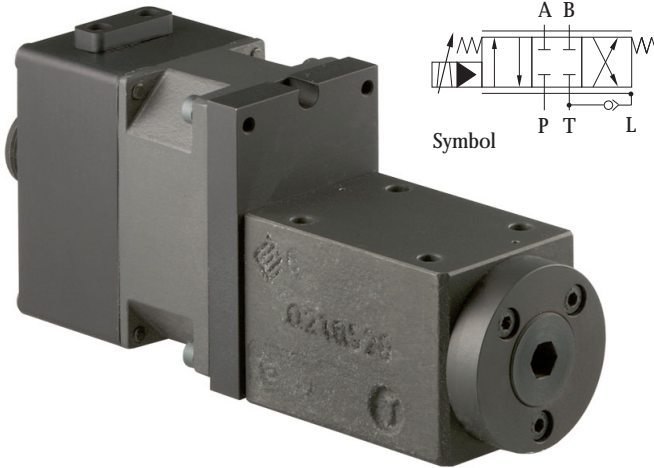


Elektrohydraulic Servovalves Typ HVM 062



- Special features:
- high reliability
 - easy service
 - robust construction
 - high dynamic response
 - relatively insensitive to contamination
 - variable metering orifices only
 - $Q_{max} = 15\text{l/min}$ at $\Delta p = 70\text{bar}$
 - $p_{max} = 315\text{ bar}$

General description:

- Type : electrical input stage, torque motor, sliding spool system
- Control : torque motor actuated pilot spool
- main spool : located in 4-way sliding and correlated to the same
- Style of mounting : subplate / Cetop 03
- Mounting position : unrestricted
- Weight : 1,3kg

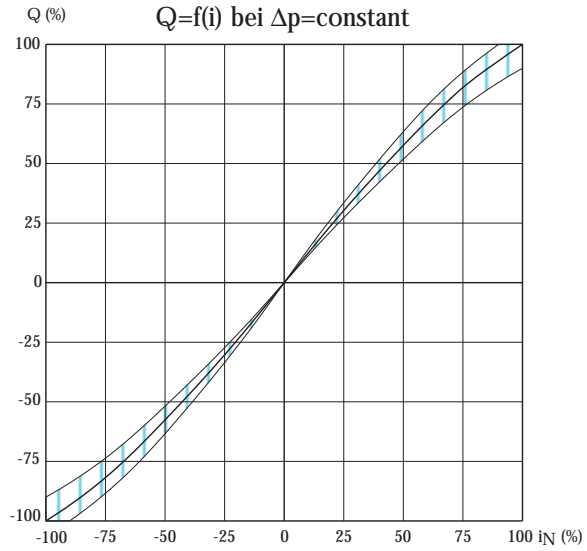
Technical Data

1. Hydraulic Data (definition according to DIN 24311)

| | | | | | | |
|-------|--|--|---|--|-----------------------------------|--------|
| .1 | rated pressure | p_N | = | 210 | [bar] | |
| .2 | operating pressure | $p_{b \text{ min}}$ $p_{b \text{ max}}$ | = | 10 315 | [bar] [bar] | |
| .2.1 | return line pressure | $p_{r \text{ max}}$ | = | 10 | [bar] | static |
| .2.2 | no separate leakage line necessary | | | | | |
| .3 | max. pressure (static test pressure) | p_{max} | = | 450 | [bar] | |
| .4 | rated flow at $\Delta p = 70\text{ bar}$ | Q_N | = | 8/10/15 | [l/min] | |
| .5 | quiescent flow, max. at p_N | Q_{01+02} | < | 10% Q_N | | |
| .6 | hysteresis | H | < | 4,5% i_N 2% i_N | (without Dither) (with Dither) | |
| .7 | threshold sensitivity | E | < | 0,4% i_N 0,1% i_N | (without Dither) (with Dither) | |
| .8 | threshold span | S | < | 2% i_N 1% i_N | (without Dither) (with Dither) | |
| .9 | linearity deviation | | < | 10% i_N | | |
| .10 | flow symmetry - Q_N zu + Q_N | | < | 10% i_N | | |
| .11 | pressure gain (see diagram) | V_P | > | 0,2 $P_b / 1\% i_N$ | | |
| .12 | overlap, standard | h | = | -1...+3% i_N | | |
| .13 | operating temperature range | δ_M | = | 253...353 | [K] | |
| .13.1 | temperature drift | | ≤ | 2% $i_N / 50K$ | | |
| .14 | viscosity range of fluid | γ_{min} | = | 10... 1000 mm^2/s approximate value normal: ISO VG 10...ISO VG 46 | | |
| .15 | filtration of fluid | | < | class 4-5 class 15/14/11 | to NAS 1638 or to ISO 4406 | |
| .16 | fluid standard | | = | HLP-hydraulic oils as per DIN 51524 Teil 2 (Special equipments possible) | | |

