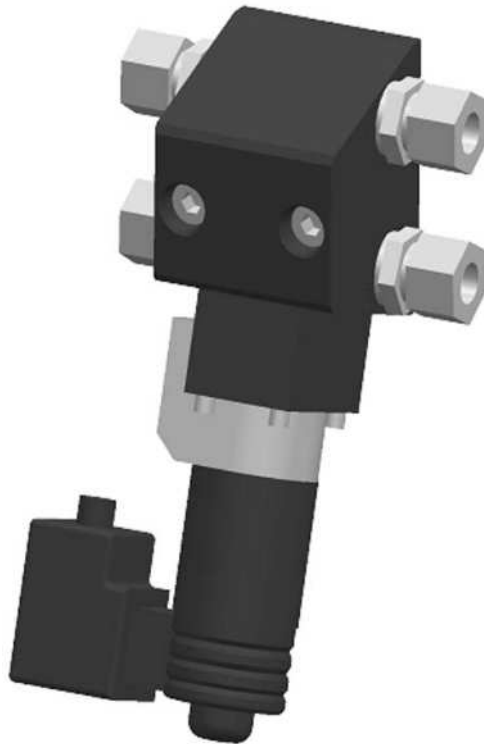


Shut-off valve E-VALV-S



Date: **16.11.2022**

Document no: **E-VALV-S**

Version: 1D



Read these instructions
before installation or start-up
of the product and keep them
readily available for
consultation.



Read these operating instructions before the installation and commissioning.

Installation and electrical connection by authorized qualified personnel only.
Failure to comply with any danger warning, caution, or notice- as well as any use not in accordance with instructions - will result in loss of claim for warranty or liability for equipment.

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Manufacturer

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Sähköposti: skf-lube@skf.com
www.skf.com/lubrication

For more information about your local distributors, see
SKF.com.

Disclaimer:

The manufacturer shall not be held responsible for damages caused by:

- Non appropriate use, faulty assembly, operation, setting, maintenance, repair or accidents
- Use of inappropriate lubricants
- Improper or late response to malfunctions
- Unauthorized modifications of the product
- Intent or negligence
- Use of non-original SKF spare parts
- Faulty planning or layout of the centralized lubrication system

Liability for loss or damage resulting from the use of our products is limited to the maximum purchase price. Liability for consequential damages of whatever kind is excluded.

1. Safety alerts, visual presentation, and layout

While reading these instructions, you will encounter various symbols, illustrations, and text layouts intended to help you navigate and understand the instructions.

Safety alerts:

Activities that present specific hazards (to life and limb or possible damage to property) are indicated by safety alerts. Always be sure to follow the instructions given in the safety alerts.

DANGER

These safety alerts indicate an imminent danger. Ignoring them can result in death or serious injury

WARNING

These safety alerts indicate potentially imminent danger. Ignoring them could result in death or serious injury

CAUTION

These safety alerts indicate potentially imminent danger. Ignoring them could result in minor injury

NOTICE

These safety alerts indicate a potentially harmful situation. Ignoring them could result in damage to property or malfunctions

NOTE

These notes indicate generally useful information about the product.

2. Markings on the product

2.1 Type plate

Type plate can be found attached to the valve body.

The type plate provides important data such as the type designation, serial number, and sometimes regulatory characteristics. To avoid loss of this data in case the type plate becomes illegible, it should be entered in the manual.

Information on type plate:

.....
.....
.....
.....

2.1 Note on China RoHS mark



The China RoHS mark confirms that there is no danger to persons or the environment from the regulated substances contained within for the intended period of use (year number shown in the circle).

3. Safety instructions

3.1 Intended use

This product is only to be used as a component in lubrication systems.

Use is only permitted within the scope of commercial or economic activity by professional users, in compliance with the specifications, technical data, and limits specified in this manual.

Unauthorized modifications and changes are prohibited.

3.2 Operator responsibilities

The product may only be used in awareness of the potential dangers, in proper technical condition, and according to the information in this manual.

It is the owner / operator responsibility to maintain legibility of all warning and instruction labels. This manual must be always available for all persons working with the product.

Always read and follow the fluid manufacturer's safety instructions and recommendations regarding fluid compatibility, and the use of protective clothing and equipment.

In addition to these Instructions, general statutory regulations for accident prevention and environmental protection must be observed.

