



开关型液压阀用电磁铁  
ON-OFF Solenoids for Hydraulics

比例型液压阀用电磁铁  
Proportional Solenoids for Hydraulics

隔爆型液压阀用电磁铁  
Ex-proof Solenoids for Hydraulics

传感器  
Sensors

## 宁波市鄞州通力液压电器厂

Ningbo Yinzhou TONLY Hydraulic Electrical Factory

地址：宁波市鄞州区姜山科技园区夏施路5号

Add: No.5 Xiashi Road, Jiangshan, Yinzhou, NingBo, China

销售部：0574-88452652-808 88455852

技术部：0574-88452652-804

传 真：0574-88094852

邮 编：315191

Website: www.tonly.com.cn

E-mail: info@tonly.com.cn



# 通力电器

TONLY ELECTROMAGNET

2024 CE ISO 9001:2015



# 公司简介

# Company profile

宁波市鄞州通力液压电器厂成立于 1988 年，地处浙江省宁波市鄞州工业园区。是生产各类开关型、比例型、隔爆型液压阀用电磁铁的专业厂家。工厂占地面积 10000 平方米，建筑面积达 15000 平方米。拥有先进的高精度CNC车床群、全自动堆焊机、自动 BMC 塑料封装机、塑料注塑成形机、全自动绕线机及电磁铁静态特性测试系统、电磁管耐油压试验台、电磁管脉冲疲劳试验台、三坐标测量仪、圆度测试仪、粗糙度测试仪、励磁线圈参数仪等多种先进加工设备和测试仪器。

多年来，通过引进、消化、吸收和技术改造，已成年产 300 万件液压阀用电磁铁制造能力。产品全部按照 JB/T 5244-2001 标准及 VDE0580 等国际同类产品的先进技术标准组织生产。并通过 ISO9001:2008 和 CE 认证。产品性能可靠，质量稳定。与 REXROTH (力士乐) 型、Northman (北部精机) 型、YUKEN (油研) 型、VICKERS (威格士) 型、联合设计型及隔爆型等多种类型的液压电磁阀配套使用，广泛应用于机床、塑料机械、工程机械、农用机械、煤矿、化工、冶金、军工、航空航天、汽车、邮电等领域。

产品畅销中国大陆及美国、瑞典、韩国、日本、意大利、俄罗斯、土耳其、台湾等国家和地区。公司热忱欢迎中外朋友光临指导，洽谈业务！

Ningbo Yinzhou Tonly Hydraulic Electrical Factory was established in 1988. Which is a professional manufacturer in various On/Off and proportional solenoids for hydraulics.

The factory is 10000m<sup>2</sup>. Thereinto, architecture covers 15000m<sup>2</sup>. The factory owns advanced high precision CNC lathes, automatic stitch welding machine, BMC plastic package machine controlled by PLC, plastic injection molding machine, solenoids features tester, solenoid tube oil-pressure-resistant test stand, solenoid tube pulse fatigue test stand, excitation coil parameters and other testers. Through importing, absorbing and technical upgrading. At present we have the annual production capacity of 3 million pieces of hydraulic solenoids. All the products are produced according to JB/T5244-2001, VDE0580 standard and satisfy international advanced technical requirements. The performance is reliable and quality is steady. Matched with REXROTH type, Northman type, YUKEN type, VICKERS type, the products can be widely applied in machine tools, plastics machinery, engineer, aerospace, automotive, post and telecommunications and etc. The products are sold to mainland, United States, Sweden, Korea, Japan, Italy, Russia, India, Turkey, Taiwan and other countries and regions. Welcome to visit our factory!

## 产品应用行业 Application Industry



注塑机械 Plastic Injection Machinery



工程机械 Engineering machinery



石油化工 Petrochemical Industry



矿山机械 Mining Machinery



乘用车 Vehicles



## 生产设备



全自动生产线  
CNC machining Workshop



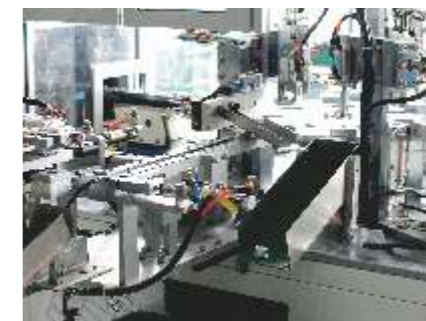
全自动生产线  
CNC machining Workshop



全自动生产线  
CNC machining Workshop



全自动铜堆焊  
Brazing



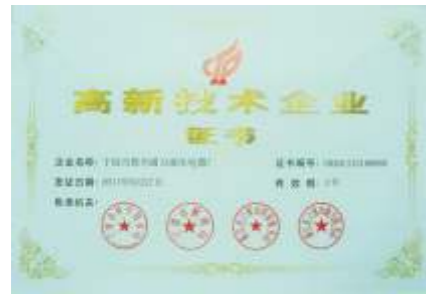
自动装配  
Automatic Assembly



全自动绕线机  
Winding



## 企业荣誉 Enterprise honor

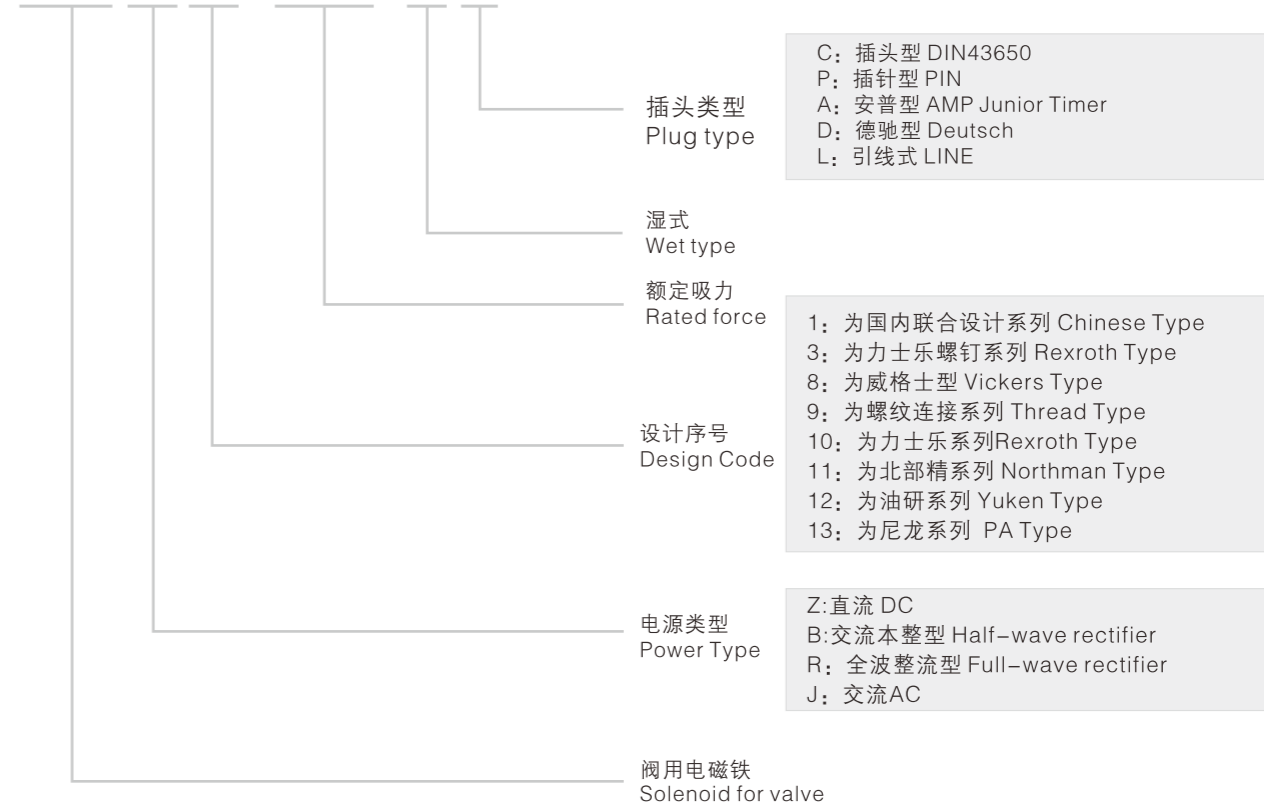


■ 发明专利证书: 10项  
■ 实用新型专利证书: 19项

## 产品选型 How to select our products

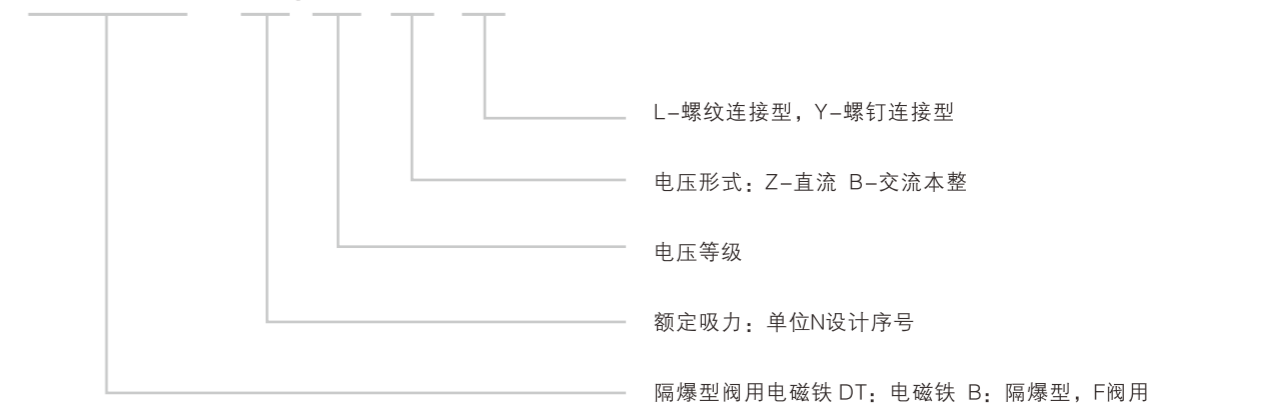
### 开关电磁铁选型 ON-OFF Solenoids

MF □ □ - □ □ Y □



### 隔爆电磁铁选型 Ex-Proof Solenoids

DTBF- □ / □ □ □



可选电压规格: 24V、36V、127V、220V  
防爆形式: ExdI、ExdII Ct4

**开关型电磁铁 On-off Solenoids:**

MF1 联合设计系列 MF1 Chinese Series	05
MF3 力士乐螺钉系列 MF3 Rexroth Series	06
MF5 系列 MF5 Series	07
MF8 威格士系列 MF8 Vickers Series	10
MF9 螺纹连接系列 MF9 Thread Series	13
MF10 力士乐系列 MF10 Rexroth Series	14
MF11 北部系列 MF10 Northman Series	20
MF12 油研系列 MF12 Yuken series	24
MF13 尼龙系列 MF13 PA Series	27

**比例型电磁铁 Proportional Solenoids**

GV40/GV48 比例电磁铁 GV40/GV48 Proportional Solenoids	29
GP80A/B 比例电磁铁 GP80A/B Proportional Solenoids	30
GP37/GP37W 比例电磁铁 GP37/GP37W Proportional Solenoids	31
GP45S 比例阀用电磁铁 GP45S Proportional Solenoids	33
GP63S 比例阀用电磁铁 GP63S Proportional Solenoids	35
GP035/045 比例阀用电磁铁 GP035/045 Proportional Solenoids	37
HMGP15 GP32/G24 GP32/P17 比例插装阀用电磁铁 HMGP15 GP32/G24 GP32/P17 Proportional Solenoids for Cartridge Solenoid Valves	38
DS3049 双头比例电磁铁 DS3049 Twin Proportional Solenoids	39

**隔爆系列 Ex-Proof Solenoids**

DTBF 隔爆型阀用电磁铁 DTBF Ex-Proof Solenoids for Hydraulics	40
DTBF-L 隔爆型阀用电磁铁 DTBF-L Ex-Proof Solenoids for Hydraulics	41
DTBF 隔爆型比例阀用电磁铁 / 隔爆型电磁插装阀 DTBF Ex-Proof Proportional Solenoid for Hydraulics / Ex-Proof Solenoid Cartridge Solenoid Valve	42

**电磁插装阀系列 Cartridge Solenoid Valves**

RD 系列车用电磁阀 RD series Cartridge Solenoid Valves for Automotive Application	43
SV08/SF08 系列插装阀 SV08/SF08 Cartridge Solenoid Valves	44

**其他系列 Other Series**

MFT10 智能型阀用电磁铁 MFT10 Smart Solenoids	45
MFZ16 阀用电磁铁 MFZ16 Series Solenoids	46
MFZ18 双向推拉阀用电磁铁 MFZ18 Push-Pull Solenoids For Hydraulics	47
GP45S-5C 比例电磁铁 Proportional Solenoids	48
GP36 比例电磁铁、PS02/PS01 位置传感器 GP36 Proportional Solenoids PS02/PS01 Position Sensor	49

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其它系列 Other Products	54
开关型新产品 Switch type new products	56

**MFZ1 直流湿式阀用电磁铁**

MFZ1 Solenoid for Hydraulics

**MFB1 交流本整型湿式阀用电磁铁**

MFB1 Self-Rectified Solenoid for Hydraulics

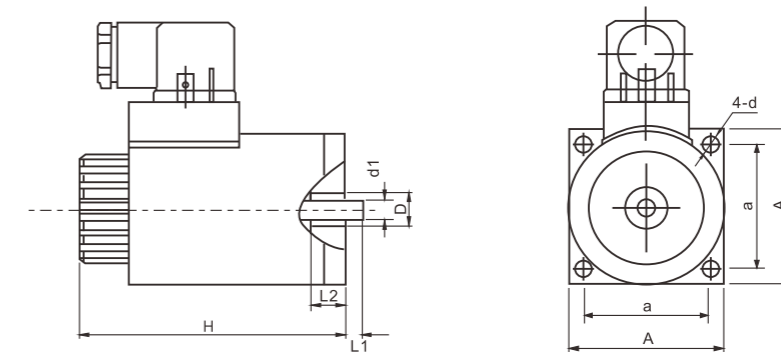
用途：本品作为国内联合设计型液压电磁换向阀的动力元件。  
Application: Design for Chinese type directional hydraulic valves.



**技术参数 Technical Data**

型号 / 参数	Code / Parameters	MFZ1-2.5YC	MFB1-2.5YC	MFZ1-4YC	MFB1-4YC	MFB1-5.5YC	MFZ1-5.5YC	MFZ1-7YC	MFB1-7YC
额定电压	Rated Voltage(V)	12/24/110/220	110/220	12/24/110/220	110/220	110/220	12/24/110/220	12/24/110	110/220
额定吸力	Rated Force(N)	≥25	≥25	≥40	≥40	≥55	≥55	≥70	≥70
额定行程	Rated Stroke(mm)	3	3	6	6	4	4	7	7
全行程	Full Stroke(mm)	≥6.2	≥6.2	≥12	≥12	≥8.5	≥8.5	≥10.5	≥10.5
消耗功率	Rated Power(W)	≤26	≤26	≤40	≤40	≤40	≤40	≤40	≤40
耐油压	Rated Pressure(MPa)	6.3							
操作频率(T/h)	Frequency of operation	7200	7200	7200	7200	7200	7200	3600	3600

**外形及安装尺寸 Externality & Installation Dimensions**



型号Code	外形尺寸(mm) Externality Dimensions		安装尺寸(mm) Installation Dimensions					
	A	H	d1	D	a	d	L1	L2
MFZ1- 2.5YC	47.5	76	Φ4	Φ8.5	38±0.2	Φ4.5	3±0.1	8
MFB1- 2.5YC	47.5	76	Φ4	Φ8.5	38±0.2	Φ4.5	3±0.1	8
MFZ1- 4YC	55.6	100	Φ7	Φ12.5	45±0.2	Φ5.5	6±0.1	13
MFB1- 4YC	55.6	100	Φ7	Φ12.5	45±0.2	Φ5.5	6±0.1	13
MFZ1- 5.5YC	55.6	100	Φ7	Φ12.5	45±0.2	Φ5.5	4±0.1	11
MFB1- 5.5YC	55.6	100	Φ7	Φ12.5	45±0.2	Φ5.5	4±0.1	11
MFZ1- 7YC	72.6	111	Φ8	Φ13	60±0.2	Φ6.5	7±0.1	10
MFB1- 7YC	72.6	111	Φ8	Φ13	60±0.2	Φ6.5	7±0.1	10

如您对产品特性曲线或外形尺寸有特别要求，请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.



### MFZ3 直流型湿式阀用电磁铁

MFZ3 Solenoid for Hydraulics

### MFB3 本整型湿式阀用电磁铁

MFB3 Self-Rectified Solenoid for Hydraulics

### MFJ3 交流型湿式阀用电磁铁

MFZ3 Solenoid for Hydraulics

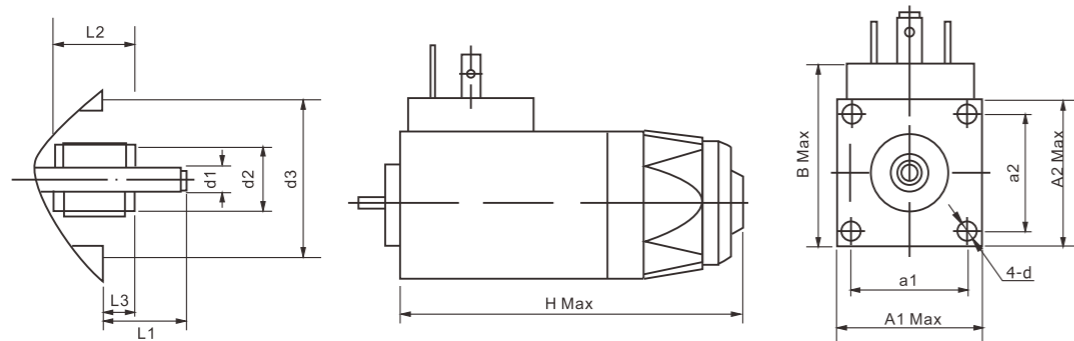


用途：作为液压电磁换向阀的动力元件。可配套力士乐螺钉连接的电磁换向阀控制。  
Application: Design for Rexroth type directional hydraulic valves.

#### 技术参数 Technical Data

型号 / 参数 Code / Parameters	MFZ3(B3)-22YC	MFZ3(B3)-37YC	MFZ3(B3)-90YC	MFJ3-18YC	MFJ3-27YC	MFJ3-54YC
额定电压 Rated Voltage(V)	DC6-110V, AC110-380V					
额定吸力 Rated Force(N)	22	37	90	18	27	54
额定行程 Rated Stroke(mm)	2.8	2.8	3.6	2.8	2.8	3.6
全行程 Full Stroke(mm)	≥6.1	≥6.1	≥7.8	≥6.1	≥6.1	≥7.8
耐油压 Rated Pressure(MPa)	16	16	21	10	16	21
安装 Install	螺钉	4-M4	4-M4	4-M5	4-M4	4-M5
	孔距(mm)	28×28	28×28	58.7×68.2	28×28	58.7×68.2
消耗功率 Rated Power(W)	≤30	≤30	≤36	≤24	≤30	≤40
绝缘等级 Insulation Class	F级(可提供H级) F Class(Class H is available on request)					

#### 外形及安装尺寸 Externality & Installation Dimensions



型号\尺寸	A1 max	A2 max	B max	H max	a1	a2	d1	d2	d3	L1	L2	L3	d
MFJ3-18YC	35	35	43.2	82.5	28±0.2	28±0.2	Φ3	Φ8.1+0.20	Φ19-0.010-0.031	9.9±0.1	10+0.05-0.15	3.5±0.05	Φ4.4
MFJ3-27YC	44	44	44	82.5	28±0.2	28±0.2	Φ3	Φ8.1+0.20	Φ19-0.010-0.031	9.9±0.1	10+0.05-0.15	3.5±0.05	Φ4.4
MFJ3-54YC	70.5	80.5	80.5	86.5	58.7±0.2	68.2±0.2	Φ6	Φ17.5+0.20	Φ19-0.005-0.021	10±0.1	5+0.20	3+0.10	Φ6
MFZ3-22YC	35	35	35	82.5	28±0.2	28±0.2	Φ3	Φ8.1+0.20	Φ19-0.010-0.031	9.9±0.1	10+0.05-0.15	3.5±0.05	Φ4.4
MFZ3-37YC	44	44	44	82.5	28±0.2	28±0.2	Φ3	Φ8.1+0.20	Φ19-0.010-0.031	9.9±0.1	10+0.05-0.15	3.5±0.05	Φ4.4
MFZ3-90YC	70.5	80.5	82	105.5	58.7±0.2	68.2±0.2	Φ6	Φ17.5+0.20	Φ19-0.005-0.021	10±0.1	5+0.20	3+0.10	Φ6

### MFZ5 直流湿式阀用电磁铁

MFZ5 solenoids for hydraulics

### MFJ5 交流湿式阀用电磁铁

MFJ5 solenoids for hydraulics

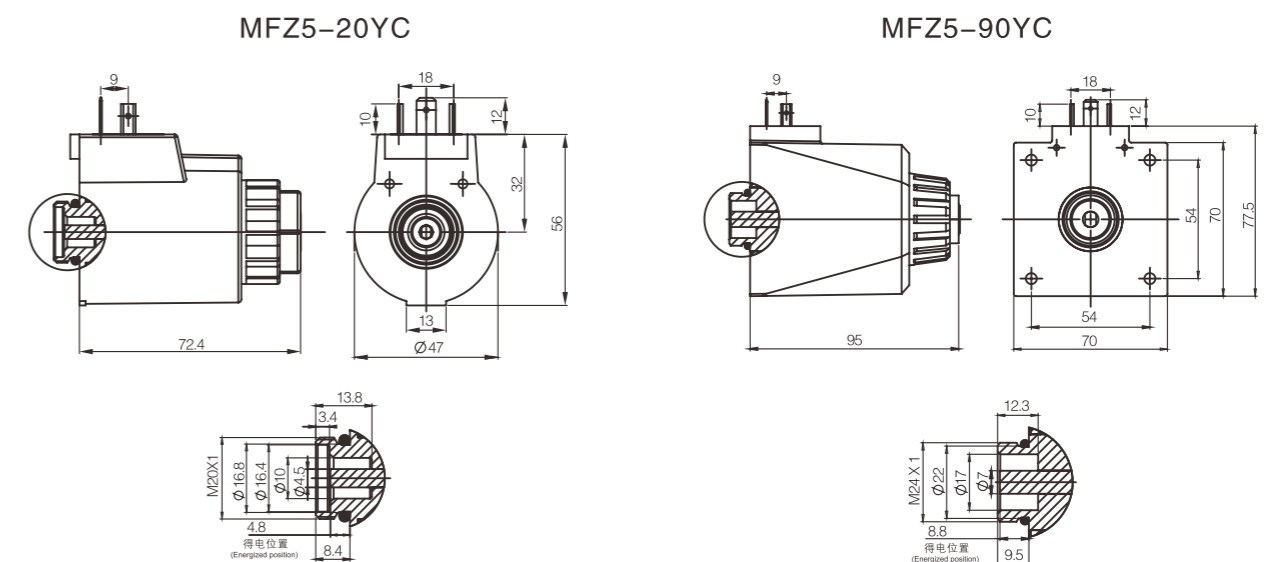


用途：作为液压电磁换向阀的动力元件。可配套六、十通径螺纹连接的电磁换向阀。  
Application: Design for directional hydraulic valves.

