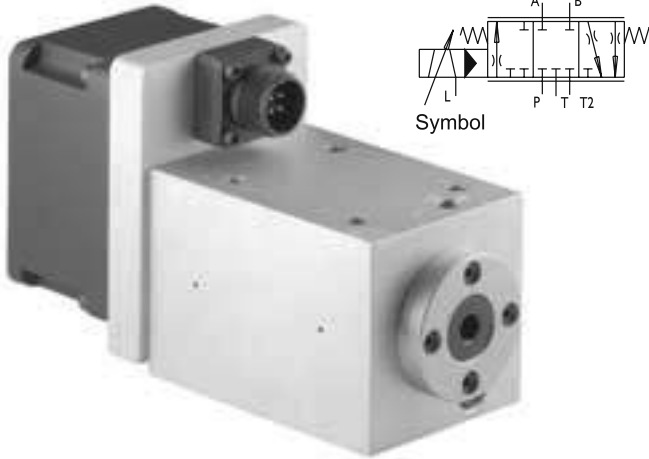


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Elektrohydraulic Servovalves Typ HVM 071



Special features:

- high reliability
- easy service
- robust construction
- high dynamic response
- relatively insensitive to contamination
- variable metering orifices only
- $Q_{max} = 100\text{l/min}$ at $\Delta p = 70\text{bar}$
- $p_N = 315\text{ bar}$
- Field of application: plunger cylinder in differential operation (see application pattern)

General description:

Type	:	electrical input stage, torque motor, sliding spool system
Control	:	torque motor actuated pilot spool
main spool	:	locked in 4-way sliding and correlated to the same
Style of mounting	:	sup-plate / Cetop 05
Mounting position	:	unrestricted
Weight	:	4,7kg

Technical Data

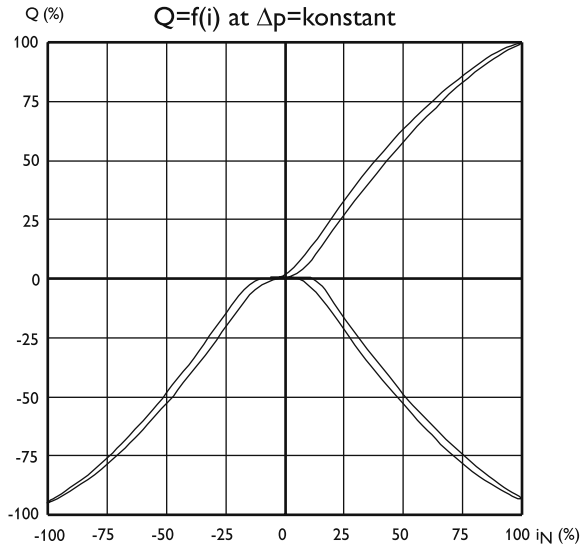
1. Hydraulic Data (definition according to DIN 24311)

.1	rated pressure	p_N	=	210	[bar]
.2	operating pressure	$p_{b \text{ min}}$ $p_{b \text{ max}}$	=		5[bar] 315[bar]
.2.1	back stroke pressure	$p_{r \text{ max}}$	=	35 % p_b	
.3	max. pressure (static test pressure)	p_{max}	=	450	[bar]
.4	rated flow at $\Delta p = 70\text{ bar}$	Q_N	=	100	[l/min]
.5	quiescent flow, max. at p_N	L Q	<	5% Q_N	
.6	internal max. leakage at $p_N = 210\text{ bar}$		<	50	[cm ³ /min]
.7	hysteresis	H	<	5% i_N 3% i_N	(without Dither) (with Dither)
.8	threshold sensitivity	E	<	0,7% i_N 0,2% i_N	(without Dither) (with Dither)
.9	threshold span	S	<	1,5% i_N 1% i_N	(without Dither) (with Dither)
.10	linearity deviation		<	10% i_N	
.11	flow symmetry - Q_N zu + Q_N		<	-10..+20% i_N	
.12	pressure gain (see diagram)	V_N	<	0,3 $P_b / 1\%$ i_N	
.13	overlap, standard	h	=	-1...+3% i_N	
.14	Operating temperature range	δM	=	253...353	[K]
.14.1	temperature drift		≥	2% $i_N / 50K$	
.15	viscosity range of fluid	γ_{min}	=	10...1000 mm ² /s approximate value normal: ISO VG 10...ISO VG 46	
.16	filtration of fluid		<	10µm	class 4-5 to NAS 1638 or SAE-ASTM
.17	fluid standard		=	HLP-hydraulic oils as per DIN 51524 Teil 2 (Special equipments possible)	

