# COMPACT CATALOG









PNEUMATIC REMOTE CONTROL VALVES





#### SP

#### **Features**

This catalog presents the **SP** pneumatic remote control valves with high metering characteristics for proportional control of directional control valves.

- SP01 SP10 monoblock body SP30 or stackable.
- Aluminum body.
- Low actioning efforts.
- Easy installation.
- Frictions, detents, safety lever, several types of knob available.

#### Working conditions

This catalog shows technical specifications and diagrams measured at ambient temperature of 20°C (68°F).

Maximum feeding pressure		10 bar	145 psi
Air flow at 7 bar (102 psi)		350 dm <sup>3</sup> /min	12.4 ft <sup>3</sup> /min
Ambient temperature range		from -40° to 60°C	from -40°F to 140°F
Tie rod tightening torque	SP30 only	30 Nm	22.2 lb ft
Standard threads	NPT	1/8-27	
Stud ends tightening torque	All ports	15 Nm	11 lb ft
Weight	SP01	2,5 kg	5,5 lb
	SP10 - SP11	1,7 kg	3.7 lb
	SP30	see table on page 8	

NOTE - For different conditions please contact Sales Dept.

#### Additional information

This catalog shows the product in the most standard configurations. Please contact Sales Dpt. for more detailed information or special request.

#### WARNING!

All specifications of this catalog refer to the standard product at this date. Walvoil, oriented to a continuous improvement, reserves the right to discontinue, modify or revise the specifications, without notice.

WALVOIL IS NOT RESPONSIBLE FOR ANY DAMAGE CAUSED BY AN INCORRECT USE OF THE PRODUCT.

4<sup>rd</sup> edition February 2003:

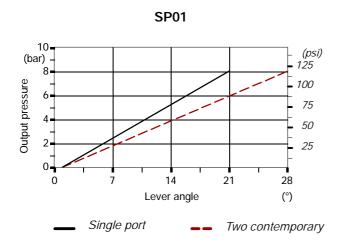
This edition supercedes all prior documents.

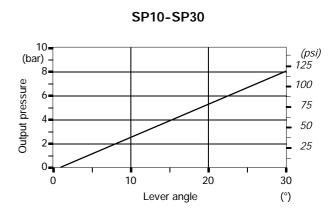


# Performance data

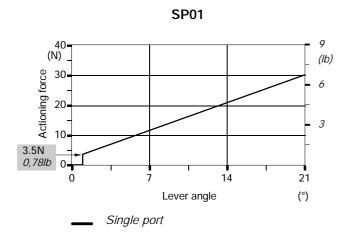
Measured with 501MA pressure control curve on work ports.

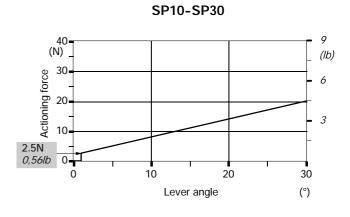
# **Piloting pressure**





# **Actioning force**

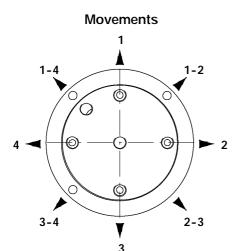


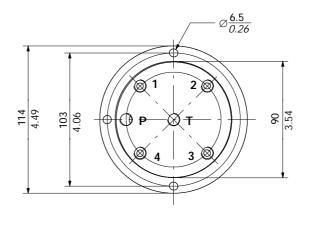


NOTE - Pivot distance from actioning point = 150mm - 5.90 in

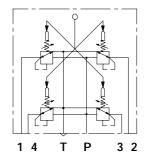
# Dimensional data and hydraulic circuit

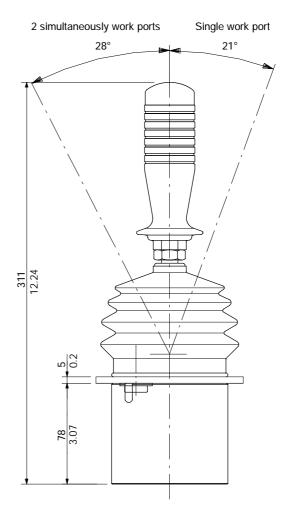
Monoblock joystick with 1 lever and 4 work ports, for operation of 2 valve sections. Bottom all ports.