3.3 Delivery

After receipt of the shipment, it must be inspected for any shipping damage and for completeness according to the shipping documents. Immediately inform the transport carrier of any shipping damage. The packaging material must be preserved until any discrepancies are resolved.

⚠ WARNING



Always follow lifting and transport labelling of the package to avoid injuries and damages.

3.4 Installation, operation and maintenance

⚠ WARNING



Install the assembly only after safety instructions and this guide have been read and are completely understood.

Local safety regulations regarding installation use and maintenance must be followed.

- Keep unauthorized persons away.
- Wear personal protective equipment always. Adequate personal protection must be used to prevent splashing of material on the skin or in the eyes
- Always disconnect power source (electricity, air or hydraulic) from the product during installation or when it is not being used and make sure it cannot be enabled accidentally (lock and tag out).
- Work on electrical components may be performed only in a voltage-free state and using insulated tools suitable for electrical work.
- Make connections only according to the connection diagrams.
- Only original SKF spare parts and SKF accessories may be used.
- After installation and before first startup, check that all of the cables, connections and safeguards are secured properly in place.

Inspections, maintenance, cleaning

- Perform maintenance and inspections as specified in this manual. Note that the maintenance intervals may be shorter in demanding applications.
- Annual inspection by factory-authorized warranty and service center nearest you is recommended.

⚠ WARNING



CLEANING
When cleaning electric devices, use only nonflammable cleaning agents suitable for electric components and observe the IP protection class of the product.

3.5 Damaged equipment

⚠ WARNING

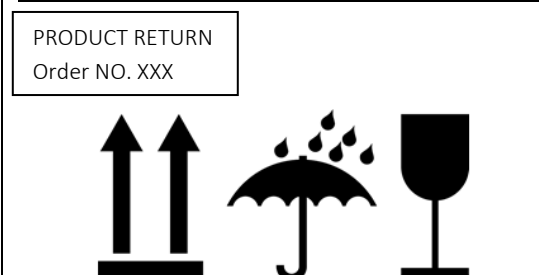


Do not use equipment that appears to be damaged, badly worn, or operate abnormally! Remove equipment from service and contact SKF or authorized distributor.

3.6 Return shipment

Before return shipment, all contaminated parts must be cleaned. If this is not possible or practical, e.g. if it would impede fault detection in the case of complaints, the medium used must always be informed to the right courier. The following information, as a minimum, must be marked on the packaging of return shipments.

Fig. 6



Marking of return shipments

3.7 Storage

The following conditions apply to storage:

- Indoors, room temperature dry, low-dust, vibration-free environment.
- No corrosive, aggressive substances at the storage location (e.g., UV rays, ozone)
- Store in original, unopened packages until needed.
- In the case of large temperature fluctuations or high humidity, take appropriate measures to prevent the condensation of water.
- In case of long term or aggressive storage conditions, consider using anticorrosion packaging materials (VCP).
- Check additional product storage limitations from the manual technical specification.

NOTICE



Before usage, check products for damage that may have occurred during storage. This applies in particular to parts made of plastic (due to embrittlement).

3.8 Disposal

The waste producer/operator must dispose of the various types of waste in accordance with the applicable laws and regulations of the country in question. For recycling, consider the materials specified in the manual's technical specifications.

4. Shut-off valve E-VALV-S

4.1 General description

E-VALV is an electrically controlled shut-off valve. In a lubrication system, the lubrication channels controlled by one pumping unit are separated from each other with valves. The E-VALV shut-off valve is either 2/2 or 4/2 way valve. In some models, the outputs are equipped with thrust valves. The E-VALV shut-off valve can also be used directly from the machine to be lubricated (interlocking), if needed. When the machine to be lubricated starts, it opens the valve and makes it possible to lubricate the machine during pressurization.

4.2 Design

The E-VALV shut-off valve consists of the valve body (pos.1), a solenoid valve (pos. 2), a coil (pos. 3) and a plug with a maintenance power reducer (pos.4) in 110 and 230 V versions & a possible thrust valve (pos.5).

