

DOCUMENTATION

**LOW PRESSURE REGULATOR  
WITH MANUAL DRIVE  
AND INTEGRATED PILOT**

**BP 6 - 0,5/4**

Manual : 582.124.110-UK - 1909

*Date: 23/09/19*

*Supersede :*

*Modif.:*


**TRANSLATION FROM THE ORIGINAL MANUAL**

***IMPORTANT : Before assembly and start-up, please read and clearly understand all the documents relating to this equipment (professional use only).***

THE PICTURES AND DRAWINGS ARE NON CONTRACTUAL. WE RESERVE THE RIGHT TO MAKE CHANGES WITHOUT PRIOR NOTICE..

**SAMES KREMLIN SAS**

13, chemin de Malacher  
38 240 - MEYLAN - France

 : 33 (0)4 76 41 60 60

**[www.sames-kremlin.com](http://www.sames-kremlin.com)**



**INSTRUCTION MANUAL**

**LOW PRESSURE  
REGULATOR  
WITH MANUAL DRIVE  
AND INTEGRATED PILOT  
VERSION : BP 6 - 0,5/4**

*Manual : 1909 573.025.112*

*Date : 20/09/19 - Supersede : 12/05/14*

*Modif. : Update*

**TRANSLATION FROM THE ORIGINAL MANUAL**

***IMPORTANT : Before assembly and start-up, please read and clearly understand all the documents relating to this equipment (professional use only).***

PICTURES AND DRAWINGS ARE NON CONTRACTUAL. WE RESERVE THE RIGHT TO MAKE CHANGES WITHOUT PRIOR NOTICE.

**ADDITIONAL DOCUMENTATIONS**

**SPARE PARTS :**

**LP fluid regulator**

**Doc. 573.027.050**

**SAMES KREMLIN SAS**

13, chemin de Malacher  
38 240 - MEYLAN - France

**☎ : 33 (0)4 76 41 60 60**

**[www.sames-kremlin.com](http://www.sames-kremlin.com)**

## INSTRUCTION MANUAL

### LOW PRESSURE FLUID REGULATOR WITH MANUAL DRIVE AND INTEGRATED PILOT - VERSION : BP 6 - 0,5/4

Dear Customer,

You are the owner of our new pressure regulator and we would like to take this opportunity to thank you.

To obtain the best result, safe and efficient operation of your equipment, we advice you to read and make yourself familiar with this instruction and service manual.

## 1. GENERAL SAFETY INSTRUCTIONS



**WARNING : Any misuse of the equipment or accessories can damage them, result in serious body injury, fire or explosion hazard and reduce the equipment working life. Read, understand and comply with the safety instructions hereafter.**

The personnel involved in operating and servicing this equipment must be aware of all safety requirements stated in this manual. The workshop supervisor must be certain that the personnel has perfectly understood the safety instructions and complies with them.

Read all instruction manuals as well as the tags of the equipments before operating the equipment.

Refer to local safety instructions and comply with them.

### ■ INSTALLATION REQUIREMENTS

#### ➔ Ground the equipments.

Use the equipment only in a well-ventilated area to prevent from serious body injuries, fire and explosion hazards. Do not smoke in the spray area.

Never stock paints and solvents in the spray area. Always close the pots and the tins.

Always keep the spray area clean and free from debris (solvent, rags,...).

Read paint and solvent manufacturer's technical instructions.

Spraying of some materials may result in hazardous working conditions. To protect the operator, respirator mask, hand cream, glasses and hearing protective earplug are required (Refer to chapter "Safety equipment" of SAMES KREMLIN selection guide).

### ■ EQUIPMENT REQUIREMENTS

The operating pressure of these equipments are particularly high. Consequently, some precautions must be taken in order to prevent from accidents and from unsafe working conditions.

#### ➔ Never exceed the components maximum working pressure of the equipment.

## HOSES

Do not use hoses with a maximum burst-proof pressure less than four times the maximum service of the pump (see data sheet).

Be certain the hoses are not crimped, leaking and not unrolled.

Be certain hoses are in good conditions and showing no evidence of damage.

➡ **Use only air hose with static conductor to connect the pump with the spray gun.**

All fittings must be tight and in good condition.

## PUMP

➡ **Ground the equipment (use the connection on the pump).**

Do not use any product or solvent incompatible with the pump components.