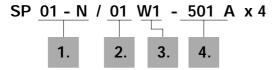
Circuit





# Ordering codes

# Description example:



# 1. SP body kit

TYPE CODE DESCRIPTION 01-N 5CO4010500 Body kit

# 2. Kinematic kit page 10

TYPE CODE DESCRIPTION
01 5ART310100 spring return to neutral

#### 3. Handles with joint

TYPE	CODE	DESCRIPTION
W1	5IMP522000	less micro (standard)
X1	5IMP532000	n.1 micro with push-button
K1	5IMP542000	n.1 micro with recessed push-button
<b>Z</b> 1	5IMP502000	n.1 micro with detented rocker-switch
Y1	5IMP512000	n.2 micro with spring return to neutral
		rocker-switch
T1	5IMP552000	n. 2 micro with detented 3 position rocker-switch

For different handles see page 11 and ask related catalogue DHR001E.

# 2.+3. Kinematic kits with handle page 10

For assembling reasons, the under listed kinematic kits must be supplied complete with handle. Please contact our Sales Department for use with different handles.

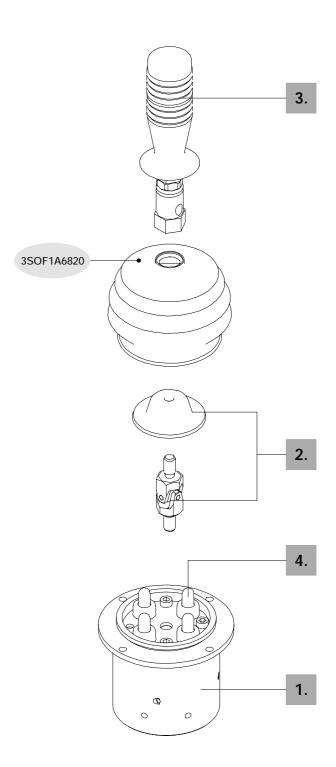
TYPE CODE DESCRIPTION

**02Y** 5CIN902 with detent in neutral and type Y knob

#### 4. Pressure control curve 501A

TYPE CODE DESCRIPTION

**501A** 5CUR501MA without step, from 0 to 8 bar / 0 to 116 psi

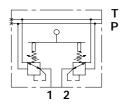


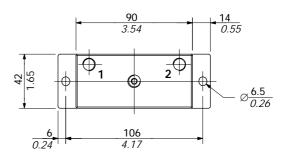


# Dimensional data and hydraulic circuit

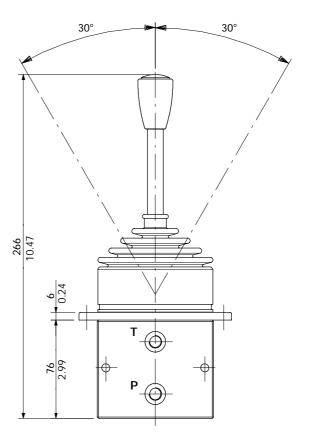
Monoblock with 1 lever and 2 work ports. Side P and T ports.

#### Circuit









# Ordering codes

# Description example:



#### 1. SP body kit

TYPE CODE DESCRIPTION 10-N 5CO4100500 Body kit

# 2. Kinematic kits with handle page 10

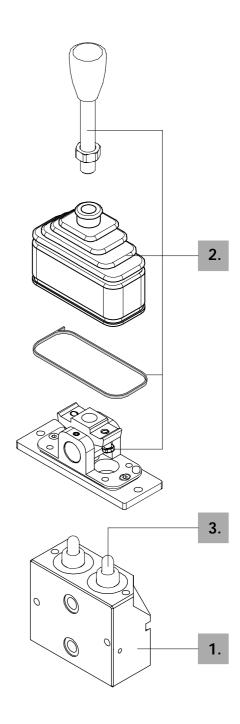
For assembling reasons, the under listed kinematic kits must be supplied complete with handle. Please contact our Sales Department for use with different handles.

