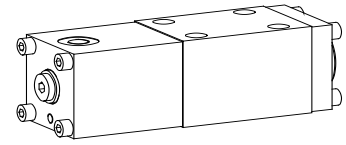


Poppet valve hydraulic operated

- 2/2-, 3/2- and 3/4-way construction
- $Q_{max} = 40 \text{ l/min}$
- $p_{max} = 350 \text{ bar}$

NG6
 ISO 4401-03

DESCRIPTION

Poppet valve, flanged design NG6 according to ISO 4401, available as a 2/2 or 3/2-way valve (normally open or closed) and as a 3/4-way valve (normally closed). The central functioning element of all directly controlled poppet valves in the NG6 series is the poppet valve cartridge NG6. See data sheet 1.11-2030.

FUNCTION

The valve is direct operated by a hydraulic control head which either opens or closes the poppet against a spring. The design of the poppet spool, which is equal in surface area on both sides and thus pressure balanced, means there are no undue opening and closing hydraulic forces. Due to this the oil flow through the poppet valve is possible in both directions. The valve is tight in both flow directions.

APPLICATION

Wandfluh poppet valves can be used anywhere absolutely leak tight closing functions are important. Completely sealed loading, gripping and clamping operations are all important functions which Wandfluh poppet valves can perform. Cartridge type poppet valves can be neatly accommodated in valve blocks. From a mechanical and functional point of view, poppet valves can replace slide valves at any time.

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TYPE CODE

2/2- or 3/2-way construction	A	PC	<input type="checkbox"/>	2	06	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
3/4-way construction	A	PC	3	4	06	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
International mounting interface ISO										
Hydraulic operation										
2-way (connections)			<input type="checkbox"/>							
3-way (connections)			<input type="checkbox"/>							
2 positions										
4 positions										
Nominal size 6										
Normally closed, control head on side A			<input type="checkbox"/>							
Normally open, control head on side B			<input type="checkbox"/>							
Control head:	CPII			<input type="checkbox"/>						
	CPII-S1454			<input type="checkbox"/>						
	CPII with spring package			<input type="checkbox"/>						
	CPII-S1454 with spring package			<input type="checkbox"/>						

* only possibility for 2/2-way normally open and 3/2-way valve

Design-Index (Subject to change)

GENERAL SPECIFICATIONS

Description	2/2-, 3/2- and 3/4-way poppet valve
Nominal size	NG6 acc. to ISO 4401
Construction	Direct operated poppet valve
Operations	Hydraulic operated
Mounting	Flange, 4 mounting holes for socket head screws M5x45
Connections	Threaded connection plates Multi-flange subplates Longitudinal stacking system
Ambient temperature	-20 ... +50 °C
Mounting position	any, preferable horizontal
Fastening torque	$M_D = 5,5 \text{ Nm}$ (Quality 8,8)
Weight:	
2/2-, 3/2-way without spring package	1,8 kg
with spring package	2,5 kg
3/4 way	2,8 kg
Volume flow direction	any (see characteristics)

HYDRAULIC CONTROL

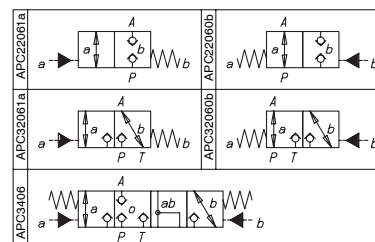
Pilot pressure	see characteristics
Pilot oil volume	v1/v3: $V_{st} = 7 \text{ cm}^3$ v2/v4: $V_{st} = 0,6 \text{ cm}^3$

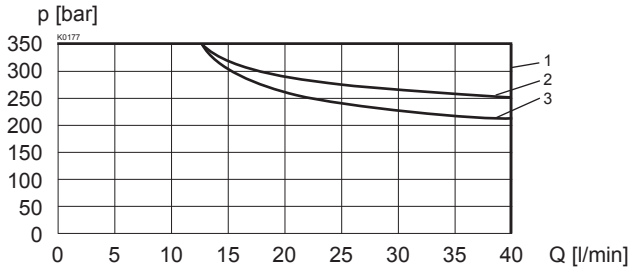
Important: With control head CPII (v1/v3) in reset position (relieved) pressure in pilot line $p_{st} < 0,5 \text{ bar}$

With control head CPII-S1454 (v2/v4) in reset position (relieved) pressure in pilot line $p_{st} < 10 \text{ bar}$

