

3/2-way solenoid valve

Pilot operated with own fluid

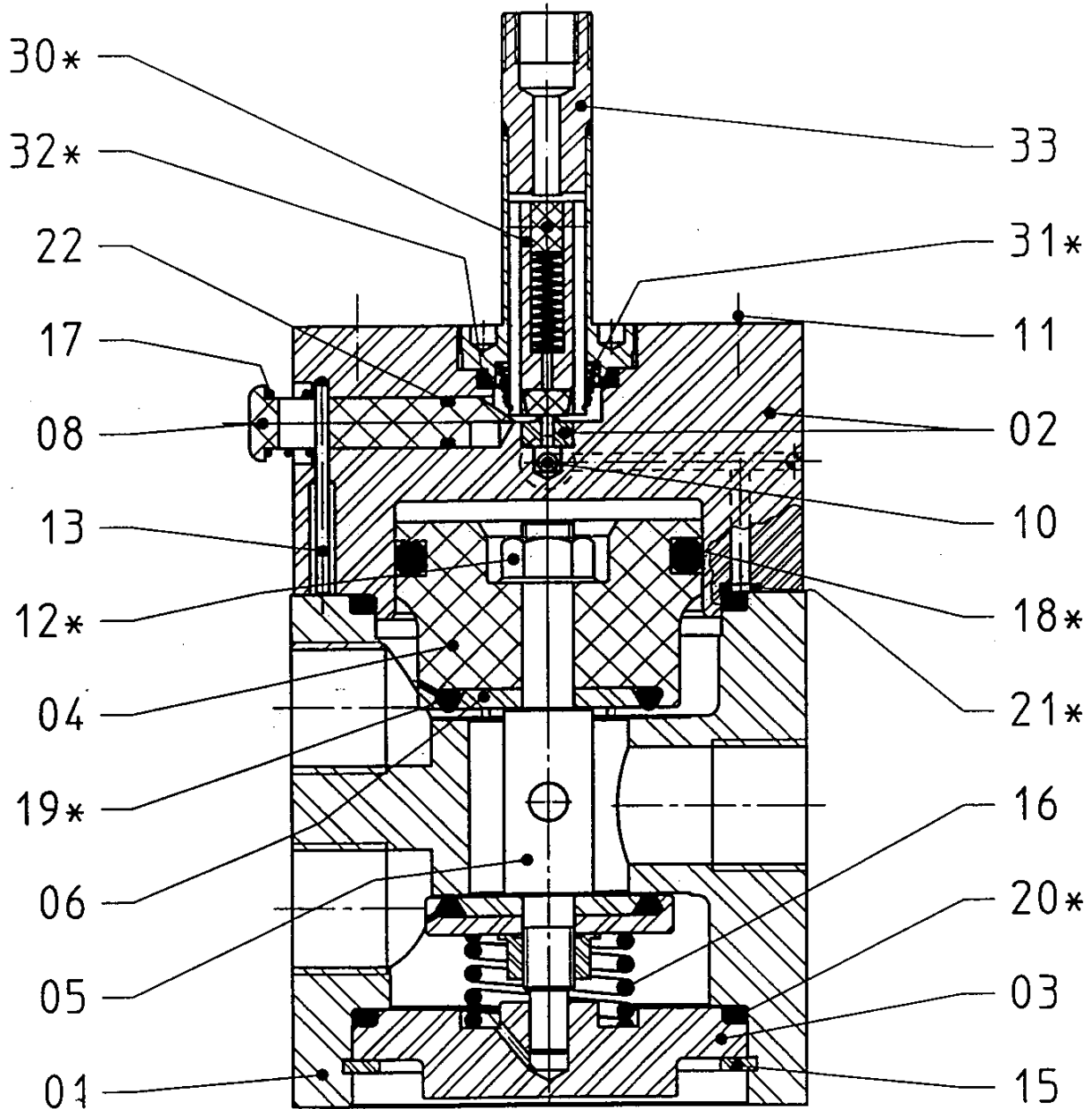
Group: **3K 16**

ND:

16

Type:

247



- All parts marked with * are included in the repair kit. All parts marked with () are not available separately.