Use the appropriate solvent for the material being sprayed to increase the equipment working life.

## GUN

Never wipe the end of the tip with the fingers.

Always depressurize air and hoses before carrying out any servicing on the gun.

Never point the spray gun at anyone or at any part of the body.

## PRESSURE REGULATOR

➡ **Mount conductive hoses upstream and downstream of the regulator.**

## ■ MAINTENANCE REQUIREMENTS

**Guards (air motor cover, coupling shields, housings ...) have been designed for safe use of the equipment.**

**The manufacturer will not be held responsible for bodily injury or failure and / or damage to property due to removal or partial removal of the guards.**

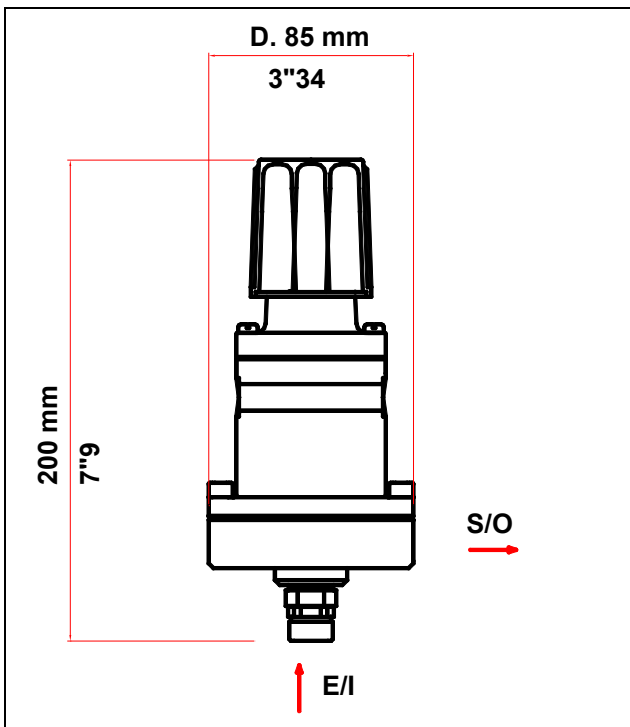
➡ **Never modify these equipments.**

Never modify these equipments. Check them daily, keep them in a good condition and replace the worn parts **only with SAMES KREMLIN parts.**

**Before cleaning or removing components of the equipment, it is compulsory :**

- to stop the pump by shutting of the compressed air supply,
- to open the pump drain valve,
- to point the gun into an appropriate waste receptacle and press the gun trigger to depressurize the system.

## 2. DESCRIPTION



The LP fluid regulator with integrated pilot enables to allow a constant pressure.

Thanks to its diaphragm, the fluid regulation is accurate.

This regulator is designed for an easy flushing.

The adjustment is carried out regulating the integrated driving air pressure by means of a pantone 382 colored knob.

The fluid pressure is read on the gauge mounted on the pilot body.



**NOTA :**

To ensure a larger lifetime of your equipment and to obtain the best flow rate possible, you must mount the regulator in vertical position.

## 3. TECHNICAL FEATURES

Weight	1 600 g / 3.53 lbs	A package is supplied with the regulator. It consists of 3 adaptators and of a glue tube. Choose the adaptator (M 18 x 125, 3/8 NPS or 3/8 BSP), apply glue on the treading of the inlet fitting and screw the adaptator.
Fluid inlet with adaptator (E/I)	M 1/4 BSP	
Fluid outlet (S/O)	F 1/4 BSP	
Gauge port	F 1/4 BSP	
Bracket support - hole Ø	9 mm / 0.35"	
Pressure range :		To get an excellent regulation, the difference between the inlet/outlet pressure must not exceed 1.5 bar / 22 psi.
- Inlet pressure	maximum 10 bar /145 psi	
- Outlet pressure :		
standard version	From 0,5 to 4 bar / From 7.25 to 58 psi	* You can modify the outlet pressure adding a spring supplied with the regulator to the spring mounted on the standard version.
modified version*	From 0,5 to 6 bar / From 7.25 to 87 psi	
Fluid flow rate	From 200 to 1500 cm <sup>3</sup> /mn	
Metals in contact with the material	Stainless steel Carbide PTFE	