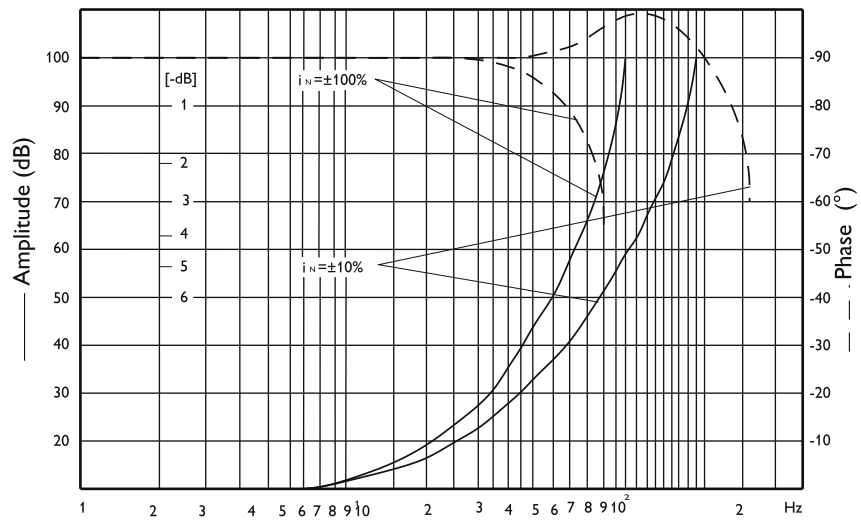
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2. Diagrams HVM 071

Flow rate-signal function



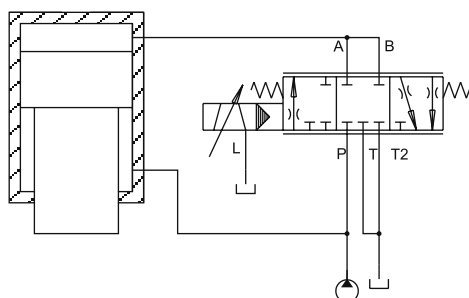
Frequency Response



Field of application:

This valve was conceived for the high-dynamic application in connection with a plunger cylinder in differential circuit. Field of application: Nibble and Punch Machines

application pattern



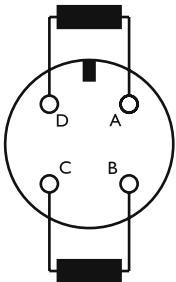
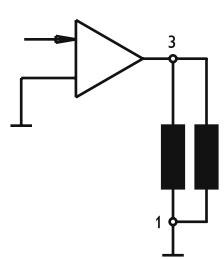
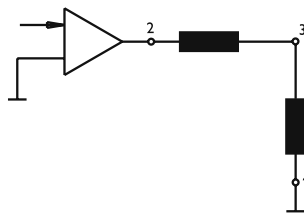
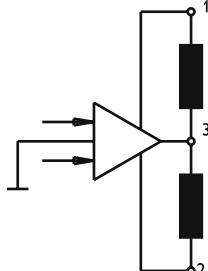
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3. Electrical Data

3.1.1 Electrical Data without Electronic

	rated current I_N	resistance / coil	power input	inductance/ coil
Coil type 1	325 mA	11,5 Ω	1,35 W	86 mH
Coil type 2	150 mA	60 Ω	1,35 W	320 mH

3.1.2 Curciut without Electronic

			
<p>A or C +V D or B 0V flow from P to B</p>	<p>Standard version coils parallel 3 +V, 1 0V flow from P to B</p>	<p>Special equipmen Coils serially 2+V, 1 -V flow from P to B</p>	<p>Special equipmen Coils 3 to 1 > 3 to 2 flow from P to A</p>

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Order Information

HVM 071 - 100 - 1111 - XX

Model

071

Rated flow

QN at $\Delta p = 70$ bar

100 l/min

120 l/min

Seal material

1 Perbunan

2 Viton

3 Butyl

4 Vulkollan

5 Ethylen-Propylen

Resistance / coil [R20]

1 11,5 Ω

2 60 Ω

Overlap

0 Zero overlap

1 Positiv overlap

2 Negativ overlap

Amount of overlap

positiv oder negative

1..9

Design letter

assigned by manufacturer

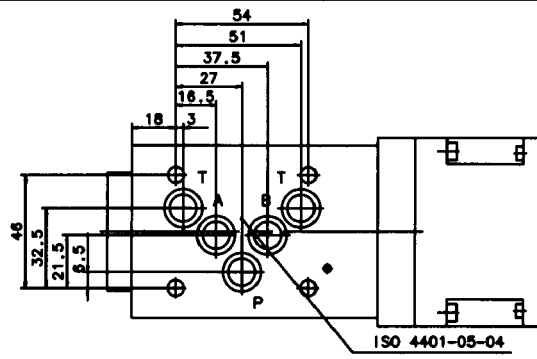
5. Accessories:

