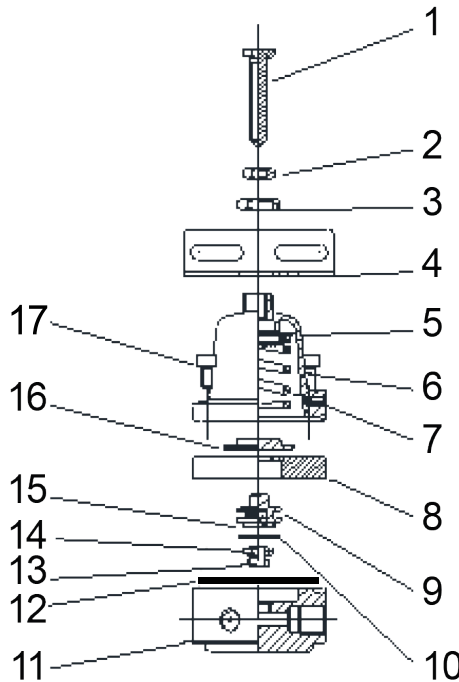


Installation, Regulation and Maintenance Instructions

Back Pressure Valves
Series 04 - 1/4"NPT



PART LIST

Pos.	Q.ty	Descrizione
1	1	ADJUSTMENT SCREW M8
2	1	BLOCKING NUT
3	1	BRACKET NUT
4	1	BRACKET
5	1	UPPER SPRING SEAT
6	1	BONNET
7	1	ADJUSTMENT SPRING
8	1	SPACER
9	1	PISTON
10	1	O'R
11	1	BODY
12	1	O'R
13	1	O'R
14	1	VALVE SEAT
15	1	VALVE STEAM SEAT
16	1	LOWER SPRING GUIDE
17	8	SCREWS M5X25

HOW TO ORDER

<p>TYPE BP= Back Pressure</p>	<p>SIZE 04= 1/4" NPT</p>	<p>RANGE 0= None 1= 0.2-2 bar 2= 0.2-4 bar 3= 0.4-8 bar 4= 0.4-10 bar 6= 4-25 bar 7= 4-35 bar</p>	<p>ACCESSORIES 0= None 2= SS bracket kit 3= Panel nut&handwheel 4= Customised Tag 5= SS bracket kit + nut&handwheel 6= SS bracket kit+custom.Tag 8= CS bracket kit</p>
↓			
BP	04	6	0 1S 0 0 SS FK 2 # #
<p>PRESSURE GAUGE 00= None 1S= AISI304 or AISI316 case (SS316 connection) 1B= AISI304 case (brass connect.)</p>		<p>MATERIAL SS= 316-316L ↓ Stainless steel</p>	<p>DIAPHRAGM & SEALS MATERIAL FK= FKM (WT-25° +90°C) NB= NBR (WT-20° +80°C) LT= EPDM (WT-40° +80°C) FL= Special compound (WT-55°+90°C) HN= HNBR (WT from -55°) suitable for gas</p>

LABEL

Back Pressure Regulator
Регулятор обратного давления

MAX INLET 30 bar
MAX ВХОД 30 bar

RANGE - bar
РАЗМ РЯД - bar

0.2-2	<input type="checkbox"/>
0.2-4	<input type="checkbox"/>
0.4-8	<input type="checkbox"/>
4-35	<input type="checkbox"/>

SEALS УПЛОТН.
NBR -20° +80°
FKM -25° +90°
EPDM -40° +80°
FVMQ -55° +90°
HNBR -55° +90°

TEMP °C
ТЕМП °C

CE, Ex, II 2G Ex h IIC T6/T7E CH X, II 2D Ex h IIC T6S PT100°C Db X, Receipt N° 597EX-AB 21/12/20 010055

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N° TC KZ.151/0019.22.01.0M278
Проектирование: Sitecna srl, Италия
Производство: б.г.г.г.
100% SV Service Akcebi, Казахстан

REPARING KIT

Code K-BP.**
**NB=NBR; FK=FKM; LT=EPDM; FL=FVMQ; HN=HNBR
Contains: 10, 12, 13

For technical information refer to the corresponding technical data sheet

1. INTRODUCTION

Throughout this manual there are a number of HAZARD WARNINGS that must be read and adhered to in order to prevent possible personal injury and/or damage to equipment. Three signal work "DANGER", "WARNING" and "CAUTION" are used to indicate the severity of a hazard, and are preceded by the safety alert symbol.

⚠ Danger Denotes the most serious hazard and is used when serious injury or death WILL result from misuse or failure to follow specific instructions.

⚠ Warning Used when serious injury or death MAY result from misuse or failure to follow specific instructions.

⚠ Caution Used when injury or product/equipment damage may result from misuse or failure to follow specific instructions.

⚠ Caution It is the responsibility and duty of all personnel involved in the installation, operation and maintenance of the equipment on which this device is used, to fully understand the procedures by which hazards can be avoided.

The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Only personnel with appropriate training should operate machinery and equipment.

Do not service or attempt to remove the machinery or equipment until safety is confirmed.

