

DOCUMENTATION

**LOW PRESSURE FLUID REGULATOR  
SPRING OPERATED**

**BP 40 - 0.5 / 4 GP**

**Manual : 582.153.110-UK - 1912**

*Date: 16/12/19*

*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.

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INSTRUCTION MANUAL

**LOW PRESSURE FLUID REGULATOR  
SPRING OPERATED  
MODEL : BP 40 - 0,5 / 4 GP**

Manual ref : 1912 573.116.112

**TRANSLATION FROM THE ORIGINAL MANUAL**

Date : 03/12/19 - Supersede : 21/09/10 - Modif. : Update

Dear Customer,

We thank you very much for purchasing an accessory from SAMES KREMLIN range.

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

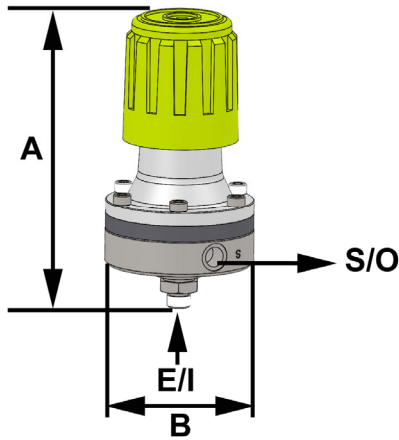
## 1. SAFETY INSTRUCTIONS

- ➔ 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.
- ➔ Use the equipment only in a properly ventilated area to maximize health care. Any misuse of the spray equipment or accessories can damage them and result in serious body injury, fire or explosion hazard.
- ➔ This equipment is installed on installations operating under low pressures. Check the maximum pressure of the fluid pressure supplied upstream of the regulator.
- ➔ All fittings must be tight and in good conditions.
- ➔ Before cleaning or removing components of the equipment, it is compulsory :
  - to stop the pump by shutting off the compressed air supply,
  - to open the drain valve,
  - to point the spray gun into an appropriate waste receptacle and press the trigger to depressurize the system.

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## 2. TECHNICAL FEATURES



The low pressure regulator with large passage is used on installations that handle thick materials.

The regulator is in stainless steel and is designed for a full and easy flushing.

It is designed to be supplied under a maximum inlet pressure of 40 bar/ 580 psi and to deliver an outlet pressure between 0,5 bar and 4 bar/ 7.25 psi and 58 psi.

The fluid pressure adjustment at the outlet of the regulator is carried out by means of the phosphore knob.

Weight	1,3 kg / 2.8652 lb
Dimension	A : 170 mm / 6.70 in B : Ø 85 mm / 3.35 in
Metals in contact with the product	Stainless steel, PTFE, carbide

Pressure range : - Inlet pressure - Outlet pressure	40 bar / 580 psi maxi 0,5 to 4 bar / 7.25 to 58 psi	You can block the regulator adjustment by replacing the red knob by a screw-nut assembly (refer to option).
Fitting : Fluid inlet (E/I) without adapter Fluid outlet 1 (S/O) Fluid outlet 2 (gauge port)	M 1/4 BSP F 1/4 BSP F 1/4 BSP	A package is delivered with the regulator and consists of 3 adapters and of a stick of glue. Choose the adapter (M 18 x 125, 3/8 NPS or 3/8 BSP). Glue with a coating of glue the threading of the inlet fitting and screw the adapter. There is a version of the regulator with a gauge kit.

## 3. TROUBLESHOOTING CHART

TROUBLE	CAUSE	SOLUTION
Overpressure at the fluid regulator outlet	Adjustment knob turned clockwise (full closed)	Turn the adjustment knob counter-clockwise.
	Improper fluid proofness between seat and ball	Clean and reinstall
No material coming out from the regulator.	Adjustment knob turned counter-clockwise (full open).	Turn adjustment knob clockwise.
	Ball blocked on the seat	Clean and reinstall.
Irregular flow rate	Too important pulsation in the fluid network.	Adjust the inlet pressure.
	Improper proofness between seat and ball.	Clean and replace.
Material leakage at the flanged guide of the regulator	Defective diaphragm.	Replace it.
	Lower body improperly tightened.	Tighten the 6 screws.

## 4. REMOVAL

### ■ CLEANING OF THE REGULATION VALVE (2 - 17 - 18)

Unscrew the inlet fitting and the valve fitting (2). Remove the spring (17) and the ball (18).