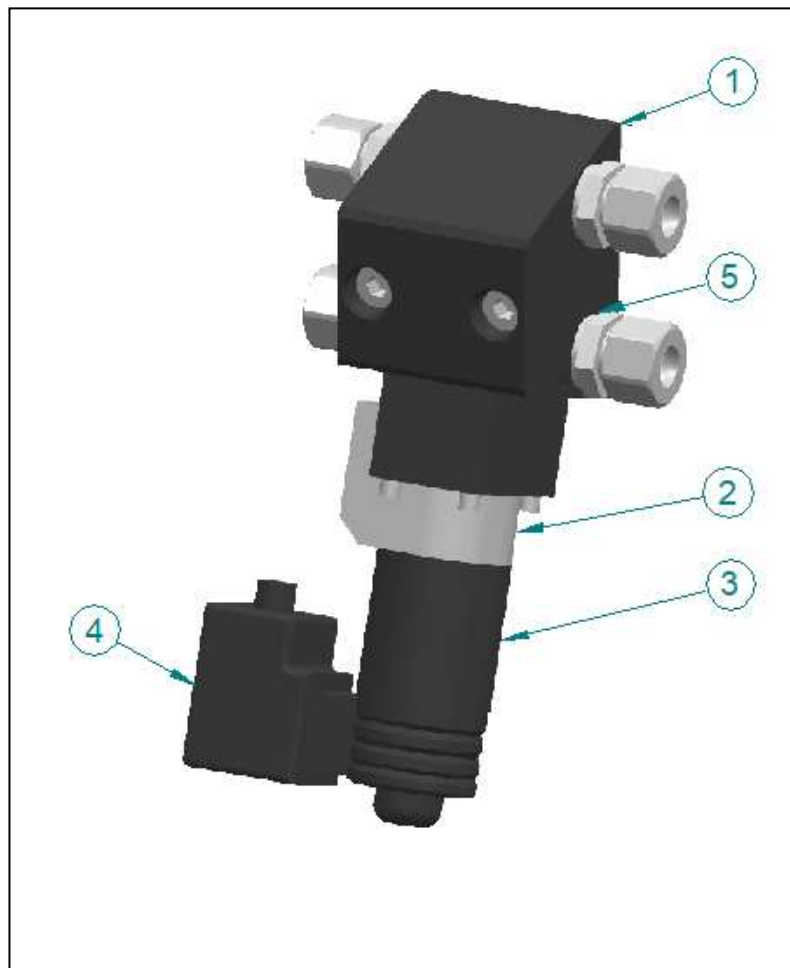


Figure 1, E-VALV SHUT-OFF VALVE

5. Operation

The operation of the E-VALV shut-off valve is controlled with a solenoid valve. The control voltage to the solenoid valve is connected either from a lubrication control unit or from the interlocking system of the machine to be lubricated.

The solenoid valve is provided with a manual control button, which enables pressure discharge from the line if needed, for example in case of a power failure.

If the power feed to the line valve breaks off, the valve stays closed. To NC type shut-off valve.

If the power feed to the line valve breaks off, the valve stays open. TO NO type shut-off valve.