Drawing class

Sectional drawing

Selection sheet:
4-108 438 00

Scale:
1:1

Draw.	29.02.96	sc	2	2718	08.06.99	h
Prov.	29.02.96	lm	0	Release	29.02.96	hf
Seen	29.02.96	fi	Rev.	AA	Date	Sig.

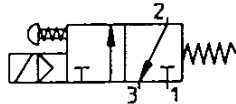
Size: 4 105 337 02

3/2-way solenoid valve

Pilot operated with own fluid

Group: **3K 16**

Symbol:



Remarks:

Type:

247

ND:
16

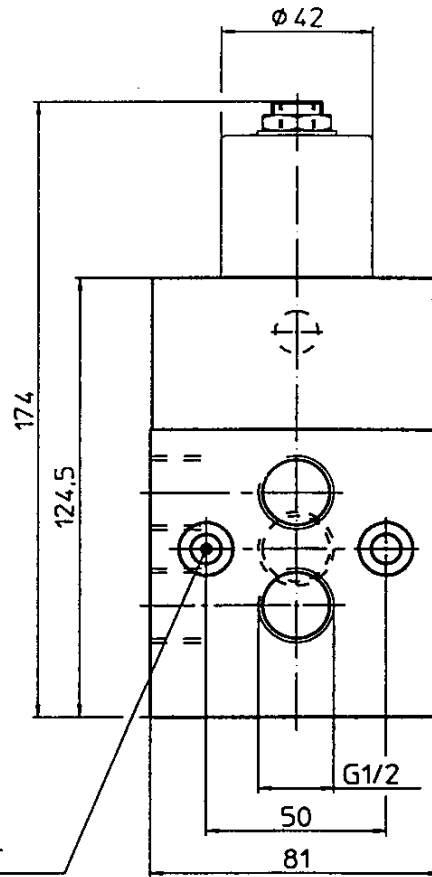
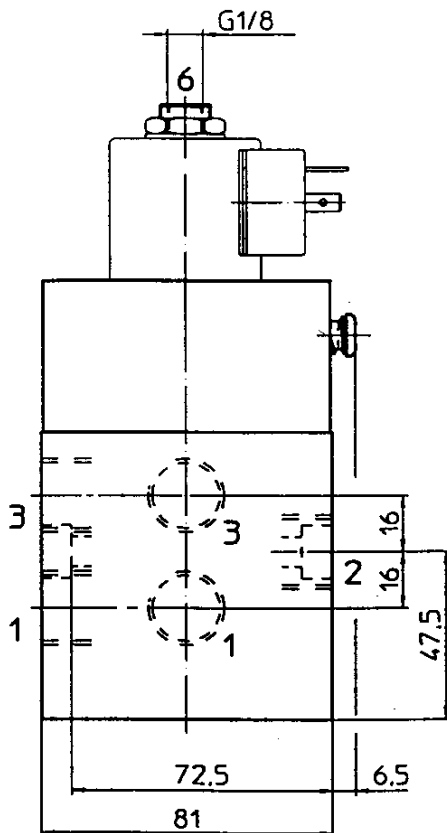
Solenoid size:
1


Manual control:
push-button

Function:
NC

Drawn solenoid:
27, 37

Weight without solenoid:
-



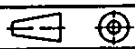
 DIN912 M8

Connection

- 1 - Inlet
- 2 - Consumer
- 3 - Outlet
- 6 - Exhaust Pilot Port

ND (mm)	Kv (l/min)	Pressure gas (bar)
16	75	2 ... 40

- If dimensions are specified twice, the figures in () refer to non-aluminium types.



Drawing class

Dimensional drawing

Selection sheet:
4-108 438 00

Scale:
1:2

Draw.	29.02.96	SC	1	1001	28.05.98	bl
Prov.	29.02.96	lm	0	Release	29.02.96	fl
Seen	29.02.96	f	Rev.	AA	Date	Sig.

Size: **4 101 533 02**

Subject to dimensional
or design modification

Copyright on this drawing
remains in our company

Safety

Correct Usage

This user's information is valid for the following construction types*: 3 to 10, 14 to 27, 70 and 71

* a type designation

The solenoid are used to operate valves from the Eugen Seitz AG company. The correct solenoid for each valve must be selected together with the manufacturer or his representatives.