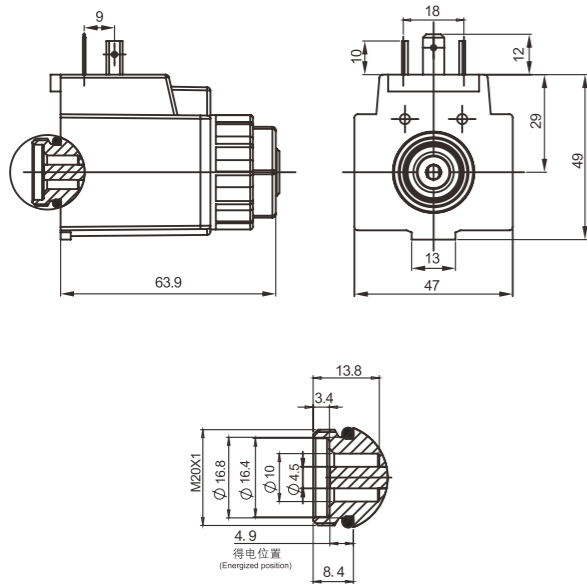
#### 技术参数 Technical Data

型号 / 参数 Parameters\Code	MFZ5-20YC MFZ5-20YP	MFZ5-90YC	MFJ5-35YC MFJ5-35YP	MFJ5-50YC
额定电压 Rated Voltage(V)	24	24	100 / 200	100 / 200
额定吸力 Rated Force(N)	≥20	≥90	≥35	≥50
额定行程 Rated Stroke(mm)	3	4	3	4
全行程 Full Stroke(mm)	≥6.5	≥8.5	≥6.5	≥8.5
耐油压 Rated Pressure(MPa)	21MPa			
消耗功率 Rated Power(W)	≤33	≤37	≤18	≤22
绝缘等级 Insulation Class	F级(可提供H级) F Class(Class H is available on request)		H级 Class H	
连接螺纹 Thread	M20×1	M24×1	M20×1	M24×1

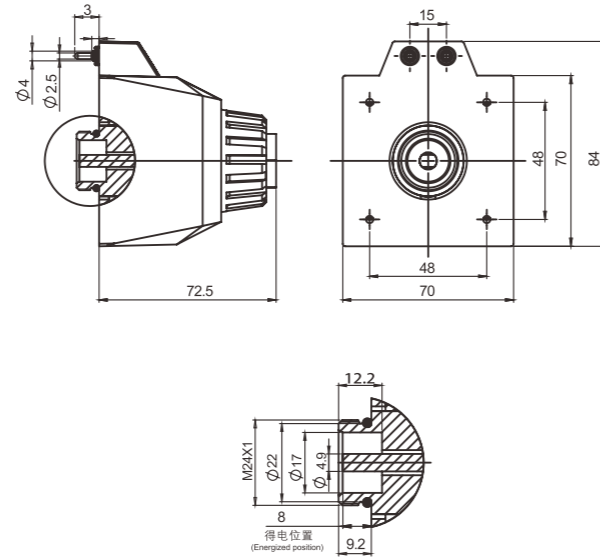
#### 外形及安装尺寸 Externality & Installation Dimensions



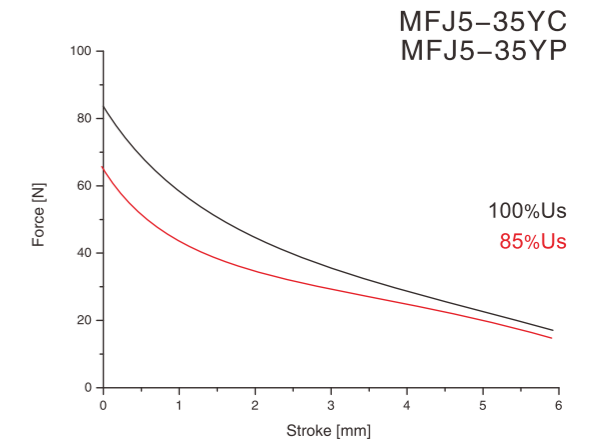
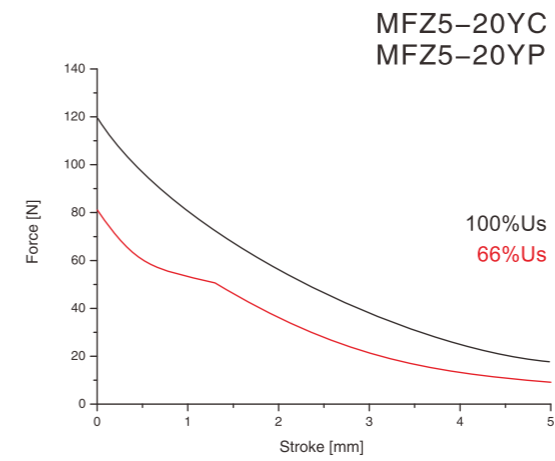
MFJ5-35YC



MFJ5-50YP

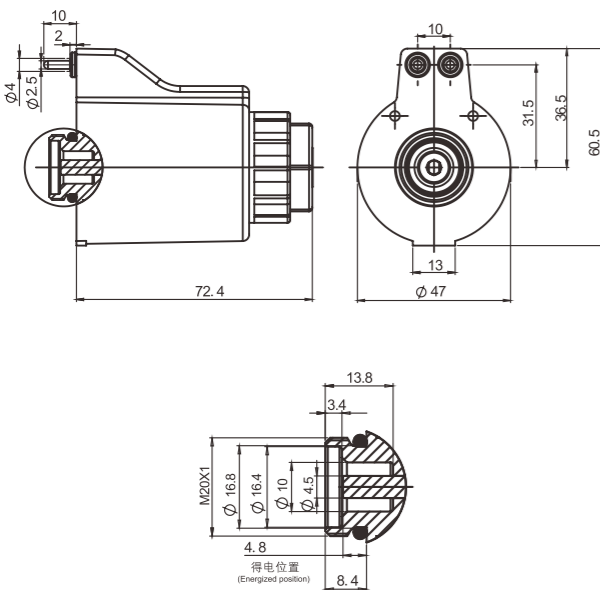


力-行程曲线 Force-Stroke Curve

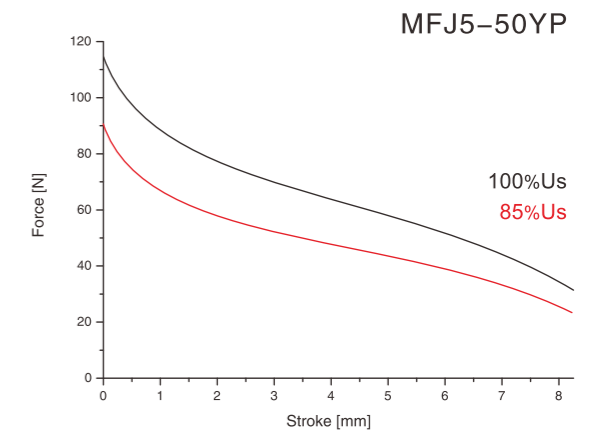
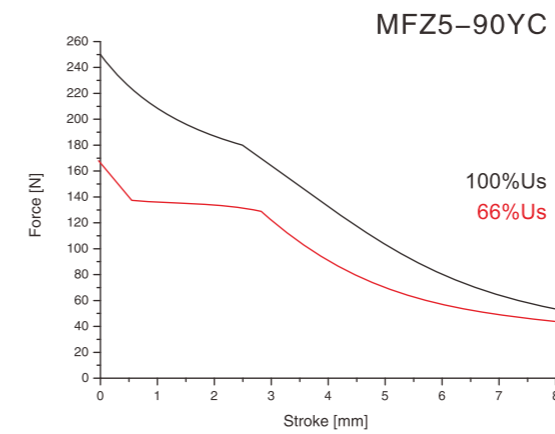
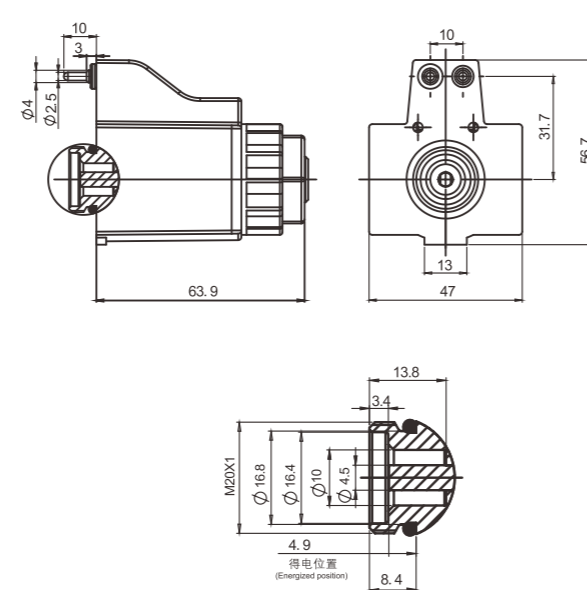


更多选择 Further variations For coils

MFZ5-20YP



MFJ5-35YP



如您对产品特性曲线或外形尺寸有特别要求，请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.



MFZ8 直流湿式阀用电磁铁  
MFZ8 DC Solenoid for Hydraulics

MFB8 本整型湿式阀用电磁铁  
MFB8 RAC Solenoid for Hydraulics

MFJ8 交流湿式阀用电磁铁  
MFJ8 AC Solenoid for Hydraulics



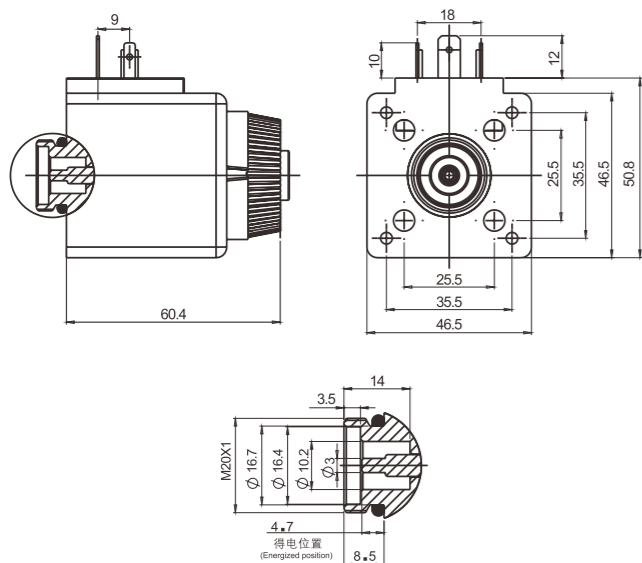
用途：可配套美国威格士(VICKERS)系列电磁阀。  
Application: Design for Vickers type directional hydraulic valves.

技术参数 Technical Data

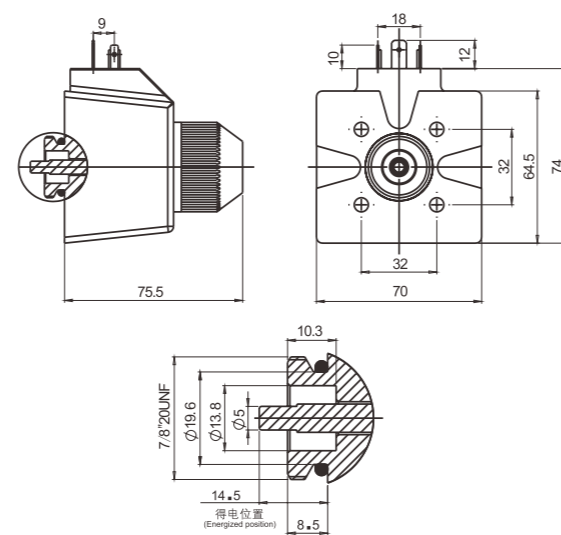
型号 / 参数 Code / Parameters	MFJ8X-27YC	MFJ8X-54YC	MFZ8X-37YC	MFZ8X-90YC
额定电压 Rated Voltage(V)	110 220	110 220	12 24	12 24
额定吸力 Rated Force(N)	≥27	≥54	≥37	≥90
额定行程 Rated Stroke(mm)	3	4	3	4
全行程 Full Stroke(mm)	≥6.5	≥8.5	≥6.5	≥8.5
耐油压 Rated Pressure(MPa)	21MPa			
消耗功率 Rated Power(W)	≤17	≤26	≤30	≤41
绝缘等级 Insulation Class	H级 Class H		F级(可提供H级) F Class(Class H is available on request)	
连接螺纹 Thread	M20 × 1	7/8" - 20UNF	M20 × 1	7/8" - 20UNF

外形及安装尺寸 Externality & Installation Dimensions

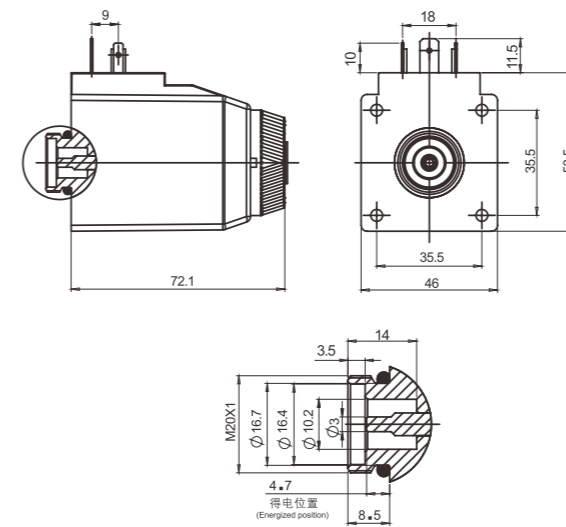
MFJ8X-27YC



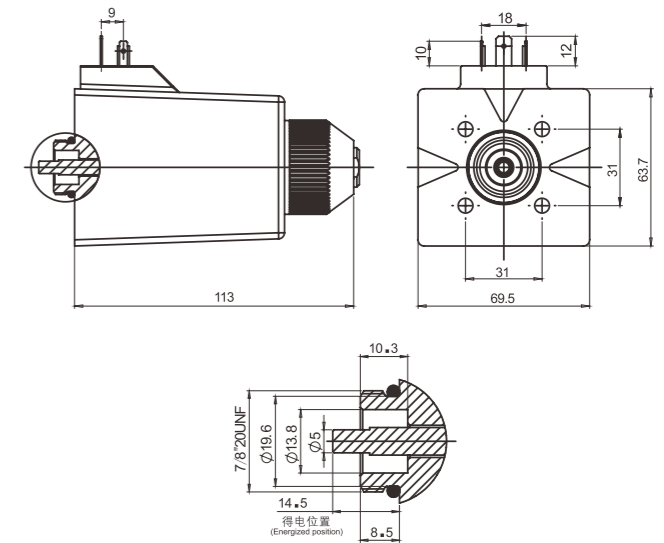
MFJ8X-54YC



MFZ8X-37YC

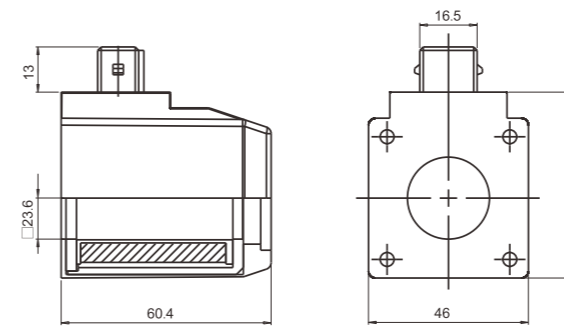


MFZ8X-90YC

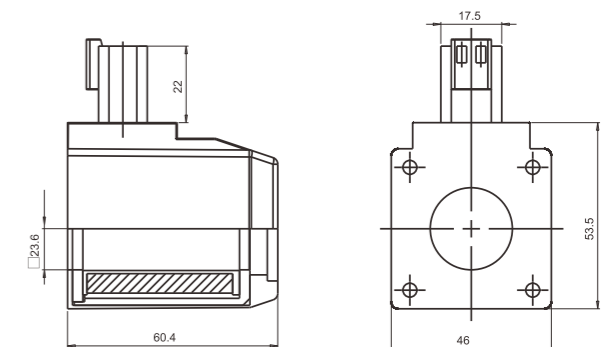


更多选择 Further variations For coils

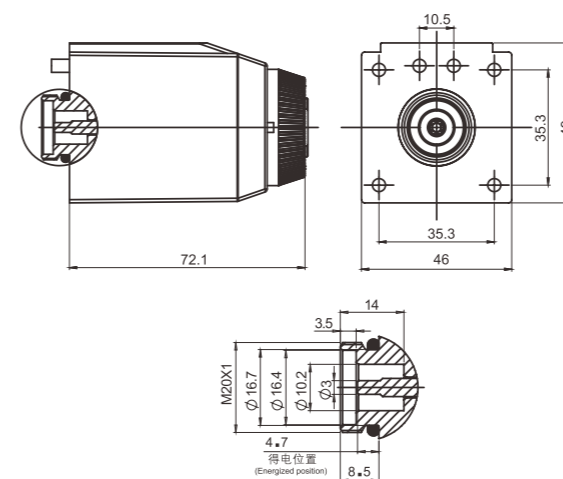
MFZ8X-37YA



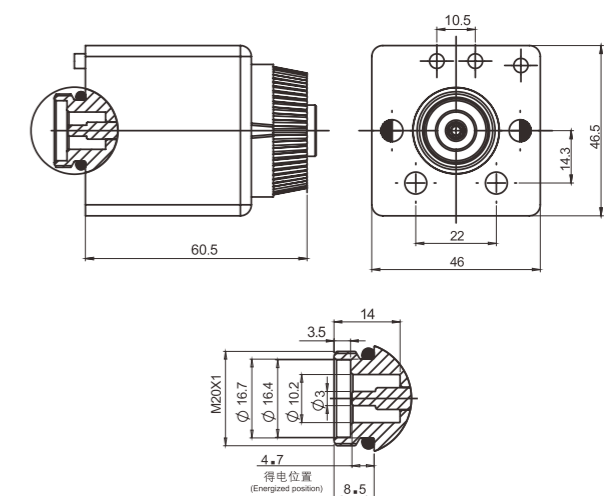
MFZ8X-37YD



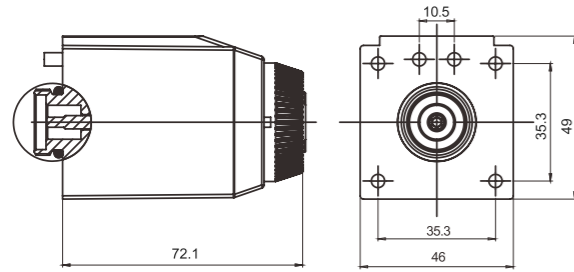
MFZ8X-37YL



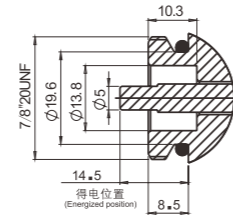
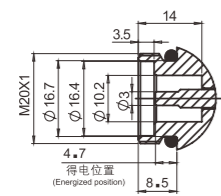
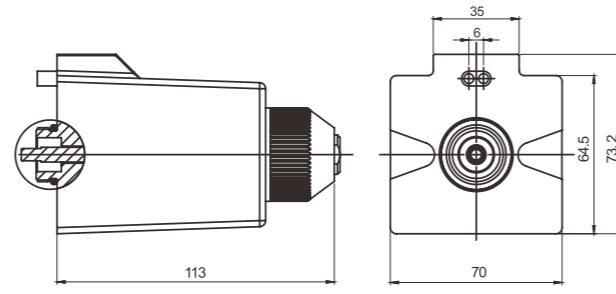
MFJ8X-27YL



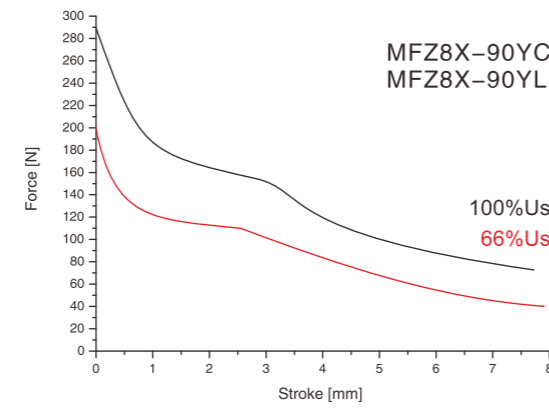
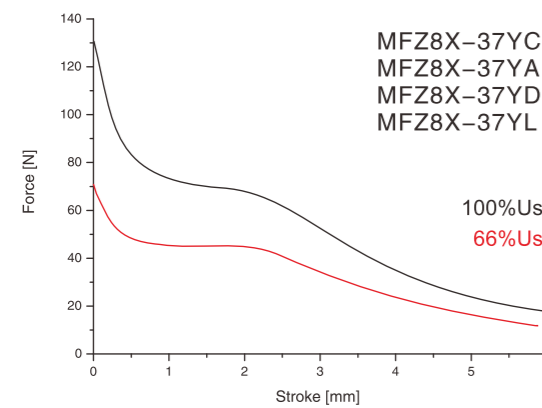
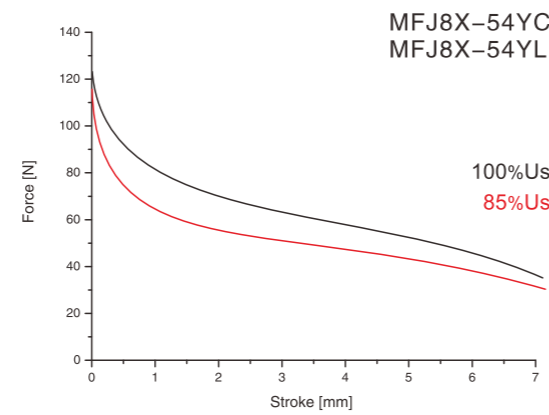
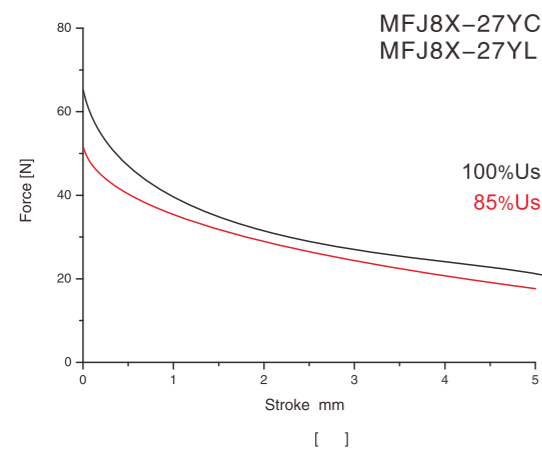
MFJ8X-54YL



MFZ8X-90YL



力-行程曲线 Force-Stroke Curve



如您对产品特性曲线或外形尺寸有特别要求, 请咨询本公司

Special designs and modifications for characteristic curve or dimensions are available on request.

