meas.range	(bar)	-1 ... 1
Overpressure safety	(bar)	10
Fluid connection		G1/4
Switching exit digital		1x
Switching logic		changeover switch NO/NC
Switching range		5 ... 95% adjustable
Switching point, preset		60%
Hysteresis		20%
Switching exit analogous	(V)	---
Condition display		---
Repeat precision		+/- 5 %
Reaction time	(ms)	< 400
Voltage	(V)	12 ... 250
Current consumption	(A)	---
max. Current	(A)	5
electrical Connection		DIN 43650, Pg 9
Protection class		IP55
Temperature range	(°C)	-20 ... 80
Weight	(kg)	

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## Mechanical Vacuum Switch

electro-mechanical VSM-1/4



- 1 Voltage entrance
- 2 Switching exit NO
- 3 Switching exit NC
- 4 PE

### Dimensions

Type	L1	L2	L3	B1	B2	H1	H2	G1	HG	SW1	SW2
VSM-1/4	65	58	37,5	30	29	84	30	G1/4	9	24	2,5

## Mechanical Vacuum switch

pneumatical VSP-1/8

### Description

Robuster, pneumatischer Vacuum switch with Membran-Technik in stable Plastic housing. Die Switch sind in Ausführung NO oder NC erhältlich. The Switching point kann über die Einstellschraube beliebig eingestellt werden.

### Application

- Überwachung von Vacuumkreisen
- in Vacuum-Handhabungsgeräten with pneumatischer Vacuumerzeugung und -steuerung
- for pneumatische Warning uniten
- compacte Bauweise with beliebiger Einbaulage



VSP-1/8

### Article number

Type	
VSP-1/8-NO	1.52.2.0002
VSP-1/8-NC	1.52.2.0001

### Technical data

Type		VSP-1/8-NO	VSP-1/8-NC
Measure medium		dry, oilless unaggressive Gases	
Meas.range	(bar)	-1 ... 1	
Overpressure safety	(bar)	2	
Fluid connection		G1/8	
Switching exit digital		1xNO	1xNC
Switching range		35 ... 85% adjustable	
Hysteresis setting		0,08 ... 0,1	
Condition display		---	
Repeat precision		+/- 3 %	
Schalhäufigkeit	(1/s)	2	
Druckairversorgung	(bar)	2 ... 6	
Durchfluß	(l/min)	55	
Air consumption	(l/min)	4	
pneumacal Connection		3	
Temperature range	(°C)	0 ... +60	
Weight	(kg)	0,070	

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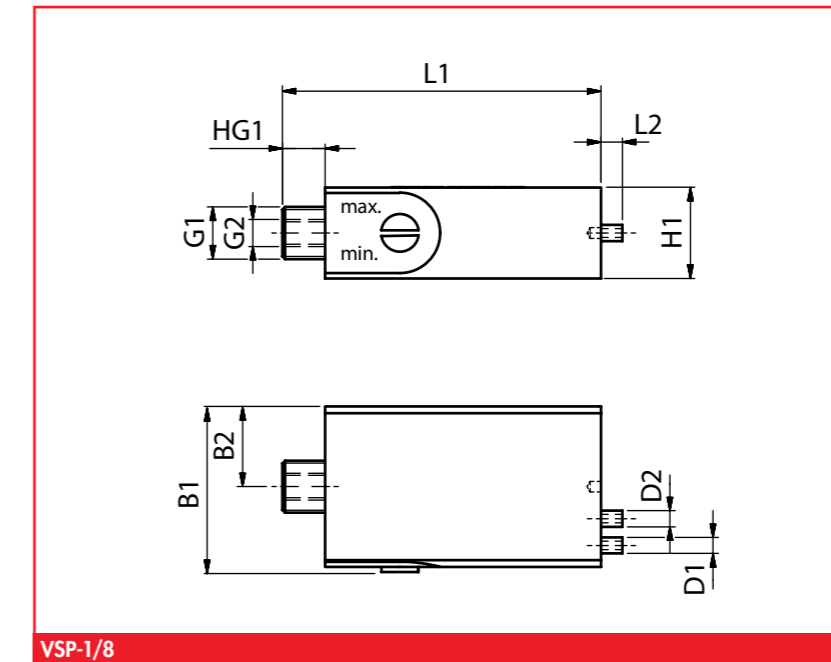
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## Mechanical Vacuum switch

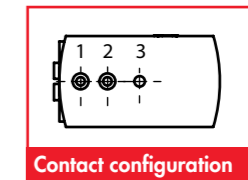
pneumatical VSP-1/8

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VSP-1/8



Contact configuration

- 1 Compressed air connection
- 2 Exit NC or NO
- 3 Ventilation

### Dimensions

Type	L1	L2	B1	B2	H1	D1	D2	G1	G2	HG1
VSP-1/8	60	8	31	15	17	3	3	G1/8	M5	8

## Electronic Vacuum Switch

VSE-1/8

### Description

Electronic vacuum switch with Piezo-Quarz technology in stable plastic housing with 1/8 thread connection. The switch has an analogous and a digital switching exit and an adjustable hysteresis function.

