



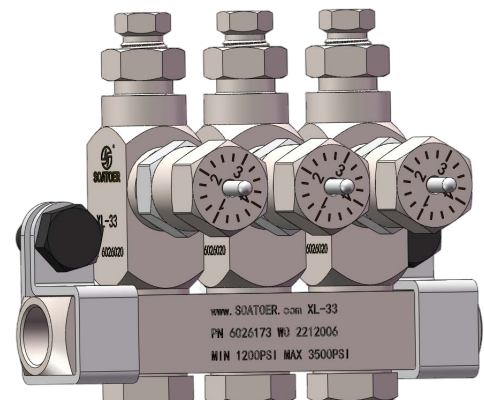
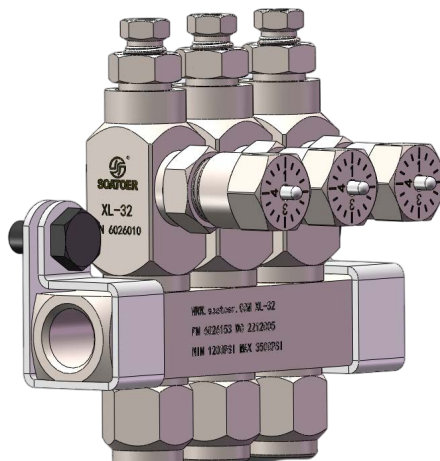
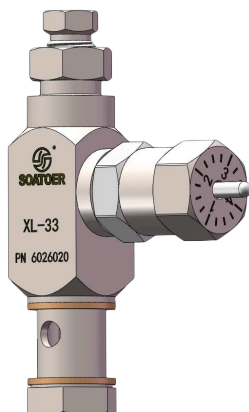
**SOATOER**

AN ISO 9001 APPROVED COMPANY

# XL-32, XL-33

# XL-42, XL-43

**VOLUMETRIC METERING VALVES FOR  
OIL AND GREASE OPERATION**



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All SOATOER products must only be used for their intended purposes, as specified in this brochure and in all instructions. If the product is supplied together with user instructions, the user is required to read them and comply with them. Not all lubricants are suitable for centralised lubrication systems. SOATOER lubrication systems or relative components cannot be used together with gas, liquid gas, pressurised gas in solution and liquids with vapour pressure exceeding normal atmospheric pressure (1013 bar) by more than 0.5 bar, maximum temperature permitted. Any type of dangerous materials, namely those classified as such by European Community Directive (EC) 67/548/EEC, Article 2 (2), can only be used in SOATOER centralised lubrication systems or relative components upon consultation with SOATOER and after having received written approval from the company.

所有SOATOER产品只能用于本手册和所有说明中规定的预期用途。如果产品与用户说明书一起提供，则要求用户阅读并遵守说明书。不是所有的润滑剂都适合集中润滑系统。SOATOER润滑系统或相关部件不能与气体、液态气体、溶液中的加压气体和蒸汽压超过正常大气压(1013 bar) 0.5 bar以上的液体(允许的最高温度)一起使用。任何类型的危险材料，即那些被欧洲共同体指令(EC) 67/548/EEC第2(2)条分类的材料，只能在与SOATOER协商并获得公司书面批准后，在SOATOER集中润滑系统或相关部件中使用。

General information 基本信息

XL-X metering valves are used in centralised lubrication single-line systems operating with oil or grease. They are installed on 1-to-15-output distributor blocks: each single valve can be easily removed for inspection or replacement. Valves and distributor blocks are made of steel, with Viton seals, suitable for high temperature applications. The flow rate is externally adjustable and the valve is equipped with a visual indicator for checking operation.

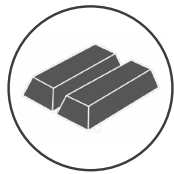
XL-X计量阀用于集中润滑单线系统与油或润滑脂操作。它们安装在1- 15输出分配器块上:每个单独的阀门可以很容易地拆卸检查或更换。阀门和分配器块由钢制成, 采用Viton密封, 适用于高温应用。流量在外部可调, 阀门配有可视指示器, 用于检查运行情况。



Glass Processing  
玻璃机械



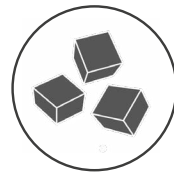
Plastic Processing  
注塑机械



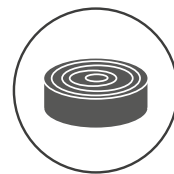
Metal Processing  
重工机械



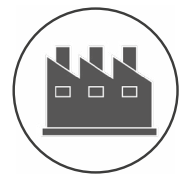
Paper Processing  
造纸机械



Packaging Processing  
包装机械



Wood Processing  
木工机械



Food Processing  
食品机械

Technical data 技术参数

Permitted lubricants 润滑剂

Oil 50 cSt – 2000 cSt

Grease up to NLGI 2

Temperature 使用温度

from -30 °C to +150 °C

Seals 密封

VITON

Materials 材料

AVP Steel, VDSiCr EN10270-2 Steel, Oteva®70 SCs Steel, Anticorodal Aluminium, Viton, Copper, Brass.