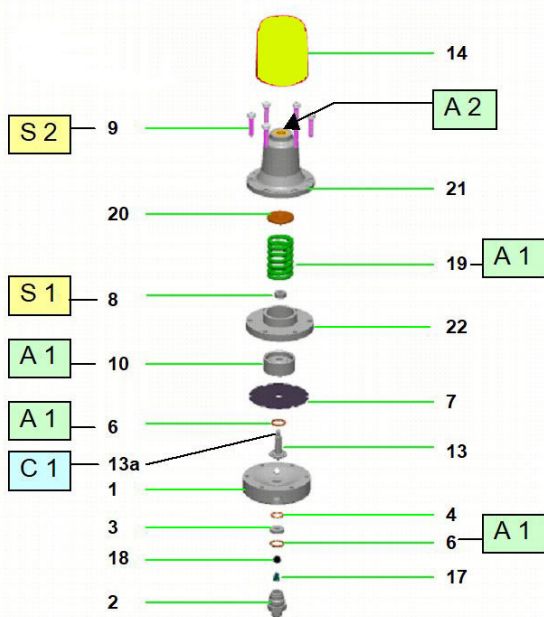
Clean the parts with white spirit or with an appropriate cleaning solvent.

Change them if necessary. When reassembling, change the seal (6).

Reassembly all the parts by holding the regulator vertically.

After the tightening of the valve fitting (2), check visually that the spring (17) is properly lined up with the other parts.

### ■ REPLACEMENT OF THE SEAT HOLDER ASSEMBLY (3) OR OF THE NEEDLE ASSEMBLY (8) OR OF THE DIAPHRAGM (7)



#### Removal :

Unscrew the 6 screws (9) and remove the lower body (1).

Unscrew the inlet fitting and the valve fitting (2).

Remove the spring (17) and the ball (18).

To remove it from the lower body (1) and from the flat seal (4), push on the seat holder (3).

Remove the hat (21), the upper spring support (20) and the spring (19).

Unstick the diaphragm (7) from the flanged guide (22).

Pull carefully the diaphragm to remove the needle assembly (8), the piston (10) and the nut (8).

Do not pull the needle. This would damage the parts.

Unscrew the nut (8) to remove the piston (10).

Remove the diaphragm (7). Clean the parts.

#### Reassembly :

Replace the seal (6) placed on the needle assembly.

**Lubricate the piston (10) with PTFE grease.**

Place the diaphragm (black side to the air room, grey side to the material room) and the piston (10).

Glue with a coating of glue the axis threading (13a). Screw the nut (8) on the needle assembly without using tools.

Grip the end of the axis (13a) with pliers and screw the nut slightly with a flat wrench n°13 (screwing torque : 2 Nm).

Install the assembly into the flanged guide (22), then replace the spring (19), the upper spring support (20) and the hat (21).

Remount the regulator body (1) by respecting the alignment of the parts and fix it via the 6 screws (9).

Remount the seat holder (3), the ball (18), the spring (17) and the valve fitting (2). Change the 2 seals (4 and 6).

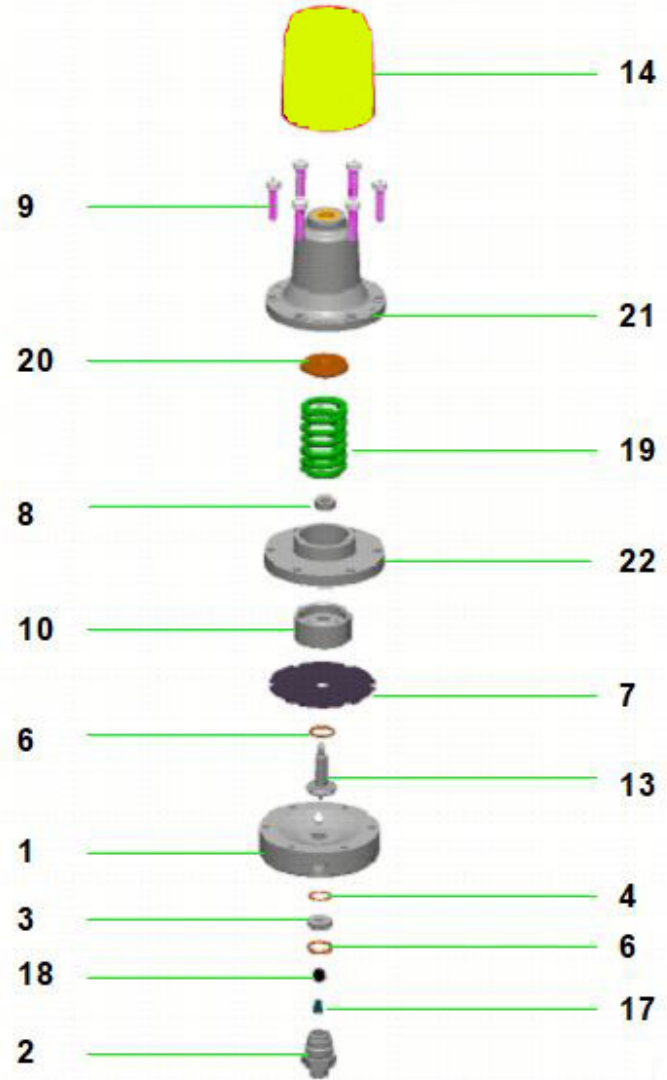
If the seat needs to be changed, change as well the ball (18).