MFZ9 直流湿式阀用电磁铁  
MFZ9 DC Solenoids for Hydraulics

MFB9 交流本整型湿式阀用电磁铁  
MFB9 RAC Solenoids for Hydraulics

MFJ9 交流湿式阀用电磁铁  
MFJ9 AC Solenoids for Hydraulics



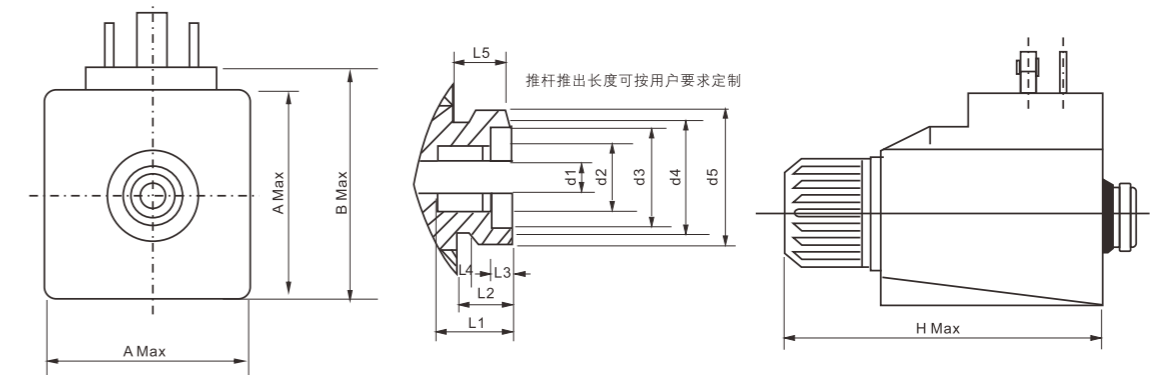
用途: 作为螺纹连接型电磁换向阀的动力元件。

Application: Design for threaded connection type directional hydraulic valves.

技术参数 Technical Data

型号 / 参数 Code / Parameters	MFZ9-22YC	MFZ9-37YC MFB9-37YC	MFZ9-90YC MFB9-90YC	MFJ9-27YC	MFJ9-54YC
额定电压 Rated Voltage(V)	DC6-220V, AC110-380V				
额定吸力 Rated Force(N)	≥22	≥37	≥90	≥27	≥54
额定行程 Rated Stroke(mm)	2.8 (3)	2.8 (3)	3.6 (4)	2.8 (3)	3.6 (4)
全行程 Full Stroke(mm)	≥6.5	≥6.5	≥8.5	≥6.5	≥8.5
耐油压 Rated Pressure(MPa)	21MPa				
消耗功率 Rated Power(W)	≤30	≤30	≤40	≤26	≤40
绝缘等级 Insulation Class	F级(可提供H级) F Class(Class H is available on request)				
连接螺纹 Thread	M20×1	M20×1	M26×1.5	M20×1	M26×1.5

外形及安装尺寸 Externality & Installation Dimensions



型号 / 尺寸	Amax	Hmax	Bmax	d1	d2	d3	d4	d5	L1	L2	L3	L4	L5
MFZ9-22YC	35	74	43.2	Φ5	Φ8.7	Φ15	Φ16.8	M20×1	13.2	8.4	3.6	2.8	12.4±0.1
MFZ9-37YC	44	74	52	Φ5	Φ8.7	Φ15	Φ16.8	M20×1	13.2	8.4	3.6	2.8	6.5±0.1
MFZ9-90YC	69	110	75.6	Φ8.7	Φ18	Φ21.4	Φ23	M26×1.5	12.7	10	3.1	3	5.6±0.1
MFJ9-27YC	44	74	52	Φ5	Φ8.7	Φ15	Φ16.8	M20×1	13.2	8.4	3.6	2.8	6.5±0.1
MFJ9-54YC	69	72.5	75.6	Φ8.7	Φ18	Φ21.4	Φ23	M26×1.5	12.7	10	3.1	3	5.6±0.1

如您对产品特性曲线或外形尺寸有特别要求, 请咨询本公司

Special designs and modifications for characteristic curve or dimensions are available on request.



MFZ10 直流湿式阀用电磁铁  
MFZ10 DC Solenoid for Hydraulics

MFB10 本整型湿式阀用电磁铁  
MFB10 RAC Solenoid for Hydraulics

MFJ10 交流湿式阀用电磁铁  
MFJ10 AC Solenoid for Hydraulics

用途：作为液压电磁换向阀的动力元件。  
可配套德国力士乐六、十通径螺纹连接的电磁换向阀。  
Application: Design for Rexroth type directional hydraulic valves.



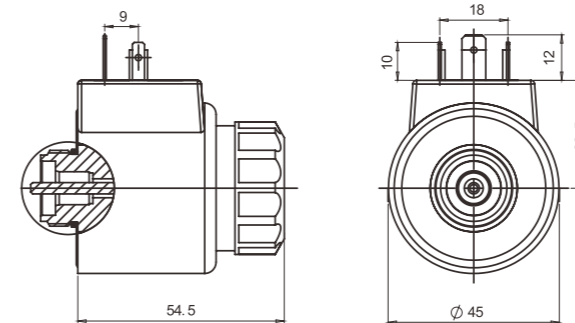
技术参数 Technical Data

型号 / 参数 Code / Parameters	MFZ10-20YC	MFZ10-22YC	MFZ10-25YC	MFZ10-37YC MFB10-37YC	MFZ10-80YC MFB10-80YC	MFZ10-90YC MFB10-90YC	MFJ10-27YC	MFJ10-54YC	Z10-25YD	Z10-70YC
额定电压 Rated Voltage(V)	12 28 36 110 220	12 24 110 220	12 24 110 220	12 24 110 220	12 24 110 220	12 24 110 220	110 220	110 220	DC24 (可定制)	DC24 (可定制)
额定吸力 Rated Force(N)	≥20	≥22	≥25	≥37	≥80	≥90	≥27	≥54	≥25	≥70
额定行程 Rated Stroke(mm)	2	2.8 (3)	2.8	2.8 (3)	3.6(4)	3.6 (4)	2.8 (3)	3.6 (4)	2.8	4
全行程 Full Stroke(mm)	≥4	≥6	≥6	≥6	≥8	≥8	≥6	≥8	≥6.1	≥9
耐油压 Rated Pressure(MPa)	21MPa									
消耗功率 Rated Power(W)	≤29	≤33	≤26	≤30	≤50	≤37	≤28	≤37	≤26	≤38
绝缘等级 Insulation Class	F级(可提供H级) F Class(Class H is available on request)									
IP等级 IP Class	IP65 (可提供更高等级) IP65 (IP67 or IP69 are also available on request)									
连接螺纹 Thread	M15 x 1	M20 x 1	M20 x 1	M20 x 1	M26X1.5	M26 x 1.5	M20 x 1	M26 x 1.5		

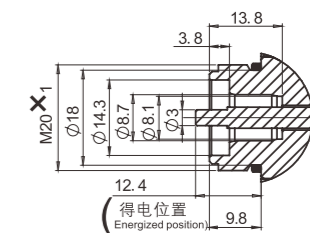
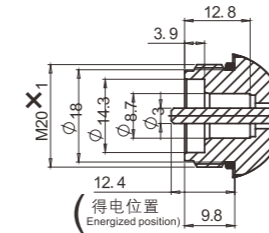
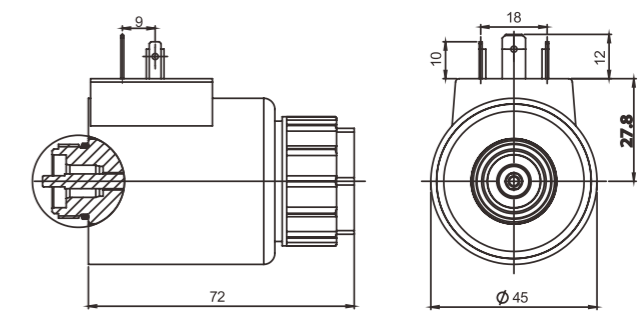
\*MFZ10-80YC线圈内孔只有31.3

MFZ10-90YC线圈内孔有31和31.3两种，默认31mm

MFZ10-25YC

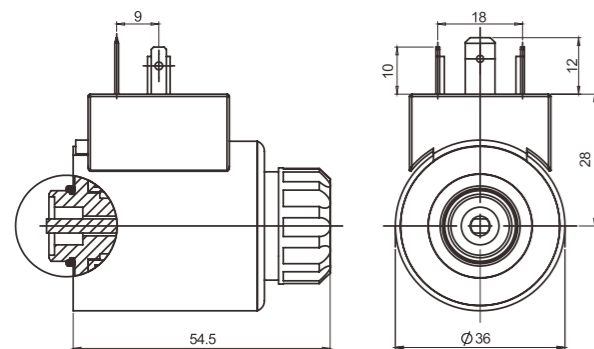


MFZ10-37YC

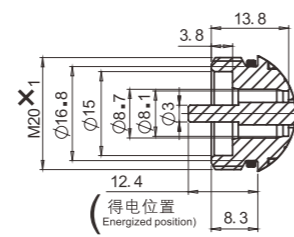
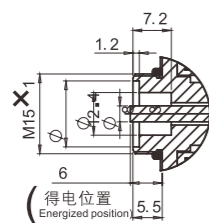
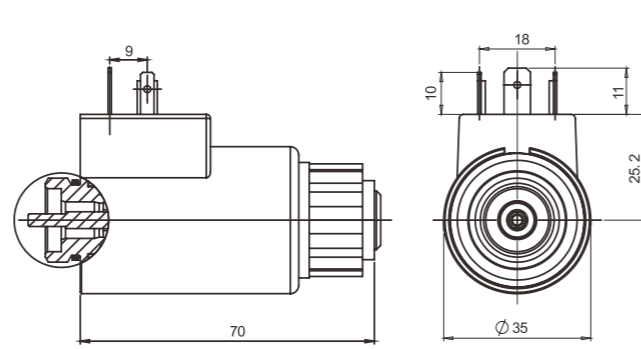


外形及安装尺寸 Externality & Installation Dimensions

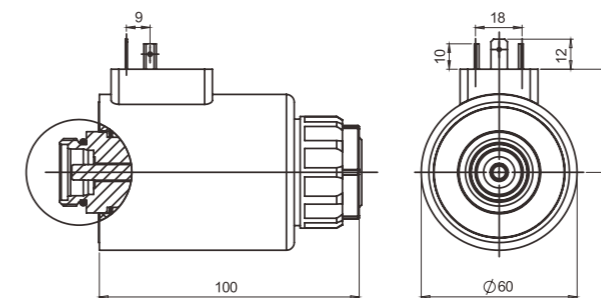
MFZ10-20YC



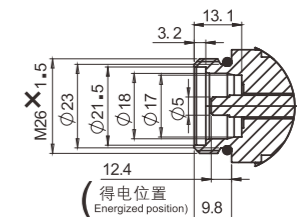
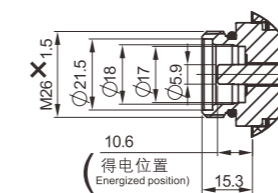
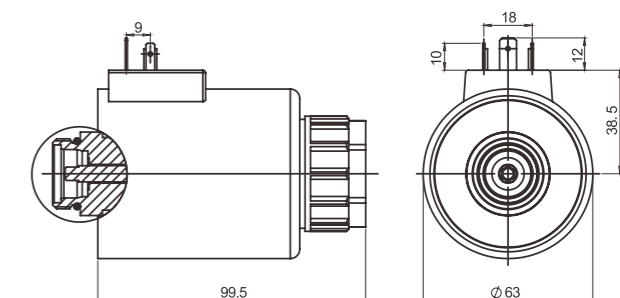
MFZ10-22YC



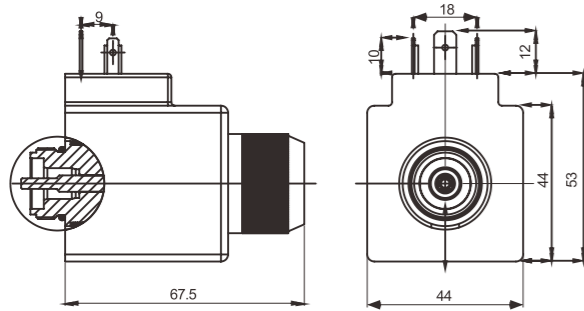
MFZ10-80YC



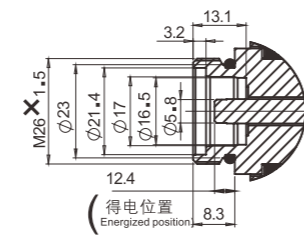
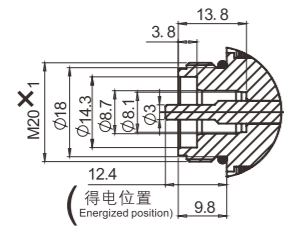
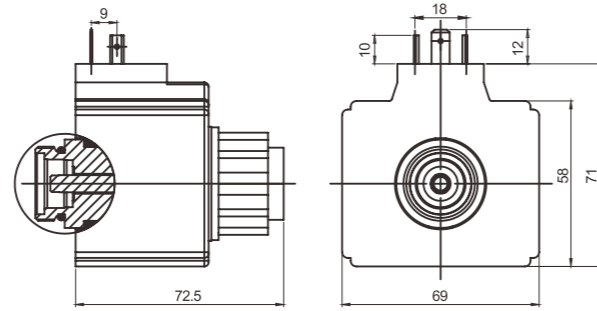
MFZ10-90YC



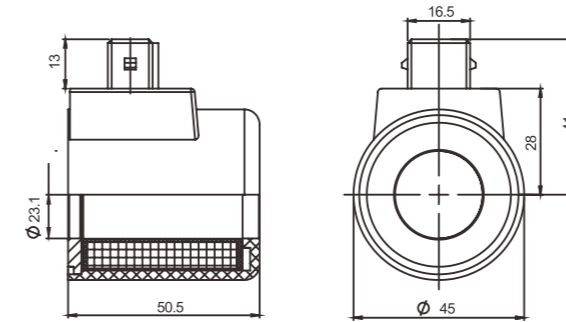
MFJ10-27YC



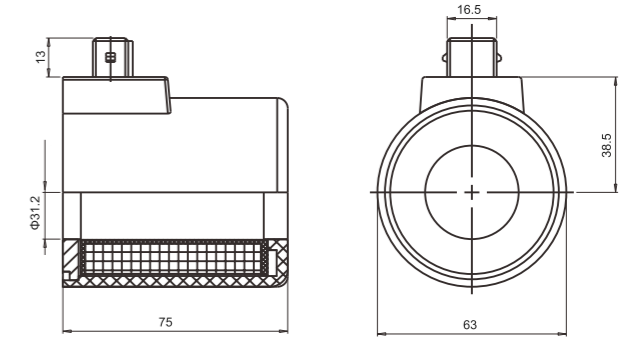
MFJ10-54YC



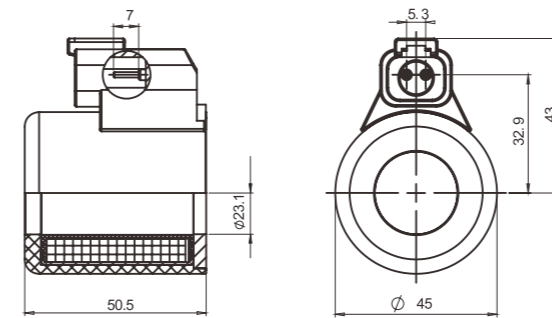
MFZ10-37YA (AMP)



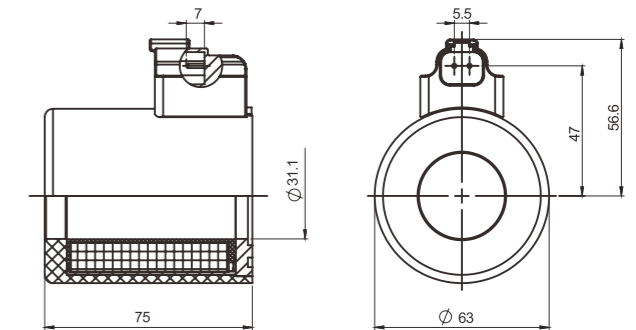
MFZ10-90YA (AMP)



MFZ10-37YD (DT04-2P)

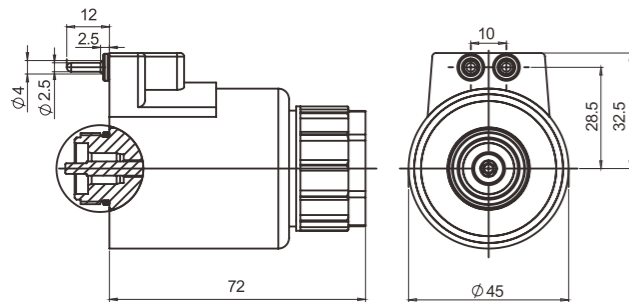


MFZ10-90YD (DT04-2P)

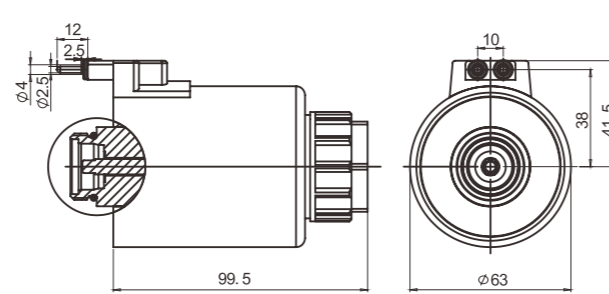


更多选择 Further variations For coils

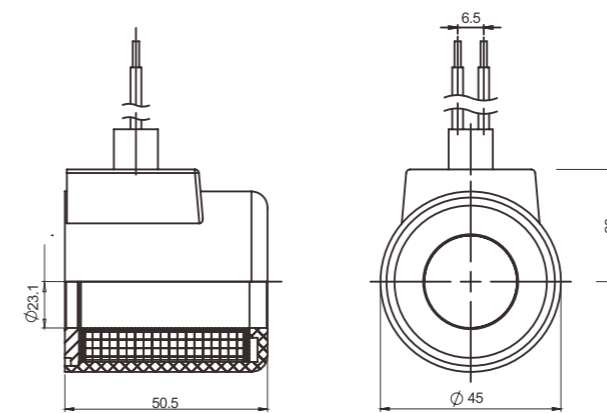
MFZ10-37YP



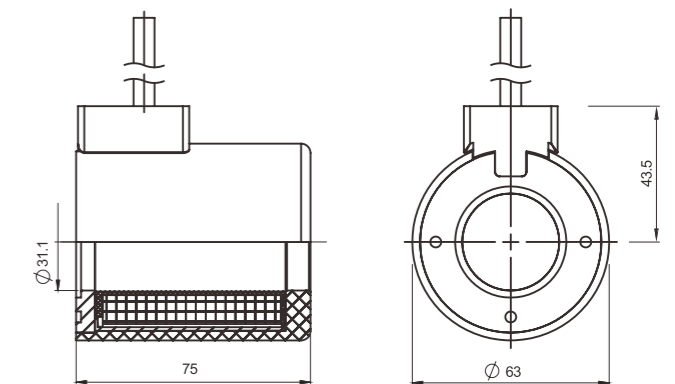
MFZ10-90YP



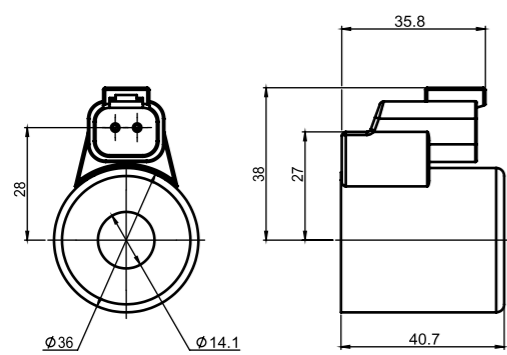
MFZ10-37YL (LINE)



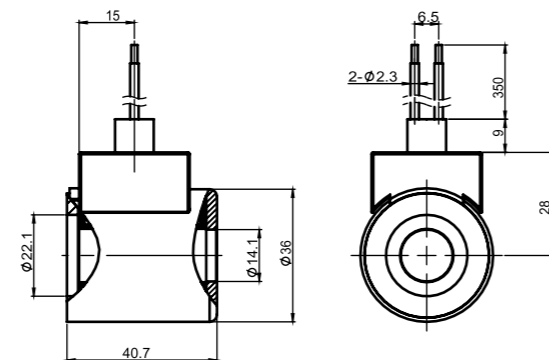
MFZ10-90YL (LINE)



C1020D

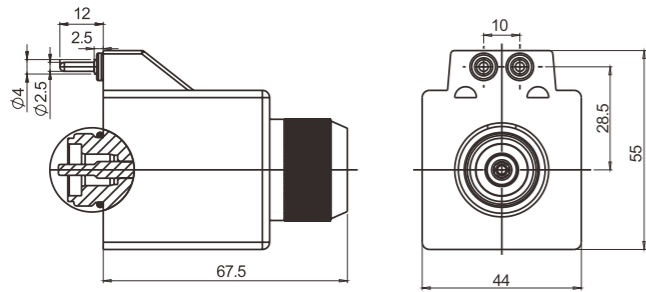


C1020L

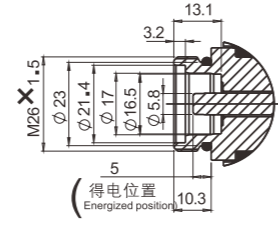
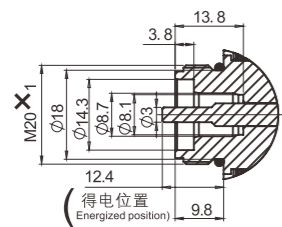
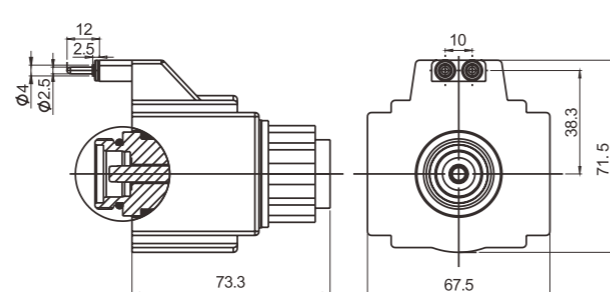