Authorised persons

The work described here must only be carried out by authorised persons. Authorised persons are persons who have received electrotechnical instruction (EN 60 204).

Regarding this user's information

This user's information is a component part of the product, and must be integrated into the instruction handbook of the system or into the machine description.

General Danger Warnings



Before starting the connection work, ensure that the operating voltage has been switched off, and has been secured against unauthorised switch on.



The housing of the solenoid can be more than 100 °C hot. There is danger of burning when the housing is touched.

Guarantee

The problem-free operation of the solenoid is only guaranteed if the key values quoted in the „Technical Data“ chapter and the conditions listed in the „Operating Conditions“ chapter are complied with.

IP protection class according to EN 60 529

To ensure the quoted class of protection, the sockets listed under „Connection Variants“ must be used. The cross-section of the connection cable must be as follows:

Construction type 14, 25: 6 to 9 mm
Construction type 71: 5 to 12 mm

pe Designation

The type designation is coded as follows:

E.g.:

2	C	27
└───┬───┘		
└───┬───┘		
└───┬───┘		
Construction type		
Circuit type		
Solenoid size		

Connection Variants

Solenoids with connectors

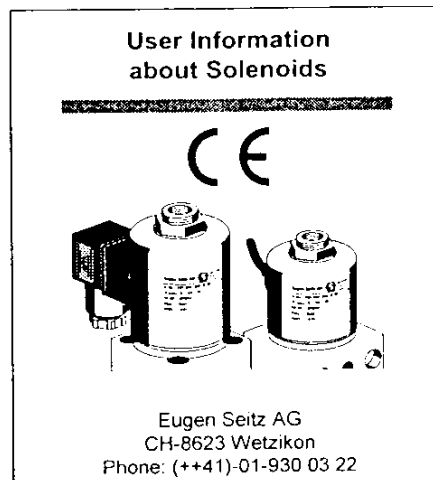
Sockets DIN 43650 Form A
Art. No. 119 896 01

Solenoids with connection cables

Use terminals for fine-stranded cable with 0.75 mm².

Solenoids with connection terminals

Use cables with copper cross-section from 0.75 to 1.5 mm².



Disposal

For economical reasons, the solenoid should not be repaired, but be disposed as special waste, or be returned to the manufacturer.

Operating Conditions

Power supply

Harmonics:

Harmonic oscillations have no effect on the functionality if the r.m.s. value of the sum of all the voltages lies within the tolerance quoted for the rated voltage.

Voltage impulses:

Peak values: ≤1,000 V, time duration: ≤1.5 ms

Voltage interruptions or loss:

The exact value depends on the valve and should therefore be requested from the manufacturer.

Over-current protection:

Fuse with max. 10 A. The breaking capacity must be at least as large as the short-circuit current that can be expected at the installation location.

Electromagnetic Compatibility

Emission:

The solenoid transmits no radiated disturbances (according to EN 50 081-1).

With circuit types variants „A“ and „B“, conducted disturbances are to be expected. In this case, the operator must take suitable measures to limit the transient switching voltage to a level permitted for his system.

Immunity:

The solenoids are not sensitive to radiated disturbances (according to EN 50 082-2).

For conducted disturbances, follow the information given regarding power supplies. Withstand surge voltages of Over-voltage Category III according to IEC 664 are permissible between the current-conducting parts and parts connected to the protective conductor.

Requirements arising from operational and environmental conditions, such as ionised and non-ionised radiation, vibration, shock and continuous shock must be discussed individually with the manufacturer.

Technical Data

Rated voltage:	according to name plate	-15 %, +10 %
Rated frequency:	according to name plate	±1 % continuous, ±2 % short-term
Rated power:	according to name plate	
Operating time:	according to name plate	otherwise 100 % (continuous duty)
Ambient temperature:	with connecting cable:	-5 °C to +40 °C
	construction type 70:	-20 °C to +40 °C
	all other types:	-20 °C to +60 °C
Relative humidity:		max. 95 % (non-condensing)
Installation height:		max. 2,000 m NN
Protection against soiling:	as IP protection class on name plate	

Installation / Dismantling

Before beginning the work described here, the chapters „Safety“ and „General Danger Warnings“ must be read and understood.