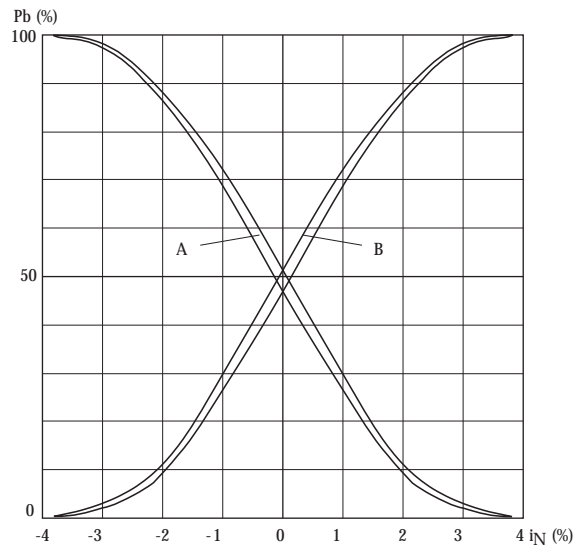
2. Diagrams HVM 062

Flow rate-signal function



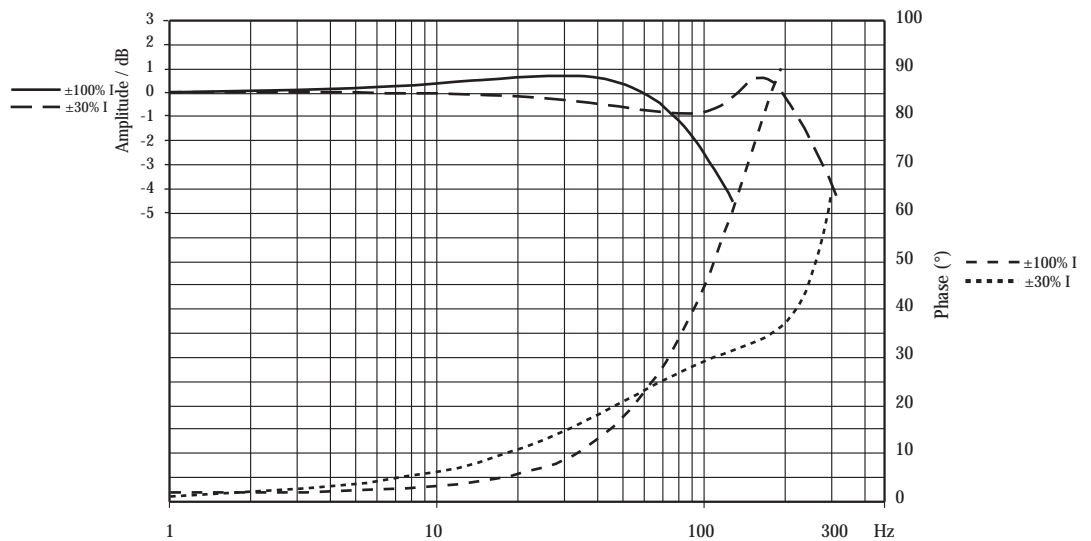
Pressure gain

$$V_p = \tan \alpha = \frac{\Delta p}{\Delta i}$$



Frequency Response

Coils: 2x65Ω
Power Supply: ±32V
P_V: 210bar

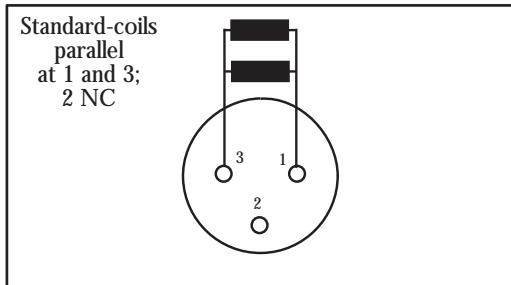


3. Electrical Data

3.1 Electrical Data without Electronic

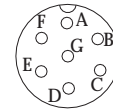


connector (M8x1)

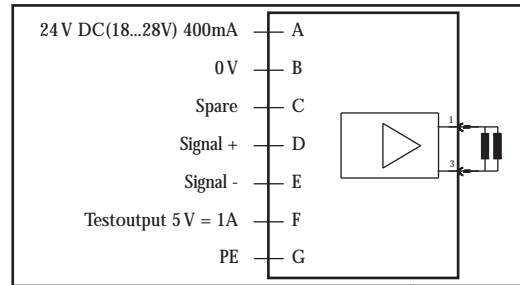


| coil type | | inductance | rated current | resistance | power |
|-----------|-----------------|------------|---------------|------------|--------|
| 1 | 1 coil | 90 mH | ± 100 mA | 65Ω | 0,65 W |
| | 2 coil parallel | 72 mH | ± 200 mA | 32Ω | 1,3 W |

3.2 Electrical Data with Electronic



connector 7 pol. DIN 43563



| Input | E1 | E2 | E3 | E4 | Flow |
|------------|--------|-------|-------|--------|------|