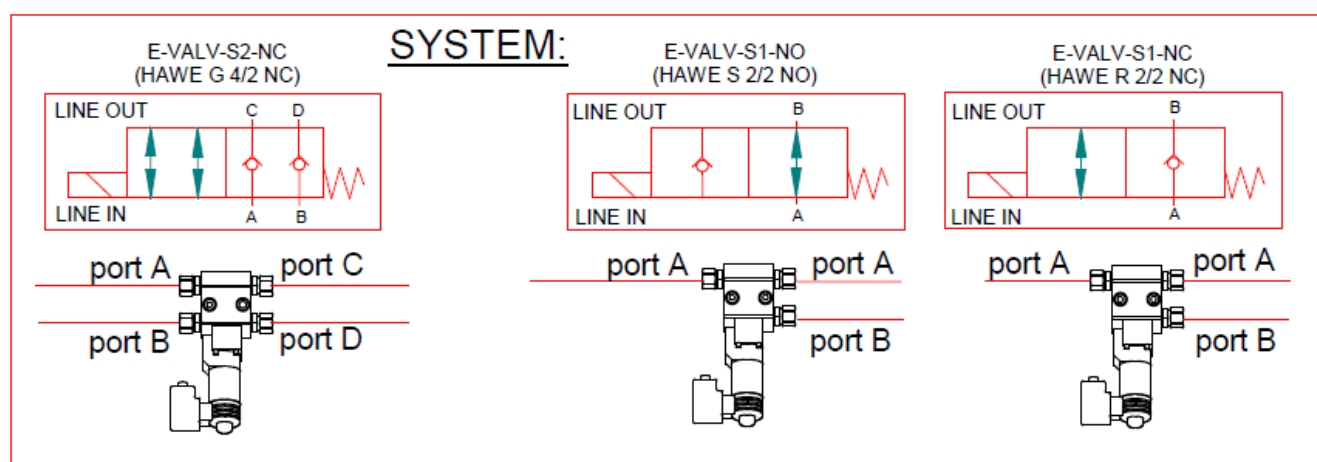


Figure 2, E-VALV SHUT-OFF, OPERATION & connections

6. Technical data

ELVALV-S, technical specifications

Quantity	Value	Unit	Description
t	-10...+50	°C	operation temperature
U	24.110 or 230 ±10%	V DC	control voltage

6.1 Coil

The continuous power consumption of a 24 V DC coil is 25.5 W.

With control voltage 24 V DC, the coil plug must be equipped with an over voltage protector.

The pulling power of the 98 V DC coil is 24.8 W and maintenance power 12.4 W.

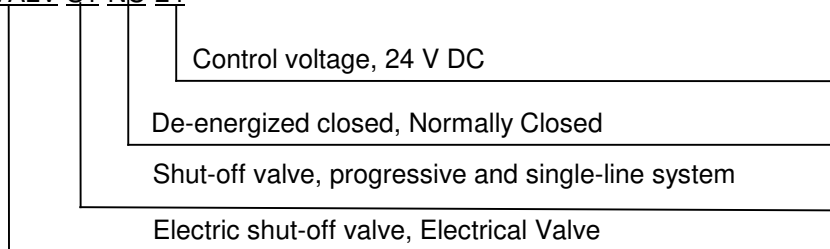
The pulling power of the 205 V DC coil is 28.0 W and maintenance power 14.0 W.

6.1 Symbols

E-VALV-xx-yy-zz-U	Abbreviation	Description
E-VALV:	E-VALV	Electric line-/shut-off valve, Electrical Valve
xx:	S1	Shut-off valve, single-line system
	S2	Shut-off valve, dual-line system
yy:	24	Control voltage, 24 V DC $\pm 10\%$
	110	Control voltage, 110 V DC $\pm 10\%$
	230	Control voltage, 110 V DC $\pm 10\%$
zz:	NC	De-energized closed, Normally Closed
	NO	De-energized open, Normally Open
U:	no symbol	Connections, Ø 12mm pipe
	U	Connections, 1/2" pipe

Example:

E-VALV-S1-NC-24



Connections, Ø 12mm pipe

6.2 Connections

Inputs

Pressure connections P (1 pc or 1 pc), 12mm pipe connector or 1/2" pipe connector (U)

Control voltage, 24 V DC, 110 V DC and 230 VDC

Mechanical opening button at the end of valve

Outputs

Lubricant (1 pc or 2 pc), 12 mm pipe connector or 1/2" pipe connector (U)

7. Installation

7.1 General information

Only qualified technical personnel may install the products described in these Instructions.

During assembly, pay attention to the following:

- Be careful not to damage other devices during installation.
- The product must not be installed within the range of moving parts.
- The product must be installed at an adequate distance from sources of heat and cold.
- Observe the product's IP protection class when selecting the installation position.
- Adhere to safety distances and legal prescriptions on assembly and prevention of accidents.
- Make sure that MIN/MAX reservoir markings, the low level switch indicator and other visual indicators are fully visible.

NOTICE



Drill the mounting bores on non-load-bearing parts of the superior machine only. Fastening must not be done on two parts moving against one another (e. g. machine bed and machine assembly).

⚠ CAUTION



Slipping hazard

Exercise caution when handling lubricants. Immediately remove and bind any leaked lubricants.

7.2 Installation position

Protect the product against humidity, dust and vibrations and install it in an easily accessible position to ensure all other installation work can be carried out without any problem.

8. Comissioning

In order to warrant safety and function, a person assigned by the operator must carry out the following inspections. Immediately eliminate detected deficiencies. Deficiencies may be remedied by an authorized and qualified specialist only.