Adjustment 调节

The flow rate of the valve is determined by adjusting nut F which limits the stroke of metering piston G.

阀门的流量是通过调节螺母来决定的, 它限制了计量活塞G的行程。

To reach the minimum flow rate, screw counter nut E up to the valve body, screw the ring nut by hand up to the mechanical stop and then loosen by about ½ turn. 要达到最小流量, 将计数螺母E拧到阀体上, 用手将环形螺母拧到机械止动处, 然后拧松约½圈。

NOTE: any output set below ½ turn must be monitored to 注:任何低于1/2转的输出必须被监控到

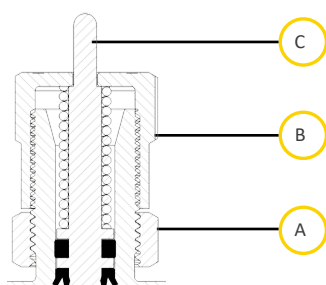
check the actual flow rate volume. 检查实际流量体积。

The maximum flow rate can be obtained by unscrewing the ring nut by one and a half turns. Beyond this position, the valve will not operate smoothly.

拧开环螺母一圈半就可获得最大流量。超过这个位置, 阀门就不能平稳运行。

When the valve has been adjusted to the desired flow rate, tighten counter nut E against the adjusting nut.

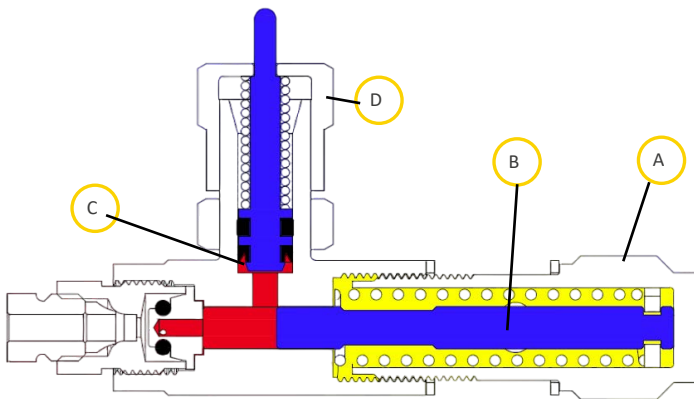
当阀门调整到所需的流量时, 将计数螺母E紧靠调节螺母。



- A Lock nut 缩紧螺丝
- B Adjusting nut 调节螺母
- C Metering Piston 计量活塞

**NOTE 注意**  
The Position Of The Adjustment Ring Must Not Extend Beyond The Outside Of The Metering Piston  
调节环的位置不能超出计量活塞的外部

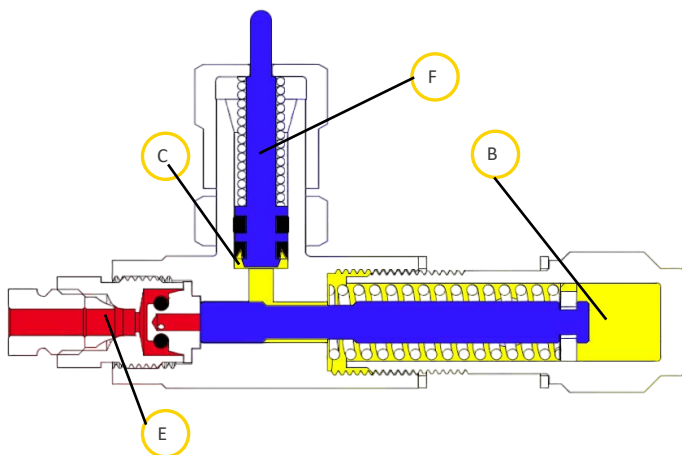
Operation 运行



1

With the system purged, the oil delivery pressure from inlet **A** pushes piston **B** forward and opens communication with metering chamber **C**.  
随着系统的净化，来自进口**A**的供油压力推动活塞**B**向前，并打开与计量室**C**的通信。