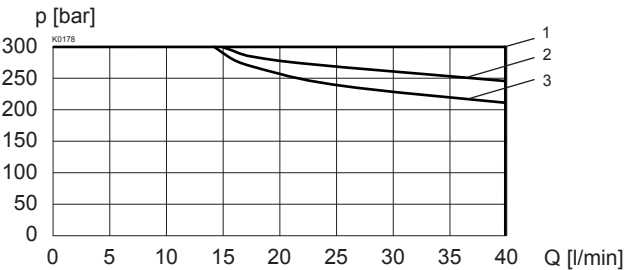
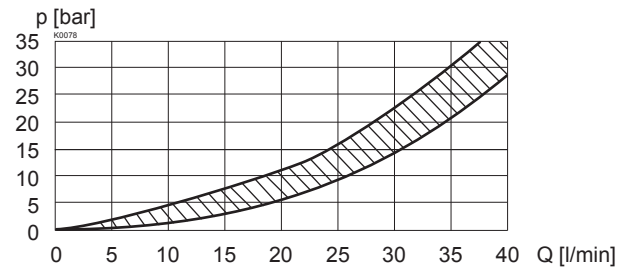
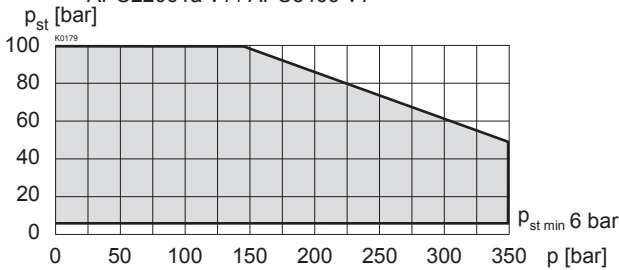
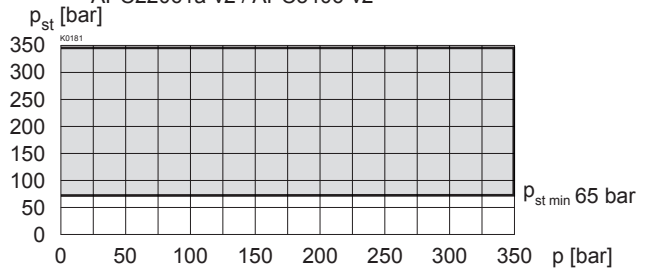
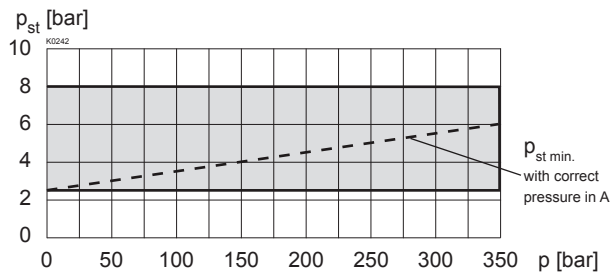
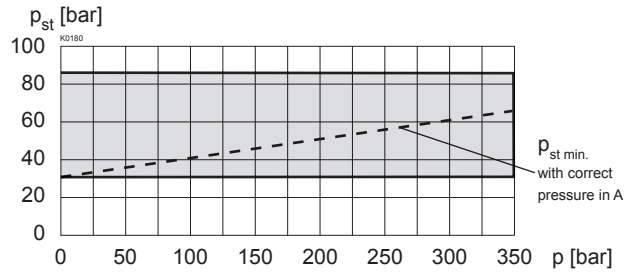
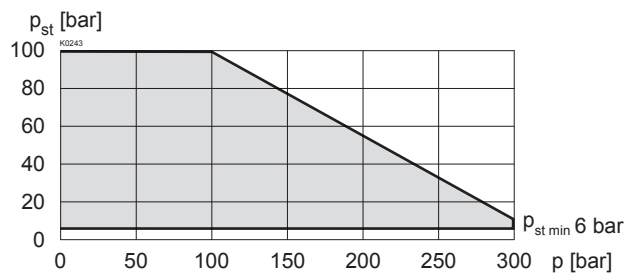
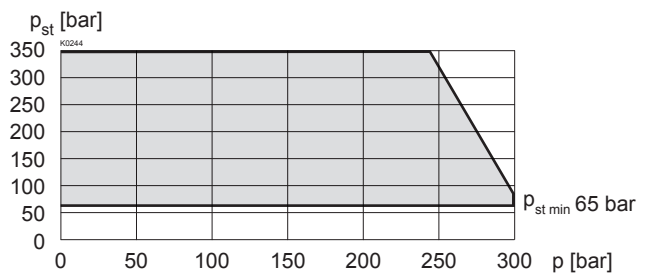
HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination	ISO 4406:1999, class 20/18/14
efficiency	(Required filtration grade $\beta_{10...16} \geq 75$) refer to data sheet 1.0-50/2
Viscosity range	12 mm ² /s bis 320 mm ² /s
Fluid temperature	-20 ... +70 °C
Working pressure	Control head without spring package v1/v2 $p_{max} = 350 \text{ bar}$ Control head with spring package v3/v4 $p_{max} = 300 \text{ bar}$
Max. volume flow	$Q_{max} = 40 \text{ l/min}$ see characteristics

