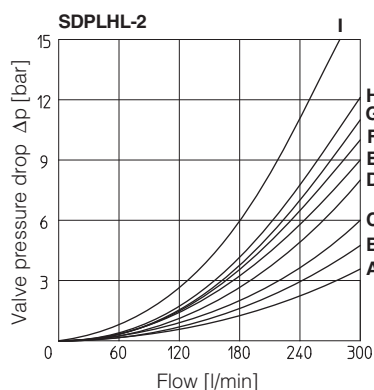


5 ELECTRIC FEATURES

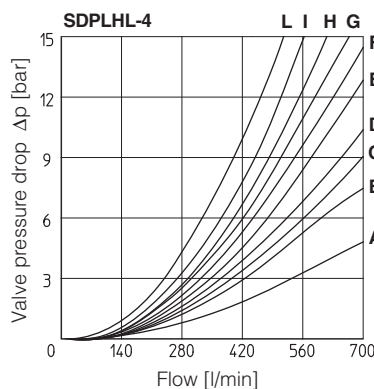
Valve	External supply nominal voltage ± 10%	Voltage code	Type of connector	Power consumption (2)	Code of spare coil	
					X version	XK version
SDPLHL	12 DC	12 DC	666 or 667	29 W	COL-12DC	COLK-12DC
	14 DC	14 DC			COL-14DC	COLK-14DC
	24 DC	24 DC			COL-24DC	COLK-24DC
	28 DC	28 DC			COL-28DC	COLK-28DC
	110/50 AC	110/50/60 AC			COL-110/50/60AC (1)	-
	230/50 AC	230/50/60 AC		COL-230/50/60AC (1)	-	
				58 VA (3)		

- (1) Coil can be supplied also with 60 Hz of voltage frequency: in this case the performances are reduced by 10÷ 15% and the power consumption is 58 VA
- (2) Average values based on tests performed at nominal hydraulic condition and ambient/coil temperature of 20°C.
- (3) When solenoid is energized, the inrush current is approx 3 times the holding current. Inrush current values correspond to a power consumption of about 150 VA.

6 FLOW VERSUS PRESSURE DIAGRAMS Based on mineral oil ISO VG 46 at 50°C



Spool type	Flow direction				
	P→A	P→B	A→T	B→T	P→T
0/2, 1, 3, 6, 7	A	A	D	A	-
1/1, 1/2	B	B	D	E	-
0	A	A	D	E	C
0/1	A	A	D	-	-
2	A	A	-	-	-
2/2	B	B	-	-	-
3/1	A	A	D	D	-
4	C	C	H	I	F
4/8	C	C	G	I	F
5	A	B	F	H	G
19	C	-	-	G	-
39	C	-	-	H	-
58	B	A	F	H	H
91	C	C	E	-	-
93	-	C	D	-	-



Spool type	Flow direction				
	P→A	P→B	A→T	B→T	P→T
1	B	B	B	D	-
1/1	D	E	E	F	-
1/2	E	D	B	C	-
0	D	C	D	E	F
0/1, 3/1, 6, 7	D	D	D	F	-
0/2	D	D	D	E	-
2	B	B	-	-	-
2/2	E	D	-	-	-
3	B	B	D	F	-
4	C	C	H	L	L
5	A	D	D	D	H
19	F	-	-	E	-
39	G	F	-	F	-
58	E	A	B	F	H
91	F	F	D	-	-
93	-	G	D	-	-

7 OPERATING LIMITS For a correct valve operation do not exceed the max recommended flow rates (l/min) shown in the below tables

SDPLHL-2

Spool	Inlet pressure [bar]			
	70	140	210	280
	Flow rate [l/min]			
0, 1, 3, 6, 7, 8	300	300	300	300
2, 4, 4/8	300	300	240	140
5	260	220	180	100
0/1, 0/2, 1/2	300	250	210	180
58, *9, 9*	300	300	270	200

SDPLHL-4

Spool	Inlet pressure [bar]			
	70	140	210	280
	Flow rate [l/min]			
1, 6, 7, 8	700	700	700	600
2, 4, 4/8	500	500	450	400
5, 0/1, 0/2, 1/2	600	520	400	300
0, 3	700	700	600	540
58, *9, 9*	500	500	500	450

8 SWITCHING TIMES (average values in m sec)

Valve model	Configuration		Piloting pressure					
			70 bar		140 bar		250 bar	
			Alternating current	Direct current	Alternating current	Direct current	Alternating current	Direct current
SDPLHL-2	71, 61, 67, 61*/A, 67*/A	Switch ON	40	55	30	50	20	40
		Switch OFF	60					
	63, 63*/A	Switch ON	55	80	45	70	35	55
		Switch OFF	95					
SDPLHL-4	71, 61, 67, 61*/A, 67*/A	Switch ON	60	80	45	60	30	45
		Switch OFF	80					
	63, 63*/A	Switch ON	95	115	75	95	50	65
		Switch OFF	130					