Installation

Push the solenoid over the guide tube of the valve, and secure using the securing disc and the nut. The nut must be tightened using a suitable tool in such a way that a distortion of the solenoid as a result of the vibrations to be expected is no longer possible.

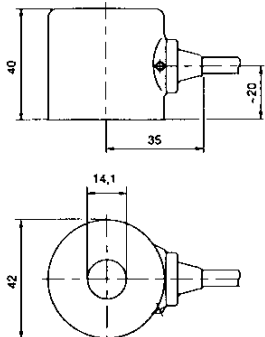
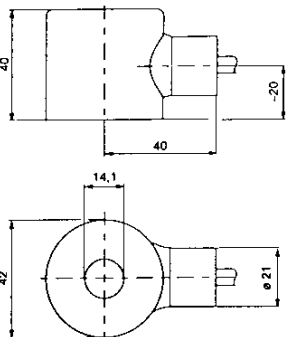
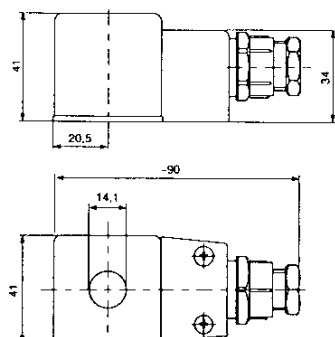
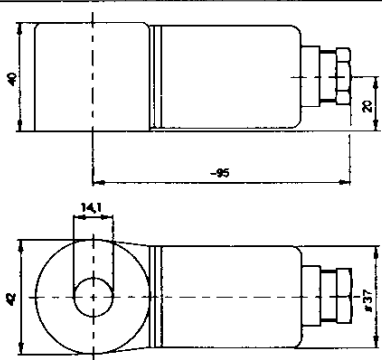
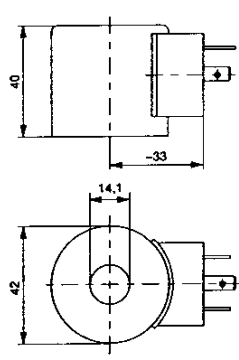
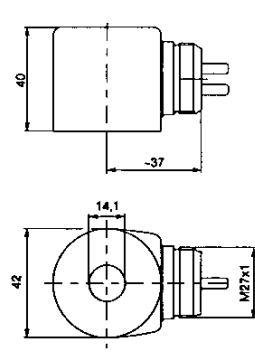
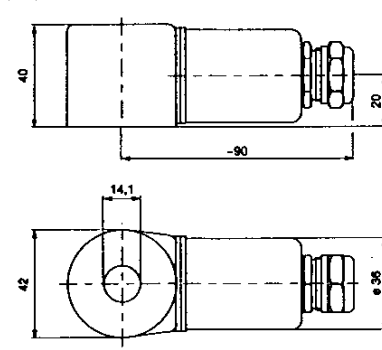
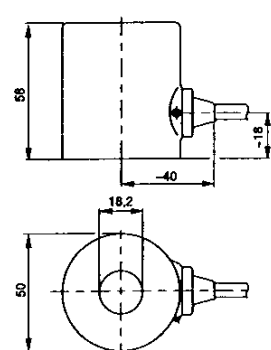
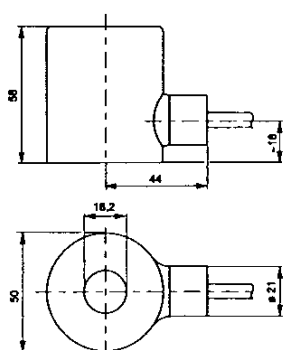
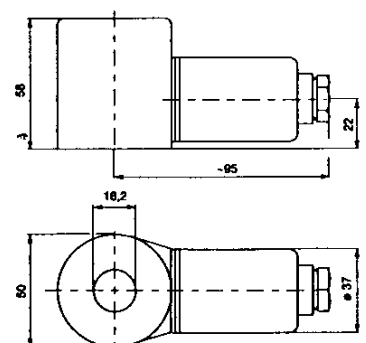
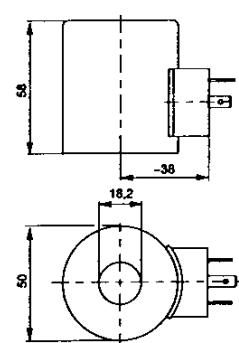
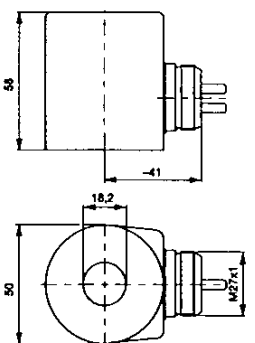
Connection Work