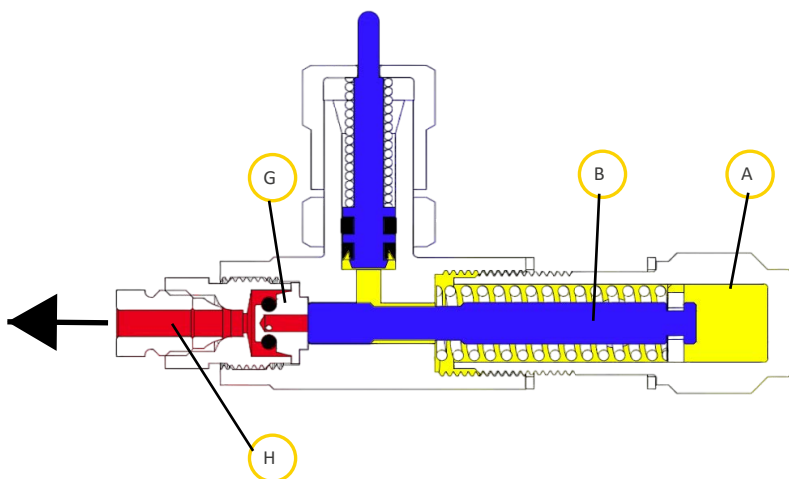
Metering chamber **C** fills up according to the quantity set with adjusting nut **D**.  
计量室**C**用调节螺母**D**按设定的数量灌装。



2

The pump relieves the pressure of the discharge line. Piston **B** returns to the rest position and opens communication between Metering chamber **C** and Discharge chamber **E**.  
泵释放了排泄管的压力。活塞**B**回到静止位置，打开计量室**C**和排出室**E**之间的通信。

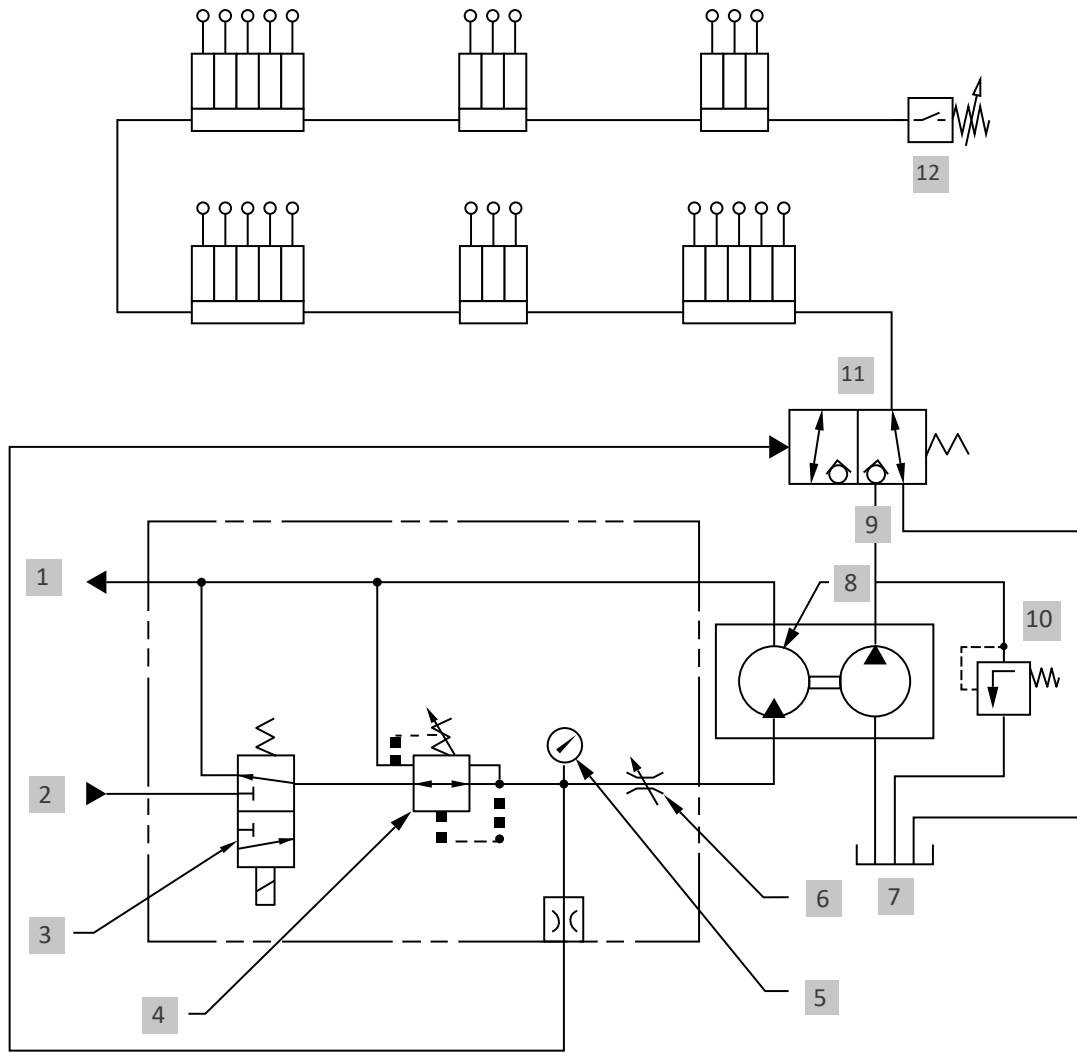
Metering piston **F** returns to rest conditions by pushing the lubricant from metering chamber **C** and discharge chamber **E**.  
计量活塞**F**通过从计量室**C**和排放室**E**中推动润滑剂回到静止状态。