**Nota bene** : The seat holder is reversible. When servicing the first time, it can be installed upsidedown. It will have to be replaced only at second servicing.

Index	Instruction	Description	Part nombre
A 1	PTFE grease	"TECHNILUB" grease (10 ml)	560.440.101
A 2	Anti-seize grease	Grease box (450 g / 0.99 lb)	560.420.005
C 1	Medium strength Aneorobic Pipe sealant	Loctite 577 (250 ml)	554.180.015
S 1	Screwing torque : 2 Nm / 1.47 ft/lbs		
S 2	Screwing torque: 10 Nm / 7.4 ft/lbs		

<b>Doc. 573.203.050</b> Date/Datum/Fecha : 03/12/19 Annule/Cancel/ Ersetzt/Anula : 30/10/08	<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>
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**REGULATEUR BASSE PRESSION A COMMANDE MANUELLE**  
**LOW PRESSURE FLUID REGULATOR (SPRING OPERATED)**  
**NIEDERDRUCK-MATERIALDRUCKREGLER MIT HANDSTEUERUNG**  
**REGULADOR BAJA PRESIÓN CON MANDO MANUAL**  
**Mod. : BP 40 - 0,5 / 4 GP**

<p><b>Régulateur nu (en inox)</b>  <b>Bare regulator (stainless steel)</b>  <b>Nackter Materialdruckregler</b>  <b>(aus Edelstahl)</b>  <b>Regulador solo (de inox)</b>  <b># 155.610.250</b></p>	
<p><b>Régulateur équipé avec manomètre</b>  <b>Regulator assembly with gauge</b>  <b>Materialdruckregler mit Manometer</b>  <b>Regulador equipado con manómetro</b>  <b># 155.610.259</b></p>	

Ind.	#	Désignation	Description	Bezeichnung	Denominación	Qté
1	055 610 001	Corps	Body	Körper	Cuerpo	1
2	055 610 002	Raccord clapet	Valve fitting	Ventilverschraubung	Racor válvula	1
3	055 610 004	Siège	Seat	Sitz	Asiento	1
4	055 610 005	Joint plat	Flat seal	Flachdichtung	Junta plana	1
6	050 040 314	Joint PTFE	PTFE seal	PTFE-Dichtung	Junta PTFE	2
7	055 610 201	Membrane	Diaphragm	Membran	Membrana	1
8	953 010 019	Ecrou HM 8	Nut, model HM 8	Mutter, HM 8	Tuerca, tipo HM 8	1
9	933 151 332	Vis CHc M 6 x 25	Screw, model CHc M 6 x 25	Schraube, M 6 x 25	Tornillo, tipo CHc M 6 x 25	6
10	055 610 210	Piston	Piston	Materialkolben	Pistón	1
13	155 610 260	Ensemble axe-aiguille	Needle assembly	Nadeleinheit	Conjunto eje-aguja	1
14	055 610 017	Volant de réglage (phosphore)	Adjusting knob (phosphore)	Stellglocke (Phosphor)	Volante de ajuste (fósforo)	1
17	050 312 225	Ressort conique	Conical spring	Konische Feder	Muelle cónico	1
18	907 414 223	Bille, Ø 9,52	Ball, model Ø 9.52 / 0.37"	Kugel, Ø 9.52	Bola, tipo Ø 9,52	1
19	050 319 501	Ressort (4 bar)	Spring (4 bar / 58 psi)	Feder (4 bar)	Muelle (4 bar)	1
20	016 200 004	Coupelle supérieure	Upper spring support	Oberer Federteller	Cubeta superior	1
21	016 200 100	Chapeau	Hat	Regler, Oberteil	Tapa	1
22	055 610 211	Palier	Flanged guide	Lager	Palier	1
-	-	Adaptateur d'entrée :	Fluid inlet fitting :	Eingangsnippel	Adaptador de entrada :	1
-	029 020 007	▪ M 18x125 inox	▪ M 18x125, stainless steel	▪ AG M 18x1,25 aus Edelstahl	▪ M 18x125 inox	1
-	029 020 008	▪ M 3/8 NPS inox	▪ M 3/8 NPS, stainless steel	▪ AG 3/8 NPS aus 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 aus Edelstahl	▪ M 3/8 BSP inox	1