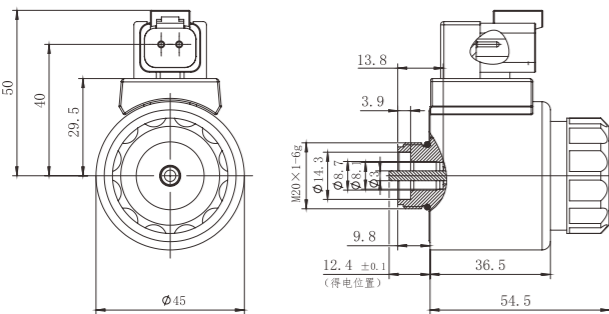
MFJ10-27YP



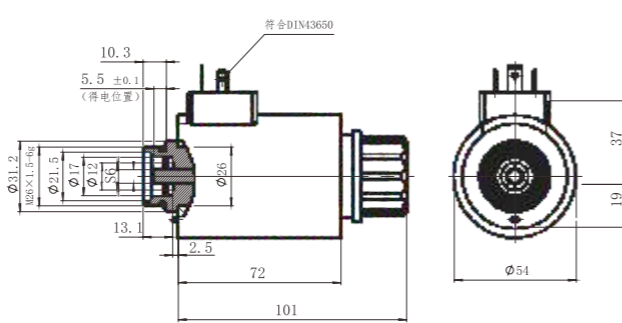
MFJ10-54YP



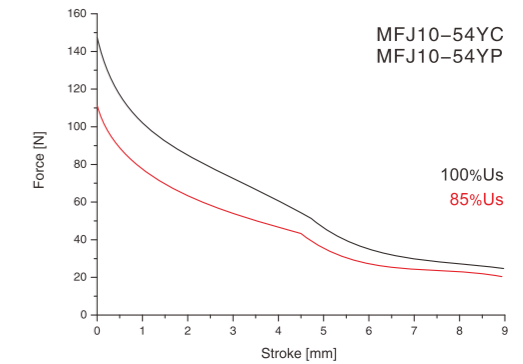
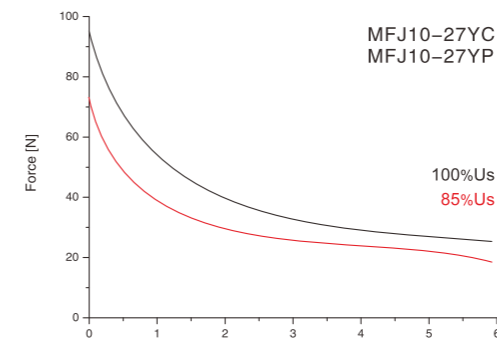
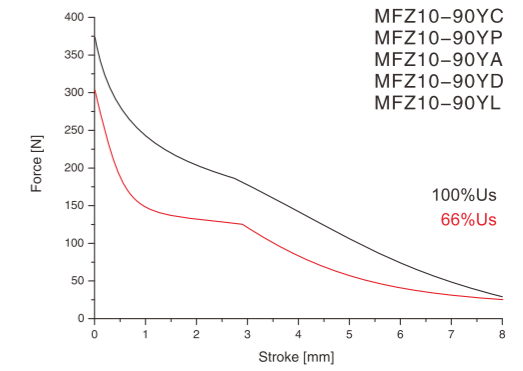
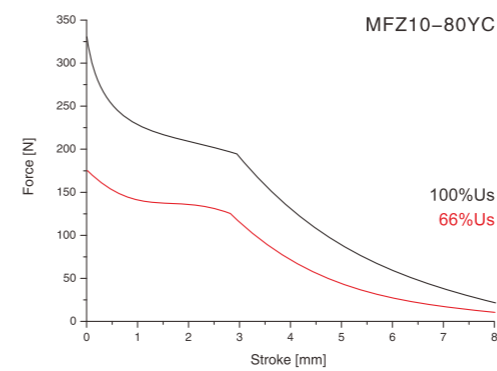
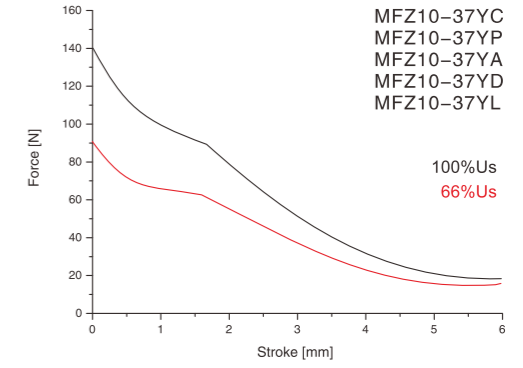
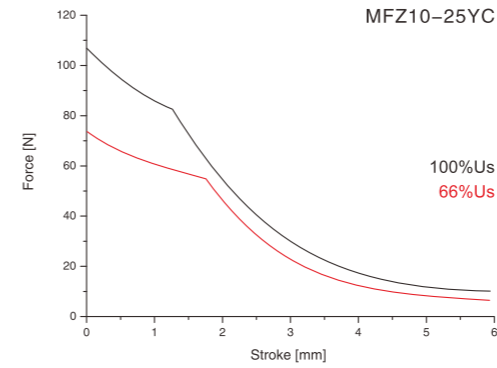
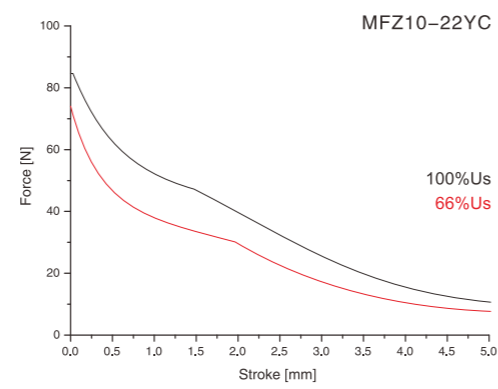
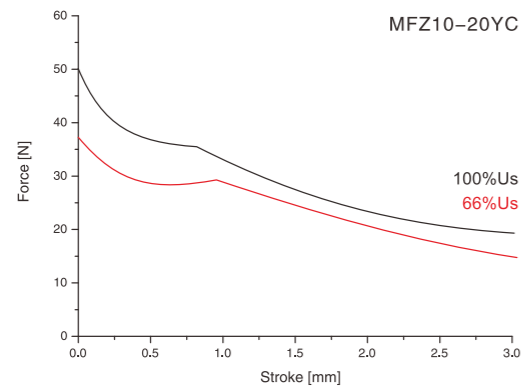
Z10-25YD



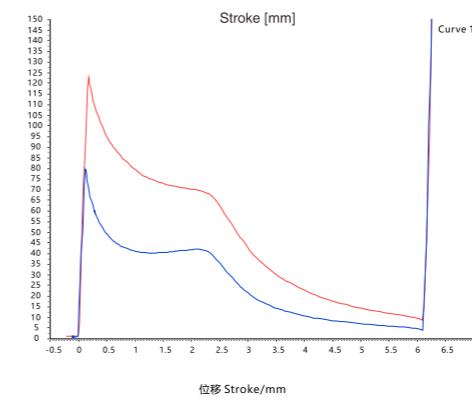
Z10-70YC



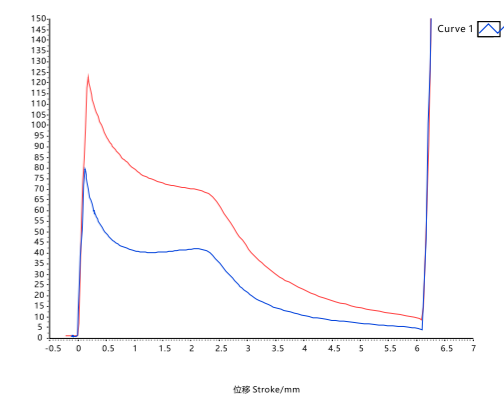
力-行程曲线 Force-Stroke Curve



Z10-25YD



Z10-70YC



如您对产品特性曲线或外形尺寸有特别要求，请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.

MFZ11 直流湿式阀用电磁铁

MFZ11 DC Solenoid for Hydraulics

MFB11 本整型湿式阀用电磁铁

MFB11 RAC Solenoid for Hydraulics

MFJ11 交流湿式阀用电磁铁

MFJ11 AC Solenoid for Hydraulics



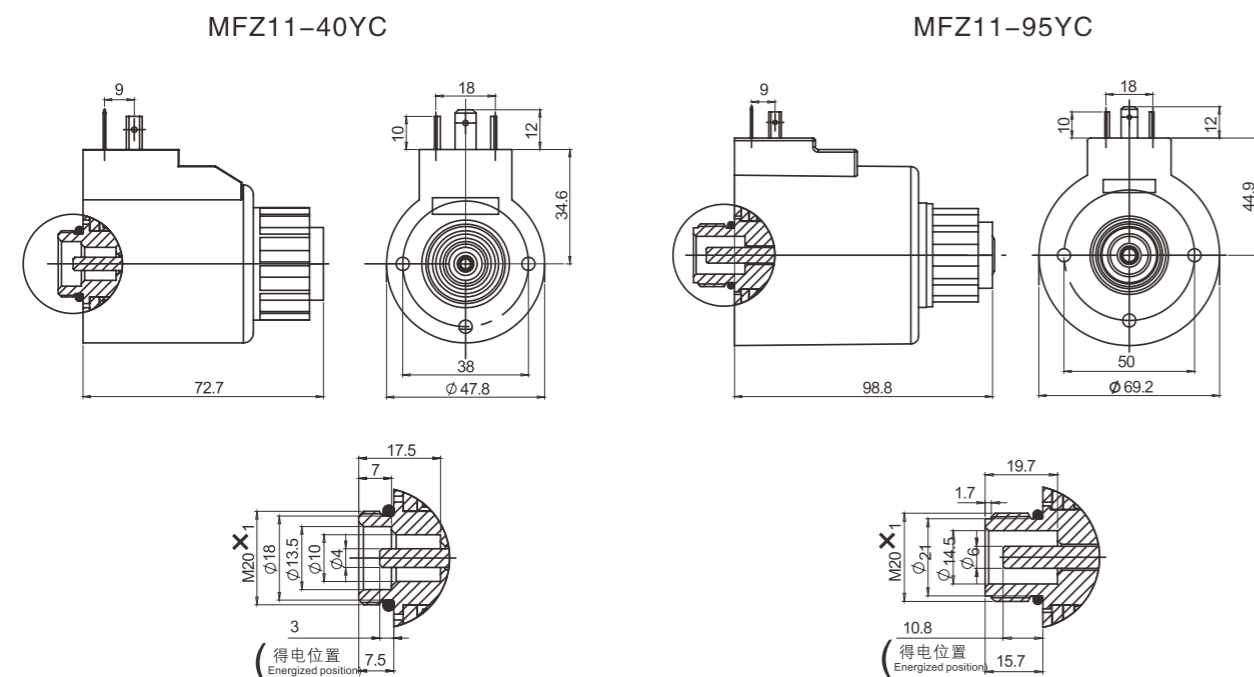
用途：作为液压电磁换向阀的动力元件。可配套北部精机型六、十通径螺纹连接的电磁换向阀。

Application: Design for Northman type directional hydraulic valves.

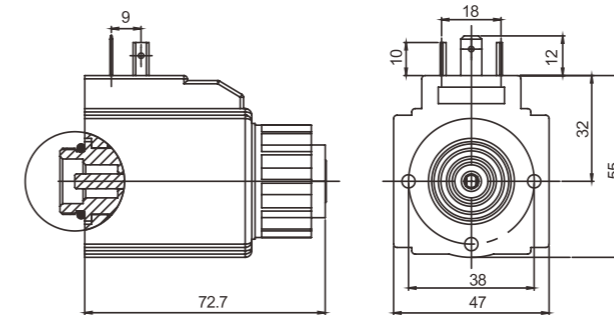
技术参数 Technical Data

型号 / 参数 Parameters/Code	MFZ11-40YC	MFJ11-28YC	MFJ11-52YC	MFZ11-95YC
额定电压 Rated Voltage(V)	12 24 RF240/120	120 220 240	110 120 220 240	12 24 RF120/240
额定吸力 Rated Force(N)	≥40	≥28	≥52	≥95
额定行程 Rated Stroke(mm)	2.8	2.8	4	4
全行程 Full Stroke(mm)	≥6.5	≥6.5	≥8.5	≥8.5
耐油压 Rated Pressure(MPa)	21MPa			
消耗功率 Rated Power(W)	≤33	≤30	≤36	≤42
绝缘等级 Insulation Class	F级(可提供H级) F Class(Class H is available on request)			
连接螺纹 Thread	M20 × 1	M20 × 1	M24 × 1.5	M24 × 1.5

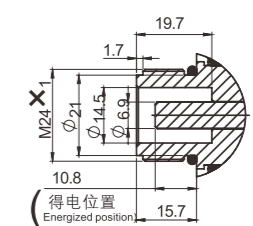
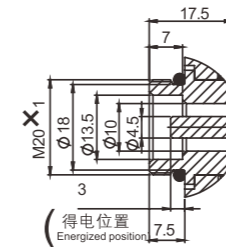
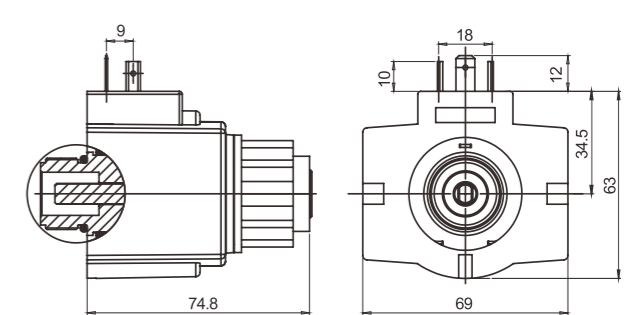
外形及安装尺寸 Externality & Installation Dimensions



MFJ11-28YC

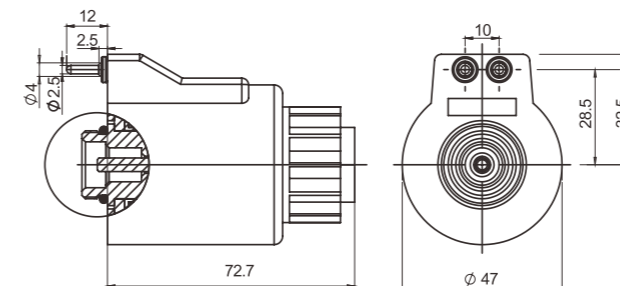


MFJ11-52YC

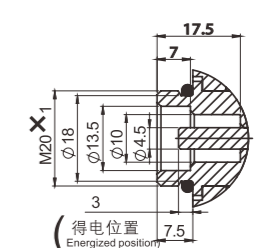
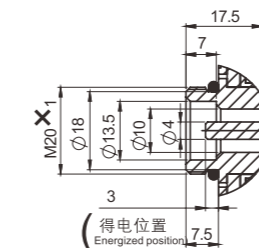
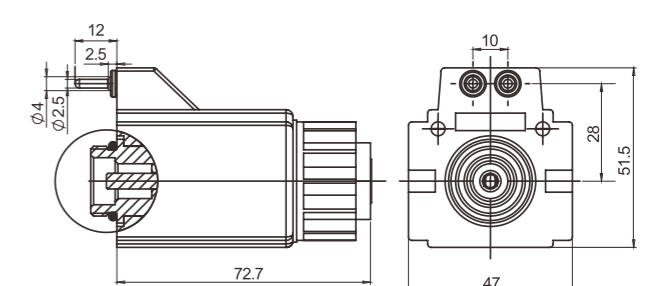


更多选择 Further variations For coils

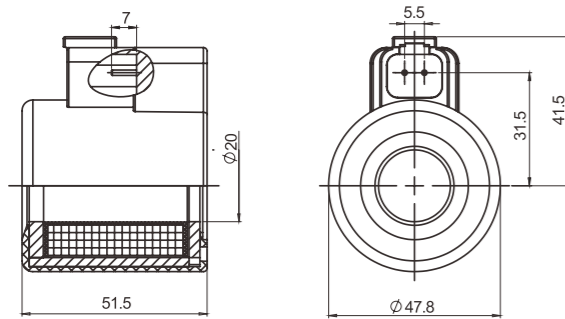
MFZ11-40YP



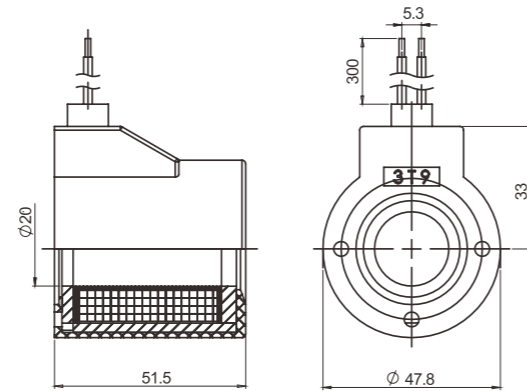
MFJ11-28YP



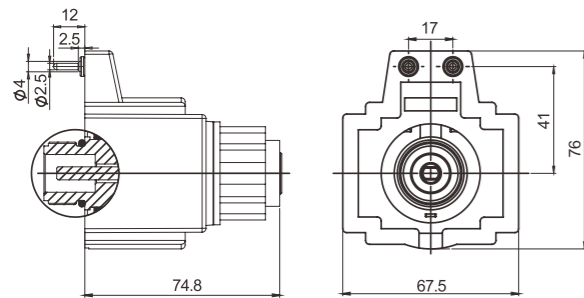
MFZ11-40YD



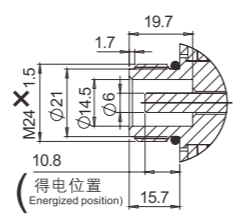
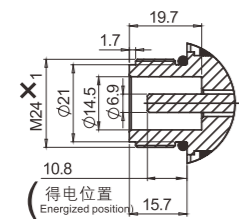
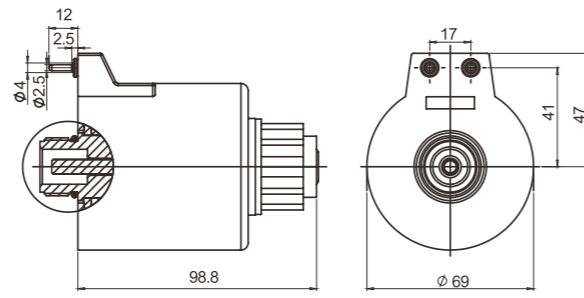
MFZ11-40YL



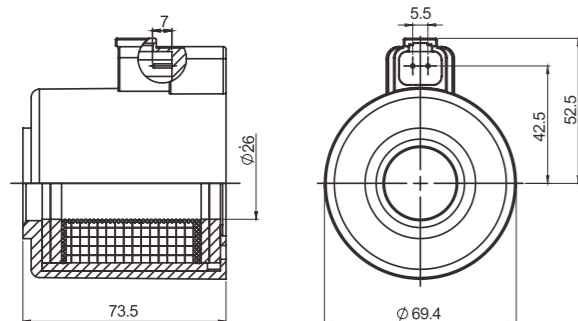
MFJ11-52YP



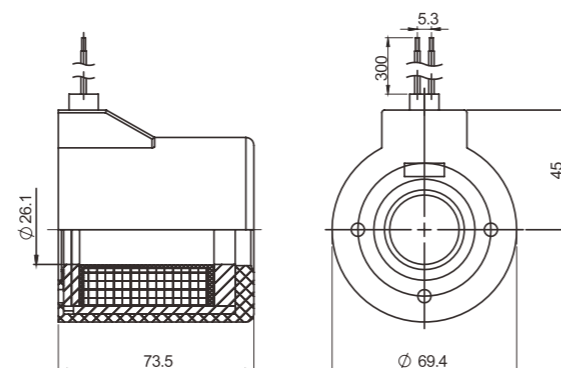
MFZ11-95YP



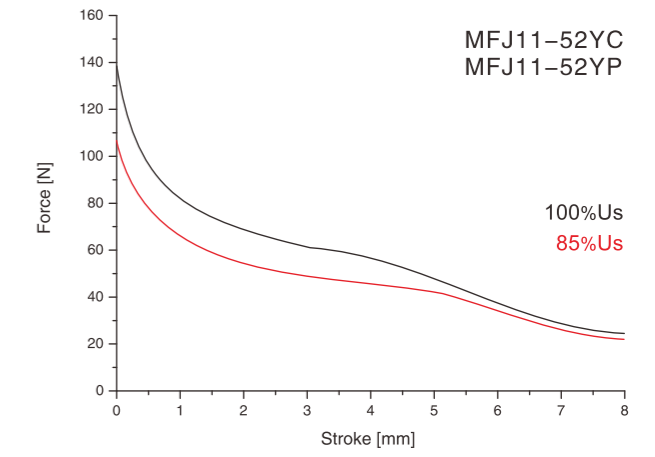
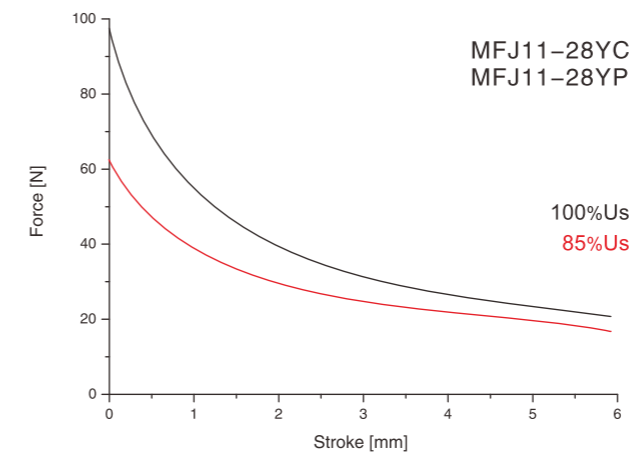
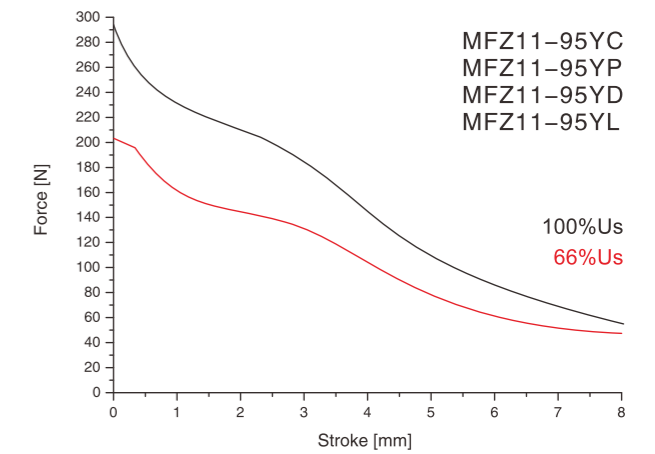
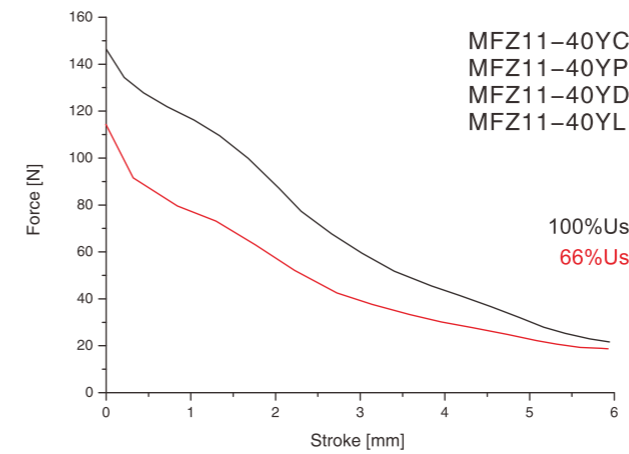
MFZ11-95YD



MFZ11-95YL



力-行程曲线 Force-Stroke Curve



如您对产品特性曲线或外形尺寸有特别要求, 请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.