3

Delivery line **A** returns to be pressurised. Piston **B** moves forward pushing the lubricant accumulated in discharge chamber **H**, on the delivery line beyond non-return valve **G**.  
输油管**A**返回加压。活塞**B**向前运动，推动排出腔**H**中积累的润滑剂，到达经过止回阀**G**的输送管路上。

The cycle restarts from step 1.从步骤1开始重新启动。



- |   |                                  |    |                                    |
|---|----------------------------------|----|------------------------------------|
| 1 | Return to hydraulic line 液压回油管   | 7  | Lubricant Tank 油桶                  |
| 2 | Hydraulic Oil Inlet 液压油进口        | 8  | Hydraulic Motor 液压马达               |
| 3 | Solenoid valve 电磁阀               | 9  | Lubricant output 润滑剂输出             |
| 4 | Pressure Reducing Valve 减压阀      | 10 | Pressure Limiter Valve 安全阀         |
| 5 | Pressure gauge 压力表               | 11 | Release Valve 泄压阀                  |
| 6 | Flow Rate Adjustment Valve 流量调节阀 | 12 | End of line pressure switch 末端压力开关 |

## XL-32



### Single valve 单个阀

6026010(1/8") 6026410(4mm) 6026360(6mm)

### Part No.

1/8" outer Ø	outer Ø4mm	outer Ø6mm	Block 底座	Outputs 出口数
6026010-1	6026410-1	6026360-1	6026151	1
6026010-2	6026410-2	6026360-2	6026152	2
6026010-3	6026410-3	6026360-3	6026153	3
6026010-4	6026410-4	6026360-4	6026154	4
6026010-5	6026410-5	6026360-5	6026155	5
6026010-6	6026410-6	6026360-6	6026156	6
6026010-7	6026410-7	6026360-7	6026157	7
6026010-8	6026410-8	6026360-8	6026158	8
6026010-9	6026410-9	6026360-9	6026159	9
6026010-10	6026410-10	6026360-10	6026160	10

### Operating pressure 运行压力

#### Min 最小压力

83 bar (1200 psi)

#### Max 最大压力

241 bar (3500 psi)

#### Typical 推荐压力

103 bar (1500 psi)

#### Release 释放压力

14 bar (200 psi)

### Flow rate/Frequency/outputs 流量/频率/输出

#### Min flow rate 最小排量

0.016 cc (0.001 cu. in.)

#### Max flow rate 最大排量

0.131 CC (0.008 cu. in.)

#### Working time 工作时间

2"

#### Break time 间隔时间

2"

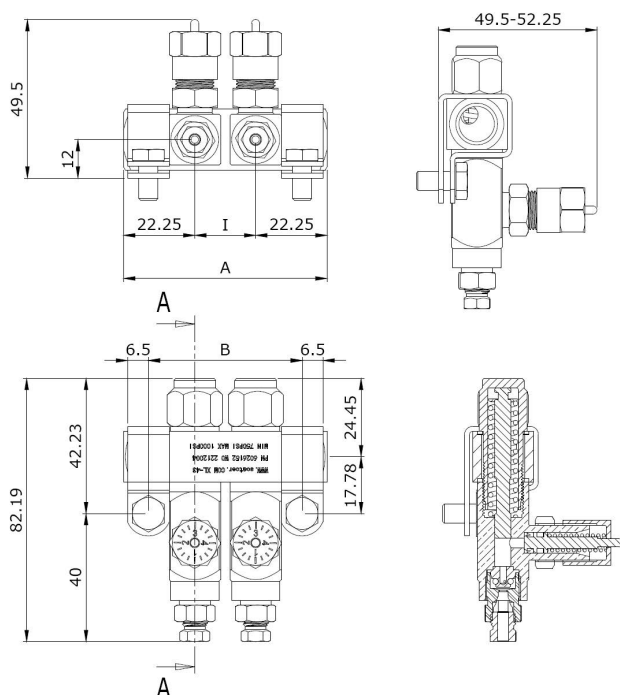
#### Inlet 入口螺纹

1/4" NPTF (F)

