

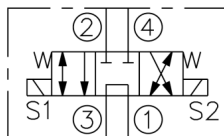
电磁换向阀

Solenoid Directional valve

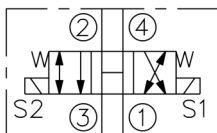
SV10-47X 系列
美制插孔—344bar
SV10-47X Valve Series
U.S. Cartridge — 344 bar



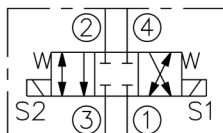
原理图 Symbol



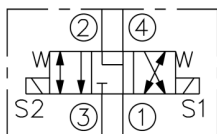
SV10-47A
240 Bar (3500 psi)



SV10-47B
240 Bar (3500 psi)



SV10-47C
240 Bar (3500 psi)



SV10-47D
240 Bar (3500 psi)

描述 Description

SV10-47X: 三位四通电磁换向滑阀

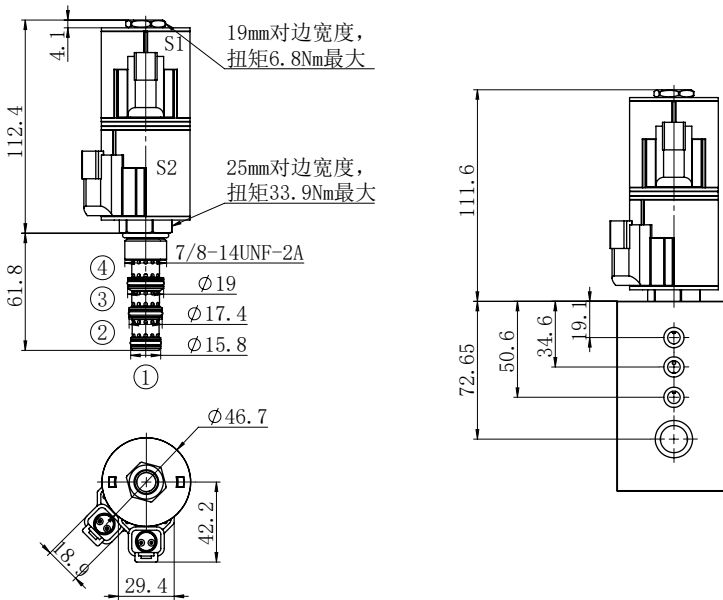
4-Way,3-Position Solenoid-Operated Directional Spool Valve

直动滑阀式螺纹插装电磁换向阀。

A Cartridge-style Direct-acting Spool-type Solenoid Directional Valve



尺寸图 Dimensions



技术特性 Technical Features

· 滑阀经过热处理硬化并经过精密加工，保证更低的内泄漏及更长的使用寿命。外部零件外表面都是经过镀锌镍处理和防腐蚀处理。所有零部件均采用高强度钢材制造。结构紧凑、体积小。

- 额定电磁线圈适合连续工作。
- 可选线圈电压、插头。
- 可以对所有油口完全加压。
- 插件电压可互换。
- 可选 IP69K 防水 E 型线圈。
- 工业通用阀孔。

· Poppet is hardened and ground to guarantee minimal wear and to extend service life. All external surfaces are zinc plated and corrosion-proof. All valve parts are made of high strength steel. Compact size.

- Continuous-duty rated coil.
- Optional coil voltages and terminations.
- All ports may be fully pressurized.
- Unitized, molded coil design.
- Optional waterproof E-Coils rated up to IP69K.
- Industry-common cavity.