Table 1

8.1 Inspections before first start-up

	YES	NO
Electrical connection established correctly	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical connection established correctly	<input type="checkbox"/>	<input type="checkbox"/>
The performance characteristics for the aforementioned connections match the specifications in "Technical data"	<input type="checkbox"/>	<input type="checkbox"/>
All components such as lubrication lines and metering devices are correctly installed	<input type="checkbox"/>	<input type="checkbox"/>
No apparent damage, contamination, or corrosion	<input type="checkbox"/>	<input type="checkbox"/>
Any dismantled protective and monitoring equipment is fully reinstalled and functional	<input type="checkbox"/>	<input type="checkbox"/>
All safety markings on the product are present and in proper condition	<input type="checkbox"/>	<input type="checkbox"/>

8.2 Inspections during first start-up

No unusual noises, vibrations, moisture accumulation, odors present	<input type="checkbox"/>	<input type="checkbox"/>
No undesired discharge of lubricant (leakages) at connections	<input type="checkbox"/>	<input type="checkbox"/>
Lubricant is fed without bubbles	<input type="checkbox"/>	<input type="checkbox"/>
Lubrications points receive the planned lubricant volume	<input type="checkbox"/>	<input type="checkbox"/>

9. Maintenance and cleaning

Regular and appropriate maintenance is a prerequisite to detect and clear faults in time. The specific time lines have to be determined, verified at regular intervals and adapted, if necessary, by the operator based on the operating conditions. If needed, copy the table for regular maintenance activities.

Checklist Maintenance Table 8		
Activity to be done	YES	NO
Electrical connection carried out correctly	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical connection carried out correctly	<input type="checkbox"/>	<input type="checkbox"/>
The performance data of the previously indicated connections correspond to the specifications stated in the Technical data	<input type="checkbox"/>	<input type="checkbox"/>
All components, such as lubrication lines and metering devices, have been correctly installed	<input type="checkbox"/>	<input type="checkbox"/>
No visible damage, contamination and corrosion	<input type="checkbox"/>	<input type="checkbox"/>
Any dismantled protection and monitoring equipment has been reassembled and checked for correct function	<input type="checkbox"/>	<input type="checkbox"/>
Any warning labels on the product are present and in proper condition	<input type="checkbox"/>	<input type="checkbox"/>
No unusual noises, vibrations, accumulation of moisture, or odors present	<input type="checkbox"/>	<input type="checkbox"/>
No unwanted escape of lubricant (leakages) from connections	<input type="checkbox"/>	<input type="checkbox"/>
Lubricant is supplied free from bubbles	<input type="checkbox"/>	<input type="checkbox"/>
Lubrication points are provided with the planned amount of lubricant	<input type="checkbox"/>	<input type="checkbox"/>

9.1 Periodic inspections

To be inspected every week:

- Leakage of the connections

To be inspected every six months.

- valve operation

9.2 Cleaning

9.2.1 Basics

Cleaning should be carried out in accordance with the operator's own company rules, and cleaning agents and devices and the personal protective equipment to be used should likewise be selected in accordance with those rules. Only cleaning agents compatible with the materials may be used for cleaning. Completely remove any cleaning agent residue left on the product and rinse with clear water. Unauthorized persons must be kept away. Use signage to indicate wet areas.

9.2.2 Interior cleaning

The interior normally does not need to be cleaned. The interior of the product must be cleaned if incorrect or contaminated lubricant accidentally enters the product. Please contact our Service department.

9.2.3 Exterior cleaning

Do not allow any cleaning fluid to enter the interior of the product during cleaning.

WARNING



Risk of fatal electric shock



Cleaning work may only be performed on products that have been de-energized first. When cleaning electrical components, be mindful of the IP enclosure rating.

WARNING



Serious injury from contact with or inhalation of hazardous substances



Wear personal protective equipment. Observe the safety data sheet (SDS) of the hazardous substance. Avoid contaminating other objects or the environment during cleaning.



10. Troubleshooting

WARNING



Before troubleshooting the following malfunctions, shut down the control voltage from the control and pumping centre and depressurize the lubrication lines. If the system is under pressure, when components are being worked on, components or lubricant might be flung out and cause injuries or damage to the people or the environment.