#### Output 输出尺寸

For pipes with 1/8" outer Ø

### Dimensions 尺寸 (mm/in)

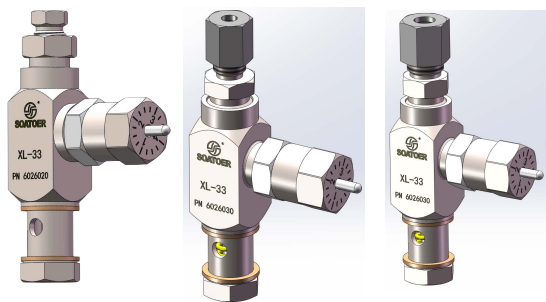


i	a	b	Outputs
-	41 (1 5/8")	31 (1 2/8")	1
19 (3/4")	60 (2 3/8")	50 (2")	2
19 (3/4")	79 (3 1/8")	69 (2 6/8")	3
19 (3/4")	98 (3 7/8")	88 (3 4/8")	4
19 (3/4")	117 (4 5/8")	107 (4 2/8")	5
19 (3/4")	136 (5 3/8")	126 (5")	6
19 (3/4")	155 (6 1/8")	145 (5 6/8")	7
19 (3/4")	174 (6 7/8")	164 (6 4/8")	8
19 (3/4")	212 (8 3/8")	202 (8")	10
19 (3/4")	250 (9 7/8")	240 (9 4/8")	12
19 (3/4")	307 (12 1/8")	297 (11 6/8")	15



XL-33

Order Codes 订货号

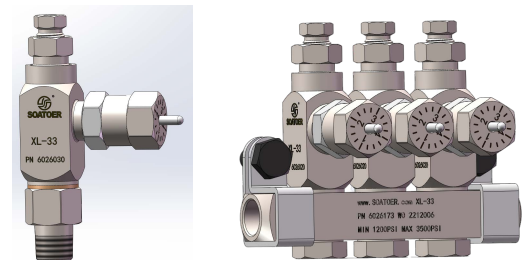


Single valve 单个阀

6026010(1/8") 6026420(4mm) 6026370(6mm)

Part No. 型号

1/8" outer Ø	outer Ø4mm	outer Ø6mm	Block 底座	Outputs 出口数
6026020-1	6026420-1	6026370-1	6026171	1
6026020-2	6026420-2	6026370-2	6026172	2
6026020-3	6026420-3	6026370-3	6026173	3
6026020-4	6026420-4	6026370-4	6026174	4
6026020-5	6026420-5	6026370-5	6026175	5
6026020-6	6026420-6	6026370-6	6026176	6
6026020-7	6026420-7	6026370-7	6026177	7
6026020-8	6026420-8	6026370-8	6026178	8
6026020-9	6026420-9	6026370-9	6026179	9
6026020-10	6026420-10	6026370-10	6026180	10



Operating pressure 运行压力

Flow rate/Frequency/outputs 流量/频率/输出

Min 最小压力

83 bar (1200 psi)

Max 最大压力

241 bar (3500 psi)

Min flow rate 最小排量

0.016 cc (0.001 cu. in.)

Max flow rate 最大排量

0.049 cc (0.003 cu. in.)

Typical 推荐压力

103 bar (1500 psi)

Release 释放压力

14 bar (200 psi)

Working time 工作时间

2"

Break time 间隔时间

2"

Inlet 入口螺纹

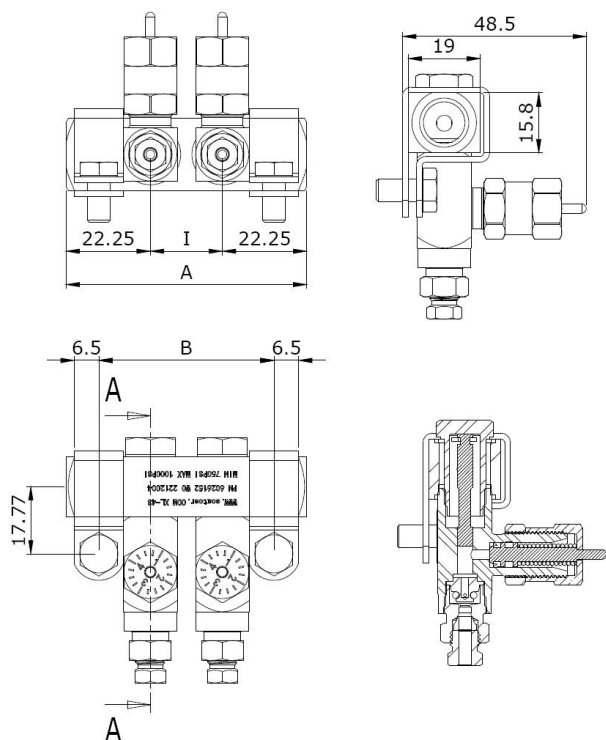
1/8" NPTF (F)

Output 输出尺寸

For pipes with 1/8" outer Ø

Dimensions 尺寸 (mm/in)