MFZ12 直流湿式阀用电磁铁

MFZ12 DC Solenoid for Hydraulics

MFB12 本整型湿式阀用电磁铁

MFB12 RAC Solenoid for Hydraulics

MFJ12 交流湿式阀用电磁铁

MFJ12 AC Solenoid for Hydraulics

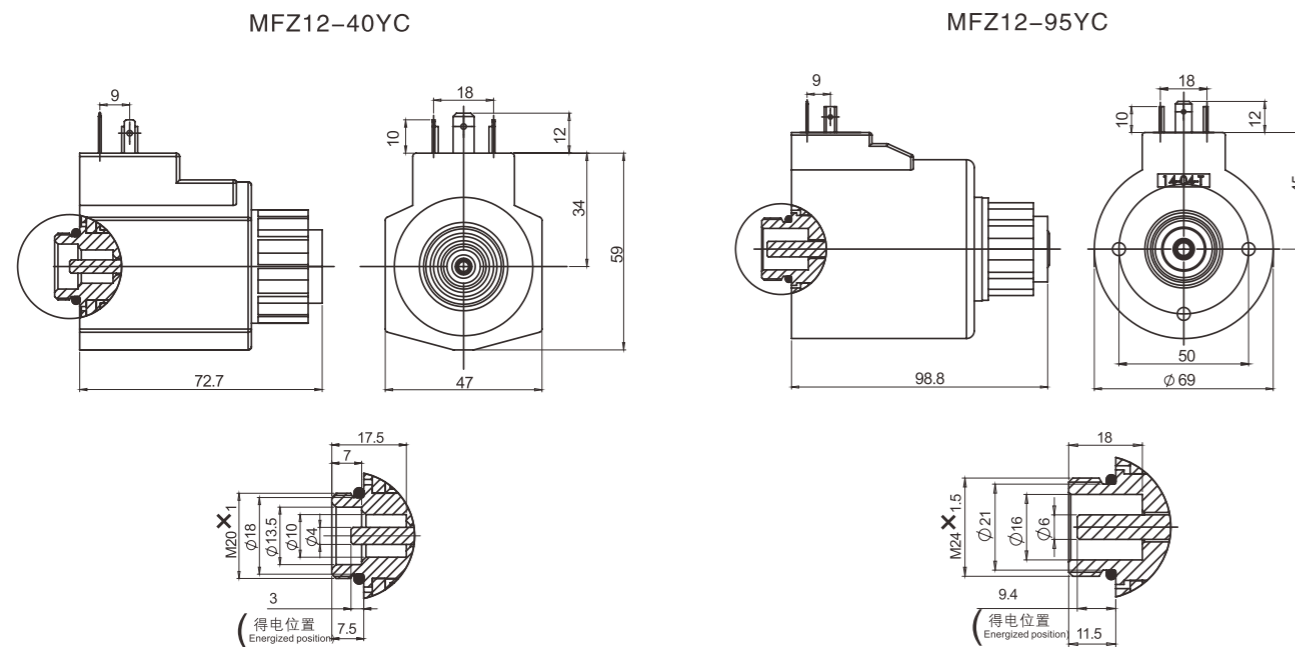


用途：作为液压电磁换向阀的动力元件。可配套油研型六、十通径螺纹连接的电磁换向阀。  
Application: Design for Yuken type directional hydraulic valves.

技术参数 Technical Data

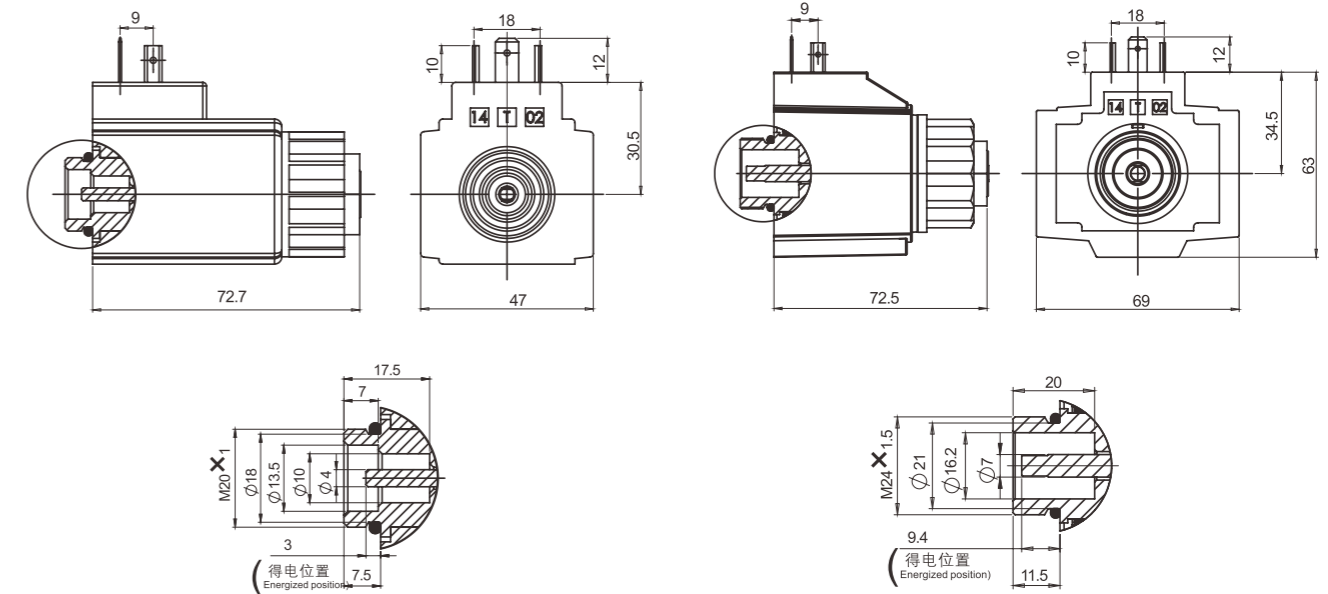
型号 / 参数 Code / Parameters	MFZ12-40YC	MFZ12-95YC	MFJ12-26YC	MFJ12-50YC
额定电压 Rated Voltage(V)	12 24 110 220	12 24 110 220	110 220	110 220
额定吸力 Rated Force(N)	≥40	≥95	≥26	≥50
额定行程 Rated Stroke(mm)	3	4	3	4
全程 Full Stroke(mm)	≥6.2	≥8.5	≥6.2	≥8.5
耐油压 Rated Pressure(MPa)	21MPa			
消耗功率 Rated Power(W)	≤30	≤36	≤30	≤40
绝缘等级 Insulation Class	F级(可提供H级) F Class(Class H is available on request)			
连接螺纹 Thread	M20 × 1	M24 × 1.5	M20 × 1	M24 × 1.5

外形及安装尺寸 Externality & Installation Dimensions



MFJ12-26YC

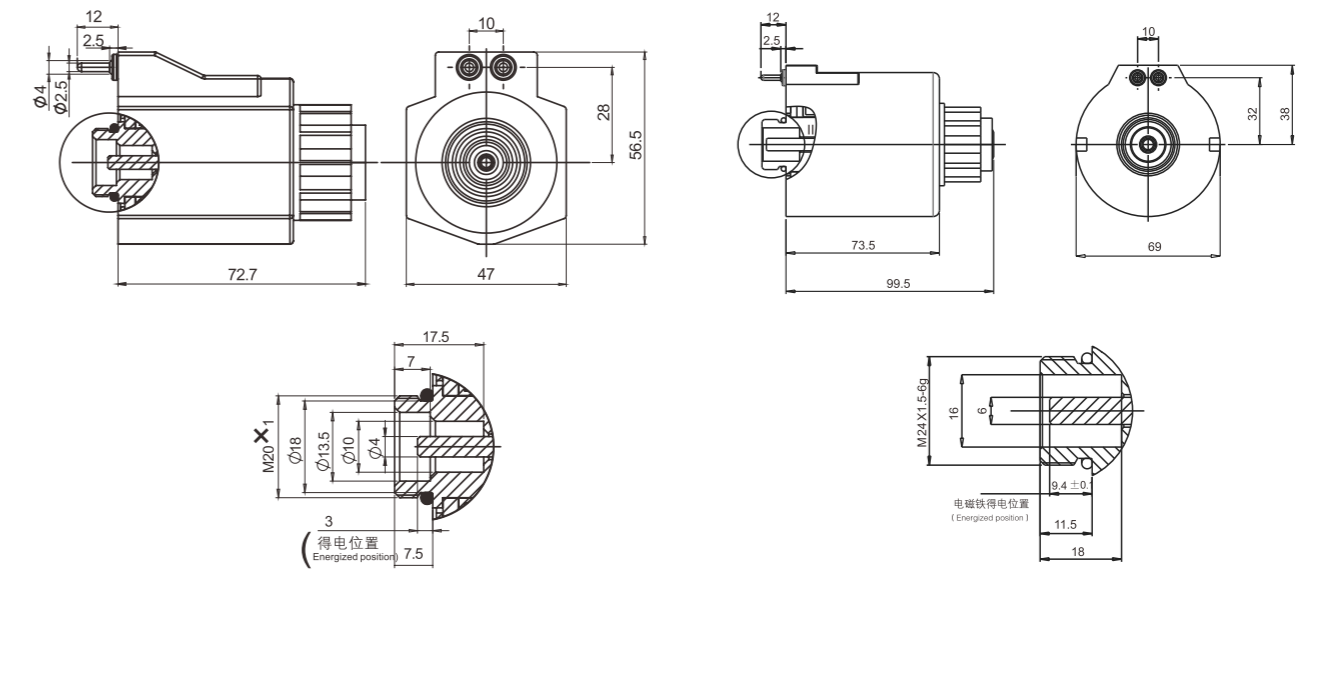
MFJ12-50YC

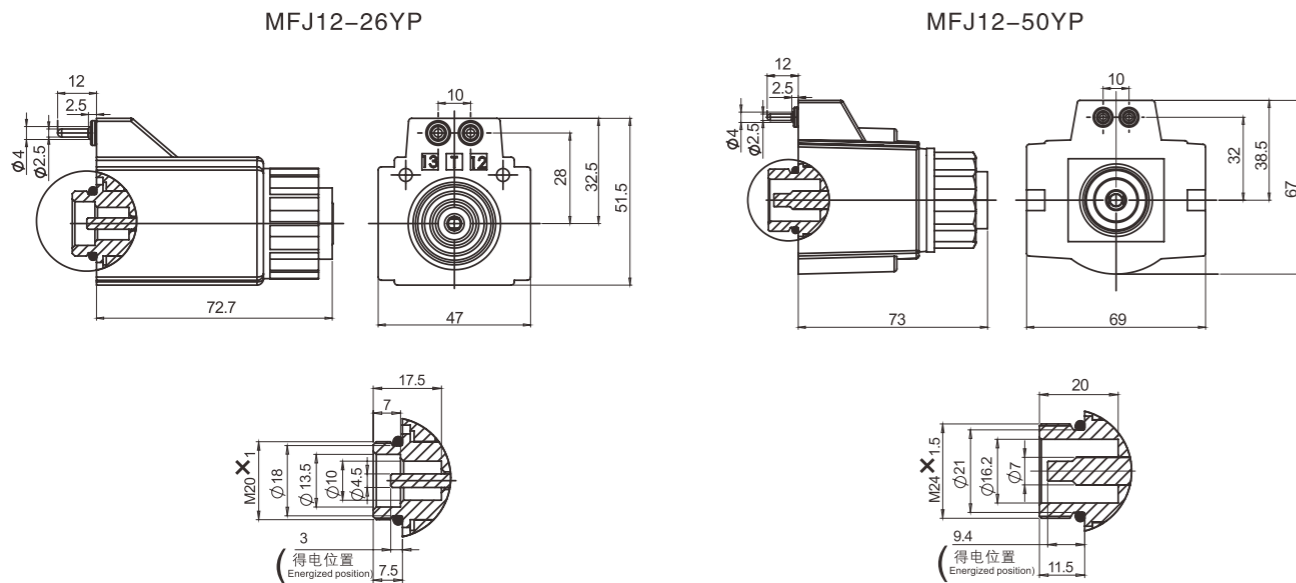


更多选择 Further variations For coils

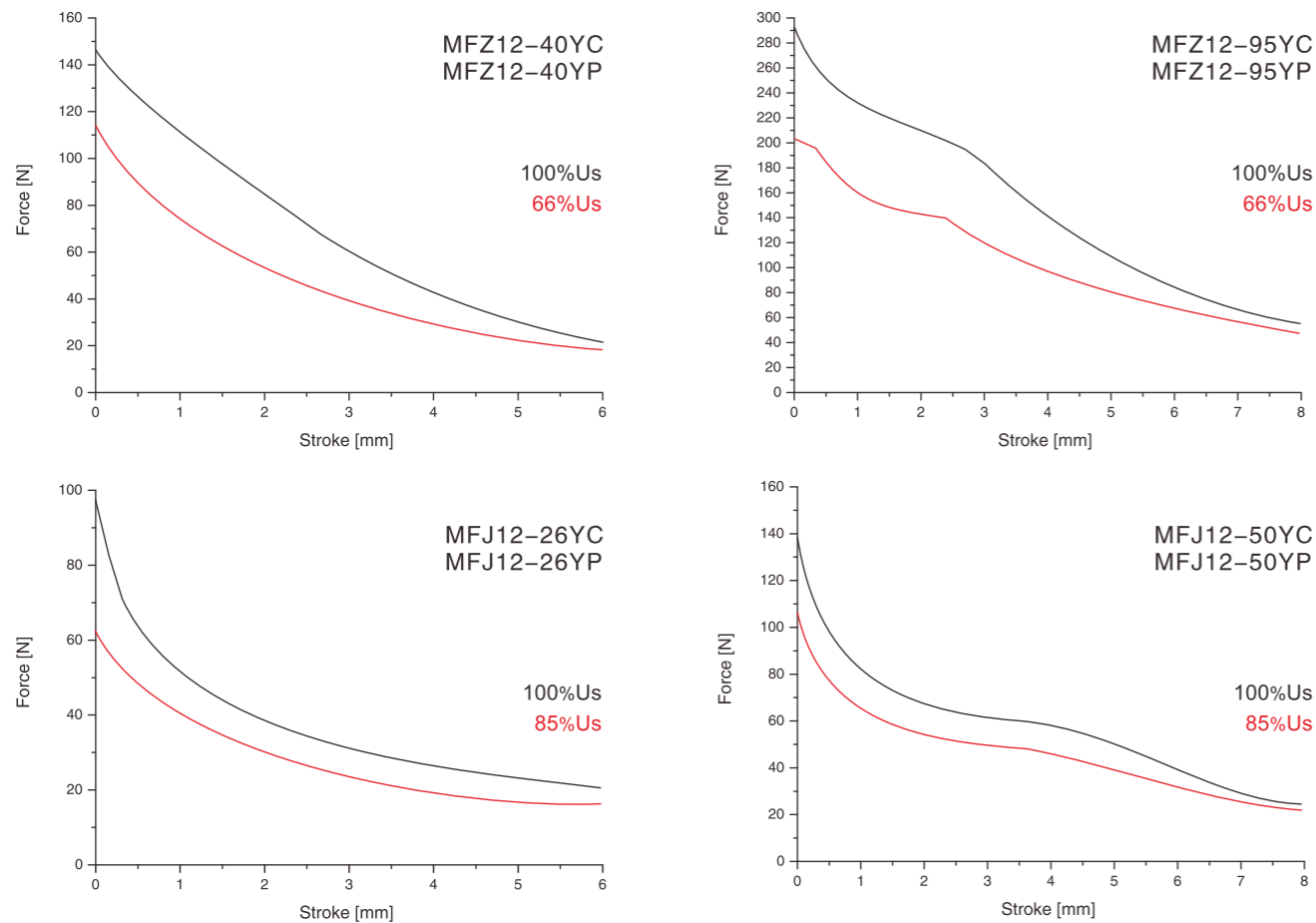
MFZ12-40YP

MFZ12-95YP





力-行程曲线 Force-Stroke Curve



如您对产品特性曲线或外形尺寸有特别要求，请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.

MFZ13 直流湿式阀用电磁铁  
MFZ13 DC Solenoid for Hydraulics

MFB13 本整型湿式阀用电磁铁  
MFB13 RAC Solenoid for Hydraulics



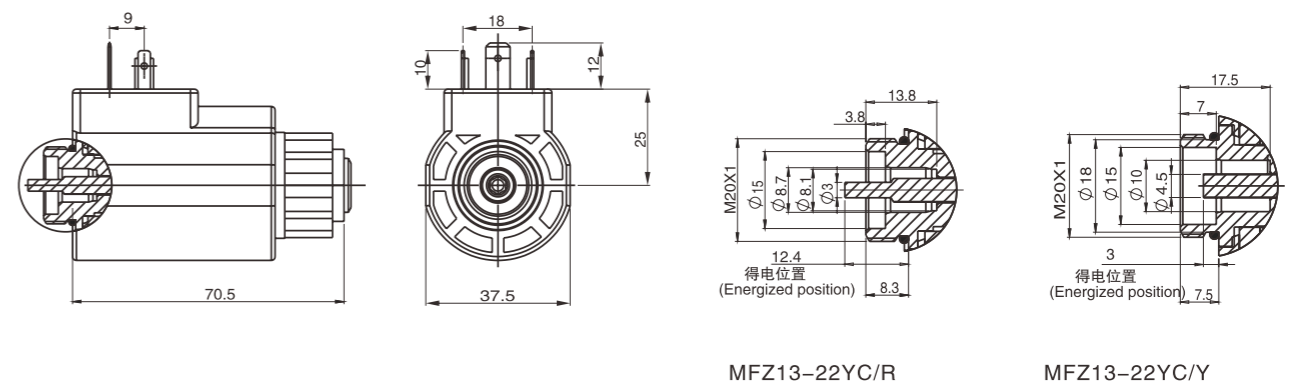
用途：作为液压电磁换向阀的动力元件。可配套油研型六、十通径螺纹连接的电磁换向阀。  
Application: Design for Yuken type directional hydraulic valves.

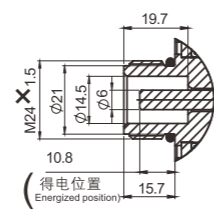
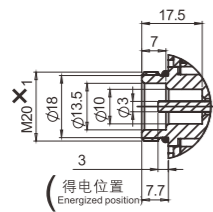
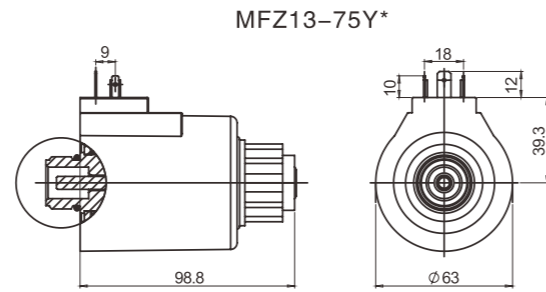
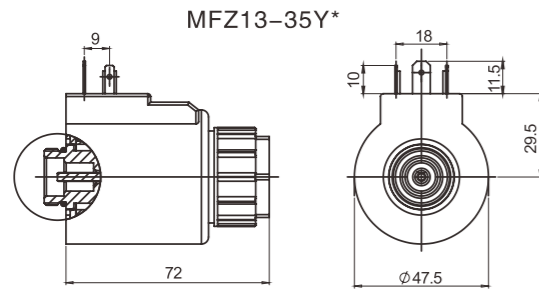
技术参数 Technical Data

型号 / 参数 Code / Parameters	MFZ13-22YC	MFZ13-35Y*	MFZ13-75Y*
额定电压 Rated Voltage(V)	12 24	12 24 110 220	12 24 110 220
额定吸力 Rated Force(N)	≥22	≥35	≥75
额定行程 Rated Stroke(mm)	2.8	2.8	4
全行程 Full Stroke(mm)	≥6.5	≥6.5	≥8.5
耐油压 Rated Pressure(MPa)	21MPa		
消耗功率 Rated Power(W)	≤28	≤30	≤36
绝缘等级 Insulation Class	F级(可提供H级) F Class(Class H is available on request)		
连接螺纹 Thread	M20 × 1	M20 × 1	M24 × 1.5

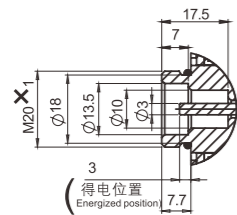
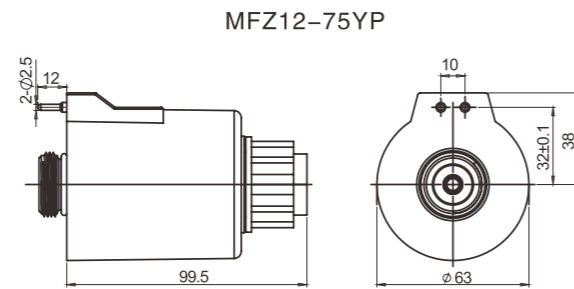
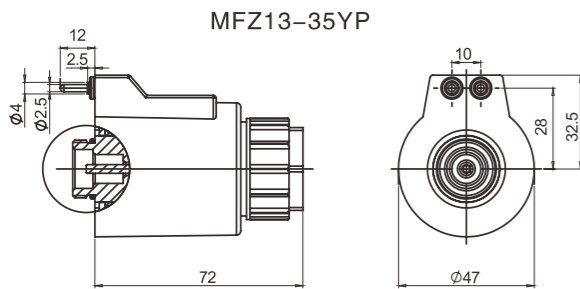
注:\* 为C或P

外形及安装尺寸 Externality & Installation Dimensions

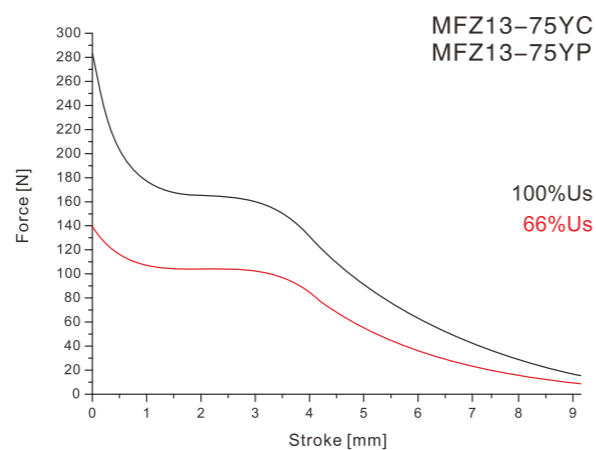
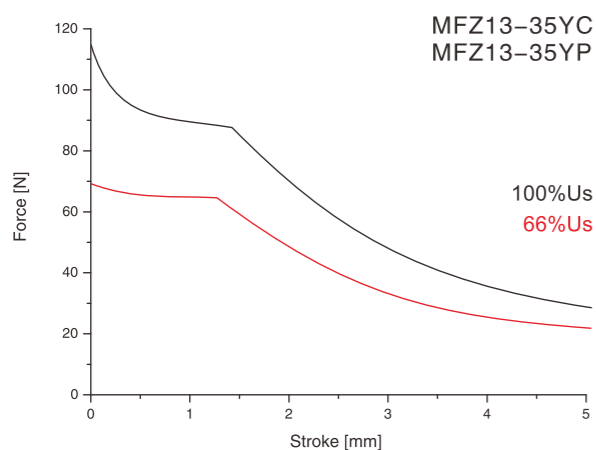