2. DESCRIPTION

The BP series is a regulator for general applications designed to control the back pressure values downstream of the pressure regulator in process or analysis systems.

For pressure values below the desired calibration value, the back pressure remains closed. It opens for pressure values greater than the calibration value.

3. OPERATION

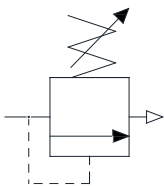
The pressure value to be checked is brought to the power connection. The check consists in closing the passage of the fluid when it is at a lower value than the calibration value. The switching value is achieved by compressing the spring (7). Turning the adjustment screw (1) clockwise increases the switching point by increasing the force with which the shutter (9,15) is pushed against the closing seat (14).

In normal operating conditions, the inlet pressure pushes the obturator (9,15) upwards, leaving the passage section of the fluid free through the seat (14). The fluid thus appears on the outlet connection of the device and feeds the downstream components.

If, due to an accidental event, the supply pressure of the device decreases the force exerted by the spring (7), it would push the obturator assembly (9,15) towards the seat (14), closing the fluid passage.

Once the desired pressure is reached, the calibration can be blocked by means of the nut placed on the adjustment screw.

4. PNEUMATIC DIAGRAM



5. TECHNICAL FEATURES

Medium: compressed air or inert gases, filtered, lubricated and not lubricated

Port thread: 1/4" NPT

Gauge connection: 1/8"

Max inlet pressure: equal to pressure control range

Drain valve: manual or automatic

Pressure range: 0.2/2, 0.2/4, 0.4/8, 0.4/10, 0.4/25, 0.4/35 bar

Materials: Body SS316L

Internal part SS316

MATERIAL		TEMPERATURE		
DIAPHRAGM	SEALS	TRANSPORT	STORAGE	OPERATING
NBR	NBR	-20°C...+80°C	-20°C...+80°C	-20°C...+80°C
FKM	FKM	-25°C...+90°C	-25°C...+90°C	-25°C...+90°C
EPDM	EPDM	-40°C...+80°C	-40°C...+80°C	-40°C...+80°C
FVMQ	FVMQ	-55°C...+90°C	-55°C...+90°C	-55°C...+90°C
HNBR	HNBR	-55°C...+90°C	-55°C...+90°C	-55°C...+90°C

6. TRANSPORTATION & STORAGE

The preferred storage location is a clean, dry and protected warehouse. If the components have to be stored outside, precautions should be taken to keep valves clean and dry. For storage temperatures, refer to the table in paragraph "TECHNICAL FEATURES".

To avoid contamination of impurities during the storage period, don't remove thread protection caps; remove them just before the installation phase.

7. INSTALLATION

⚠ Warning Before performing any work, read this manual and study all figures. Assure yourself that you understand and you can do what is required in each step. Failure to follow these instructions may affect quick release valve operation and may result in exposure to personal injury. Before installing the valve, set and block the machine or equipment in a secure position; close the air shutoff valve and exhaust air from air lines and disconnect all electrical power.

- Upstream of lubricators and cycling valves

8. MOUNTING

- With air flow in direction of arrow on body,
- Connect piping to proper ports using pipe thread sealant on male threads only. Do not allow sealant to enter interior of unit.
- Install a pressure gauge or plug the gauge ports. Gaugeports can also be used as additional outlets for regulated air

9. TESTING

- Before applying inlet pressure to BP, turn adjustment (1) counterclockwise to remove all force on regulating spring (7).
- Apply inlet pressure, then turn adjustment (1) clockwise to increase and counterclockwise to decrease outlet pressure setting.
- Always approach the desired pressure from a lower pressure. When reducing from a higher to a lower setting, first reduce to some pressure less than that desired, then bring up to the desired pressure.

NOTE

⚠ Warning In option has a "Anti-tamper system" to avoid the un-authorized modification of the setting. This option is mandatory for safety related applications.

- Once required pressure is achieved tighten locknut (2) to lock setting.

10. MAINTENANCE

⚠ Warning Before performing any work, read this manual and study all figures. Assure yourself that you understand and can do what is required in each step. Failure to follow these instructions may affect quick release valve operation and may result in exposure to personal injury. Before uninstalling the valve, set and block the machine or equipment in a secure position; close the air shutoff valve and exhaust air from air lines; disconnect all electrical power.

- BP can be disassembled without removal from air line.
- Shut off inlet pressure. Reduce pressure in inlet and outlet lines to zero.
- Turn adjustment screw fully counter clockwise.
- Disassemble in general accordance with the item numbers on exploded view.

A. Ordinary maintenance

- ⚠ Caution** The BP should be periodically checked for proper functioning:
- Clean the BP from impurities and dirt;
 - Visually check of the integrity of the body and cup of BP;
 - Check that there aren't leakages;
 - Check the correct functionality of the BP

B. Troubleshooting

Issue	Possible Cause	Fixes
leakage between body and upper cup	Seal damage	replace the o-ring (12) or contact SITECNA technical support for more information
no adjustment pressure	valve damaged	replace valve assembly (9,15) or contact SITECNA technical support for more information

After replacing repeat "TESTING" phase

C. Assembly

- Lubricate threads and nose of adjusting screw (1) at regular intervals with suitable grease.
- Lubricate seals with light coat of good quality grease
- Assemble the unit as shown on the exploded view.