### Application:

- control and adjustment of vacuum circuits
- supervision of vacuum circuits
- small design, any mounting position



VSE-1/8

### Article number

Type	
VSE-1/8-0,6-M8	1.52.3.0044
VSE-1/8-0,7-M8	1.52.3.0045
VSE-1/8-0,8-M8	1.52.3.0046

### Technical data

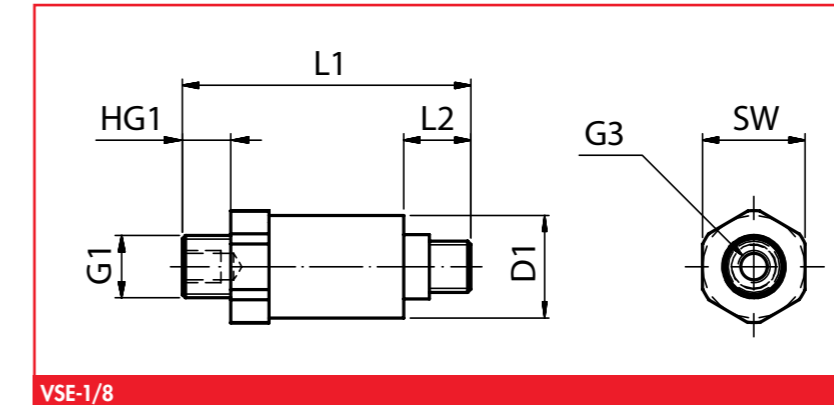
Type		VSE-1/8
Measure medium		dry, oilless unaggressive Gases
Meas.range	(bar)	-1 ... 0
Overpressure safety	(bar)	5
Fluid connection		G1/8
Switching exit digital	(mA/V)	1x(125/30)
Switching logic		NO/NC adjustable
Switching range		0 ... 100% adjustable
Switching exit analogous	(V)	1 ... 5
Hysteresis setting		0 ... 100% adjustable
Condition display		LED im Tastenfeld
Repeat precision		+/- 0,2 %
Reaction time	(ms)	< 2,5
Voltage	(V)	10,8 ... 30 DC
Current consumption	(mA)	< 30
max. Current	(mA)	250
electrical Connection		Plug M8 - 4 polig
Protection class		IP65
Temperature range	(°C)	-10 ... +60
Weight	(kg)	0,012

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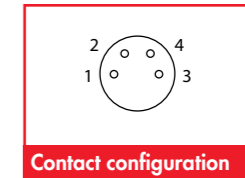
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## Electronic Vacuum Switch

VSE-1/8



VSE-1/8



Contact configuration

- 1 (brown) V +
- 2 (white) Programming
- 3 (blue) V -
- 4 (black) Switching exit 1 digital

### Dimensions

Type	L1	L2	D1	G1	G2	HG1	SW
VSET-1/8	45	10,5	16	G1/8	M8	6	16

## Electronic Vacuum Switch

VSET - teachable

### Description

Electronic vacuum switch with Piezo-Quarz technology in compact plastic housing with 1/8 connection. The switch has 2 adjustable switching exits, with self-learning adjustment by teach buttons. The vacuum switch excels by its compact design and its very precise technology. The vacuum switch has LED displays for switching point and programming operation.

### Application

- supervision of vacuum circuits
- optimizing of cycle and switching times
- compact design, any mounting position



VSET-1/8

### Article number

Type	
VSET-1/8-M8	1.52.3.0047

### Technical data

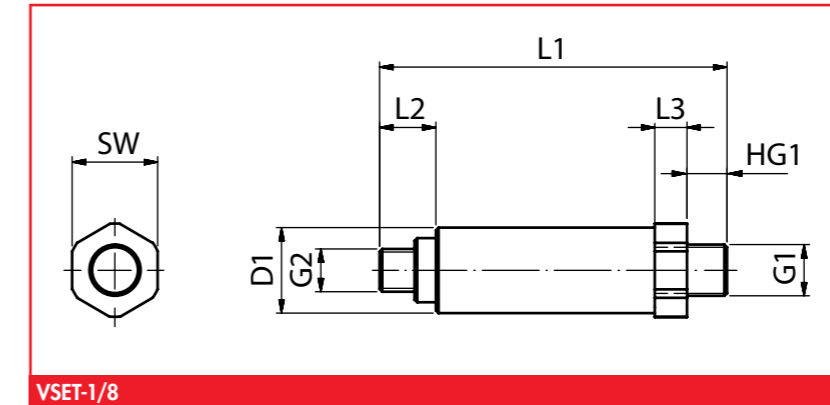
Type		VSET-1/8
Measure medium		dry, oilless unaggressive gases
Meas.range	(bar)	-1 ... 0
Overpressure safety	(bar)	5
Fluid connection		G1/8
Switching exit digital	(mA/V)	1x(125/30)
Switching logic		NO/NC adjustable
Switching range		0 ... 100% adjustable
Switching exit analogous	(V)	1 ... 5
Hysteresis setting		0 ... 100% adjustable
Condition display		LED im Tastenfeld
Repeat precision		+/- 0,2 %
Reaction time	(ms)	< 2,5
Voltage	(V)	10,8 ... 30 DC
Current consumption	(mA)	< 30
max. Current	(mA)	250
electrical Connection		Plug M8 - 4 polig
Protection class		IP65
Temperature range	(°C)	-10 ... +50
Weight	(kg)	0,020

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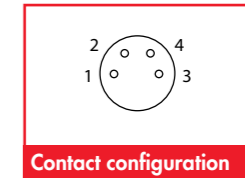
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## Electronic Vacuum Switch

VSET - teachable



VSET-1/8



Contact configuration

- 1 (brown) V +
- 2 (white) Switching exit analogous
- 3 (blue) V -
- 4 (black) Switching exit 1 digital

### Dimensions

Type	L1	L2	L3	D1	G1	G2	HG1	SW
VSET-1/8	65	10,5	6	16	G1/8	M8	7,5	16

## Electronic Vacuum Switch

VSEI - Inline design

### Description

Electrical vacuum switch with Piezo-Quartz technology in compact design for inline installation. The switch has 1 adjustable switching exit and anadjustable hysteresis function. The switching exit and the hysteresis are programmed by teach operation. The vacuum switch has also an LED switching point display and plug-in cable connections. Supplied with a holder for the vacuum switch.