## 4. TROUBLESHOOTING CHART

TROUBLE	CAUSE	SOLUTION
Overpressure at the fluid regulator outlet	Adjustment knob turned clockwise (full closed)	Turn adjustment knob counterclockwise.
	Improper fluid proofness between seat and ball	Clean or replace.
	Pressure too high upstream of the regulator	Decrease the pump air supply.
No material coming out from the regulator	Adjustment knob turned counterclockwise (full open).	Turn adjustment knob clockwise.
	Ball blocked on the seat.	Clean and reinstall.
Irregular flow rate	Too much pulsation in the fluid network.	Clean fluid network.
	Improper proofness between seat and ball.	Clean or replace.
	Regulator in horizontal position	Mount the regulator in vertical position

## 5. DISASSEMBLY

### ■ SEAT REPLACEMENT (3)

- Unscrew the fluid inlet fittings (5 and 2)
- Remove the conical spring (12), the ball (13) and the seal (6).
- Remove the seat (3) and the flat seal (4).
- Change the seals.
- Clean the parts with the appropriate cleaning solvent.
- Reinstall parts in reverse order. Be certain flat seal is properly installed.

➔ **The seat is reversible. When servicing the first time, it can be installed upside down. It will have to be replaced only at second servicing.**

### ■ FLUID DIAPHRAGM REPLACEMENT (7)

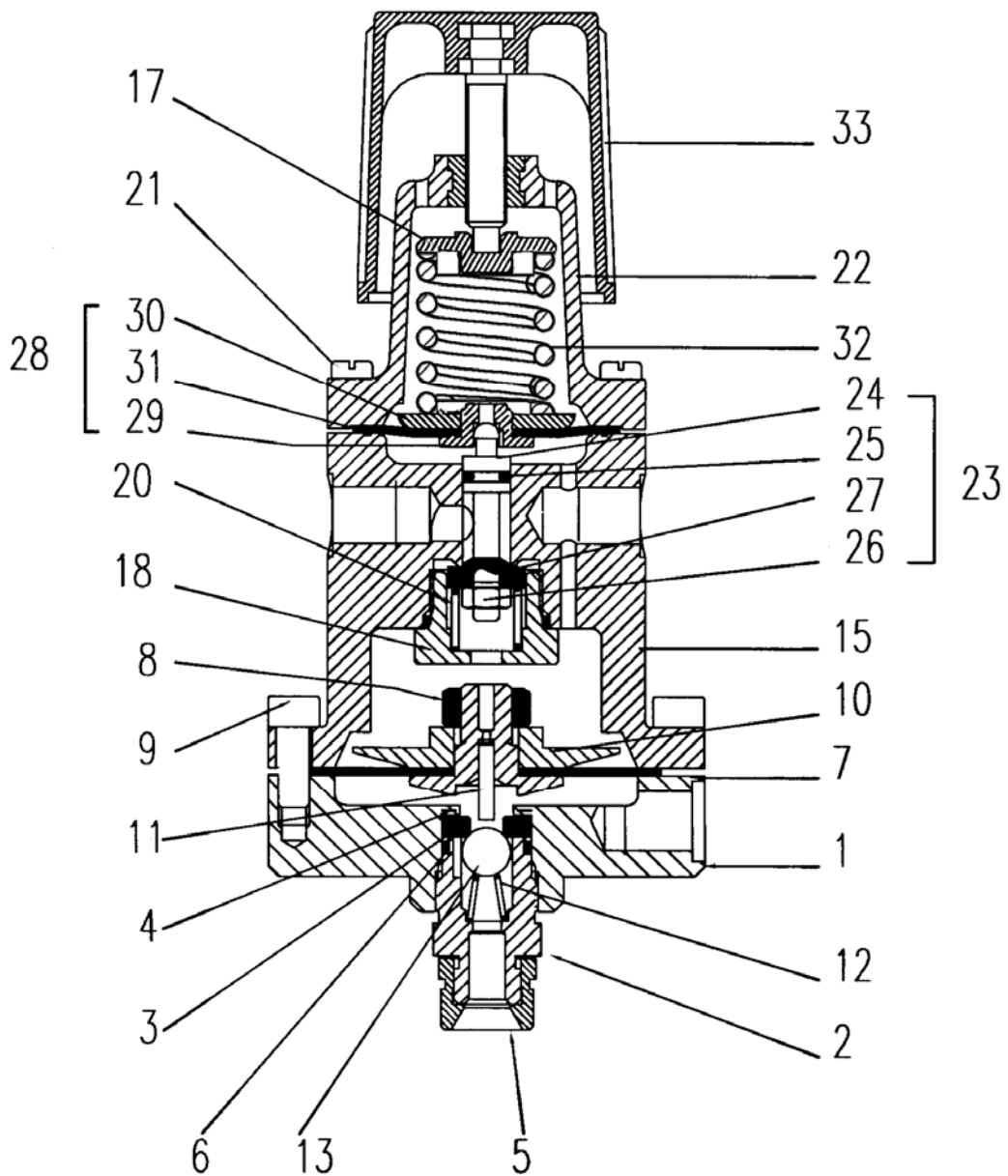
- Unscrew the 6 screws (9).
- Remove the pilot body (15).
- Unscrew the nut (8).
- Remove lower washer (10).
- Remove the diaphragm (7).
- Clean parts with the appropriate cleaning solvent.
- Reinstall parts in reverse order.