SYMBOLS


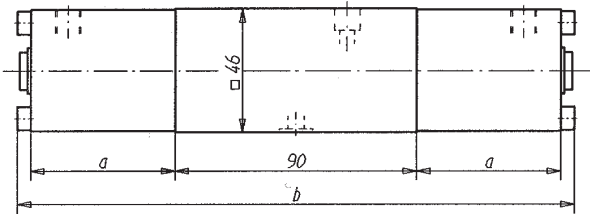
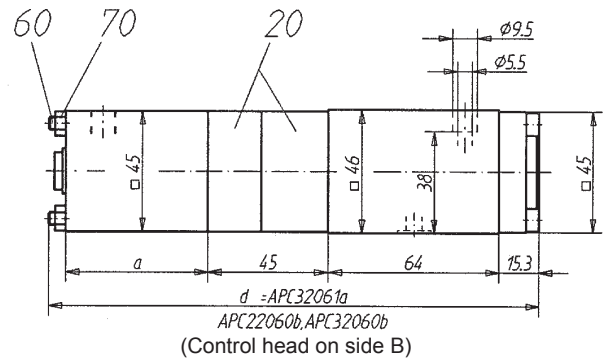
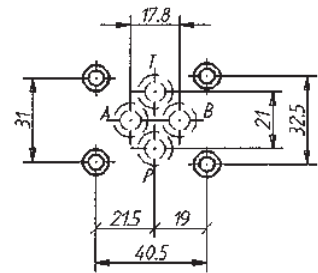
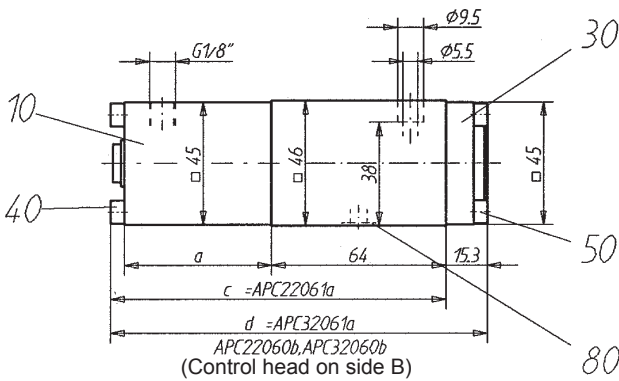
CHARACTERISTICS Oilviscosity $\nu = 30 \text{ mm}^2/\text{s}$
 $p = f(Q)$ Performance limit
 $v1/v2$ (without spring package)


Type	Flow direction			
	P - A	A - T	A - P	T - A
APC22061a	1	-	1	-
APC22060b	1	-	2	-
APC32061a	1	2	1	1
APC32060b	1	1	2	1
APC3406	1	1	1	1

 $p = f(Q)$ Performance limit
 $v3/v4$ (with spring package)

 $\Delta p = f(Q)$ Pressure loss/flow characteristics

 $p_{st} = f(p)$ Pilot pressure characteristics
 APC22061a-v1 / APC3406-v1

 $p_{st} = f(p)$ Pilot pressure characteristics
 APC22061a-v2 / APC3406-v2

 $p_{st} = f(p)$ Pilot pressure characteristics
 APC22060b-v1 / APC32061a-v1 / APC32060b-v1

 $p_{st} = f(p)$ Pilot pressure characteristics
 APC22060b-v2 / APC32061a-v2 / APC32060b-v2

 $p_{st} = f(p)$ Pilot pressure characteristics
 APC22060b-v3 / APC32061a-v3 / APC32060b-v3

 $p_{st} = f(p)$ Pilot pressure characteristics
 APC22060b-v4 / APC32061a-v4 / APC32060b-v4


DIMENSIONS

3/4-way poppet valve with control head v1, v2


 2/2-way poppet valve with control head v3, v4
 3/2-way poppet valve with control head v3, v4

 2/2-way poppet valve with control head v1, v2
 3/2-way poppet valve with control head v1, v2


Masse	v1	v2	v3	v4
a	54	64	54	64
b	208	228	-	-
c	123	133	-	-
d	138.3	148.3	183.3	195.3

PARTS LIST

Position	Article	Description
10	254.4150 254.4650	Control head CPII Control head CPII-S1454
20	500.3004	Spring package
30	58.4215	Lid
40	246.2160 246.2170	Zyl. screw M5x60 DIN 912 for v1 Zyl. screw M5x70 DIN912 for v2
50	246.2117	Zyl. screw M5x16 DIN912
60	224.2016 224.2001	Double ended screw M5x112 for v3 Double ended screw M5x124 for v4
70	153.1201	Hexagonal nut M5
80	160.2093	O-ring ID 9,25x1,78

ACCESSORIES

 Threaded connection plates, multi-flange subplates and
 Longitudinal stacking system see Register 2.9