| Signal D>E | + 10 V | 4 mA | 20 mA | +20 mA | P>A |
| | 0 V | 12 mA | 12 mA | 0 mA | 0 |
| | - 10 V | 20 mA | 4 mA | -20 mA | P>B |

Order Information

HVM 062 - 015 - 1200 - XX - E1

| | |
|--|--|
| Model | |
| 062 | |
| Rated flow | |
| QN at $\Delta p = 70$ bar | |
| 008 l/min | |
| 010 l/min | |
| 015 l/min | |
| 020 l/min | |
| Seal material | |
| 1 Perbunan | |
| 2 Viton | |
| 3 Butyl | |
| 4 Vulkollan | |
| 5 Ethylen-Propylen | |
| Resistance / coil [R20] | |
| 1 not existant | |
| 2 32,5 Ω (2x65 Ω parallel) | |
| 3 65 Ω (1coil) | |
| Overlap | |
| 0 Zero overlap | |
| 1 Positiv overlap | |
| 2 Negativ overlap | |
| Amount of overlap | |
| positiv or negative | |
| 1..9 | |
| Design letter | |
| assigned by manufacturer | |
| Elektronic | |
| E1 Voltage input $\pm 10V$ | |
| E2 Current input 4...20mA P > A | |
| E3 Current input 4...20mA P > B | |
| E4 Current input $\pm 20mA$ | |