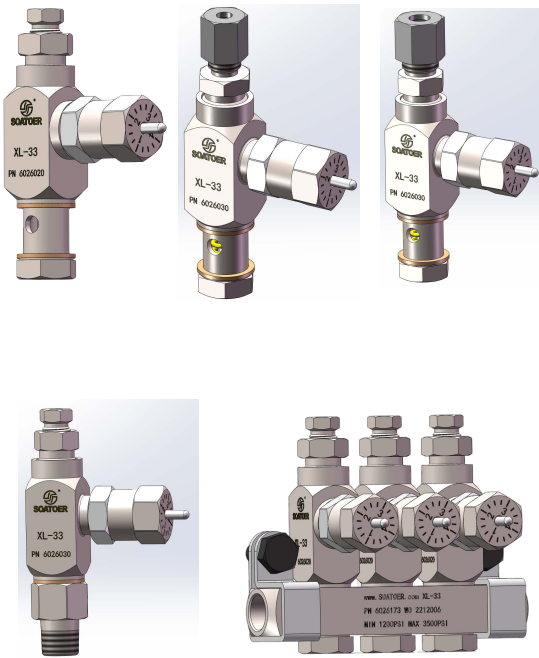
i	a	b	Outputs
-	41 (1 5/8")	30 (1 1/8")	1
19 (3/4")	60 (2 3/8")	49 (1 7/8")	2
19 (3/4")	79 (3 1/8")	68 (2 5/8")	3
19 (3/4")	98 (3 7/8")	87 (3 3/8")	4
19 (3/4")	117 (4 5/8")	106 (4 1/8")	5
19 (3/4")	136 (5 3/8")	125 (4 7/8")	6
19 (3/4")	155 (6 1/8")	144 (5 5/8")	7
19 (3/4")	174 (6 7/8")	163 (6 3/8")	8
19 (3/4")	212 (8 3/8")	201 (7 7/8")	10
19 (3/4")	250 (9 7/8")	239 (9 3/8")	12
19 (3/4")	307 (12 1/8")	296 (11 5/8")	15





XL-42

Order Codes 订货号



Single valve 单个阀

6026030(1/8") 6026430(4mm) 6026380(6mm)

Part No. 型号

1/8" outer Ø	outer Ø4mm	outer Ø6mm	Block 底座	Outputs 出口数
6026030-1	6026430-1	6026380-1	6026171	1
6026030-2	6026430-2	6026380-2	6026172	2
6026030-3	6026430-3	6026380-3	6026173	3
6026030-4	6026430-4	6026380-4	6026174	4
6026030-5	6026430-5	6026380-5	6026175	5
6026030-6	6026430-6	6026380-6	6026176	6
6026030-7	6026430-7	6026380-7	6026177	7
6026030-8	6026430-8	6026380-8	6026178	8
6026030-9	6026430-9	6026380-9	6026179	9
6026030-10	6026430-10	6026380-10	6026180	10

Operating pressure 运行压力

Min 最小压力

52 bar (750 psi)

Max 最大压力

69 bar (1000 psi)

Typical 推荐压力

59 bar (850 psi)

Release 释放压力

10 bar (150 psi)

low rate/Frequency/outputs 流量/频率/输出

Min flow rate 最小排量

0.016 cc (0.001 cu. in.)

Max flow rate 最大排量

0.049 cc (0.003 cu. in.)

Working time 工作时间

2"

Break time 间隔时间

2"

Inlet 入口螺纹

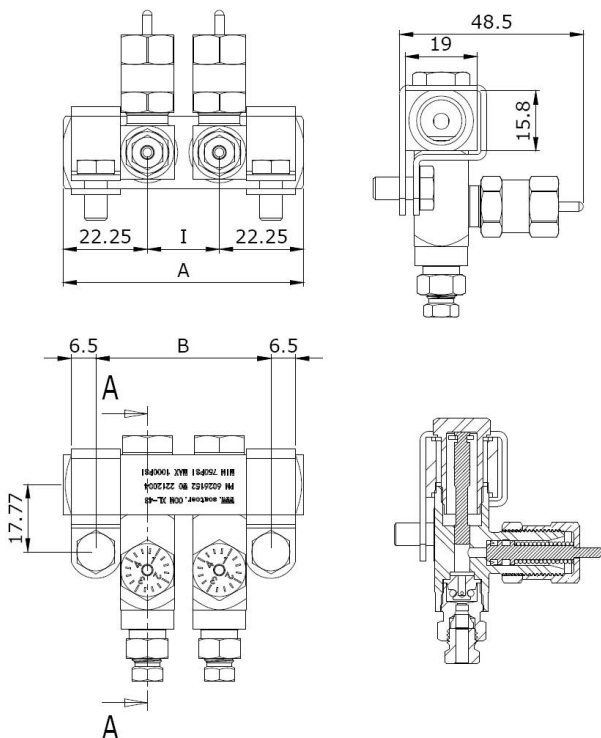
1/8" NPTF (F)

