# JOUCOMATIC

# MULTIFUNCTION SPOOL VALVES

air operated

and solenoid air operated

G3/4-G1 - ISO 5599/1 subbase-mounted body

5/2-5/3 Series 544 Type ISO size 4

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# MULTIFUNCTION

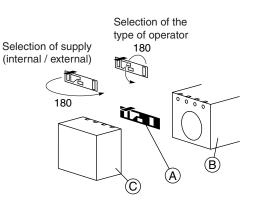
# Multifunction selector

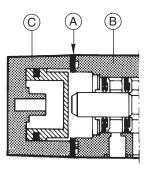
The multifunction selector is equipped with 2 pilot selector seals (A) located between the body (B) and the covers (C), on both sides : pilot and return. Each selector can be set on 3 or 4 positions. Rotating or turning it upside-down allows the following functions :

- internal or external supply to pilot or return operators.
- selection of the type of operator : air operated or solenoid-air pilot or return.

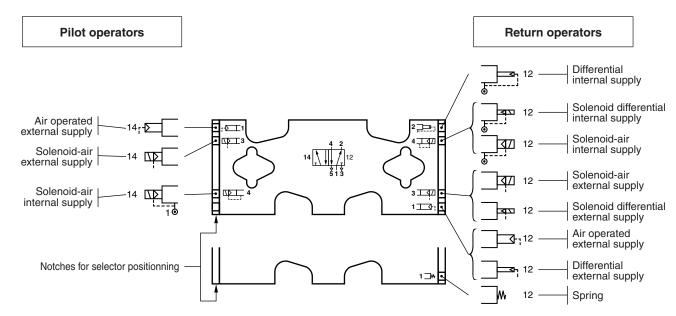
For this, it is only necessary to position one of the arrows of the selector into the notch matching the diagram of the required function (see below). Functions can be modified at will. The valves are delivered with the selector pre-set on the position corresponding to the function requested on order (see table CHOICE OF EQUIPMENT).

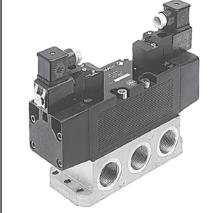
External supply enables the values to be used with a fluid pressure ranging from 0 to 12 bar and with vacuum.



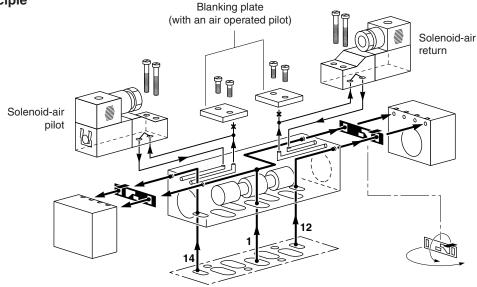


Pilot function



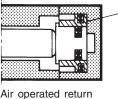


# • Operating principle

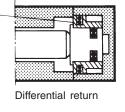


## • Changing from an air operated return valve to a differential return valve

An air operated return valve can be changed into a differential return valve by turning over the outside piston ring as shown in the diagram below (1).

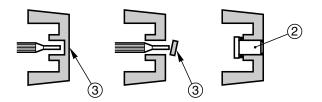






## • Manual operator using a tester (option)

A manual operator can be equipped with a tester (2) by knocking the knock-out plug (3) out of the end cover.



- An air operated valve can be changed into a solenoid air valve by :
- re-positionning the selector seal,
- removing the upper blanking plate (side 12 or 14),
- fitting a selector seal if lacking,
- adding a solenoid pilot valve on the upper part.

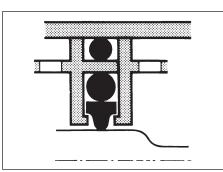
## • A solenoid air valve can be changed into an air operated valve by :

- removing the solenoid pilot valve,
- fitting a blanking plate on the pilot base (plate code : 88100073),
- re-positionning the selector seal.

# USE WITH UNLUBRICATED AIR

This range of JOUCOMATIC valves will operate satisfactorily with lubricated air or unlubricated air and even with dry air, due to a sealing device which has been patented. Essentially, a "T" seal backed up by a cushioning or compensation seal.

This arrangement of seals assures a minimum pilot pressure which will remain constant even after the valve has been stopped for a long period of time. When re-starting, the performance of the valve will be the same as during continuous operation. This important "non-stiction" characteristic assures satisfactory performance under all conditions.



# JOUCOMATIC

# **MULTIFUNCTION SPOOL VALVES**

solenoid air operated

G3/4-G1 - ISO 5599/1 subbase-mounted body



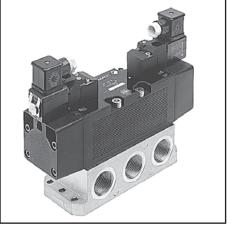
5/2-5/3 Series 544 Туре ISO size 4

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### **FEATURES**

• Choice of internal/external supply with selector seals (vacuum use to -0,950 bar)

GENERAL	Air or neutral gas, filtered, lubricated or not
Fluid	– 0.950 to +12 bar (with external supply to pilot)
Operating pressure	+2.5 to +10/12 bar (with internal supply to pilot)
Pilot pressure Ambient temperature Flow (Qv at 6 bar)	See specifications tables -10°C to +40°C 6300 I/min (ANR) (with subbase G 3/4) 7000 I/min (ANR) (with subbase G 1)
Flow coefficient	Kv = 90 (with subbase G 3/4) Kv = 100 (with subbase G 1)
Life	5 millions of cycles (in normal operating conditions)
Base	ISO 5599/1 - Size 4
Subbase	Single subbase ISO/AFNOR NF E49085