更多选择 Further variations For coils



力-行程曲线 Force-Stroke Curve



GV40/48 比例阀用电磁铁

GV40/48 Proportional Solenoid for Hydraulics

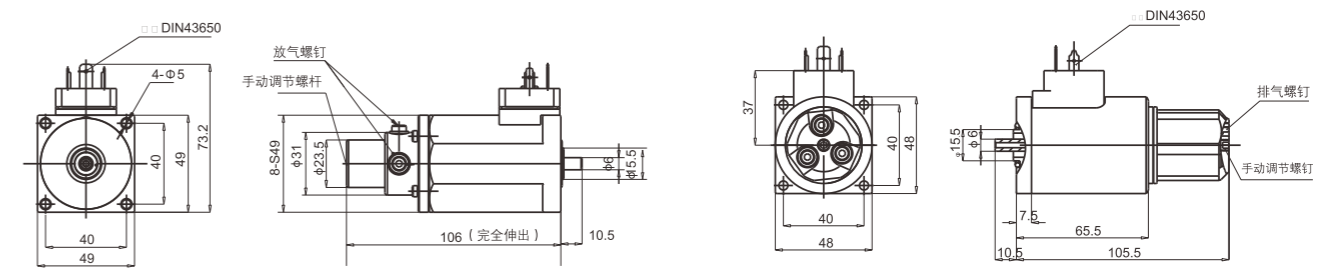
用途: GV40、GV48 比例阀用电磁铁是一种机电转换装置。在额定行程及额定电流范围内,其输出力与输入信号成比例。与比例控制放大器配套使用,可对电液比例阀的阀芯位置进行准确控制。它具有良好的线性增益,重复精度高,输出力大的特点。适用于先导式比例溢流阀、比例减压阀及电液比例复合阀(PQ阀)等多种电液比例阀。



技术参数 Technical Data

型号 / 参数 Code Parameters	额定电流 Rated Current(A)	额定吸力 Rated Force(N)	额定行程 Rated Stroke(mm)	全行程 Full Stroke (mm)	通电率(%) Duty Cycle	电阻(20℃) Rated Resistance(Ω)	力滞环 Rated Force Hysteresis(%)	电流滞环 Rated Current Hysteresis(%)	重复精度(%) Repeat Accuracy	耐油压(MPa) Pressure Tightness
GV40	0.8	49N	3	3.2	100	10	≤3	≤2	≤1	21
GV48	0.8	48N	3	3.2	100	11.2	≤4	≤2	≤1	21

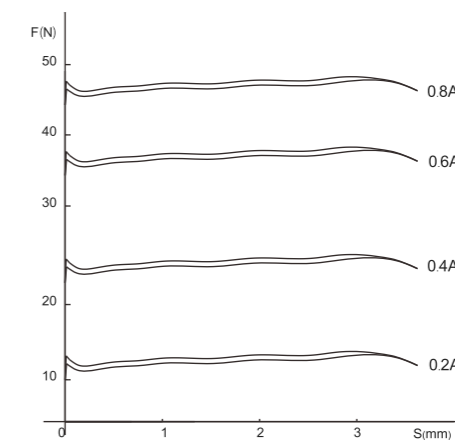
外形及安装尺寸 Externality & Installation Dimensions



GV40比例阀用电磁铁

GV48比例阀用电磁铁

力-行程曲线 Force-Stroke Curve



如您对产品特性曲线或外形尺寸有特别要求,请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.



### GP80A/80B 比例阀用电磁铁

GV80A/80B Proportional Solenoid for Hydraulic

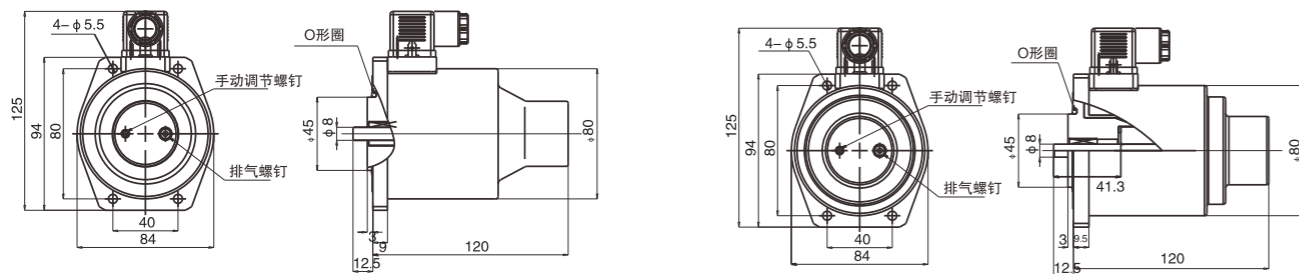
用途： GP80B 比例阀用电磁铁是一种机电转换装置。在额定行程及额定电流范围内，其输出力与输入信号成比例。与比例控制放大器配套使用，可对电液比例阀的阀芯位置进行准确控制。它具有线性工作行程长，重复精度高，输出力大的特点。常作为直控式比例溢流阀、比例流量阀、比例节流阀和电液比例复合阀（PQ阀）的动力元件。



#### 技术参数 Technical Data

型号 / 参数 Code Parameters	额定电流 Rated Current(A)	额定吸力 Rated Force(N)	额定行程 Rated Stroke(mm)	全行程 Full Stroke (mm)	通电率(%) Duty Cycle	电阻(20°C) Rated Resistance(Ω)	力滞环 Rated Force Hysteresis(%)	电流滞环 Rated Current Hysteresis(%)	重复精度(%) Repeat Accuracy	耐油压(MPa) Pressure Tightness
GP80-A	0.6	90N	9	10	100	41	≤3.8	≤3	≤1	21
GP80-B	0.6	90N	9	10	100	41	≤3.8	≤3	≤1	21

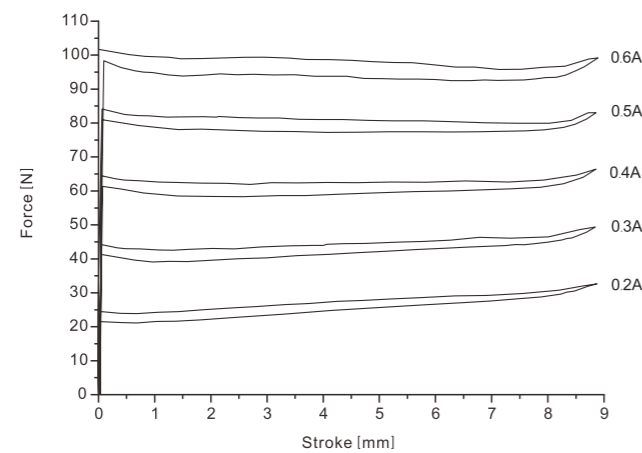
#### 外形及安装尺寸 Externality & Installation Dimensions



GV80-A比例阀用电磁铁

GV80-B比例阀用电磁铁

#### 力-行程曲线 Force-Stroke Curve



如您对产品特性曲线或外形尺寸有特别要求，请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.

### GP37/37W 比例阀用电磁铁

GV37/37W Proportional Solenoid for Hydraulics

用途：本系列电磁铁是一种机电转换元件，适用于直流12V或24V电液比例控制系统中，其输出力的大小与输入电流成正比。与电子比例控制器配套使用，可实现对相应的电液比例变量泵，直动式或先导式比例调速阀的多种液压原件的精确控制，由此组合的液压原件，常用于工程机械，塑料注射成形机，制砖机等多种机械设备中。

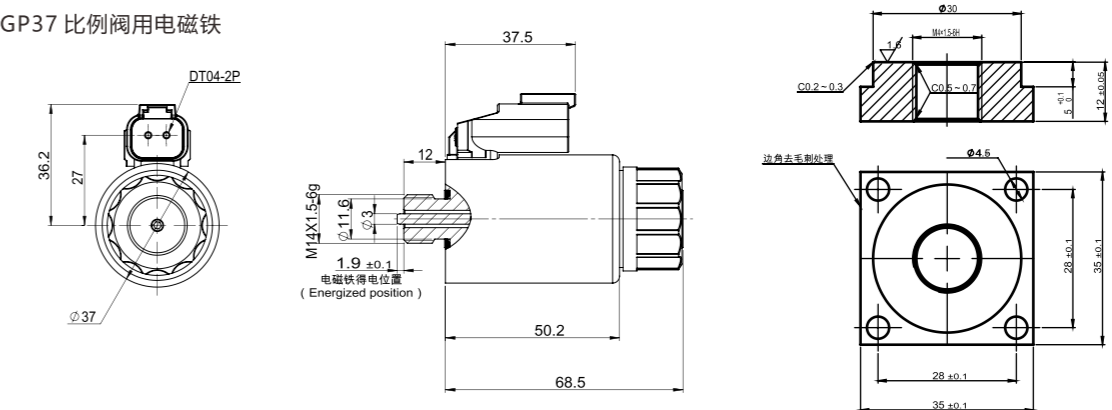


#### 技术参数 Technical Data

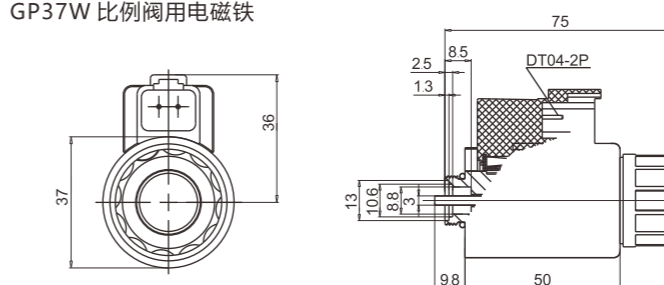
型号 / 参数 Code / Parameters	GP37	GP37W
额定行程 Rated Stroke(mm)	2.2	2
全行程 Full Stroke(mm)	4.5	2.5
额定电流 Rated Current(A)	2	0.6
额定吸力 Rated Force(N)	40	55
电阻(20°C) Rated Resistance(Ω)	2.7	22.6
力滞环 Rated Force Hysteresis(%)	≤4	≤4
电流滞环 Rated Current Hysteresis(%)	≤2	≤2
耐油压 Pressure Tightness(MPa)	21	21
防护等级 Degree of Protection	IP65	IP65

#### 外形及安装尺寸 Externality & Installation Dimensions

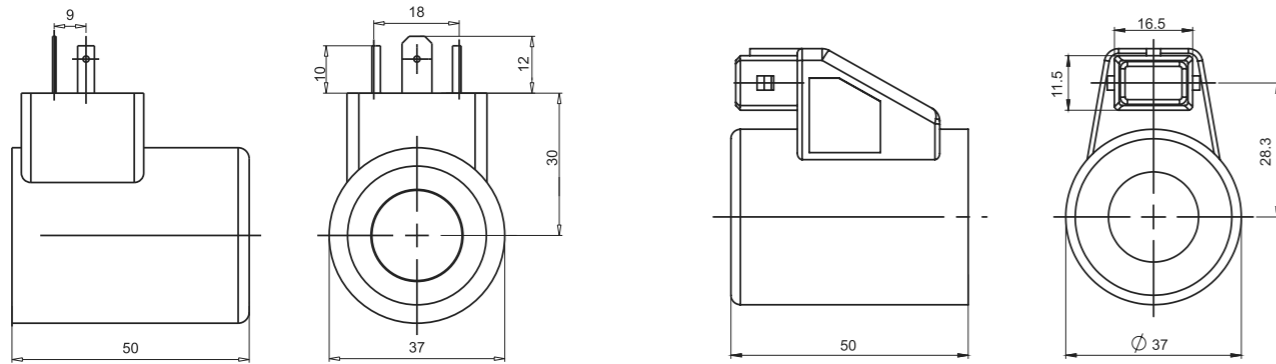
GP37 比例阀用电磁铁



GP37W 比例阀用电磁铁



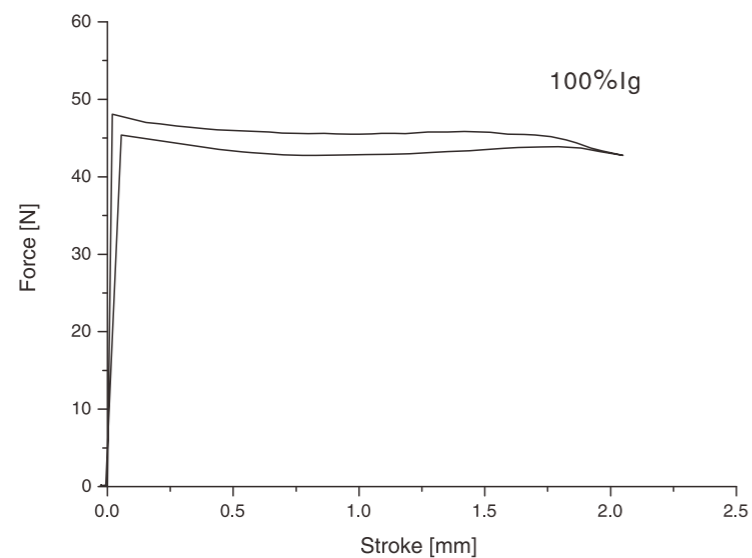
更多选择 Further variations For coils



GP37C 比例阀用电磁铁

GP37A 比例阀用电磁铁

力-行程曲线 Force-Stroke Curve



如您对产品特性曲线或外形尺寸有特别要求，请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.

GP45S系列螺纹比例电磁铁

GP45S Proportional Solenoid for Hydraulics

可集成LVDT直线位移传感器

在有效工作行程内，电磁力与线圈电流基本成比例线性关系，而与位移无关，如位移-力特性曲线所示

电磁铁输出力通过负载弹簧转换成位移，实现了电流-力-位移的线性转换  
采用了中心螺纹固定电磁铁，更换电磁线圈时无需拆卸液压装置

可任意方向安装，建议水平安装

可承受210bar静压力，通电率100%

电磁线圈绝缘等级为H级，防护等级IP65

电气连接：多种连接方式可选

阀连接：可根据用户要求定制

标准型产品可直接配套用于力士乐型4WR...6比例方向阀，GP63S-3可直接配套用于力士乐型3DREP...6比例减压阀。

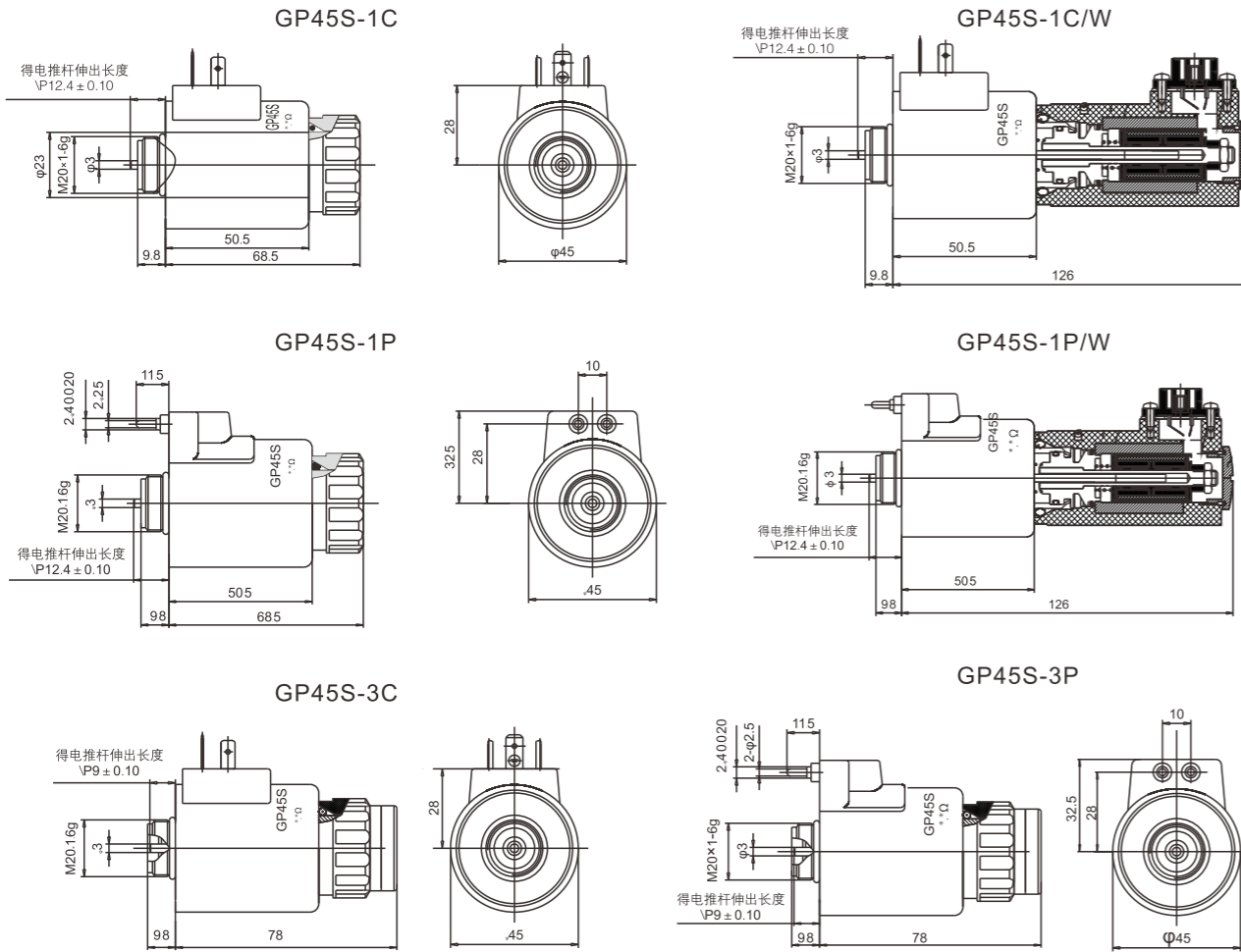


技术参数 Technical Data

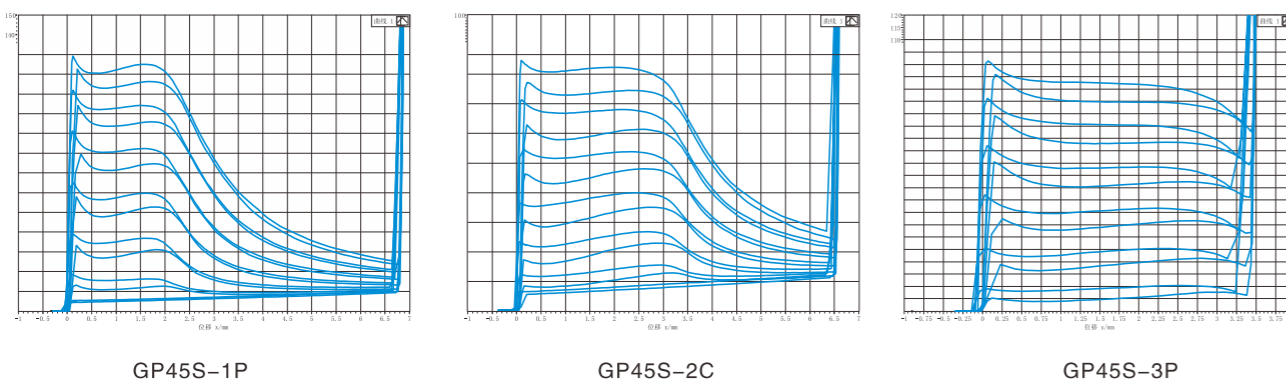
项 目 Item	单位 unit	技术指标 Technical parameters			
		GP45S-1C	GP45S-1C/W	GP45S-1P	GP45S-1P/W
电磁铁 Electromagnet					
适用环境温度 Temperature Range	°C	-20~+70	-20~+70	-20~+70	-20~+70
有效行程 Rated Stroke	mm	2	2	2	2
全行程 Full Stroke	mm	6+1	6+1	6+1	6+1
额定吸力 Rated Force	N	70	70	90	90
内置弹簧力 Spring Force	N	4-12	4-12	4-12	4-12
力-位移滞环 F-S Hysteresis	%	5	5	5	5
电-流滞环 I-F Hysteresis	%	3	3	3	3
额定电阻20°C Resistance 20°C	Ω	2	2	2.7	2.7
额定电流 Rated Current	A	2.5	2.5	2.5	2.5
额定功率 Rated Power	W	12.5	12.5	17	17
传感器 Sensor					
测量行程 Measuring range	mm		±2		±2
线性误差 Linear error	%		±1		±1
温度漂移 Temperature drift	%/°C		0.05		0.05
重复精度 Repeatability	%		0.40		0.40

项 目 Item	单位 unit	技术指标 Technical parameters			
		GP45S-2C	GP45S-2P	GP45S-3C	GP45S-3P
电磁铁 Electromagnet					
适用环境温度 Temperature Range	°C	-20~+70	-20~+70	-20~+70	-20~+70
有效行程 Rated Stroke	mm	3	3	3	3
全行程 Full Stroke	mm	6+1	6+1	3.5	3.5
额定吸力 Rated Force	N	65	65	60	65
内置弹簧力 Spring Force	N	4-12	4-12	可调	可调
力-位移滞环 F-S Hysteresis	%	5	5	5	5
电-流滞环 I-F Hysteresis	%	3	3	3	3
额定电阻20°C Resistance 20°C	Ω	2	2	5	2
额定电流 Rated Current	A	2.5	2.5	1.5	2.5
额定功率 Rated Power	W	12.5	12.5	11.5	12.5