Notes:

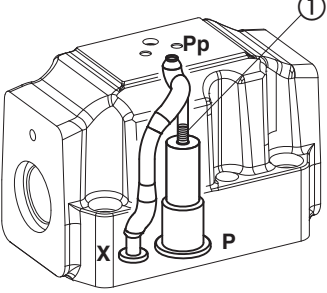
- 1) For configuration 75, times of switching ON and switching OFF are the same: this value is equal to time of switch ON of configuration 63.
- 2) TEST CONDITIONS
 - Nominal voltage supply DC (direct) and AC (alternating) with connector type SP-666. The use of other connectors can affect the switching time;
 - 2 bar of counter pressure on port T;
 - mineral oil: ISO VG 46 at 50°C
- 3) The response time is affected by elasticity of the hydraulic circuit, by variation of hydraulic characteristics and temperature.

9 PLUGS LOCATION FOR PILOT/DRAIN CHANNELS

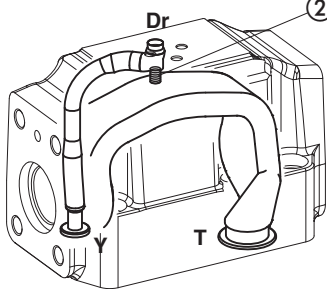
Depending on the position of internal plugs, different pilot/drain configurations can be obtained as shown below. To modify the pilot/drain configuration, proper plugs must only be interchanged. The plugs have to be sealed using loctite 270. Standard valves configuration provides internal pilot and external drain

SDPLHL-2

Pilot channels

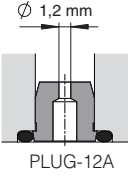


Drain channels



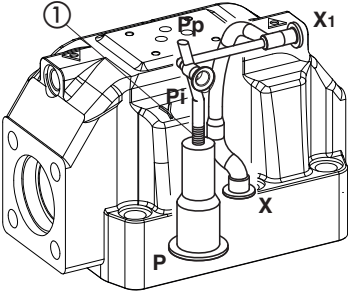
Internal piloting: Without blinded plug SP-X300F ①;
External piloting: Add blinded plug SP-X300F ①;
Internal drain: Without blinded plug SP-X300F ②;
External drain: Add blinded plug SP-X300F ②.

Option L9
 This option provides a calibrated restrictor PLUG-H-12A (Ø 1,2 mm) in the P port of the pilot valve

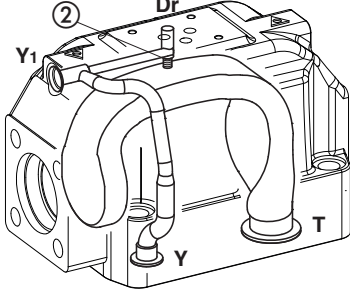


SDPLHL-4

Pilot channels

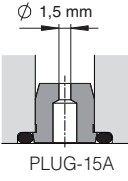


Drain channels



Internal piloting: Without blinded plug SP-X500F ①;
External piloting: Add blinded plug SP-X500F ①;
Internal drain: Without blinded plug SP-X300F ②;
External drain: Add blinded plug SP-X300F ②.

Option L9
 This option provides a a calibrated restrictor PLUG-H-15A (Ø 1,5 mm) in the P port of the pilot valve



10 ELECTRIC CONNECTORS ACCORDING TO DIN 43650 - the connectors must be ordered separately

Connector code	Function
666	Connector IP65, suitable for direct connection to electric supply source
667	As 666 connector IP65 but with built-in signal led, suitable for direct connection to electric supply source

11 DIMENSIONS FOR SDPLHL-2 [mm]

SDPLHL-2*

ISO 4401: 2005

Mounting surface: 4401-07-07-0-05

Fastening bolts:

4 socket head screws M10x50 class 12.9

Tightening torque = 70 Nm

2 socket head screws M6x45 class 12.9

Tightening torque = 15 Nm

Diameter of ports A, B, P, T: $\varnothing = 20$ mm;

Diameter of ports X, Y: $\varnothing = 7$ mm;