#### CONSTRUCTION

Body and cover	Di
Seals	NE
Internal parts	Liç

e-cast zinc alloy BR (nitrile) ght alloy and POM (polyacetal), die-cast zinc alloy

# **ELECTRICAL CHARACTERISTICS**

type of coil		voltage	consu inrush	mption hold	insulation class	protection degree	electrical connection	
series	~	24V-48V-115V-230V-50 Hz	12 VA	6 VA (4 W)	F	IP 65	spade plug size 30 connector,	
192	=	24V-48V	5	W		IP 65	ISO4400/EN175301-803, form A, rotatable by 90°	

## **SPECIFICATIONS 5/2**

pilot (14) solenoid air operated return (12) spring return differential return	tİr	oonse me ns) de-ener gized 220 170	pres	ilot     ssure     max.     12     12	valve 54490017 54490018	talogue numbers solenoid pik quantity & catalo number with standard connector 19201001 19201002	ogue (M)
return (12) spring return differential	<b>gized</b> 60	<b>gized</b>	2,5	12			×
differential							
	90	170	2	12	54490018		
					01.00010	19201003	•
air return	40	-	1,5	12	54490019		
solenoid differential return	40	-	2	12	54490020	19201001	×
solenoid air operated return	40	-	1,5	12	54490021	+ 2x { 19201002 19201003	•
6	return solenoid differential return solenoid air operated return	return 40 solenoid differential return 40 solenoid air operated return 40	return 40 - solenoid differential return 40 - solenoid air operated return 40 -	return40-1,5solenoid differential return40-2solenoid air operated return40-1,5	return40-1,512solenoid differential return40-212solenoid air operated return40-1,512	return         40         -         1,5         12         54490019           solenoid differential return         40         -         2         12         54490020           solenoid air operated return         40         -         1,5         12         54490020	return       40       -       1,5       12       54490019         solenoid differential return       40       -       2       12       54490020         solenoid air operated return       40       -       1,5       12       54490020

## **SPECIFICATIONS 5/3**

function 5/3	operators pilot (14) solenoid	tir	onse ne ns)	pres	lot sure ar)	2 cat valve	alogue numbers solenoid pilot + quantity & catalogue number			
symbol	air operated return (12)	ener- gized	de-ener gized	min.	max.		with standard connector	(M)		
	Pressure held W1	70	250	3	12	54490022	∫19201001	×		
14 M 12 	Pressure release W3	70	250	3	12	54490023		•		

(M) Type of manual operator on pilot(s) : × : without ● : maintained ▼ : impulse

### **OPTIONS**

· Equipment with manual testers so that the spool position can be checked

- · Solenoid valve intrinsically safe series 195/ia certified EEx «ia»
- Connector with cable 2m long code : 88122612
- Connector with transil protection (see "Coils and accessories" section)
- Solenoid valve with plug and built-in visual control and protection :

### Solenoid valve without connector

Solenoid valve	withou	It connector											
type	(M)	solenoid valve without connector			ē	umber (~ / =)	1						
of valve		catalogue number		24V	48V	115V	230V						
	×	19201022											
192 NC (1)	•	19201023	_ ♣	88122603	88122604	88122605	88122608						
	▼	19201024											
) Type of manual	operat	tor on pilot(s) : $\times$ :	v∦thout ●:	maintained 🛛 🔻 : i	mpulse								

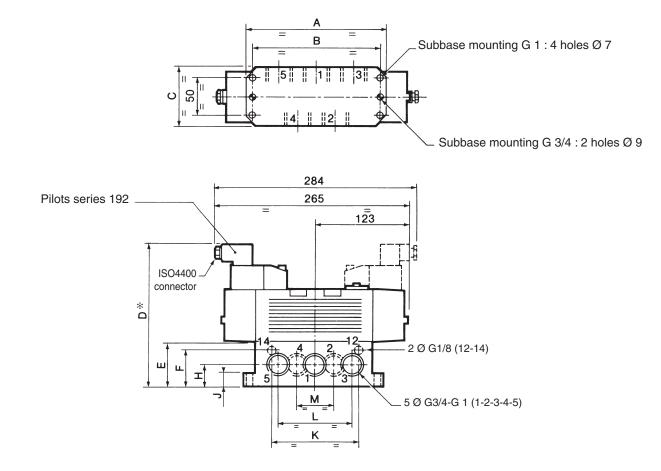
(M) Type of manual operator on pilot(s) :  $\times : v$  thout  $\bullet$  : maintained (1) Solenoid valve series 192 - 3/2 NC - Ø 2,1m with exhaust in base

## **SUBBASES**

type	subbase catalogue	port orifices					
of subbases	number	12-14	1-2-4	3-5			
single subbases with	35500144	G 1/8	G 3/4	G 3/4			
side port	35500082	G 1/8	G 1	G 1			

# DIMENSIONS (mm), WEIGHT (kg)

VALVE ON SINGLE SUBBASE WITH SIDE PORT



code	ро	ort orific	dimension									weight				
subbase	12-14	1-2-4	3-5	А	в	С	D	Е	F	н	J	к	L	м	with 1 pilot 192	with 2 pilots 192
35500144	G 1/8	G 3/4	G 3/4	195	177	85,5	189	42	32	22	19	116	88	40	4,860	5,120
35500082	G 1/8	G 1	G 1	186	172	80	207	60	47	30	18	116	106	50	4,960	5,220

\* + 15 mm for plug removal

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