外形及安装尺寸 Externality & Installation Dimensions



力-行程曲线 Force-Stroke Curve



GP63S系列螺纹比例电磁铁

GP63S Proportional Solenoid for Hydraulics

可集成LVDT直线位移传感器

在有效工作行程内，电磁力与线圈电流基本成比例线性关系，而与位移无关，如位移-力特性曲线所示

电磁铁输出力通过负载弹簧转换成位移，实现了电流-力-位移的线性转换

采用了中心螺纹固定电磁铁，更换电磁线圈时无需拆卸液压装置

可任意方向安装，建议水平安装

可承受210bar静压力

通电率100%

电磁线圈绝缘等级为H级

防护等级IP65

电气连接：多种连接方式可选

阀连接：可根据用户要求定制  
标准型产品可直接配套用于力士乐型4WR...10比例方向阀

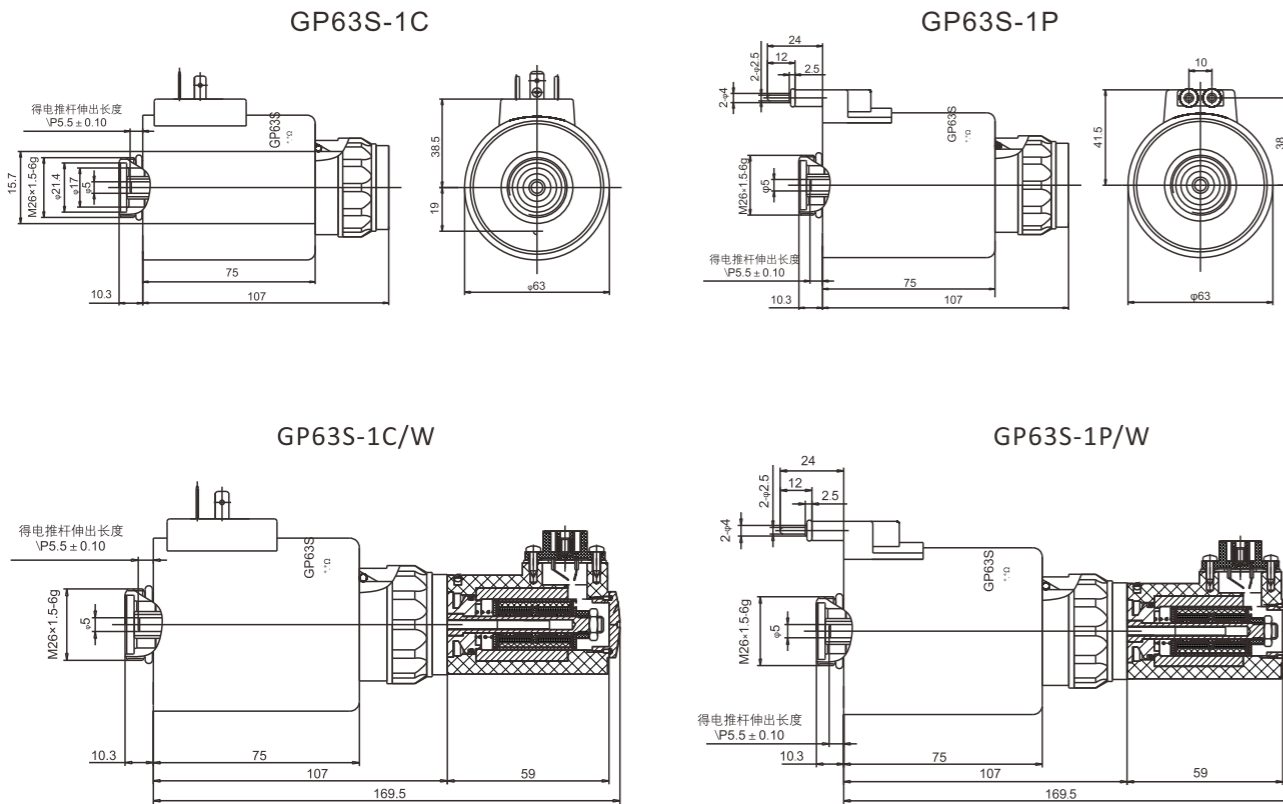


技术参数 Technical Data

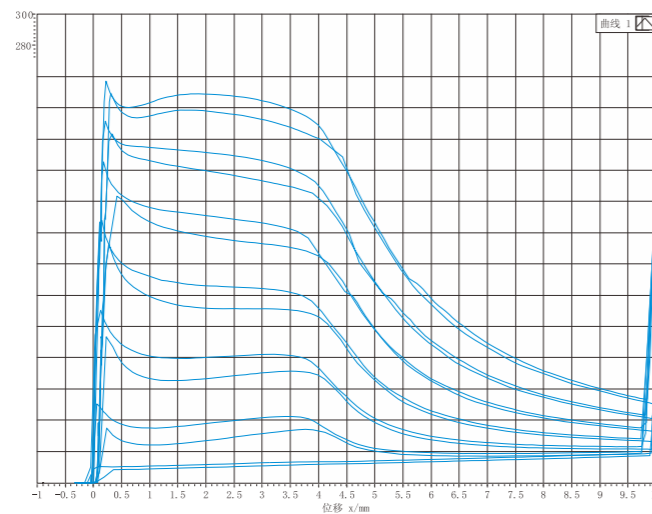
项 目 Item	单位 unit	技术指标 Technical parameters					
		GP63S-1C	GP63S-1C/W	GP63S-1P	GP63S-1P/W	GP63S-2C	GP63S-2P
适用环境温度 Temperature Range	°C	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70
有效行程 Rated Stroke	mm	4	4	4	4	4	4
全行程 Full Stroke	mm	9+1	9+1	9+1	9+1	9+1	9+1
额定吸力 Rated Force	N	200	200	180	180	165	165
内置弹簧力 Spring Force	N	5-18	5-18	5-18	5-18	5-18	5-18
力-位移滞环 F-S Hysteresis	%	5	5	5	5	5	5
电-流滞环 I-F Hysteresis	%	3	3	3	3	3	3
额定电阻20°C Resistance 20°C	Ω	4.1	4.1	3.7	3.7	2	2
额定电流 Rated Current	A	2.6	2.6	2.5	2.5	3.3	3.3
额定功率 Rated Power	W	28	28	23	23	22	22
最大功率 Max power	W	42	42	42	42	42	42
测量行程 Measuring range	mm		±4		±4		
线性误差 Linear error	%		±1		±1		
温度漂移 Temperature drift	%/°C		0.05		0.05		
重复精度 Repeatability	%		0.40		0.40		



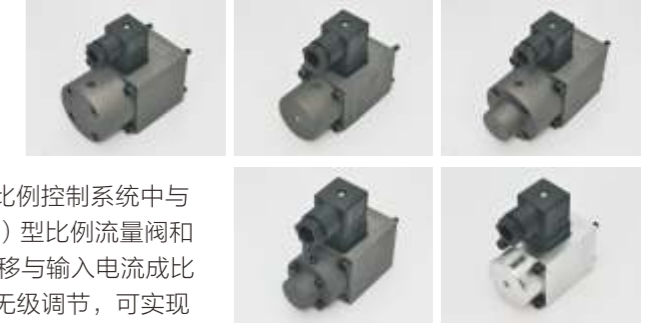
外形及安装尺寸 Externality & Installation Dimensions



力-行程曲线 Force-Stroke Curve



GP035/045 比例阀用电磁铁  
GP035/045 Proportional Solenoid for Hydraulics

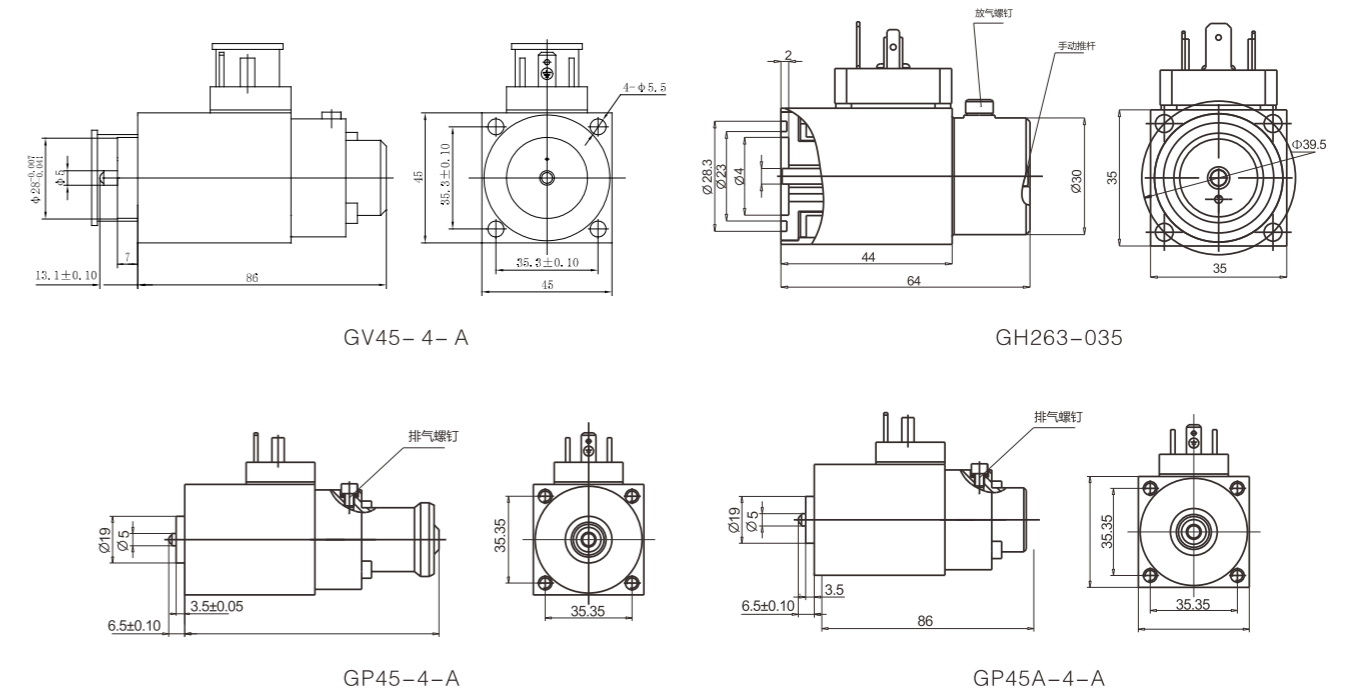


用途：本系列产品是一种机电转换装置，在直流24V的电液比例控制系统中与比例控制放大器配套使用，共同作用于力士乐（REXROTH）型比例流量阀和比例方向阀。在额定行程及额定电流范围内，其输出力及位移与输入电流成比例，输出力在额定行程内恒定不变，输入电流在额定范围内无级调节，可实现液压系统执行机构在额定范围内的无级调速、换向和远程控制。

技术参数 Technical Data

型号 / 参数 Code / Parameters	GV45-4-A	GP45-4-A	GP45A-4-A	GH263-035
额定电流 Rated Current(A)	0.8	1.51	1.51	0.62
电阻(20°C) Rated Resistance(Ω)	19.5	5.4	5.4	5.4
额定吸力 Rated Force(N)	90	80	80	65
额定行程 Rated Stroke(mm)	1.7	3	3	2
全行程 Full Stroke(mm)	1.7	6	6	2.3
力滞环 Rated Force Hysteresis(%)	≤3	≤3	≤3	≤5
电流滞环 Rated Current Hysteresis(%)	≤3	≤3	≤3	≤3
重复精度 (%) Repeat Accuracy	≤1	≤1	≤1	≤1
耐油压 Pressure Tightness(MPa)	21	21	21	21
防护等级 Degree of Protection	IP65	IP65	IP65	IP65

外形及安装尺寸 Externality & Installation Dimensions



如您对产品特性曲线或外形尺寸有特别要求，请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.

HMGP15 比例阀用电磁铁  
HMGP15 Proportional Solenoids

GV32/P17 比例阀用电磁铁  
GV32/P17 Proportional Solenoids

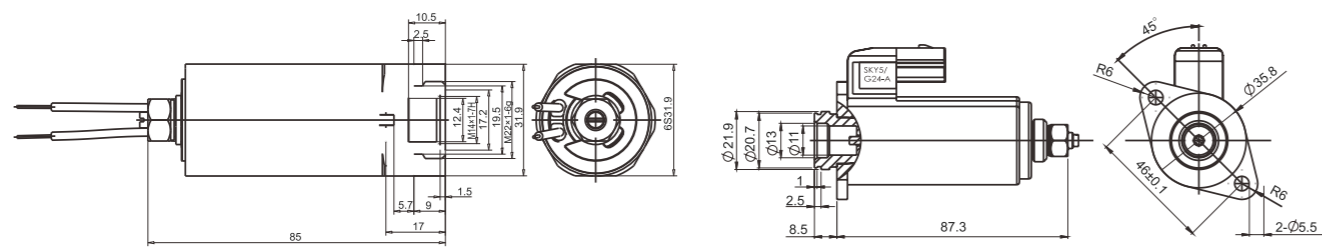
GV32/G24 开关型阀用电磁铁  
GV32/G24 Switching Solenoids



技术参数 Technical Data

型号 / 参数 Code Parameters	额定电流 Rated Current(A)	额定吸力 Rated Force(N)	额定行程 Rated Stroke(mm)	全行程 Full Stroke (mm)	通电率(%) Duty Cycle	电阻(20°C) Rated Resistance(Ω)	力滞环 Rated Force Hysteresis(%)	电流滞环 Rated Current Hysteresis(%)	重复精度(%) Repeat Accuracy	耐油压(MPa) Pressure Tightness	防护等级 Degree of protection	绝缘等级 insulation class
HMGP15	0.8	32N	1.3	2.3	100	17.5	≤6	≤4	≤1	16	IP65	H级
GP32/P17 (SKY5P-17-A)	0.7	28N			100		≤6	≤4	≤1	16	IP65	H级
GP32/G24 (SKY5-G24-A)	24	30N	1.3	2.3	100	17.5	≤6	≤4	≤1	16	IP65	H级

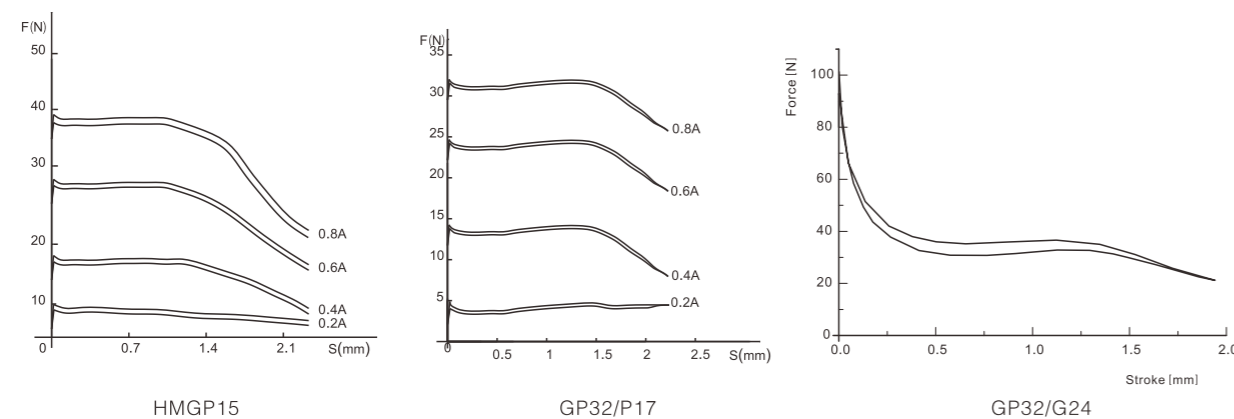
外形及安装尺寸 Externality & Installation Dimensions



HMGP15

GP32/P17 GP32/G24

力-行程曲线 Force-Stroke Curve



HMGP15

GP32/P17

GP32/G24

如您对产品特性曲线或外形尺寸有特别要求，请咨询本公司  
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DS3049 双头比例电磁铁  
DS3049 Double-Acting Proportional Solenoids

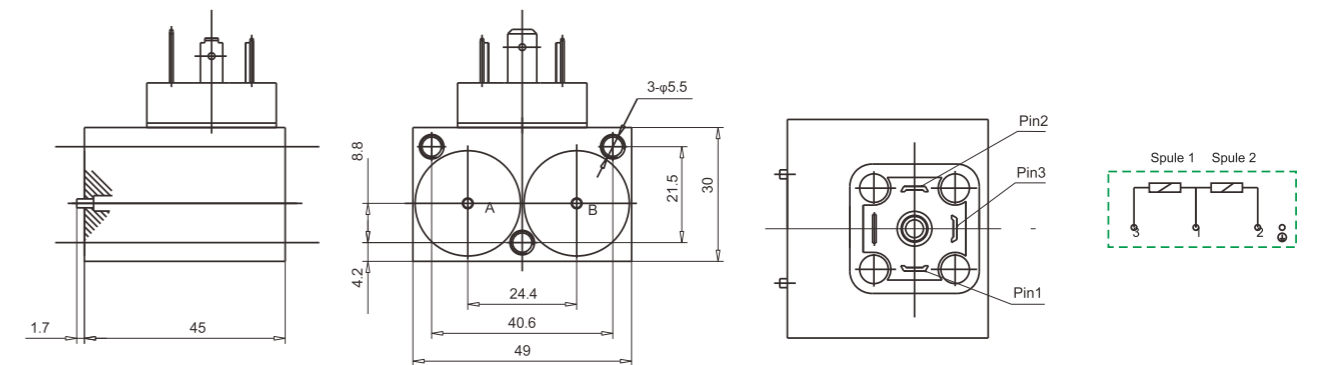


DS3049为双头比例阀用电磁铁，可以与哈威型的负载敏感比例多路阀配套，广泛应用于工程机械车辆领域。

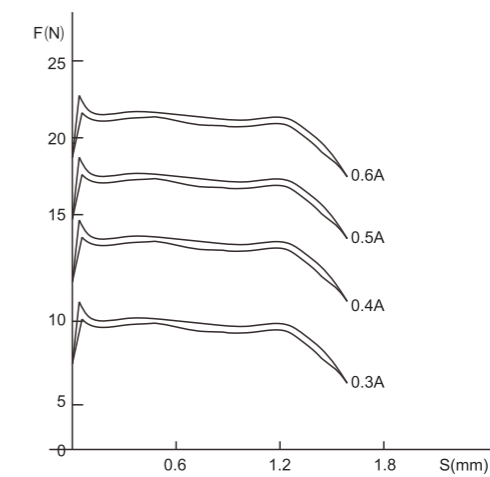
技术参数 Technical Data

型号 / 参数 Code Parameters	额定电流 Rated Current(A)	额定吸力 Rated Force(N)	额定行程 Rated Stroke(mm)	全行程 Full Stroke (mm)	通电率(%) Duty Cycle	电阻(20°C) Rated Resistance(Ω)	力滞环 Rated Force Hysteresis(%)	电流滞环 Rated Current Hysteresis(%)	重复精度(%) Repeat Accuracy	耐油压(MPa) Pressure Tightness
DS3049	0.63	24N	1.3	1.7	100	27.2	≤5	≤2	≤1	21

外形及安装尺寸 Externality & Installation Dimensions



力-行程曲线 Force-Stroke Curve



如您对产品特性曲线或外形尺寸有特别要求，请咨询本公司  
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### DTBF 隔爆型阀用电磁铁

DTBF Ex-Proof Solenoid for Hydraulics

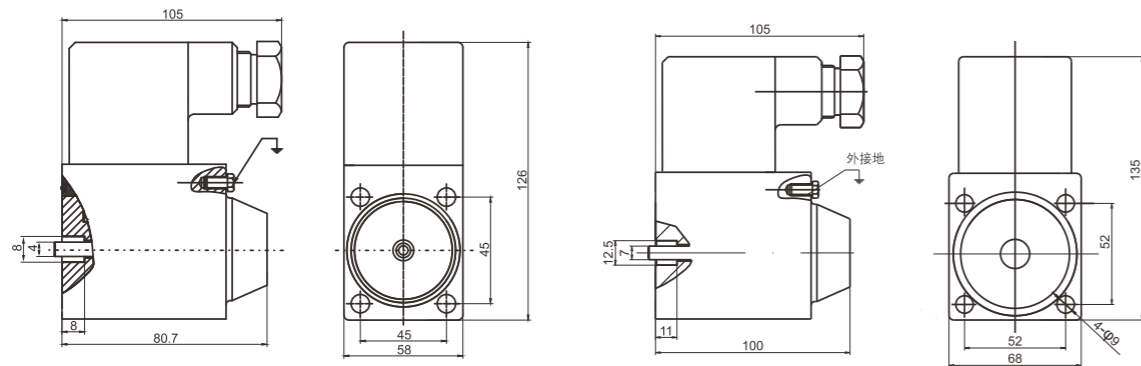


用途：本系列矿用隔爆阀用电磁铁，可与6、10通径换向阀配套。

#### 技术参数 Technical Data

型号 / 参数	额定电压(V)	额定吸力(N)	额定行程(mm)	全行程(mm)	承受油压(Mpa)	通电持续率(%)	最高操作频率(T/h)
DTBF-39/24ZY	24	39	3	≥6.2	6.3	60	3000
DTBF-39/36ZY	36	39	3	≥6.2			
DTBF-39/127BY	127	39	3	≥6.2			
DTBF-39/220BY	220	39	3	≥6.2			
DTBF-69/24ZY	24	69	4	≥6.2			
DTBF-69/36ZY	36	69	4	≥6.2			
DTBF-69/127BY	127	69	4	≥6.2			
DTBF-69/220BY	220	69	4	≥6.2			

#### 外形及安装尺寸 Externality & Installation Dimensions



DTBF-39

DTBF-69

#### 使用注意事项 Attention

- 1、隔爆标志为Ex d I Mb矿用隔爆型阀用电磁铁,适用于煤矿,不得用于工厂。
- 2、隔爆标志为Ex d II CT4 Gb隔爆型阀用电磁铁不得用于煤矿。
- 3、使用时应按照说明书正确选用具有官方认可的具有防爆资质的制造商提供的电缆。
- 4、安装电缆规格必须与隔爆密封圈相适应。
- 5、隔爆密封圈破损后应立即使用相同规格和材质的密封圈进行更换。

如您对产品特性曲线或外形尺寸有特别要求,请咨询本公司

Special designs and modifications for characteristic curve or dimensions are available on request.