10.1 Troubleshooting Table

Operation disturbance	Cause of operation disturbance	Solution
Shut-off valve does not operate.	Voltage input not connected.	Check the connections.
	Wrong voltage	Check the voltage and that the valve coil is suitable for the voltage
Shut-off valve coil heats up (use in 115 AC and 230 AC)	Coil current is always on and heats up the coil	Equip the valve with a maintenance power reducer. SKF code 230 VAC 12602200 115 VAC 12602205

11. Spare parts

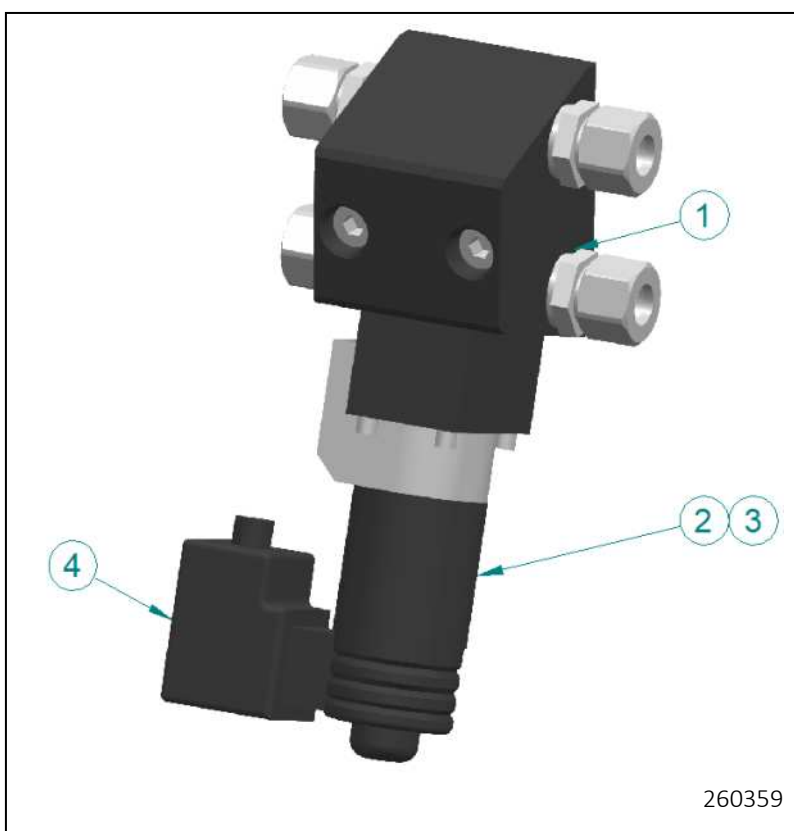


Figure 3, Spareparts

SKF CODE	SKF NAME	11771344 CHECK VALVE HAWE RB1	12602230 VALVE 2-2-NC HAWE RS	12602210 VALVE 2-2-NO HAWE RS	12602222 VALVE 4-2-NC HAWE G	12602235 VALVE'S COIL 24VDC HAWE	12602240 VALVE'S COIL 98VDC HAWE	12602245 VALVE'S COIL 205VDC HAWE	12602200 PLUG WITH POWER REDUCER HAWE 230VAC	12602205 PLUG WITH POWER REDUCER HAWE 115VAC	12600292 PLUG GDML 2011 GB1 LED 24
12375740	E-VALV-S1-NC-24	1	1			1					1
12375745	E-VALV-S1-NC-24-U	1	1			1					1
12375750	E-VALV-S1-NC-110-U	1	1				1			1	
12375755	E-VALV-S1-NC-230	1	1					1	1		
12375760	E-VALV-S1-NO-24	1		1		1					1
12375765	E-VALV-S1-NO-24-U	1		1		1					1
12375770	E-VALV-S1-NO-110-U	1		1			1			1	
12375775	E-VALV-S1-NO-230	1		1				1	1		
12375780	E-VALV-S2-NC-24	2			1	1					1
12375785	E-VALV-S2-NC-24-U	2			1	1					1
12375790	E-VALV-S2-NC-110-U	2			1		1			1	
12375795	E-VALV-S2-NC-230	2			1			1	1		
NUM.		1	2	2	2	3	3	3	4	4	4

12. China RoHS Table

部件名称 (Part Name)	有毒害物质或元素 (Hazardous substances)					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
用钢和黄铜加工的零件 (Components made of machining steel and brass)	X	0	0	0	0	0
本表格依据SJ/T11364的规定编制 (This table is prepared in accordance with the provisions of SJ/T 11364.)						
0 :	表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572 规定的限量要求以下。 (Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.)					
X :	表示该有毒有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572标准规定的限量要求。 (Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.)					