### Application

- supervision of vacuum circuits
- Mounted by „inline“-installation in hose
- extremely compact design, any mounting position



VSEI

### Article number

Type	
VSEI-4-PNP-NO	1.52.3.0036
VSEI-4-PNP-NC	1.52.3.0037
VSEI-6-PNP-NO	1.52.3.0038
VSEI-6-PNP-NC	1.52.3.0039

### Technical data

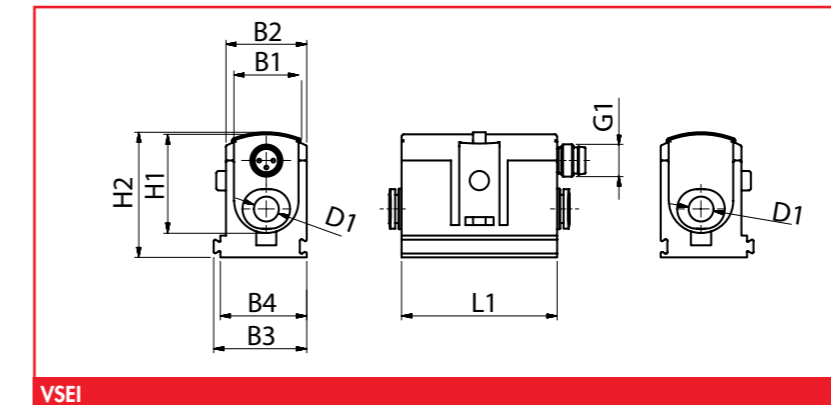
Type		VSEI
Measure medium		dry, oilless unaggressive gases
Meas.range	(bar)	-1 ... 0
Overpressure safety	(bar)	2
Fluid connection		Schlauch-Ø 4 othe 6 mm
Switching exit digital	(mA/V)	1xPNP
Switching logic		NO/NC
Switching range		0 ... 100% adjustable
Switching exit analogous	(V)	---
Hysteresis setting		max. 2% FS (fixed)
Condition display		LED in housing
Repeat precision		+/- 0,3 % FS
Reaction time	(ms)	< 10
Voltage	(V)	15 ... 30 DC
Current consumption	(mA)	< 30
max. Current	(mA)	100
electrical Connection		Plug M8 - 3 cores
Protection class		IP40
Temperature range	(°C)	0 ... +50
Weight	(kg)	0,020

# FEZER

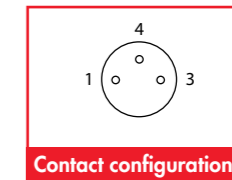
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## Electronic Vacuum Switch

VSEI - Inline design



VSEI



Contact configuration

- 1 (brown) V +
- 3 (blue) V -
- 4 (black) Switching exit 1 digital

### Dimensions

Type	L1	B1	B2	B3	B4	H1	H2	D1	G1
VSEI-4 ...	38,5	16	20	23	21,4	24,5	31	4	M8
VSEI-6 ...	38,5	16	20	23	21,4	24,5	31	6	M8

## Electronic Vacuum Switch

with digital display VSD-1/8

### Description

Electronical vacuum switch with Piezo-Quarz technology in stable plastic housing and display. The switch has 2 digital switching exits and adjustable hysteresis- and switching delay function. All functions can, independent from the applied system pressure, be programmed and arrested against alteration by code. Design in oval or compact form.

### Application

- control of vacuum circuits
- supervision of vacuum circuits
- small design and any mounting position



VSD-1/8 und VSDK-1/8

### Article number

Type	
VSD-1/8-4PNP-M8	1.52.3.0028
VSDK-1/8-4PNP-M8	1.52.3.0029

### Technical data

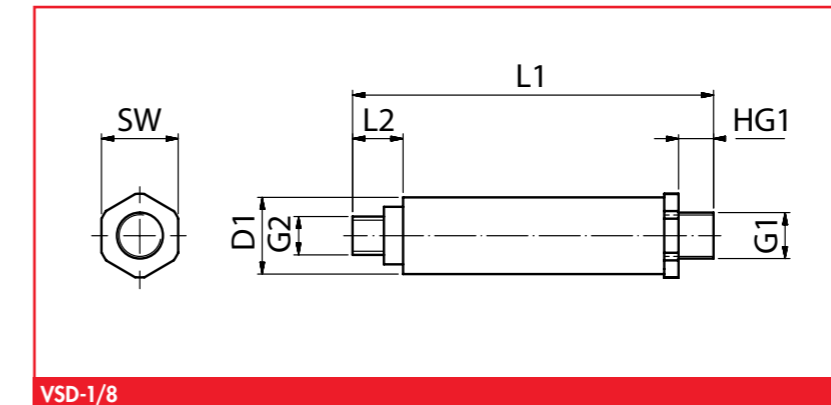
Type		VSD-1/8
Measure medium		dry, oilless unaggressive gases
Meas.range	(bar)	-1 ... 0
Overpressure safety	(bar)	5
Fluid connection		G1/8
Switching exit digital	(mA/V)	2x(250/30)
Switching logic		NO/NC adjustable
Switching range		0 ... 100% adjustable
Switching delay	(s)	0 ... 180 adjustable
Switching exit analogous	(V)	---
Hysteresis setting		0 ... 100% adjustable
Condition display		2 x LED in display
Repeat precision		+/- 0,2 %
Reaction time	(ms)	< 2,5
Voltage	(V)	10,8 ... 30 DC
Current consumption	(mA)	< 30
max. Current	(mA)	250
electrical Connection		Plug M8 - 4 cores
Protection class		IP40
Temperature range	(°C)	-10 ... +50
Weight	(kg)	0,025