Output 出口尺寸

For pipes with 1/8" outer Ø

Dimensions 尺寸 (mm/in)

i	a	b	Outputs
-	41 (1 5/8")	30 (1 1/8")	1
19 (3/4")	60 (2 3/8")	49 (1 7/8")	2
19 (3/4")	79 (3 1/8")	68 (2 5/8")	3
19 (3/4")	98 (3 7/8")	87 (3 3/8")	4
19 (3/4")	117 (4 5/8")	106 (4 1/8")	5
19 (3/4")	136 (5 3/8")	125 (4 7/8")	6
19 (3/4")	155 (6 1/8")	144 (5 5/8")	7
19 (3/4")	174 (6 7/8")	163 (6 3/8")	8
19 (3/4")	212 (8 3/8")	201 (7 7/8")	10
19 (3/4")	250 (9 7/8")	239 (9 3/8")	12
19 (3/4")	307 (12 1/8")	296 (11 5/8")	15





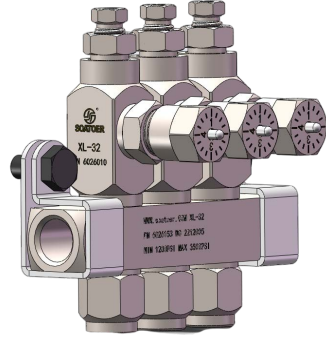
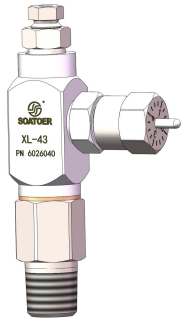
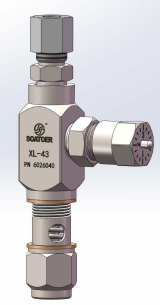
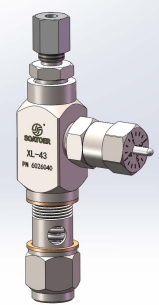
XL-43

Order Codes 订货号

1/8" outer Ø

outer Ø4mm

outer Ø6mm



Single valve 单个阀

6026040(1/8") 6026440(4mm) 6026390(6mm)

Part No. 型号

1/8" outer Ø	outer Ø4mm	outer Ø6mm	Block 底座	Outputs 出口数
6026040-1	6026440-1	6026390-1	6026151	1
6026040-2	6026440-2	6026390-2	6026152	2
6026040-3	6026440-3	6026390-3	6026153	3
6026040-4	6026440-4	6026390-4	6026154	4
6026040-5	6026440-5	6026390-5	6026155	5
6026040-6	6026440-6	6026390-6	6026156	6
6026040-7	6026440-7	6026390-7	6026157	7
6026040-8	6026440-8	6026390-8	6026158	8
6026040-9	6026440-9	6026390-9	6026159	9
6026040-10	6026440-10	6026390-10	6026160	10

Operating pressure 运行压力

Flow rate/Frequency/outputs 流量/频率/输出

Min 最小压力

52 bar (750 psi)

Max 最大压力

69 bar (1000 psi)

Min flow rate

0.016 cc (0.001 cu. in.)

Max flow rate

0.131 cc (0.008 cu. in.)

Typical 推荐压力

59 bar (850 psi)

Release 释放压力

10 bar (150 psi)

Working time 工作时间

2"

Break time 间隔时间

2"

Inlet 入口螺纹

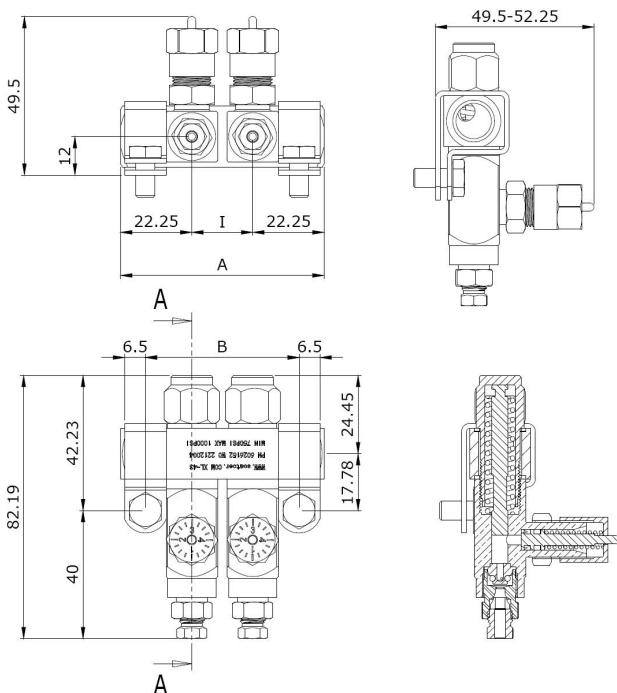
1/4" NPTF (F)