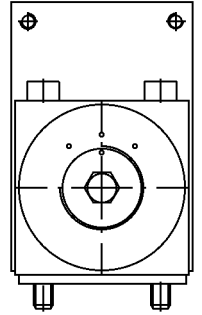
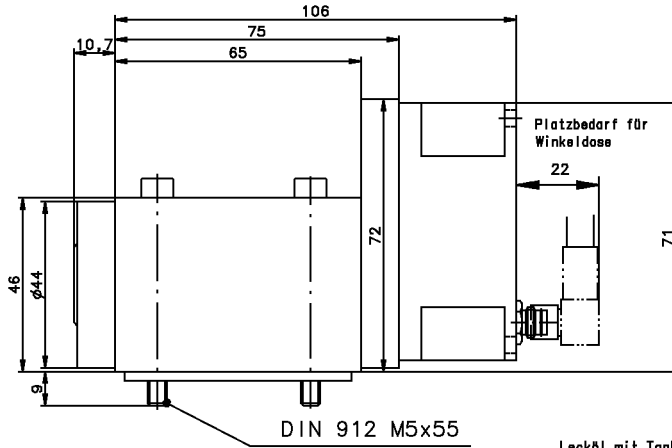
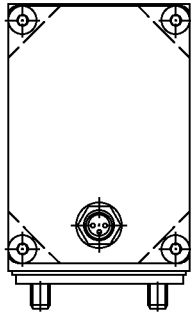
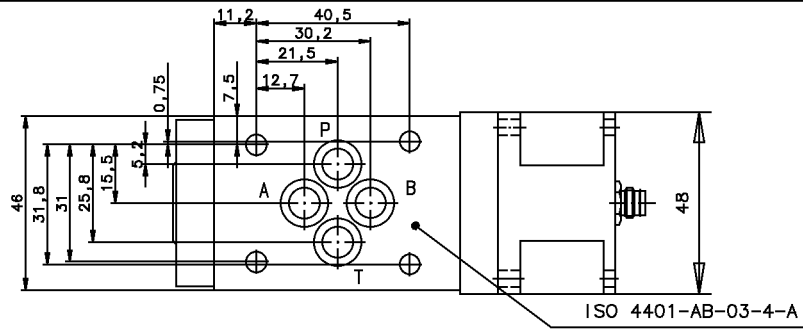
5. Accessories:

| Description | | | Order No. |
|-----------------|-------|---------------------|-----------|
| Connector | 3pol. | KE 79-3406-52-03 | 10249 |
| Connector 90° | 3pol. | KE 79-3408-52-03 | 10250 |
| Connector | 7pol. | KE CA 06 COM 14S 7S | 21855 |
| Sub plate | NG 6 | HZ 050 | 39276 |
| scavenger plate | NG 6 | HZ 062 | 39686 |
| Box-Amplifier | | BOE XXX-025-0-5-0A | 46965 |

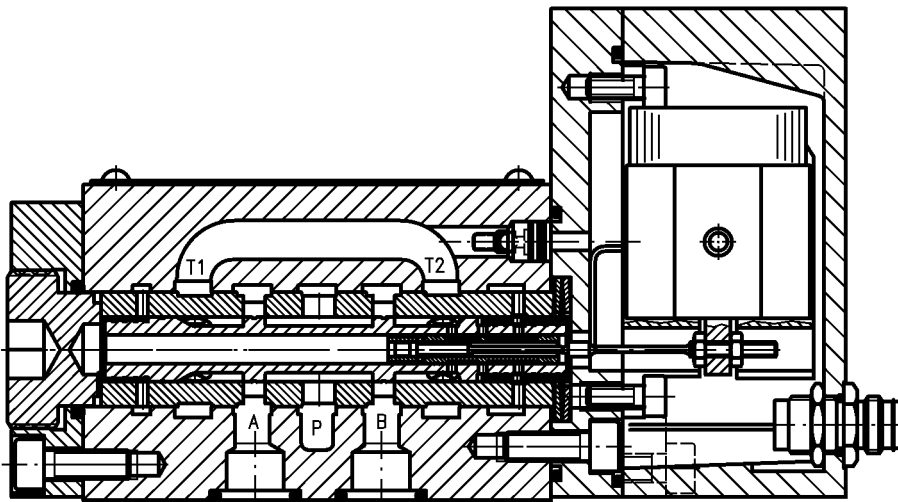
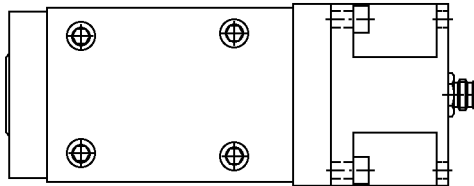
Important remarks:

Valve mounting surface must be flat within 0,02mm and smoothness not to exceed 6 μ m. Easy hydraulic Zero adjustment by means of Allen key S8 DIN 911. Max. permissible drain line pressure 10 bar. Valves with modified characteristics available. Modifications, which serve technical progress, remain reserving.