19a	050 319 510	Ressort 2 bar (non monté) Pression sortie → 0,3 à 2 bar	Spring, 2 bar / 29 psi (not mounted) Outlet pressure → from 0.3 to 2 bar / from 4.3 to 29 psi	Feder : 2 Bar (nicht montiert) Ausgangsdruck → 0,3 bis zu 2 Bar	Muelle 2 bar (no montado) Presión salida → de 0,3 a 2 bar	1
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Ind.	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	155 610 110	Ensemble de rechange : piston-palier (Ind. 7, 10, 22)	Spare kit : piston-flanged guide (Ind. 7, 10, 22)	Ersatzsatz : Kolben-Lager (Pos. 7, 10, 22)	Conjunto de recambio : pistón-palier (ind. 7, 10, 22)	1
*	155 610 112	Pochette de maintenance (ind. 3, 4, 6x2, 7, 13, 17, 18)	Servicing kit (ind. 3, 4, 6x2, 7, 13, 17, 18)	Reparatursatz (Pos. 3, 4, 6x2, 7, 13, 17, 18)	Bolsa de reparación (ind. 3, 4, 6x2, 7, 13, 17, 18)	1

\* Pièces de maintenance préconisées.

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

\* Bezeichnete Teile sind empfohlene Ersatzteile.

\* Piezas de mantenimiento preventivas.


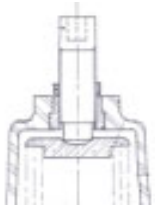
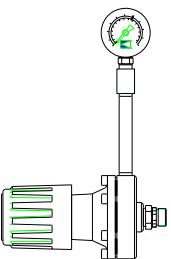
N C : Non commercialisé.

N S : Denotes parts are not serviceable.

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

N S : no suministrado..

**OPTION - ON REQUEST - OPTION - OPCIÓN**

	#	Désignation	Description	Bezeichnung	Denominación
	016 200 010 933 011 198 953 010 019 963 040 019	Support mural Vis H 8 x 16 (x 2) Ecrou HM 8 (x 2) Rondelle MN 8 (x 2)	Wall mounted support Screw, H 8 x 16 (x 2) Nut, HM 8 (x 2) Washer, MN 8 (x 2)	Wandhalterung Schraube, H 8x16 (x2) Mutter, HM 8 (x 2) Scheibe, MN 8 (x 2)	Soporte Tornillo, H 8x16 (x2) Tuerca, HM 8 (x 2) Arandela, MN 8 (x 2)
	155 271 790	Manomètre à membrane équipé (0-250 bar)	Diaphragm pressure gauge (0-250 bar / 0-3625 psi)	Manometer mit Plattenfeder (0-250 bar)	Manómetro con membrana equipado (0-250 bar)
	910 011 404 050 081 701 050 470 301	<b>Kit manomètre</b> ▪ Manomètre 0-4 bar  ▪ Mamelon inox 1/4 - Lg.150 mm  ▪ Manchon 1/4 inox	<b>Gauge kit</b> ▪ Gauge, model 0-4 bar / 0-58 psi  ▪ Nipple, stainless steel, model 1/4 - Length 150 mm / 6"  ▪ Coupling, model 1/4 stainless steel	<b>Manometersatz</b> ▪ Manometer (0-4 bar)  ▪ Anschluss aus Edelstahl : 1/4 - Lg.150 mm  ▪ Kupplungsmuffe 1/4 aus Edelstahl	<b>Bolsa manómetro</b> ▪ Manómetro 0-4 bar  ▪ Pivote de centrado de inox, tipo 1/4 - 150 mm de largo  ▪ Manguito 1/4 de inox