# FEZER

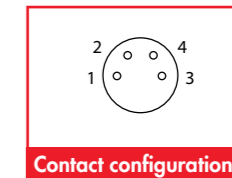
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## Electronic Vacuum Switch

with digital display VSD-1/8

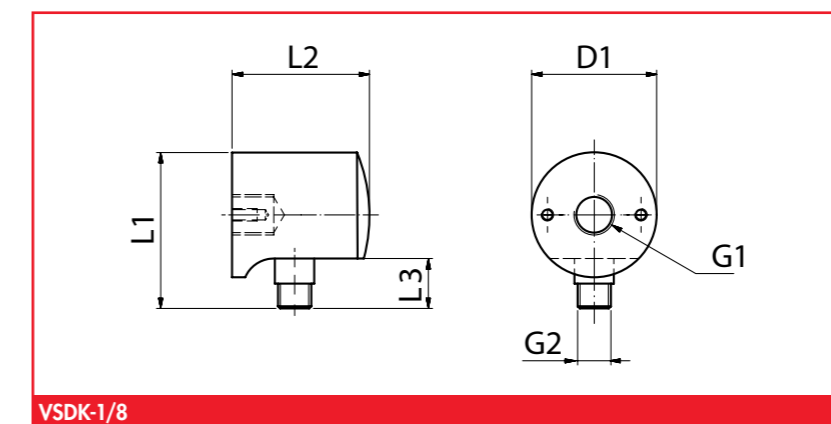


VSD-1/8



Contact configuration

- 1 (brown) V +
- 2 (white) Switching exit 2 digital
- 3 (blue) V -
- 4 (black) Switching exit 1 digital



VSDK-1/8

### Dimensions

Type	L1	L2	L3	D1	G1	G2	HG1	SW
VSD-1/8	68	10,5	---	16	G1/8	M8	7,3	16
VSDK-1/8	38	33	10,5	30	G1/8	M8	---	---



## Electronic Vacuum Switch

with digital display VSD-1/8-1

# FEZER

Simply move more.

### Description

Highly precise and very robust electronic vacuum switch with Piezo-Quarz technology with stable plastic housing and display. The switch has 2 digital switching exits or 1 digital switching exit and 1 diagnosis exit an adjustable hysteresis and switching delay functions. By a mounting set the vacuum switch can be installed on a cap rail and connected to the vacuum generator by plug-in connections and a vacuum hose.

### Application

- control and adjustment of vacuum circuits
- supervision of vacuum circuits
- small design, any mounting position



VSD-1/8-1

### Article number

Type	
VSD-1/8-1-4PNP-M8	1.52.3.0034
Adapter for outer thread G1/8	6.21.5.0833
Mounting set for cap rail	1.52.3.0048

### Technical data

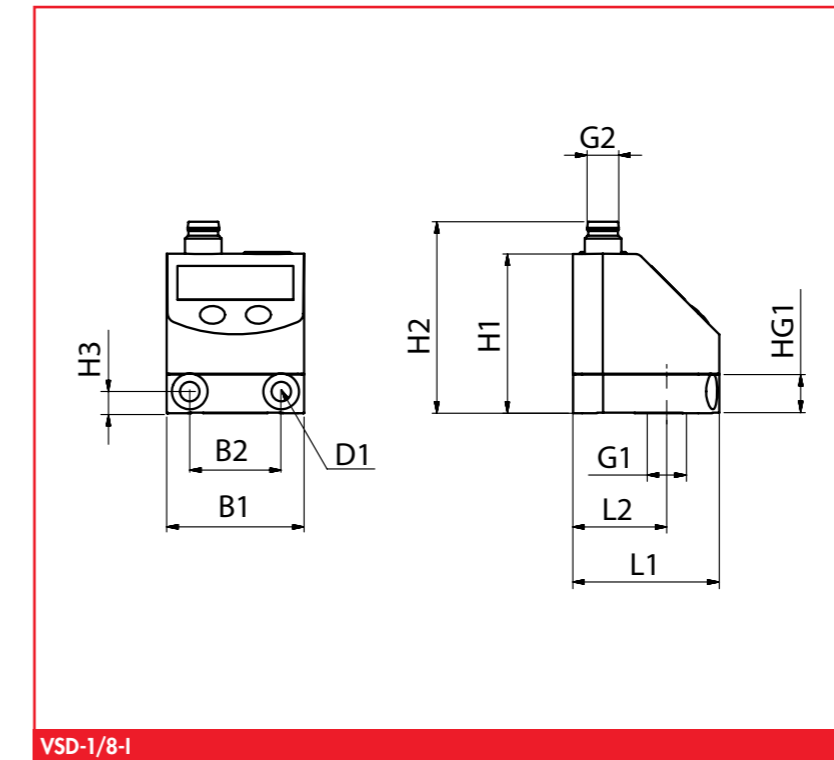
Type		VSD-1/8
Measure medium		dry, oilless unaggressive gases
Meas.range	(bar)	-1 ... 1
Overpressure safety	(bar)	20
Fluid connection		G1/8I
Switching exit digital	(mA/V)	2x(100/16 ... 30)
Switching logic		NO/NC adjustable
Switching range		0 ... 100% adjustable
Switching delay	(s)	0 ... 180 adjustable
Switching exit analogous	(V)	---
Hysteresis setting		0 ... 100% adjustable
Condition display		2 x LED in display
Repeat precision		+/- 0,1 %
Reaction time	(ms)	< 2,5
Voltage	(V)	18 ... 32 DC
Current consumption	(mA)	< 50
max. Current	(mA)	250
electrical Connection		Plug M8 - 4 cores
Protection class		IP40
Temperature range	(°C)	0 ... +60
Weight	(kg)	0,1