Für diese Vorlage bzw. Vorschrift techn. Art behalten wir uns alle Rechte vor. All rights reserved for this document (vgl. DIN 34)



Lecköl mit Tank im Ventil über Rückschlagventil verbunden. Aus diesem Grund darf der Tankdruck 10 bar statisch nicht überschreiten!



Angaben ohne Einheiten in mm
All dimensions without unit in mm

Nur zur Information / Only for information

| | | |
|----------------------------------|--------------|---------|
| Änderungsindex / Amendment index | | |
| - | | |
| Datum Date | Name Name | |
| dwg. | 20.01.04 | Dindorf |

Ventil
Valve

HVM 062-0XX-1XXX-XA

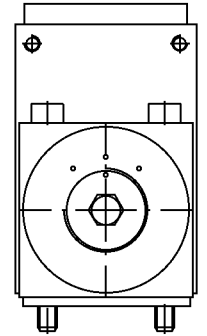
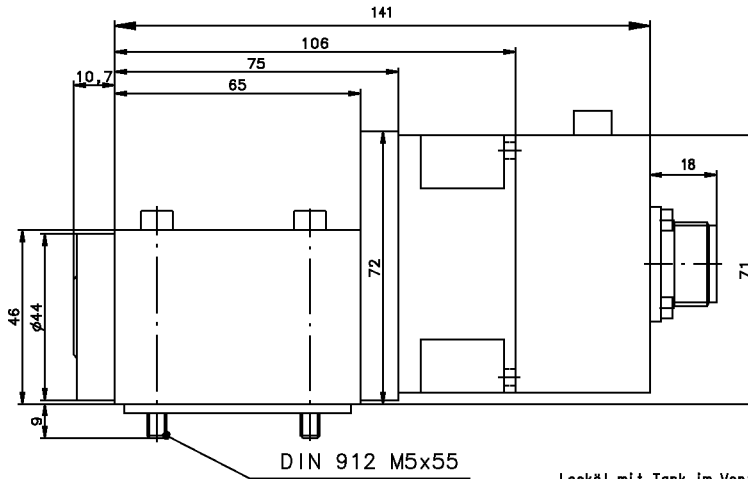
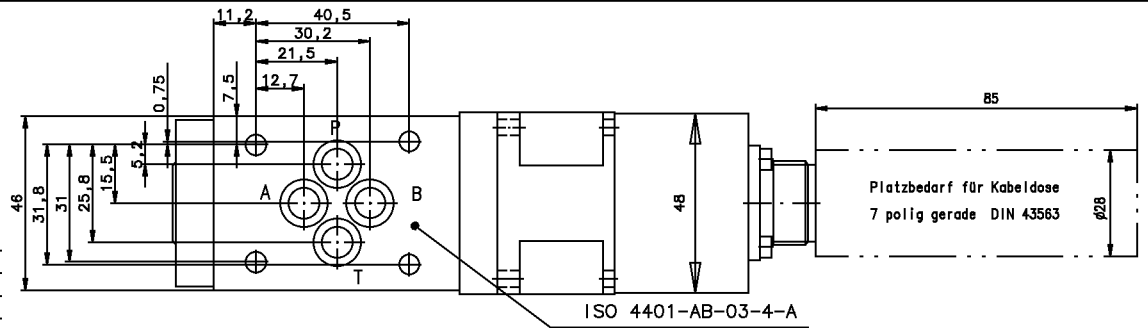
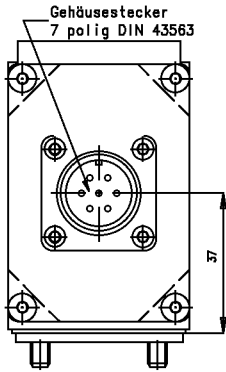
Id.- Nr.
-