Description			Order No.
Connector	4pol.	KE CA 06 COM 14S 2S	13018
Sub plate	NG 10	HZ 036	39276
scavenger plate	NG 10	HZ 061	39686
Box-Amplifier		BOE XXX-025-0-5-0A	46965

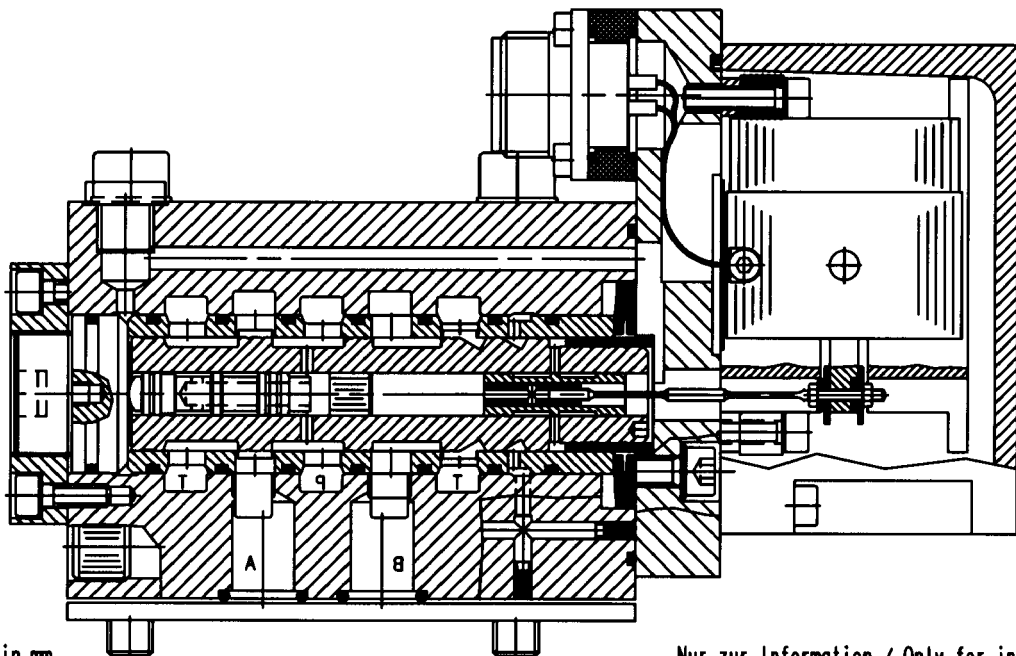
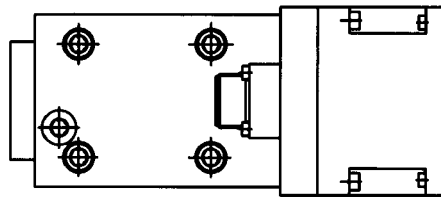
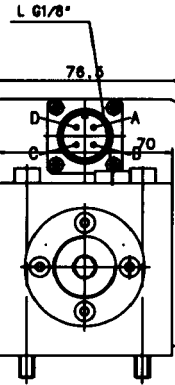
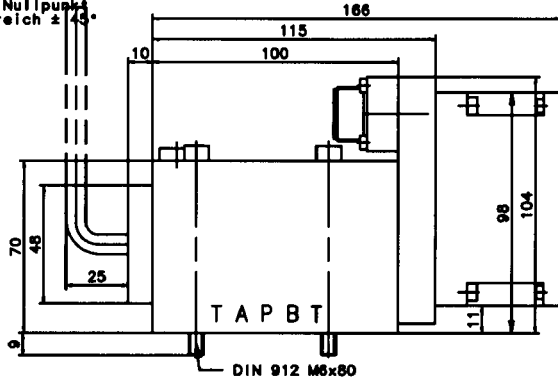
Important remarks:

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.

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Sechskantschraubendreher
DIN 911 ab zum Justieren
des hydr. Nullpunkt
Justagebereich $\pm 45^\circ$



Angaben ohne Einheiten in mm
All dimensions without unit in mm

Nur zur Information / Only for information

Änderungsindex / Amendment index		Ventil Valve	HVM 071-XXX-XXXX-XX	Id.- Nr. -
-	-			
Datum Date	Name Name	Jos. Schneider Optische Werke GmbH Ringstr. 132 55543 Bad Kreuznach Germany		
dwg.	20.09.01 Dindorf			