## Electronic Vacuum Switch

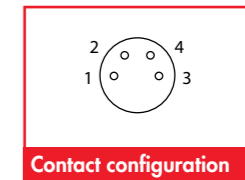
with digital display VSD-1/8-1

# FEZER

Simply move more.



VSD-1/8-1



Contact configuration

- 1 (brown) V +
- 2 (white) Switching exit 2 digital
- 3 (blue) V -
- 4 (black) Switching exit 1 digital

### Dimensions

Type	L1	L2	B1	B2	H1	H2	H3	D1	G1	G2	HG1
VSD-1/8-1	32	20,7	30	20	42	35	4,75	4,2	G1/8	M8	10

## electronic Vacuum switch

VSA-1/4 - analogous design

### Description

Electronical Vacuum switch with Piezo-Quarz-Technik in robusten Plastic housing und Anzeigedisplay. The Switch verfügt über 1 analogen Switching exit sowie verschiedenste Einstellmöglichkeiten. Durch das analoge Ausgangssignal können nicht nur Switching pointe definiert werden, sondern es besteht die Möglichkeit, Vacuumsysteme auszuwerten, und zu diagnostizieren.

### Application

- Diagnosesystem von Vacuumkreisen
- Definieren von mehreren Switching points
- einfache Anbindung an übergeordnete Steuerungen
- Compacte Bauweise with beliebiger Einbaulage

### Article number

Type	
VSA-1/4-I	1.52.3.0033

### Technical data

Type		VSD-1/4
Measure medium		dry, oilless unaggressive gases
Meas.range	(bar)	-1 ... 1
Overpressure safety	(bar)	10
Fluid connection		G1/4
Switching exit digital	(mA/V)	---
Switching logic		---
Switching range		---
Switching delay	(s)	0 ... 50 adjustable
Switching exit analogous		0 ... 10V / 4 ... 20mA
Setting possibilities		Hysteresis, window, NO/NC, delays dampening, display units
Condition display		1 x LED im Display
Repeat precision		+/- 0,1
Reaction time	(ms)	< 10
Voltage	(V)	18 ... 36 DC
Current consumption	(mA)	< 50
max. Current	(mA)	250
electrical Connection		Plug M12x1 - 4 cores
Protection class		IP65
Temperature range	(°C)	-25 ... +80
Weight	(kg)	0,260

# FEZER

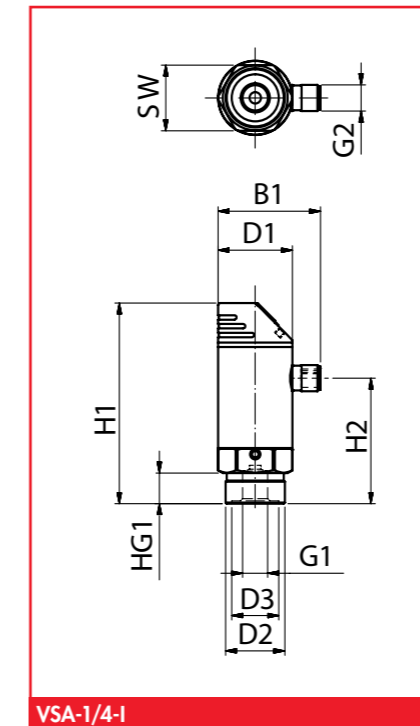
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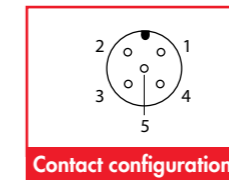
VSA-1/4-I

## Electronic Vacuum Switch

VSA-1/4 - analogous design



VSA-1/4-I



Contact configuration

- 1 (brown) V +
- 2 (white) Switching exit 2 analogous
- 3 (blue) V -
- 4 (black) Switching exit 1 digital
- 5 not occupied

### Dimensions

Type	D1	D2	D3	B1	H1	H2	HG1	G1	G2	SW
VSD-1/4-I	34	27	21,5	47	91,6	57,3	14	G1/4	M12x1	30

## Measuring and Warning Units

### Vacuum gauge VM

#### Description

Control vacuum gauge in metal sheet housing for the visual display of the operational vacuum. The „red/green-area“ shows readiness for operation. In different designs and connection versions.

#### Application

- visual control of the vacuum
- readiness display by „red/green-area“
- for manual vacuum lifters



VM-63-1/4 - VM-100-1/2

# FEZER

Simply move more.