Seals: 4 OR 130, 2 OR 2043

P = PRESSURE PORT

A, B = USE PORT

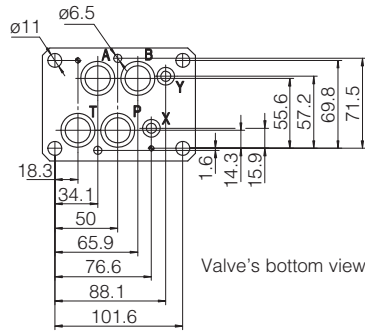
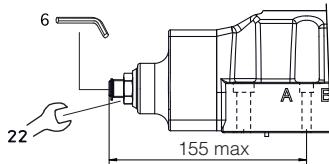
T = TANK PORT

X = EXTERNAL OIL

PILOT PORT

Y = DRAIN PORT

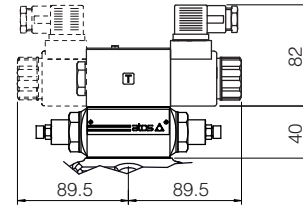
Stroke adjustment device for option /S



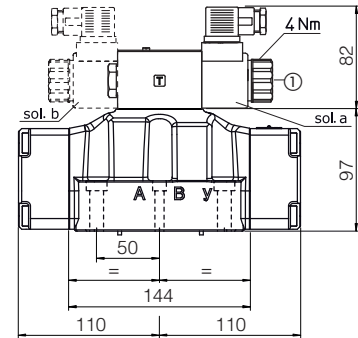
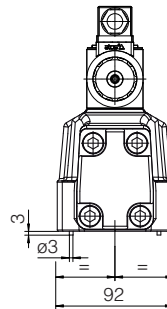
Valve's bottom view

Mass (Kg)	
SDPLHL-26	9,7
SDPLHL-27	9,9
Option /S	+1,0
Option H	+1,0

SDPLHL-2*/H



SDPLHL-2*



Overall dimensions refer to valves with connectors type 666

① Standard manual override PIN

12 DIMENSIONS FOR SDPLHL-4 [mm]

SDPLHL-4*

ISO 4401: 2005

Mounting surface: 4401-08-08-0-05

Fastening bolts:

6 socket head screws M12x60 class 12.9

Tightening torque = 125 Nm

Seals: 4 OR 4112; 2 OR 3056

Diameter of ports A, B, P, T: $\varnothing = 24$ mm;

Diameter of ports X, Y: $\varnothing = 7$ mm;

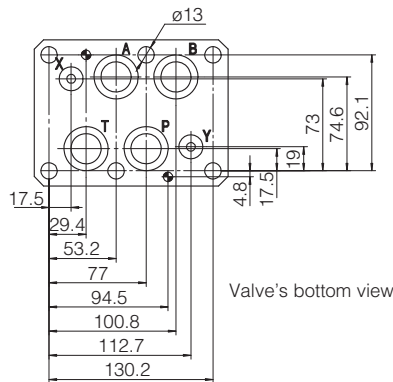
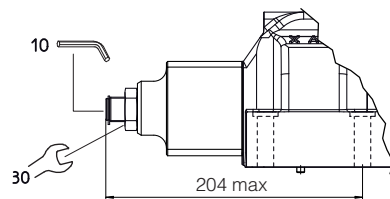
P = PRESSURE PORT

A, B = USE PORT

T = TANK PORT

X = EXTERNAL OIL PILOT PORT

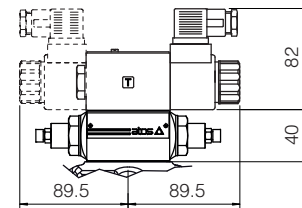
Y = DRAIN PORT



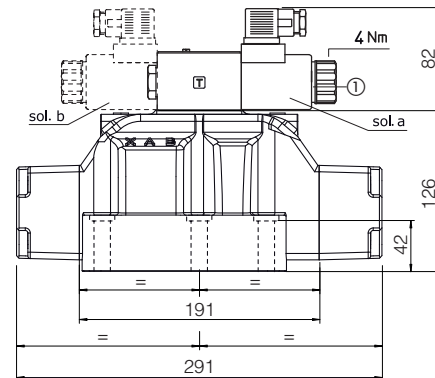
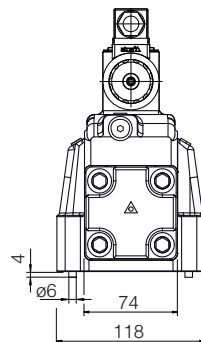
Valve's bottom view

Mass (Kg)	
SDPLHL-46	17,2
SDPLHL-47	17,4
Option /S	+1,5
Option H	+1,0

SDPLHL-4*/H



SDPLHL-4*



Overall dimensions refer to valves with connectors type 666

① Standard manual override PIN