The circuit printed on the name plate is mandatory for the electrical connection of the solenoid. The protective conductor (green-yellow) must be correctly connected if present.

Dismantling

The connector or cable is to be dismantled in accordance with the general danger warnings. Loosen the fixing nut with a suitable tool, and remove the solenoid from the guide tube.

Masszeichnungen

<p>Bild 1</p> 	<p>Bild 2</p> 	<p>Bild 3</p> 
<p>Bild 4</p> 	<p>Bild 5</p> 	<p>Bild 6</p> 
<p>Bild 7</p> 	<p>Bild 8</p> 	<p>Bild 9</p> 
<p>Bild 10</p> 	<p>Bild 11</p> 	<p>Bild 12</p> 

*) ohne Würgnippel

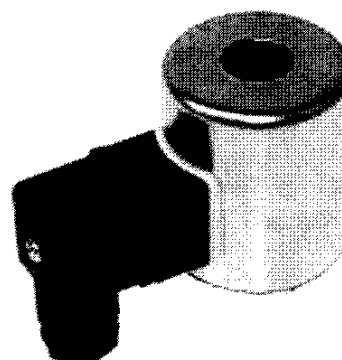
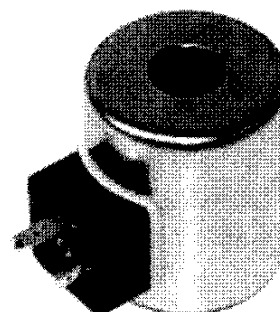
Solenoid size MT 1, MT 2 series 27, 37

- Germanish Lloyd approved
- Exchange is all time possible on self mounting
- 100 % on-time
- Connector on DIN 43 650 form A
- Vibration proof, dirt proof and weather proof

Technical specification



Voltage MT 1 / MT 2	8W, 8VA / 11W, 15VA
Media and ambient temperature	-20 °C ... +60 °C
Protection type	EN 60529
Type of control	DC
Type of control	AC
Power on-time	100 %
Approval	EN 60 204-1 / DIN VDE 0580
Ports	DIN 43 650 Form A
Weight MT 1 (without cable box)	IP 54 210 gr. / IP 65 250 gr.
Weight MT 2 (without cable box)	IP 54 470 gr. / IP 65 530 gr.



Solenoid size MT 1

Voltage	Hz	External dimension	Approval	Degree of protection [IP]	Part no.	Fig. no.
24 V DC	—	Ø 42/54 x 40 mm	—	54	118.000.024P	1
24 V DC	—	Ø 42/54 x 40 mm	X	65	118.007.024P	1
230 V AC	50 ... 65	Ø 42/54 x 40 mm	—	54	118.039.230S55	1
230 V AC	50	Ø 42/54 x 40 mm	X	65	118.052.230S50	1

Solenoid size MT 2

Voltage	Hz	External dimension	Approval	Degree of protection [IP]	Part no.	Fig. no.
24 V DC	—	Ø 50/63 x 58 mm	—	54	118.100.024N	2
24 V DC	—	Ø 50/63 x 58 mm	X	65	118.113.024N	2
230 V AC	50 ... 60	Ø 50/63 x 58 mm	—	54	118.101.230O55	2
230 V AC	50 ... 60	Ø 50/63 x 58 mm	X	65	118.114.230O55	2

Further models on request.

Solenoid mounting parts are included in the part no..
 Wireless PG 11 Part no. 113.594.01 are not included in the part no..
 It will by order separately.