**TYPE** CODE **DESCRIPTION** 5CIN901000 01G3 spring centered, G knob 02G3 5CIN904000 with detent in neutral, G knob 05G3 5CIN907000 with detent in position 1, G knob 06G3 5CIN907000 with detent in position 2, G knob 07G3 5CIN905000 with detent in position 1 and 2, G knob

#### 3. Pressure control curve 501A

TYPE CODE DESCRIPTION

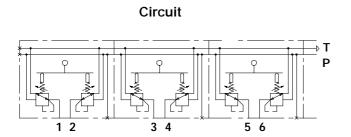
**501A** 5CUR501MA without step, from 0 to 8 bar / 0 to 116 psi

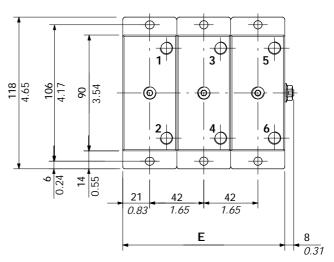


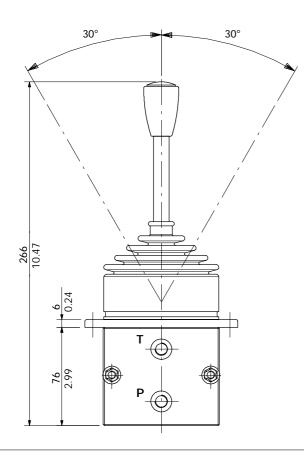


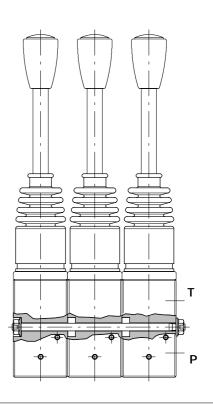
# Dimensional data and hydraulic circuit

It's composed from nr.2 to 8 of single sections. Side P and T ports.









# Pneumatic pilot control valves dimensions

TYPE	E		Weight	
	mm	in	kg	lb
SP30/2	84	3.31	3.4	7.4
SP30/3	126	4.96	5.1	11.1
SP30/4	168	6.61	6.8	14.8

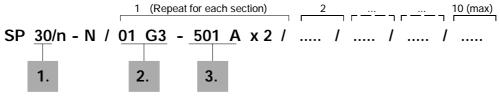
TYPE	E		Weight	
	mm	in	kg	lb
SP30/5	210	8.27	8.5	18.5
SP30/6	252	9.92	10.2	22.2
SP30/7	294	11.57	11.9	25.9

TYPE	Е		Weight	
	mm	in	kg	lb
SP30/8	336	13.23	13.6	29.6



# Ordering codes

# **Description example:**



n number of sections from 2 to 8

# SP body kit

**TYPE** CODE **DESCRIPTION** 30-N 5CO4100501 Body kit

#### Kinematic kits with handle 2.

For assembling reasons, the under listed kinematic kits must be supplied complete with handle. Please contact our Sales Department for use with different handles.

