

HY (F) 3 系列电磁液压锁

HY(F)3 series electromagnetic hydraulic locks



产品简介

Product overview

电磁液压锁是由电磁铁、钢球活门及滑阀切换级组成，当电磁铁没有得到控制信号时，没有电磁力产生，钢球在系统进油的压力作用下，被推向右活门座，油压经过左活门座到达活塞右端，由于活塞面积大于阀芯端面积，因此在进油压力作用下，右边力大于左边力，使得阀芯向左运动，关闭进油口，这样锁即达到了断电锁闭进油的目的。当电磁铁得到控制信号时，产生电磁力，钢球在顶杆的作用下，迅速关闭左活门座，使活塞右端油路与回油沟通，压力为零，阀芯在左端压力作用下，推向右端，使进油窗口打开，这样锁就完成了通电开锁的目的。

The electromagnetic hydraulic lock consists of electromagnet, steel ball valve and slide valve switching stage. When the electromagnet does not receive the control signal, no electromagnetic force is generated. The steel ball is pushed to the right valve seat under the pressure of the system oil feeding. Oil pressure passes through the left valve seat and reaches the right end of the piston. Since the piston area is larger than the core end area, the force on the right side is greater than that on the left side under the inlet pressure so that the core moves to the left and the oil inlet is closed. In this way, the lock achieves the purpose of outage, locking and oil feeding. When the electromagnet receives the control signal, electromagnetic force is generated. The steel ball quickly closes the left valve seat under the action of the ejector rod so that the oil circuit at the right end of the piston connects with the return oil, and the pressure is zero. Under the pressure at the left end, the core is pushed to the right end so that the oil feeding window is opened. In this way, the lock completes the purpose of power on and unlocking.

产品特点

Product features

本公司 HY (F) 3 系列长寿命、低内漏、高响应的产品，是一种通过远程控制能同时快速切断一路或多路液压回路的电液控制元件，可满足液压系统应急切断、安全保障、压力保持及特殊功能的要求。

HY (F) 3 series products of the Company have long life, low internal leakage and high response, and they are a kind of electrohydraulic control elements which can quickly cut off one or more hydraulic circuits at the same time through remote control. Such products can meet the requirements of emergency cut-off, safety guarantee, pressure keeping and special function of the hydraulic system.

产品应用

Applications:

广泛应用于航空航天、发电、石化、试验机等领域。航宇智星可按用户的特殊要求定制各种

电磁液压锁。

The products are widely applied in aerospace, power generation, petrochemical, testing machine and other fields. Hangyu WitStar can customize various kinds of electromagnetic hydraulic locks.

产品技术条件

Technical conditions

- 供油压力范围：7~21MPa
Range of oil supply pressure: 7~21MPa
- 温度范围：油液温度：-25°C~105°C
Temperature range: oil temperature: -25°C~105°C
- 主要技术指标：
Main technical specifications:
 - ①额定工作电压：28VDC
Rated operating voltage: 28VDC
 - ②闭锁时间：≤0.5S
locking time: ≤0.5S
 - ③开锁时间：≤0.5S
unlocking time: ≤0.5S
 - ④工作电流（DC=28V）：≤650mA
Operating current (DC=28V): ≤650mA
 - ⑤寿命：≥10000 次
life time ≥ 10000 times
 - ⑥内漏：≤2mL/min
internal leakage: ≤2mL/min
- 工作介质：石油基液压油（或按用户要求）
Working medium: petroleum-based hydraulic oil (or as required by users)
- 推荐油液：粘度在 38°C 时为 10~100mm²/s
Recommended oil: 10~100mm²/s when the viscosity is 38°C
- 密封材料：丁腈橡胶（或按客户要求）
Sealing material: butyronitrile rubber (or as required by users)