### ■ AIR DIAPHRAGM AND SEAT REPLACEMENT (28)

- Unscrew the 4 screws (21)
- Take off the hat (22), the spring (32).
- Remove the diaphragm and the seat (28).
- Clean the parts with the appropriate cleaning solvent.
- Reinstall the whole in the reverse order of the disassembly.

<b>Doc. 573.027.050</b> Date/Datum/Fecha : 20/09/19 Annule/Cancela/ Ersetzt/Anula : 12/05/14	<b>Modif. / Änderung :</b> Mise à jour / Update / Aktualisierung / Actualización	<b>Pièces de rechange</b> <b>Spare parts list</b> <b>Ersatzteilliste</b> <b>Piezas de repuesto</b>
---	---	---

<b>REGULATEUR BP PILOTÉ</b> <b>à commande manuelle (inox)</b>	<b>LP FLUID REGULATOR</b> <b>with manual drive (stainless steel)</b>	<b>#</b>
<b>NIEDERDRUCK-MATERIALREGLER</b> <b>- Pneumatisch Gesteuert (Edelstahl)</b>	<b>REGULADOR BP PILOTADO</b> <b>con mando manual (inox)</b>	<b>155.610.060</b>



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
1	055 610 001	Corps du régulateur	Regulator body	Unterer Körper	Cuerpo del regulador	1
2	055 610 002	Raccord clapet	Fitting, valve	Ventilverschraubung	Racor válvula	1
*3	055 610 004	Siège	Seat	Sitz	Asiento	1
*4	055 610 005	Joint plat	Flat seal	Flachdichtung-Sitz	Junta plana	1
*6	150 040 314	Joint PTFE (les 10)	Seal, PTFE (x 10)	PTFE-Dichtung (10 St.)	Junta PTFE (bolsa de 10)	1
7	055 170 005	Membrane	Diaphragm	Membrane	Membrana	1
8	953 010 021	Ecrou HM 10	Nut, HM 10	Mutter M 10	Tuerca HM 10	1
9	933 151 196	Vis CHc M 6 x 16	Screw, CHc M 6 x 16	Schraube, M 6x16	Tornillo CHc M 6 x 16	6
10	055 170 006	Coupelle inférieure	Lower washer	Membranteller	Apoyo inferior	1
*11	155 610 003	Ensemble axe-aiguille	Needle assembly	Stift mit Halter	Conjunto eje-aguja	1
12	050 312 225	Ressort conique	Conical spring	Konische Feder	Muelle cónico	1
*13	907 414 223	Bille Ø 9,52	Ball, Ø 9,52	Kugel, Ø 9,52	Bola Ø 9,52	1
15	055 610 061	Corps du pilote	Body, pilot	Körper,Pilotventil	Cuerpo del piloto	1
17	016 180 005	Coupelle supérieure	Upper spring support	Oberer Federteller	Apoyo superior	1
18	055 610 062	Bouchon	Plug	Verschluß	Tapón	1
20	050 312 302	Ressort de clapet	Spring, valve	Ventilfeder	Muelle de válvula	1
21	933 151 275	Vis CHc M 5 x 20	Screw, CHc M 5 x 20	Schraube, M 5 x 20	Tornillo CHc M 5 x 20	4
22	016 180 100	Chapeau	Hat	Regler-Oberteil	Campana	1
<b>*23</b>	<b>016 180 400</b>	<b>Piston assemblé</b>	<b>Piston assembly</b>	<b>Steuerkolben-Einheit</b>	<b>Pistón completo</b>	<b>1</b>
24	NC / NS	▪ Piston seul	▪ Piston only	▪ Kolben	▪ Pistón solo	1
25	909 130 305	▪ Bague R 5	▪ Ring, R 5	▪ O-Ring, R5	▪ Anillo R 5	1
26	NC / NS	▪ Ecrou HM 5	▪ Nut, HM 5	▪ Mutter, M5	▪ Tuerca HM 5	1
27	016 180 300	▪ Clapet	▪ Valve	▪ Ventil	▪ Válvula	1
<b>*28</b>	<b>016 180 500</b>	<b>Membrane avec siège assemblé</b>	<b>Diaphragm with seat assembly</b>	<b>Membrane mit Sitz, kpl</b>	<b>Membrana con asiento completo</b>	<b>1</b>
29	NC / NS	▪ Siège	▪ Seat	▪ Sitz	▪ Asiento	1
30	NC / NS	▪ Coupelle inférieure	▪ Lower spring support	▪ Unterer Federteller	▪ Apoyo superior	1
31	016 180 503	▪ Membrane	▪ Diaphragm	▪ Membrane	▪ Membrana	1
32	050 319 402	Ressort (4 bar)	Spring (4 bar / 58 psi)	Feder (4 bar)	Muelle (4 bar)	1
33	NC / NS	Volant de réglage phosphore	Adjustment knob pantone 382 colour	Stellglocke (Phosphor)	Pomo de reglaje de color pantone 382	1