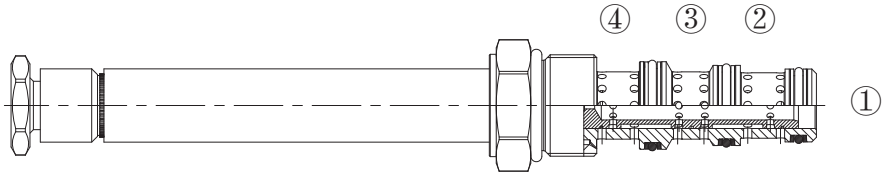


技术参数表 Technical Data

工作压力 Pressure rating	240bar
最大工作压力 Maximum operating pressure	344 bar
最大流量 Maximum flow	SV10-47A: 18.9l/min SV10-47B/C/D: 22.7l/min
最大内泄漏量 Maximum internal leakage	328 cc /min @207bar工作压力 328 cc /min @ 207bar pressure rating
线圈额定负载 Coil rated load	可在85%~115%的额定电压范围内连续工作 Work continuously in the rated voltage range of 85%-115%
最小吸合电压 Minimum operate voltage	207bar时为额定值的85% 85% of rated value at 207bar
响应时间 Response time	电压为100%，流量为额定值的80%时，首次指示状态变化的时间：通电：30ms；断电：10ms。 Voltage is 100%, flow is 80% of the rated valve, the first indication of state change time: energized: 30ms; Power down: 10ms.
20°C时的线圈初始电流 Coil initial current at 20°C	E型线圈：12VDC时为1.7A；24VDC时为0.85A E-coil: 1.7A at 12VDC; 0.85A at 24VDC
外露零件表面处理要求 External component treatment	Zn/Fe - standard Zn/Ni
安装方向 Orientation	无限制 No restrictions
重量 Weight	0.18kg
适用油温范围 Oil Temperature Range	-40° C to 100° C
适用工作介质 Fluids	矿物油或具有润滑性的合成油液 Mineral - based or synthetics with lubricating properties
工作介质粘度范围 Viscosities	7,4 to 420 cSt
测试液压油型号 Oil testing condition	ISO VG 46 cSt
过滤要求 Filtration	20/18/15 ISO 4406 (maximum filtration admitted)
插孔 Cavity	VC10-4

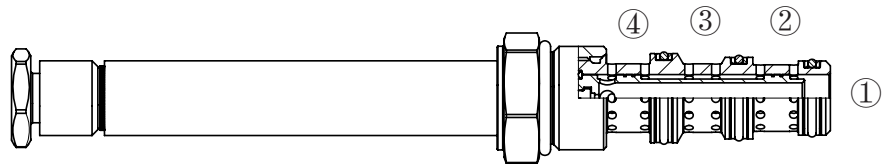


工作原理 How it works



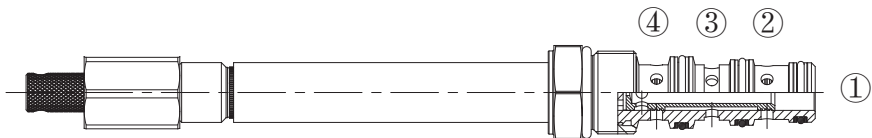
断电时, SV10-47A 允许油液从③流向①。线圈 S1 通电时, 允许油液从③流向②, 以及从④流向①。线圈 S2 通电时, 油液可以从③流向④, 以及从②流向①。

When de-energized, the SV10-47A blocks cylinder ports, while allowing flow from ③ to ①. When coil S1 is energized, flow is allowed from ③ to ②, and from ④ to ①. When coil S2 is energized, flow is allowed from ③ to ④, and from ② to ①.



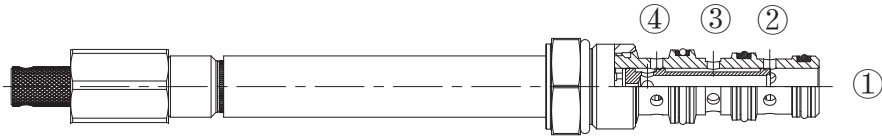
断电时, SV10-47B 所有油口相互连通。线圈 S1 通电时, 允许油液从③流向④, 以及从②流向①。线圈 S2 通电时, 油液可以从③流向②, 以及从④流向①。

When de-energized, the SV10-47B has all ports connected. When coil S1 is energized, flow is allowed from ③ to ④, and from ② to ①. When coil S2 is energized, flow is allowed from ③ to ②, and from ④ to ①.



断电时, SV10-47C 截止所有油口流向任何油口。线圈 S1 通电时, 允许油液从③流向④, 以及从②流向①。线圈 S2 通电时, 油液可以从③流向②, 以及从④流向①。

When de-energized, the SV10-47C blocks all ports. When coil S1 is energized, flow is allowed from ③ to ④, and from ② to ①. When coil S2 is energized, flow is allowed from ③ to ②, and from ④ to ①.



断电时, SV10-47D 阻止油液流向③, 而允许油液从②流向①, 或从④流向①。线圈 S1 通电时, 允许油液从③流向④, 以及从②流向①。线圈 S2 通电时, 油液可以从③流向②, 以及从④流向①。

When de-energized, the SV10-47D blocks inlet port , while allowing flow from ② and ④ to ① . When coil S1 is energized, flow is allowed from ③ to ④ , and from ② to ① . When coil S2 is energized, flow is allowed from ③ to ② , and from ④ to ① .