11. MARKING ACORDING TO 2014/34/UEAtex

II 2G Ex h IIC T6/T5 Gb X
 II 2D Ex h IIIC T85°C/T100°C Db X

For using these equipment in potentially explosive atmospheres, it is recommended - for the installation and the maintenance operation - to use tools and instruments that can produce only a single spark (for instance: screwdrivers, spanners). Avoid use of tools that can produce sparks like disk saw or grinder

Action must be taken to put to earth the units through a suitable connection, checking that all the metal components (fittings and pipe line) have to be equitable potential.

Equipment have to be installed in the corresponding zone according to the marking.

NOTE: special conditions for safe use (X conditions)

Before performing any work, read this manual and assure yourself you understand. X at the end of ATEX substitutes T amb depending on used seals based on the following correspondance:

Series VB, EP, VSR, LK04: NBR=-20°C+80°C, FKM=-25°C+90°C, EPDM= -40°C+80°C, FVMQ & HNBR= -60°C+90°C
 Series: DP, RF, LK08, TF: NBR=-20°C+80°C, FKM=-25°C+90°C, EPDM= -40°C+80°C, FVMQ & HNBR= -55°C+90°C
 Serie FP: -30°+180°C / Serie SLHF, SLVP, SLSC: -55°C+150°C
 Serie PV, PVSL: -20°C +80°C / Serie SCLP: 2°C+80°C
 Serie FLGS: -20°C+90°C / Serie VS: -50°C+230°C

Dichiarazione di conformità UE

In accordo con la Direttiva Europea 2014/34/UE

EU-Declaration of Conformity

In accordance with Directive 2014/34/EU

Noi, Sitecna Srl, dichiariamo che i seguenti prodotti / Sitecna Srl declares that the following equipment:

Product	mod.	Product	mod.	Product	mod.
Filter	F, F60, FP, TF	Control spool valve	DP	Silencer	SLHF, SLVP, SLSC
Regulator	R, RM	Poppet Valves	EP	Dust excluder	PV, PVSL
Filter Regulator	FR	Quick exhaust valve	VSR	Pressure gauge	MBSS, MBS6, MBSN
Back Pressure valve	BP	Flow regulator	RF	Flowmeter	FLGS
Switching valve	SV, S3	Overload protector	SCLP	Ball valve	VS
Volume Booster	VB	Vacuum pump	ST-VP	Push button valve	BV
Lock-up valve	LK				

Sono conformi alla normativa di armonizzazione dell'Unione / They comply with the Union harmonization legislation:

Direttiva 2014/34/UE ATEX	Direttiva 2014/34/UE del Parlamento europeo e del Consiglio, del 26 febbraio 2014, concernente l'armonizzazione delle legislazioni degli Stati membri relative agli apparecchi e sistemi di protezione destinati a essere utilizzati in atmosfera potenzialmente esplosiva (rifusione) Testo rilevante ai fini del SEE.
	Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres (recast) Text with EEA relevance.

Secondo le seguenti Norme di riferimento / As per following reference Normative Documents:

EN ISO 80079-36:2016	Atmosfere esplosive - Apparecchi non elettrici per atmosfere esplosive - Metodo di base e requisiti
	Explosive atmospheres - Non-Electrical equipment for explosive atmospheres - Basic method and requirements
EN ISO 80079-37:2016	Atmosfere esplosive - Apparecchi non elettrici per atmosfere esplosive - Tipo di protezione non elettrica per sicurezza costruttiva "c", per controllo della sorgente di accensione "b", per immersione in liquido "k"
	Explosive atmospheres - Non-Electrical equipment for explosive atmospheres - Non-electrical type of protection constructional safety "c", control of ignition sources "b", liquid immersion "k"
N 1127-1:2019	Atmosfere esplosive - Prevenzione dell'esplosione e protezione contro l'esplosione - Concetti fondamentali e metodologia
	Explosive atmospheres - Explosion prevention and protection - Basic concepts and methodology

Ai sensi della Direttiva 2014/34/EU, i prodotti sopra indicati riportano la seguente marcatura / According to the Directive 2014/34/EU, above mentioned products reports the following marking:



II 2G Ex h IIC T6/T5 Gb X
II 2D Ex h IIIC T85°C/T100°C Db X

Inoltre, ai sensi della direttiva 2014/34/UE, i prodotti sopra menzionati sono oggetto, per gli aspetti relativi sia alla progettazione sia alla fabbricazione, al controllo interno di fabbricazione (Allegato VIII – Modulo A). Ref 557/Ex-Ab 3213/20 c/o N° 0035 TÜV Rheinland.

In conformity to Directive 2014/34/EU, the afore mentioned equipment, regarding their design and production, are object to internal manufacturing check (Attachment VIII – Module A). Ref 557/Ex-Ab 3213/20 c/o N° 0035 TÜV Rheinland.

La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante.

This declaration of conformity is issued under exclusive responsibility of the manufacturer.

Milan, 26/11/2025
Davide Matteo De Corrado
Managing Director