TYPE	CODE	DESCRIPTION
01G3	5CIN901000	spring centered, G knob
02G3	5CIN904000	with detent in neutral, G knob
05G3	5CIN907000	with detent in position 1, G knob
06G3	5CIN907000	with detent in position 2, G knob
07G3	5CIN905000	with detent in position 1 and 2, G knob

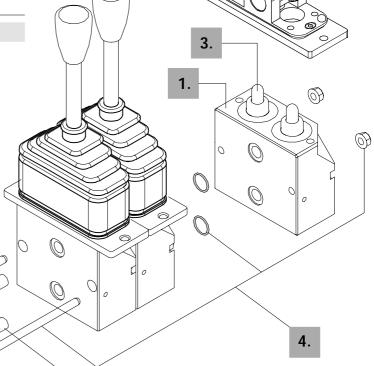
#### 3. Pressure control curve 501A

DESCRIPTION **TYPE** CODE 501A 5CUR501MA without step, from 0 to 8 bar / 0 to 116 psi

#### 4. Assembling kit

(	CODE	DESCRIPTION	٧
ļ	5TIR106092	for SP30/2	
ļ	5TIR106134	for SP30/3	
ļ	5TIR106176	for SP30/4	
ļ	5TIR106218	for SP30/5	
ļ	5TIR106260	for SP30/6	
ļ	5TIR106301	for SP30/7	
ļ	5TIR106344	for SP30/8	
	<del>-</del> , ,,,,	"" O NIDT4 (O )	

Tie rod kits with nr.2 NPT1/2 plugs and nr.2 O-Rings

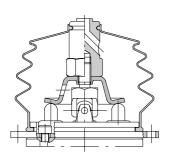


2.

# SP01 kinematic kits

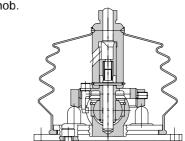
#### Type 01

Spring centered to neutral position.



# Type 02

With lock in neutral positions. Unlock moving up knob.



# SP10-SP30 kinematic kits

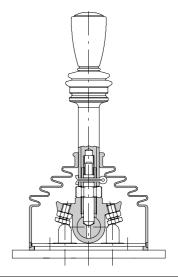
#### Type 01

Spring centered to neutral positions.



With lock in neutral positions. Unlock moving up knob.





# Controls with detent

#### Type 05

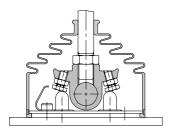
Detent in position 1, spring centered to neutral positions.

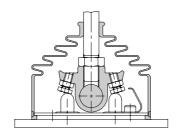
# Type 06

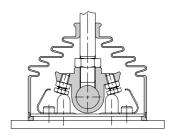
Detent in position 2, spring centered to neutral positions.

# Type 07

Detent in position 1 and 2, spring centered to neutral positions.









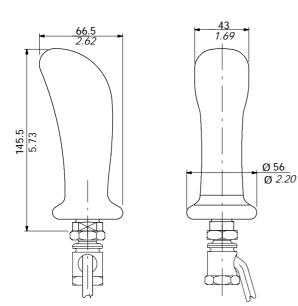
#### **Accessories**

#### Handles with switches

Series V and H handles assembled on joystick SP01 are available.

For any further information, please contact Sales Dept. or ask the related catalogue DHR001A.

#### Series V



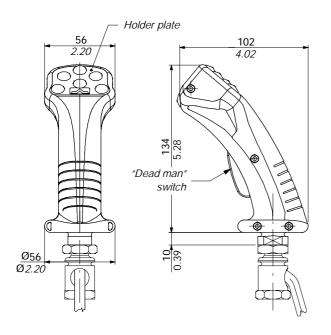
#### Available types

Type **V**: available without switches or fitted with push-button or rocker switch (front of upper position)

Type VM: fitted up to 4 (nr.1 upper and nr.3 front) push-buttons with 100/200mA current capability.

Type VT: fitted up to 4 (nr.1 upper and nr.3 front) push-buttons with 5A current capability

#### Series H



#### Available types

Type H: fitted up to 8 microswitch push-button, with rocker switch and "dead man" switch

Type **HM**: fitted up to 4 push-buttons (100/200mA types), with "dead man" and ON/OFF switches

Type HT: itted up to 4 push-buttons (5A types), with roker switch, "dead man" and ON/OFF switches

Type **HZ**: with potentiometer, fitted up to 2 microswitch push-

button, "dead man" and ON/OFF switches





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