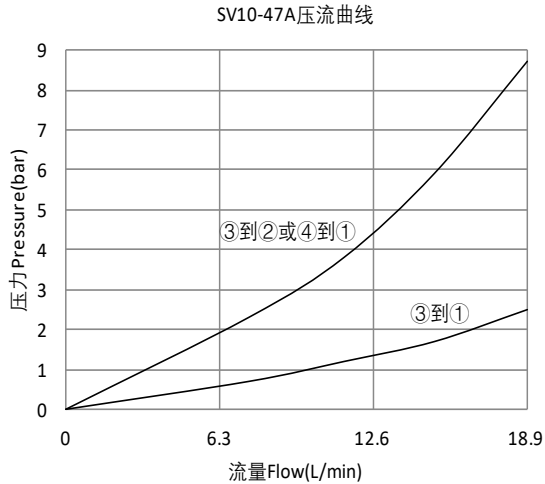


性能曲线 Performance

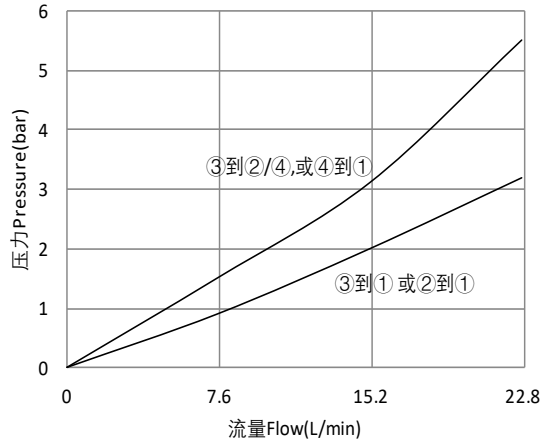
测试条件 Test condition

45°C时 46cSt 的油液

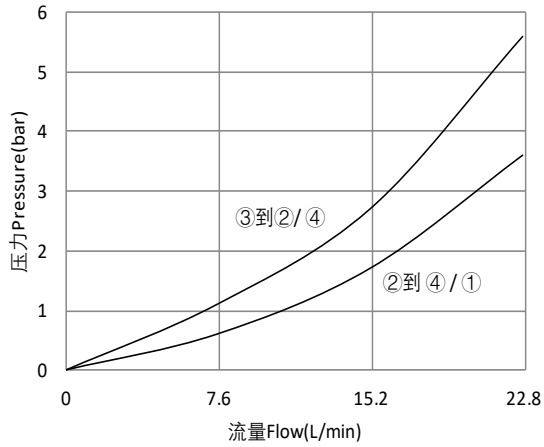
46cSt oil at 45°C



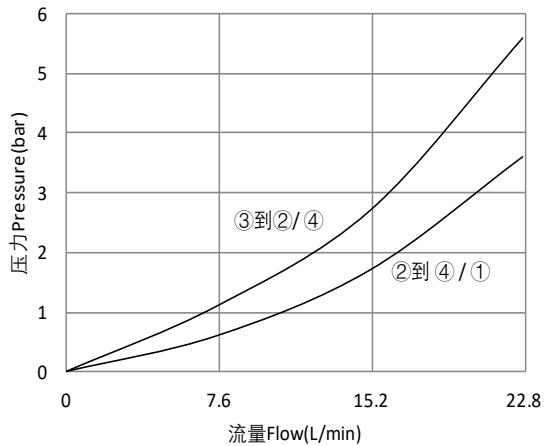
SV10-47B压流曲线



SV10-47C压流曲线



SV10-47D压流曲线

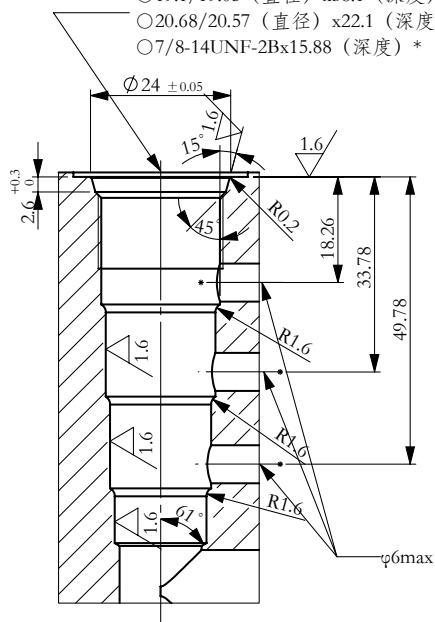




插孔图 Cavity

VC10-4

- 30.2 (孔口平面直径) x0.8 (深度) #
- 15.92/15.88 (直径) x63.5 (深度) *
- 17.53/17.48 (直径) x53.98 (深度) *
- 19.1/19.05 (直径) x38.1 (深度) *
- 20.68/20.57 (直径) x22.1 (深度) *
- 7/8-14UNF-2Bx15.88 (深度) *



可以同时使用一种成型刀具加工上述阀孔
(除先导钻孔和交叉钻孔外)

○-这些直径的同轴度要小于0.05; 并且孔口平面垂直度要小于0.025.

*-深度由孔口平面确定。

#-除非在加工图纸上另行表明, 未指明的公差为 ± 0.12 .



订货编号 Ordering code

SV10 - 47XM - **

阀系列编号
Valve basic code

机能符号 Symbol
HTSV10-47A
HTSV10-47B
HTSV10-47C
HTSV10-47D

有无应急受控
There is no emergency manual
control

线圈选型 Coils Options

线圈型号 Coils model	电压值 Voltage (V)
01	12
02	20
03	24