#### Article number

Type	Connection bottom	Connection back
VM-63-1/4-RG60	1.52.5.0010	1.52.5.0008
VM-63-1/4-RG70	1.52.5.0014	1.52.5.0017
VM-63-1/4-RG80	1.52.5.0011	1.52.5.0009
VM-100-1/2-RG10	1.52.5.0003	---
VM-100-1/2-RG20	1.52.5.0004	---
VM-100-1/2-RG30	1.52.5.0013	---
VM-100-1/2-RG60	1.52.5.0005	1.52.5.0001
VM-100-1/2-RG80	1.52.5.0006	1.52.5.0002

#### Technical data

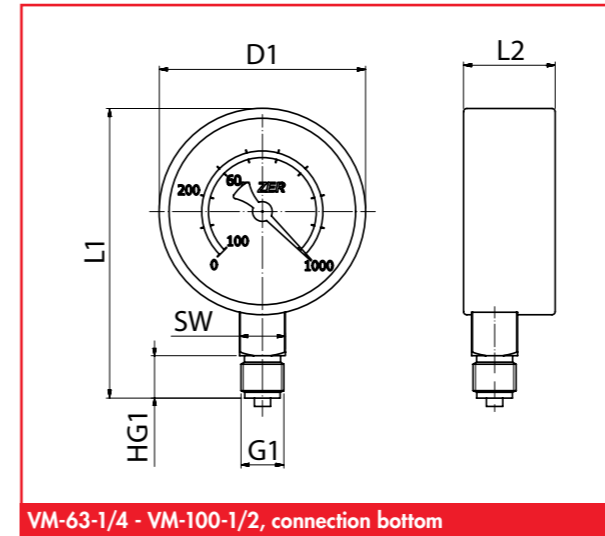
Type	Meas.range (mbar)	Scale unit	Red/green area (mbar)	Weight (kg)
VM-63-1/4-RG60	-1000 ... 0	(mbar) und (%Vak.)	-600	0,135
VM-63-1/4-RG70	-1000 ... 0	(mbar) und (%Vak.)	-700	0,135
VM-63-1/4-RG80	-1000 ... 0	(mbar) und (%Vak.)	-800	0,135
VM-100-1/2-RG10	-160 ... 0	(mbar) und (%Vak.)	-100	0,540
VM-100-1/2-RG20	-250 ... 0	(mbar) und (%Vak.)	-200	0,540
VM-100-1/2-RG30	-400 ... 0	(mbar) und (%Vak.)	-300	0,540
VM-100-1/2-RG60	-1000 ... 0	(mbar) und (%Vak.)	-600	0,300
VM-100-1/2-RG80	-1000 ... 0	(mbar) und (%Vak.)	-800	0,300

## Measuring and Warning Units

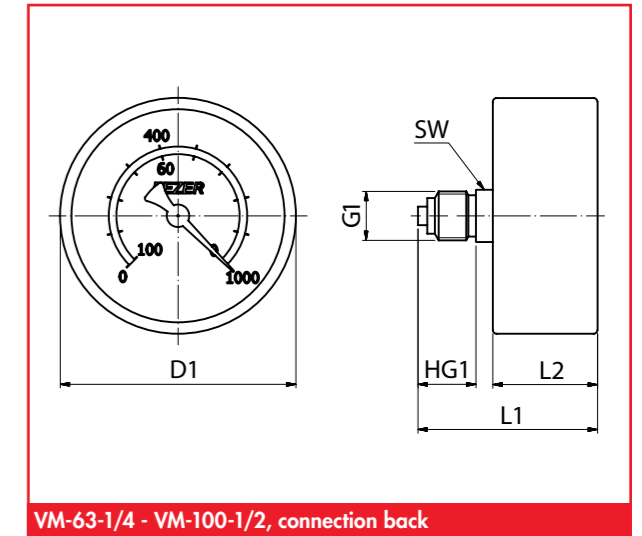
### Vacuum gauge VM

# FEZER

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VM-63-1/4 - VM-100-1/2, connection bottom



VM-63-1/4 - VM-100-1/2, connection back

#### Dimensions

Type	Connection	L1	L2	D1	G1	HG1	SW
VM-63-1/4U-RG60-RG80	bottom	86	28	63	G 1/4"	12	14
VM-63-1/4H-RG60-RG80	back	49	30	63	G 1/4"	12	14
VM-100-1/2U-RG10-RG30	bottom	137	31	100	G 1/2"	20	22
VM-100-1/2H-RG60-RG80	back	51	32	100	G 1/2"	12	14
VM-100-1/2U-RG60-RG80	bottom	142	49	100	G 1/2"	19	22

## Measuring and Warning Units

### Acoustic warning unit EWO

#### Description

Electronic, universal warning unit with acoustic howler (90dB(A)) in stable metal sheet housing. The howler warns when the vacuum drops or in case of a power failure. The warning unit is ready for connection with a supply cable, connection cable (5m) toward the vacuum switch (5m) and a ground wire (0,5m). Please order the vacuum switch separately based on the required warning level.

#### Application

- reliable supervision of vacuum circuits
- with acoustic warning signal
- for manual vacuum lifters



EWO

#### Article number

Type	
EWO-200-600VAC	6.35.4.0122

#### Article number of required vacuum switch

Type	Switching point 60%	Switching point 70%	Switching point 80%
VSM-1/4- ...	1.52.1.0001	1.52.1.0008	1.52.1.0002