\* Pièces de maintenance préconisées.

\* Preceding the index number denotes a suggested spare part.

\* Bezeichnete Teile sind empfohlene Ersatzteile.

\* Piezas de mantenimiento preventivas.

N C : Non commercialisé.

N S : Denotes parts are not serviceable separately.

N S : Bezeichnete Teile gibt es nicht einzeln, sondern nur komplett.

N S : no suministrado.



## ACCESSOIRES - ACCESSORIES - ZUBEHÖR - ACCESORIOS

Equipements non montés sur le régulateur / Parts not mounted on the regulator / Teile die nicht am Regler montiert sind / Equipamientos no montados en el regulador

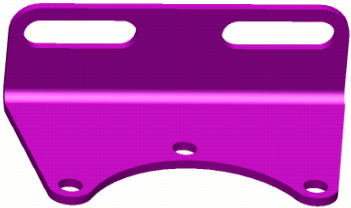
Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
5	-	Raccord d'entrée	Inlet fitting	Mögliche Eingangsnippel	Racor de entrada	1
-	029 020 007	▪ M 18x125 inox	▪ M 18x125 stainless steel	▪ M 18x1,25 AG Edelstahl	▪ M 18x125 inox	1
-	029 020 008	▪ M 3/8 NPS inox	▪ M 3/8 NPS stainless steel	▪ AG 3/8 NPS Edelstahl	▪ M 3/8 NPS inox	1
-	029 020 009	▪ M 3/8 BSP inox	▪ M 3/8 BSP stainless steel	▪ AG 3/8 BSP Edelstahl	▪ M 3/8 BSP inox	1
40	050 319 303	Ressort (P → 6 bar)	Spring (P → 6 bar / 87 psi)	Feder (P → 6 bar)	Muelle (P → 6 bar)	1
41	016 200 010	Support mural	Wall mounting	Halterung	Soporte mural	1
*42	910 011 403	Manomètre 0-6 bar	Gauge, 0-6 bar / 0-87 psi	Manometer, 0-6 bar	Manómetro 0-6 bar	1
-	906 333 102	Bouchon 1/4" G	Plug, 1/4" G	Stopfen, 1/4" G	Tapón, 1/4" G	3

**Nota :** Pour obtenir une pression de sortie de 6 bar, ajouter le ressort (40) à l'intérieur du ressort (32).

**Nota :** In order to get an outlet pressure of 6 bar / 87 psi, insert the spring (40) into spring (32).

**Anmerkung :** Um einen Ausgangsdruck von 6 bar zu erhalten, die Feder (40) in die Feder (32) einsetzen.

**Nota :** Para conseguir una presión de salida de 6 bar, añadir el muelle (40) dentro del muelle (32).

Ind. 41		Ind. 42
---------	---	---------