Jos. Schneider Optische Werke GmbH
Ringstr. 132 55543 Bad Kreuznach
Germany

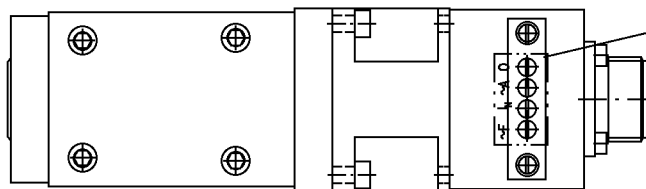


Für diese Vorlage bzw. Vorschrift techn. Art behalten wir uns alle Rechte vor. All rights reserved for this document (vgl. DIN 34)

| | |
|---|-----------------|
| A | 24 VDC ; 400 mA |
| B | 0 V |
| C | Signal 0 |
| D | ± 10 V |
| E | 0 V |
| F | Feedback |
| G | PE ≡ |

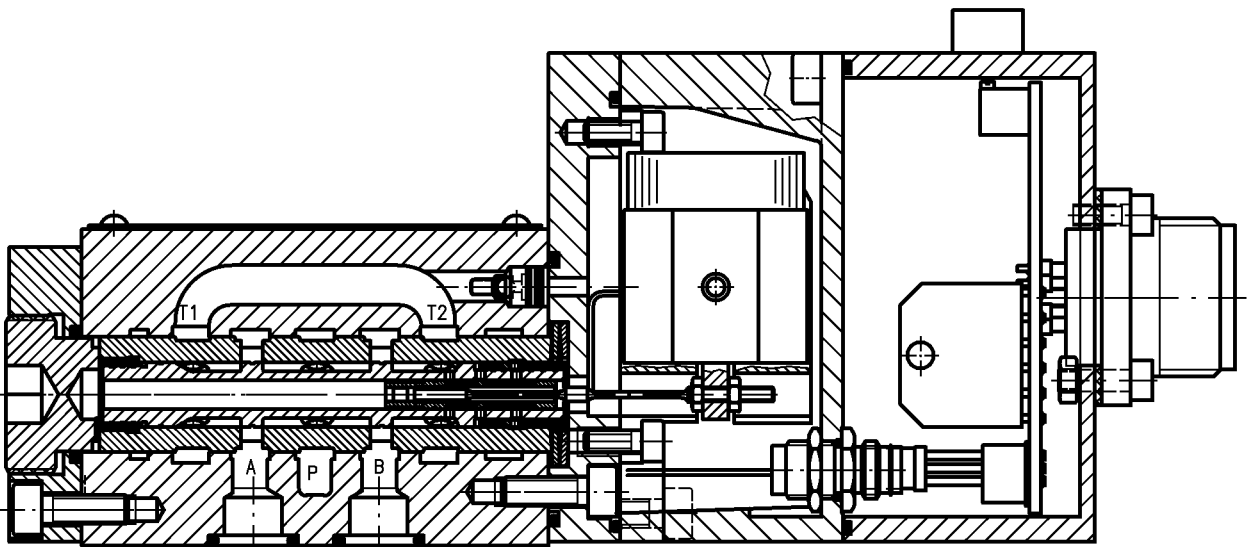


Lecköl mit Tank im Ventil über Rückschlagventil verbunden. Aus diesem Grund darf der Tankdruck 10 bar statisch nicht überschreiten!



Einstellpotis Ventilelektronik

- ~F: Ditherfrequenz
- I: Nennstrom
- ~A: Ditheramplitude
- 0: Nullpunkt



Angaben ohne Einheiten in mm
All dimensions without unit in mm

Nur zur Information / Only for information

| | | |
|----------------------------------|---------------|--------------|
| Änderungsindex / Amendment index | | |
| | Datum Date | Name Name |
| dwg. | 21.01.04 | Dindorf |

Ventil
Valve
HVM 062-XXX-XXXX-XX-EX

Id.- Nr.
-

Jos. Schneider Optische Werke GmbH
Ringstr. 132 55543 Bad Kreuznach
Germany