#### Technical data

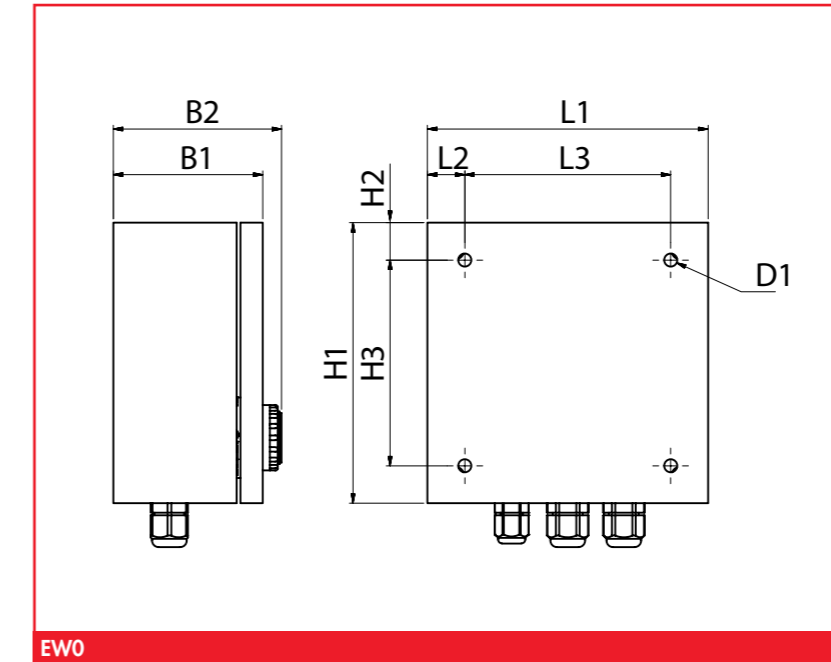
Type		
Operational voltage	(V AC)	200 ... 600
Frequency:	(Hz)	50 ... 60
Measure medium		dry, oilless unaggressive gases
Media resistance		air, oil, petrol
Meas.range	(bar)	-1 ... 1
Overpressure safety	(bar)	10
Fluid connection		G1/4
Switching range		60%, 70%, 80%
Switching point, preset		60%, 70%, 80%
Repeat precision		+/- 5 %
Reaction time	(ms)	< 400
Protection class		IP55
Temperature range	(°C)	+10 ... +50
Weight	(kg)	2,0

# FEZER

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## Measuring and Warning Units

### Acoustic warning unit EWO



EWO

#### Dimensions

Type	L1	L2	L3	B1	B2	H1	H2	H3	D1
EWO	150	20	110	80	90	150	20	110	7

## Measuring and Warning Units

Acoustic and optical warning unit EWIII

### Description

Electronic warning unit with acoustic howler (100dB(A)), optical warning lamps and power failure detector.

- lights up green on sufficient vacuum,
- lights up red on insufficient vacuum
- howler on power failure and insufficient vacuum

### Scope of delivery

Terminal box with mounted motor protection switch, mains unit (24V DC), contactor and terminal block, supply cable (5m), connection cable to vacuum pump (5m), connection cable for vacuum switch VSM-1/4 (5m) and grounding cable (0,5m). Please order the vacuum switch separately. The installation of the vacuum switch depends on the vacuum control:

- manual: installation in vacuum safety tank
- electrical: installation in suction circuit (after the valve)

### Application

- on large lifters
- central vacuum energy units
- surroundings with high noise level

### Article number

EWIII for oilless vacuum pumps			EWIII for oil-lubricated vacuum pumps		
Vacuum control:	manual	electrical	Vacuum control:	manual	electrical
VP-T4.8-230V	6.35.4.0191	6.35.4.0223	VP-010.1-230/400V	6.35.4.0209	6.35.4.0241
VP-T4.8-230/400V	6.35.4.0193	6.35.4.0225	VP-016.1-230/400V	6.35.4.0213	6.35.4.0245
VP-T4.16-230V	6.35.4.0195	6.35.4.0227	VP-025.3EURO-230/400V	6.35.4.0217	6.35.4.0249
VP-T4.16-230/400V	6.35.4.0197	6.35.4.0229	VP-025.3MULTI-230/400V	6.35.4.0377	6.35.4.0401
VP-T4.25-230/400V	6.35.4.0200	6.35.4.0233	VP-040.3EURO-230/400V	6.35.4.0221	6.35.4.0253
VP-T4.40-230/400V	6.35.4.0205	6.35.4.0237	VP-040.3MULTI-230/400V	6.35.4.0381	6.35.4.0405
VP-T4.50-230/400V	6.35.4.0297	6.35.4.0321	VP-063.3EURO-230/400V	6.35.4.0345	6.35.4.0361
VP-T4.60-EURO-230/400V	6.35.4.0301	6.35.4.0325	VP-063.3MULTI-230/400V	6.35.4.0385	6.35.4.0409
VP-T4.80-EURO-230/400V	6.35.4.0305	6.35.4.0329	VP-0100.3EURO-230/400V	6.35.4.0349	6.35.4.0365
VP-T4.100-EURO-230/400V	6.35.4.0309	6.35.4.0333	VP-0100.3MULTI-230/400V	6.35.4.0389	6.35.4.0413
VP-T4.140-EURO-230/400V	6.35.4.0313	6.35.4.0337	VP-0160.3EURO-230/400V	6.35.4.0353	6.35.4.0369
VP-T4.250-EURO-400/690V	6.35.4.0317	6.35.4.0341	VP-0160.3MULTI-230/400V	6.35.4.0393	6.35.4.0417
			VP-0250.3EURO-230/400V	6.35.4.0357	6.35.4.0373
			VP-0250.3MULTI-230/400V	6.35.4.0397	6.35.4.0421

### Article number of required vacuum switch

Type	Vacuum switch VSM Switching point 60%	Vacuum switch VSM Switching point 70%	Vacuum switch VSM Switching point 80%
VSM-1/4- ...	1.52.1.0001	1.52.1.0008	1.52.1.0002