Output 输出尺寸

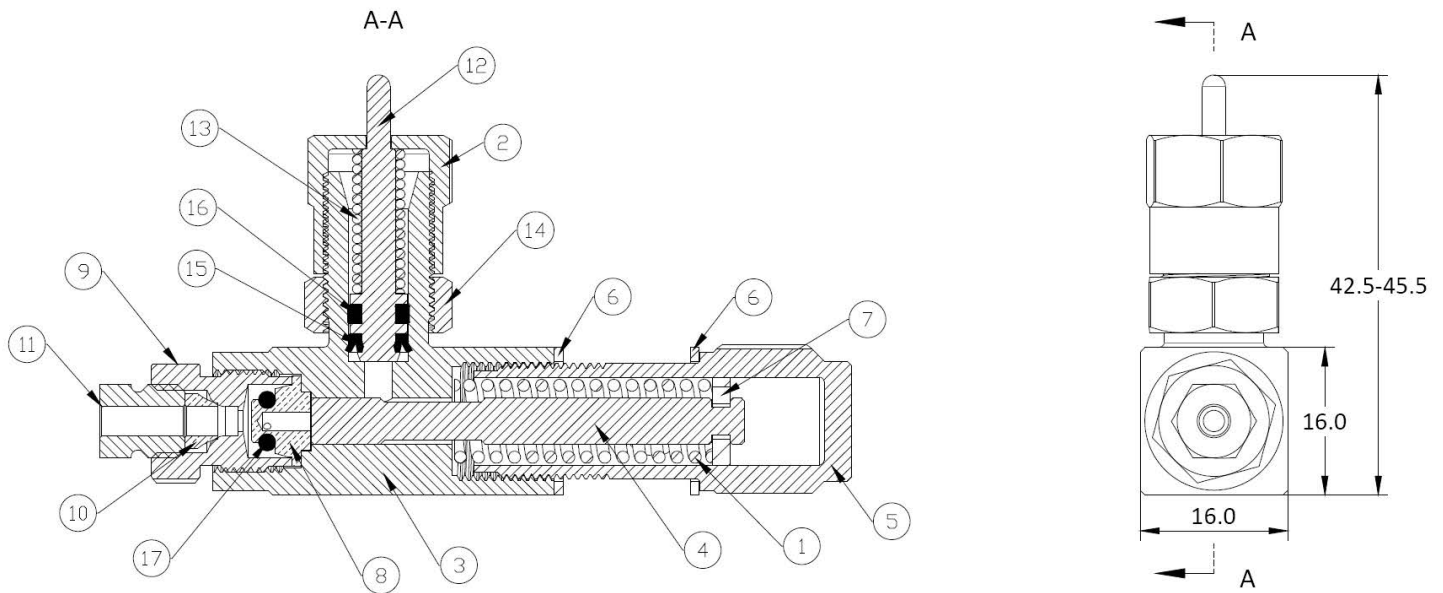
For pipes with 1/8" outer Ø

Dimensions 尺寸(mm/in)

i	a	b	Outputs
-	41 (1 5/8")	30 (1 1/8")	1
19 (3/4")	60 (2 3/8")	49 (1 7/8")	2
19 (3/4")	79 (3 1/8")	68 (2 5/8")	3
19 (3/4")	98 (3 7/8")	87 (3 3/8")	4
19 (3/4")	117 (4 5/8")	106 (4 1/8")	5
19 (3/4")	136 (5 3/8")	125 (4 7/8")	6
19 (3/4")	155 (6 1/8")	144 (5 5/8")	7
19 (3/4")	174 (6 7/8")	163 (6 3/8")	8
19 (3/4")	212 (8 3/8")	201 (7 7/8")	10
19 (3/4")	250 (9 7/8")	239 (9 3/8")	12
19 (3/4")	307 (12 1/8")	296 (11 5/8")	15



## Spare parts ordering codes 备件订货号



Ref.	XL-32	XL-43	XL-42	XL-33	Description 描述
1	6026121	6026120	6026125	6026126	Valve main piston spring 主活塞弹簧
2	6026113 (M12*1)	6026113 (M12*1)	6026113 (M12*1)	6026113 (M12*1)	Adjustment cap 调节冒
3	6026101		6026102		Welded valve body 阀体
4	6026107 (D5)		6026108 (D4)		Main piston 主活塞
5	6026103 (1/2")		6026104 (7/16")		Hollow bolt 阀座
6	6167332 (16x13x1)		6167333 (11x14x1)		Copper washer 紫铜垫
7	6026117		6026118		Thrust washer 止推垫片
8		6026109			Delivery valve XL-X出油阀
9		6026111 (7/16")			Ending fitting for single cone 端头阀体
10		6026122 (D1/8")			Single cone for pipe 卡套
11		6026124 (5/16"-D1/8")			Fitting for single cone 卡套接头
12		6026105 (D6,3)			Metering piston 计量活塞
13		6026119			XL-X valve metering piston spring 计量活塞弹簧
14		6026115 (7/16")			Lock nut 缩紧螺丝
15		5082121			Viton V-ring 氟胶油封
16		6026116			Viton 氟胶油封
17		5083041			Viton O-ring 氟胶O型圈



**SOATOER**

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