# FEZER

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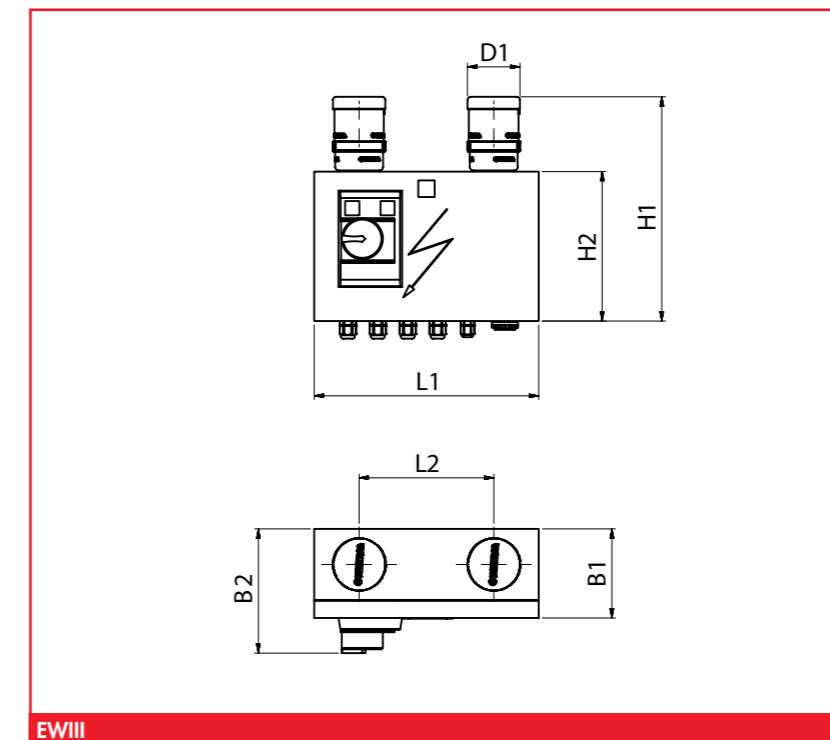
EWIII

## Measuring and Warning Units

Acoustic and optical warning unit EWIII

### Technical data

Type		
Voltage	(V)	230 (AC1), 400 (AC3)
Frequency	(Hz)	50/60
Measure medium		dry, oilless unaggressive gases
Media resistance		air, oil, petrol
Meas.range	(bar)	-1 ... 0
Overpressure safety	(bar)	10
Fluid connection		G1/4
Switching exit digital		1x
Switching logic		changeover switch NO/NC
Switching range		5% ... 95% adjustable
Switching point, preset		60%, 70%, 80%
Repeat precision		+/- 5 %
Reaction time	(ms)	< 400
Protection class		IP55
Temperature range	(°C)	+10 ... +50
Weight	(kg)	6,2



EWIII

### Dimensions

Type	L1	L2	B1	B2	H1	H2	D1
EWIII	300	180	119	166	300	200	70

## Measuring and Warning Units

Pneumatic warning unit EWP

### Description

Pneumatic warning unit with acoustic whistle (ca. 80dB(A)) in stable plastic housing. The whistle blows when the operational vacuum is insufficient. Both the sound volume and the switching point are adjustable. With plug-in connection for hose Ø 6mm for compressed air supply and vacuum line.

### Application

- reliable supervision of vacuum circuits with acoustic warning signal
- installation on manual lifters
- any mounting position



EWP

### Article number

Type	
EWP-NC	6.35.4.0261
EWP-NO	6.35.4.0294

### Technical data

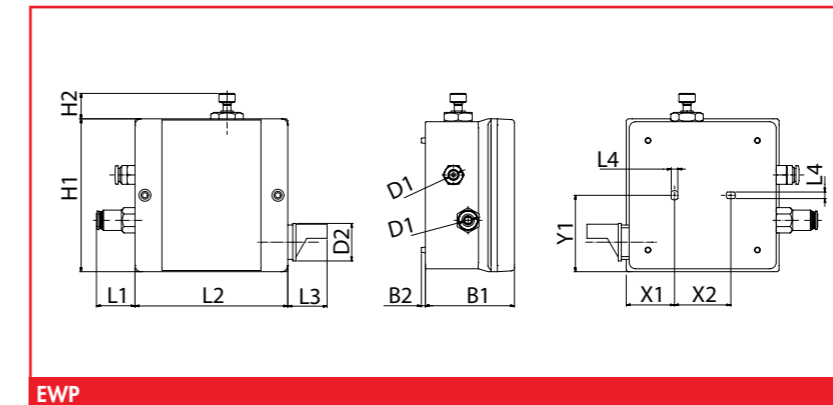
Type		EWP-NO	EWP-NC
Measure medium		dry, oilless unaggressive gases	
Meas.range	(bar)	-1 ... 1	
Overpressure safety	(bar)	2	
Fluid connection	(mm)	6	
Switching exit digital		1xNO	1xNC
Switching range		35 ... 85% adjustable	
Hysteresis setting		0,08 ... 0,1	
Condition display		---	
Repeat precision		+/- 3 %	
Switching frequency	(1/s)	2	
Compressed air supply	(bar)	2 ... 6	
Flow	(l/min)	55	
Air consumption	(l/min)	4	
Pneumatic onnection		3	
Temperature range	(°C)	0 ... 60	
Weight	(kg)	0,070	

# FEZER

Simply move more.

## Measuring and Warning Units

Pneumatic warning unit EWP



EWP

### Dimensions

Type	L1	L2	L3	L4	B1	B2	H1	H2	D1	X1	X2	Y1
EW0	24,7	97,7	25,5	4,2	57	2,5	97,7	25	6	24	30,85	48,85

# FEZER

Simply move more.