### DTBF-L矿用隔爆阀用的电磁铁

DTBF-L Ex-Proof Solenoid for Hydraulics



用途：本产品适用于有防爆要求的控制元件中，例如：液压系统中的方向控制阀；可应用于有煤尘、甲烷爆炸性气体的煤矿矿井及类似的矿山、化工、石油等易燃场合。

#### 使用条件

大气压力80~110kPa；

周围空气温度：-20℃~+40℃；

周围空气相对湿度不大于95%（25℃时）；

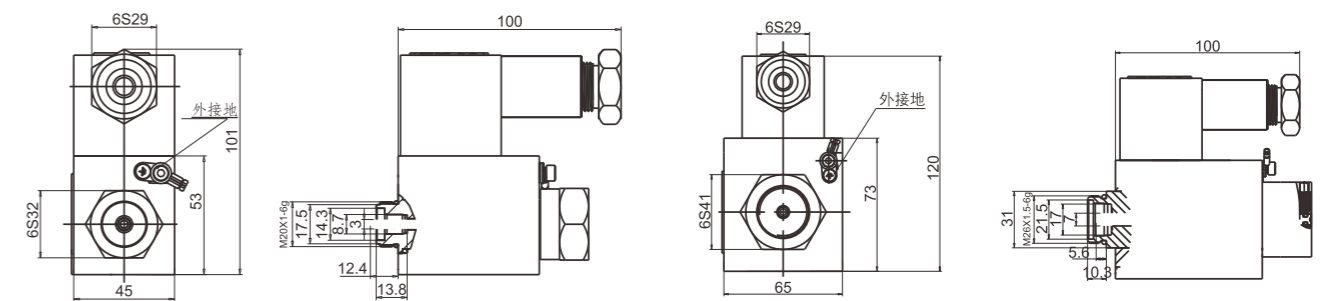
在含有甲烷、煤尘爆炸性危险气体的煤矿井下；

液压油：粘度为10~350cst，过滤精度<25u。

#### 技术参数 Technical Data

型号 / 参数	额定电压(V)	额定吸力(N)	额定行程(mm)	全行程(mm)	承受油压(Mpa)	通电持续率(%)	最高操作频率(T/h)
DTBF-37L	DC 24	≥37	2.8	≥6	21	100	3000
	AC 36						
	AC 127						
	AC 220						
DTBF-90L	DC 24	≥90	4	≥8.5			
	AC 36						
	AC 127						
	AC 220						

#### 外形及安装尺寸 Externality & Installation Dimensions



DTBF-37L

DTBF-90L

#### 使用注意事项 Attention

- 1、隔爆标志为Ex d I Mb矿用隔爆型阀用电磁铁,适用于煤矿,不得用于工厂。
- 2、隔爆标志为Ex d II CT4 Gb隔爆型阀用电磁铁不得用于煤矿。
- 3、使用时应按照说明书正确选用具有官方认可的具有防爆资质的制造商提供的电缆。
- 4、安装电缆规格必须与隔爆密封圈相适应。
- 5、隔爆密封圈破损后应立即使用相同规格和材质的密封圈进行更换。

如您对产品特性曲线或外形尺寸有特别要求,请咨询本公司

Special designs and modifications for characteristic curve or dimensions are available on request.

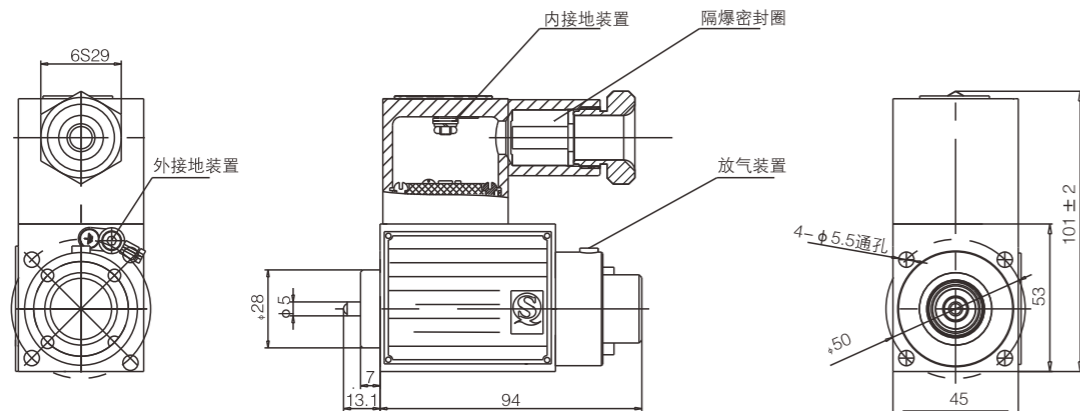


### DTBF 隔爆型比例阀用电磁铁

DTBF Ex-Proof Proportional Solenoid for Hydraulics

用途：适用于具有防爆要求的液压系统中。与电液比例溢流阀配套使用，可实现对系统的压力进行远距离遥控。

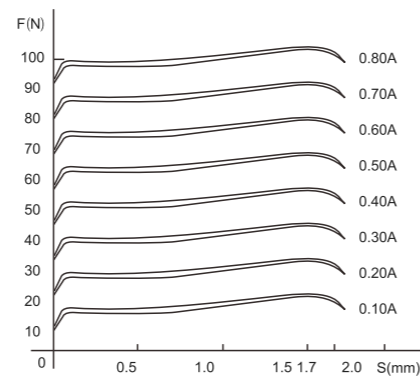
#### 外形及安装尺寸 Externality & Installation Dimensions



#### 技术参数 Technical Data

项目名称	单位	参数
额定电流	Rated Current	A 0.8
常态电阻20℃	Room Temp resistance	Ω 19.5
额定吸力	Rated Force	N 90
额定行程	Rated Stroke	mm 1.7
全行程	Total Stroke	mm 1.7
力滞环	Force Lag Characteristic	% ≤3
电流滞环	Current Lag Characteristic	% ≤3
重复精度	Repeat Accuracy	% ≤1
承受静态油压	Static Oil Pressure	Mpa 21
外壳防护等级	Degree Enclosure	IP5

#### 力-行程曲线 Force-Stroke Curve

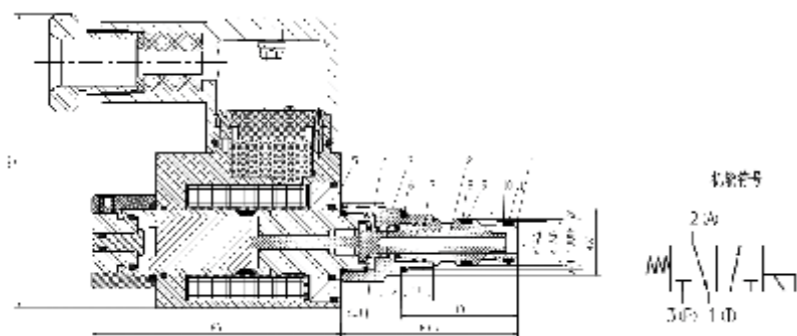


### 隔爆型电磁插装阀

Ex-Proof Solenoid Cartridge Solenoid Valve

- 1、最高工作压力21MPa，最大流量15L/min
- 2、泄漏量（21MPa时）：3-2，2-1（换向后）小于80ml/min
- 3、件3和件5、件3和件1施紧扭矩分别为35~40Nm、15~20Nm
- 4、安装孔T4-2，同HYDRAFORCE的VC08-3

#### 外形及安装尺寸 Externality & Installation Dimensions



### 汽车无级变速器专用电磁开关阀、 高速开关阀、比例减压电磁阀、 比例溢流阀



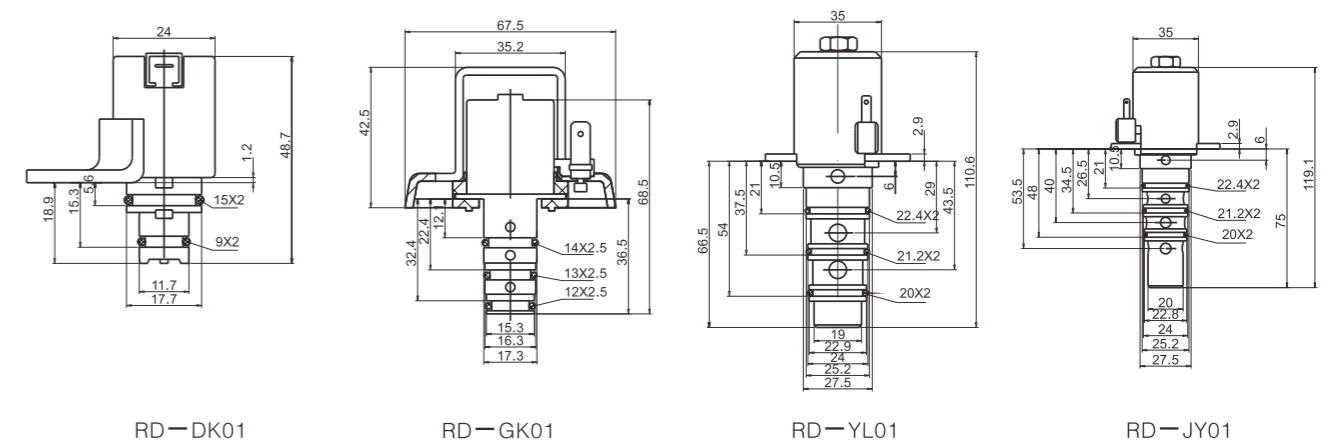
用途：本直流电磁开关插装阀是车用（CVT无级变速器系列）专用液压阀。其特点为体积小、反应灵敏、可靠性好、精度高、使用寿命长。也可用于类似要求的液压系统中。  
Application: cartridge solenoid valves for hydraulics.

#### 技术参数 Technical Data

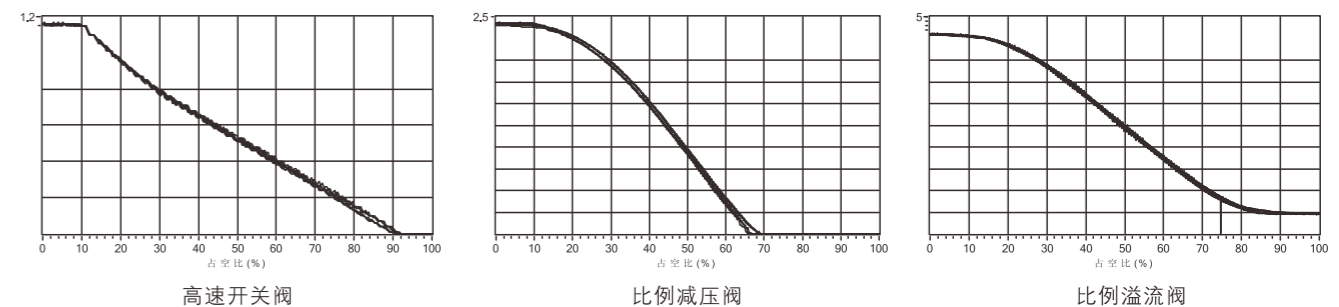
型号 / 参数	最大工作油压	额定电流	额定电压	线圈阻值	最大工作频率	最大工作温度	使用寿命	静态工作流量
电磁开关阀 RD-DK01	3MPa	0.7A	12V	17.6欧	不小于25Hz	-40~125℃	开关次数 >1×10 <sup>7</sup> 次	通电状态: 控制口流量 3.5±0.3L/min
高速开关阀 RD-GK01	3MPa	3.2A	12V	3.85欧	不小于25Hz	-40~125℃		

型号 / 参数	最大工作油压	额定电流	额定电压	线性度	最大工作频率	最大工作温度	使用寿命	工作流量	调压范围
比例溢流阀 RD-YL01	10MPa	1.7A	12V	≤3%	10Hz	-40~125℃	>30000h	10~60L/min	0.4~4.5MPa
比例减压阀 RD-JY01	10MPa	1.7A	12V	≤3%	10Hz	-40~125℃	>30000h	10~60L/min	0~2.5MPa

#### 外形及安装尺寸 Externality & Installation Dimensions



#### 力-行程曲线 Force-Stroke Curve



如您对产品特性曲线或外形尺寸有特别要求，请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.

SV-08-2NCP 二位二通电磁插装阀 (常闭)  
2-way, Normally-Closed Cartridge Solenoid Valve

SF-08-2NCP 高压型二位二通电磁插装阀 (常闭)  
2-way, Normally Closed Cartridge Solenoid Valve(High pressure type)

工作原理 OPERATION

断电时, SV-08-2NCP相当于单向阀, 油液从①流向②, 同时截止油液从②流向①。通电后, ②流向①。

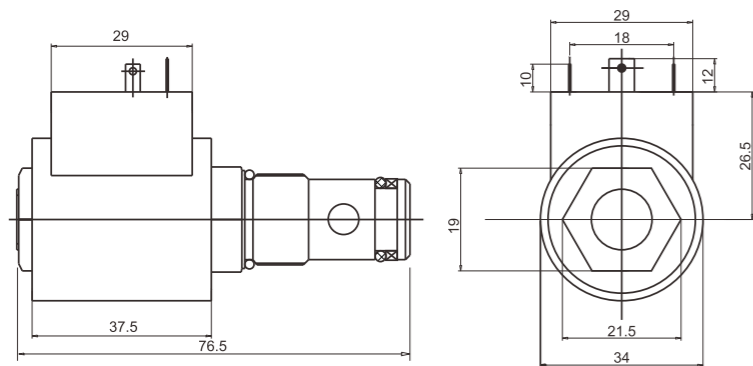
When de-energized, the valves acts as a check valve, allowing flow from 1 to 2, while blocking flow from 2 to 1. When energized, the cartridge's poppet lifts to open the 2 to 1 flow path.



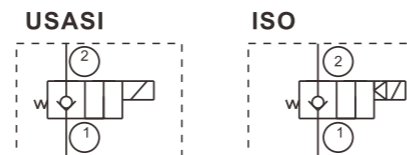
技术参数 Technical Data

型号 / 参数	工作压力	可通过最大流量	内泄漏	线圈负载	阀孔
SV08 ( SF08 )	250 (315)bar	见压力-流量曲线	0-3滴/分钟	± 15%额定电压连续工作	08-2

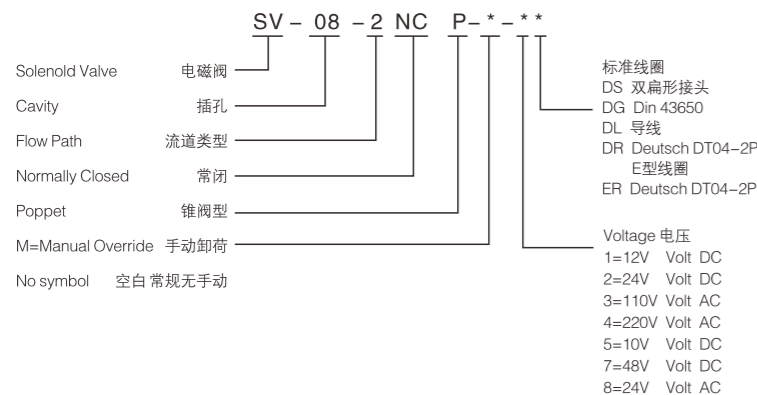
外形及安装尺寸 Externality & Installation Dimensions



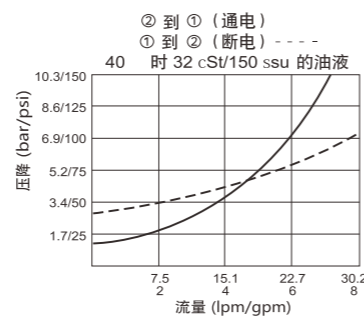
SYMBOL



型号说明 How to select our products

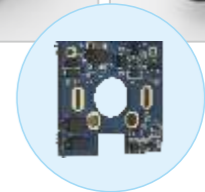
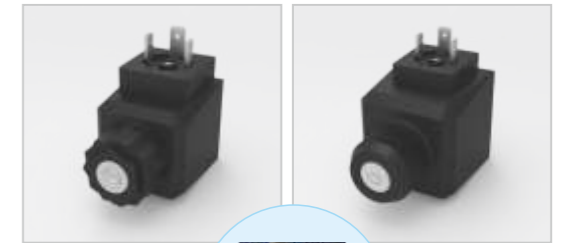


性能图 (仅指插件)



MFT10 系列智能型阀用电磁铁  
MFT10 series Smart Solenoids for hydraulics

50% |  
Energy Saving  
节能



内置电路

特点

体积小, 节约空间  
功耗低, 温升低, 节约能耗达50%  
无噪音  
交流直接供电  
内置控制电路

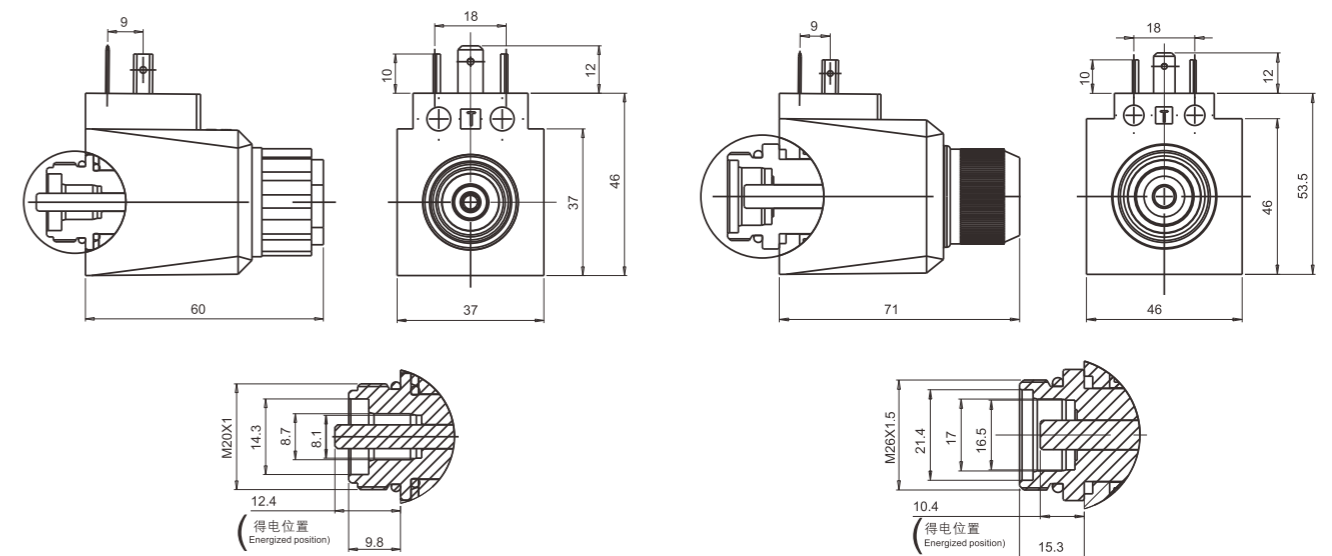
Features

Small, Saving space  
Low wattage, save 50% Power  
No noise  
AC type  
Built-in control circuit

技术参数 Technical Data

型号	Code	MFT10-18YC	MFT10-27YC
额定电压	Rated Voltage	AC220 50Hz/60Hz	AC220 50Hz/60Hz
起始电流	Initial Current	300mA	300mA
保持电流	Holding Current	100mA	100mA
额定行程	Rated Stroke(mm)	2.8	4
额定吸力	Rated Force(N)	≥35	≥65
全行程	Full Stroke(mm)	≥6	≥8
消耗功率	Rated Power(W)	12W	12W
承受静压	Rated Pressure(Mpa)	21	21
操作频率	(T/h) Frequency of operation	3600	3600
配套阀		6通路 For NG6 Valve	10通路 For NG10 Valve

外形及安装尺寸 Externality & Installation Dimensions



MFT10-18YC

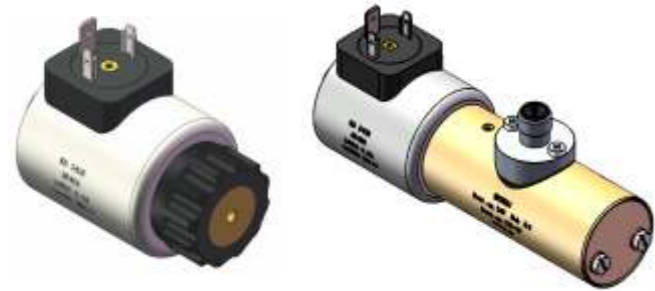
MFT10-27YC

如您对产品特性曲线或外形尺寸有特别要求, 请咨询本公司  
Special designs and modifications for characteristic curve or dimensions are available on request.





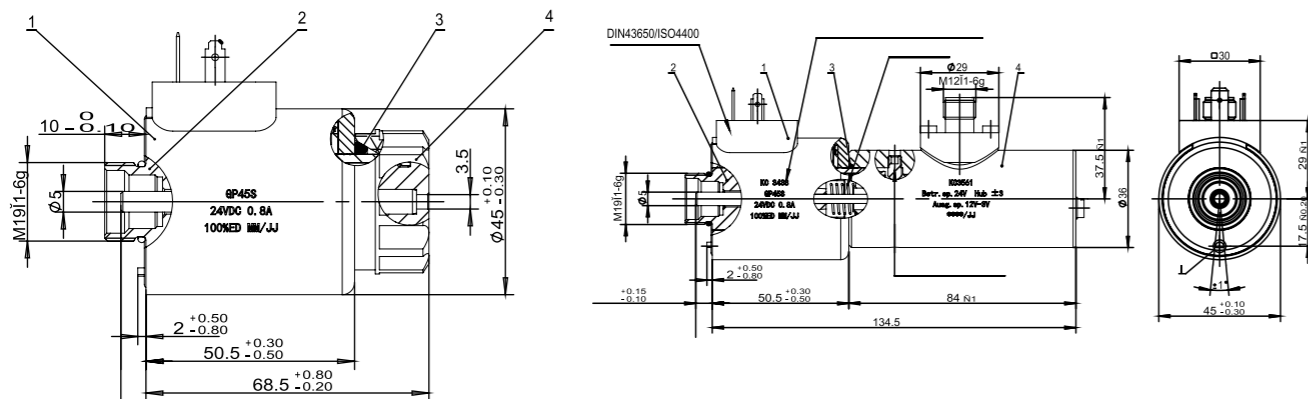
GP45S-5C比例电磁铁和GP45S-5C/W 内置LVDT比例电磁铁 Proportional Solenoids



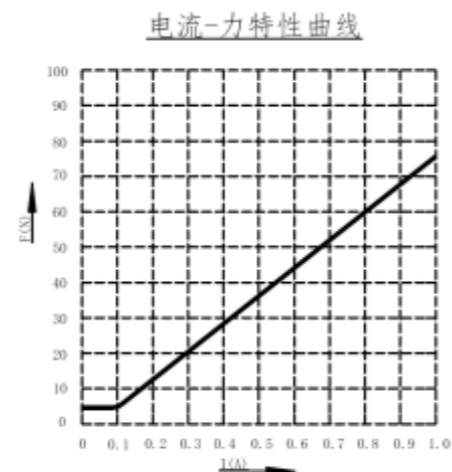
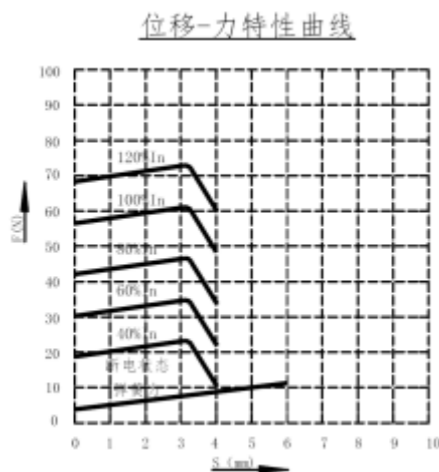
技术参数

额定电压 Rated Voltage:24VDC/12VDC  
 额定电流 Rated Current:0.8A/1.6A  
 额定电阻 Resistance:20Ω/5Ω (20℃)  
 全行程 Full Stroke:6+1mm  
 额定行程 Rated Stroke:3mm  
 额定吸力 Rated Force:59N ± 10%  
 温绝缘等级 Insulation class:H级 (180)  
 防护等级 Protection class:IP65

外形及安装尺寸 Externality & Installation Dimensions



力-行程曲线 Force-Stroke Curve



注：包括弹簧力。

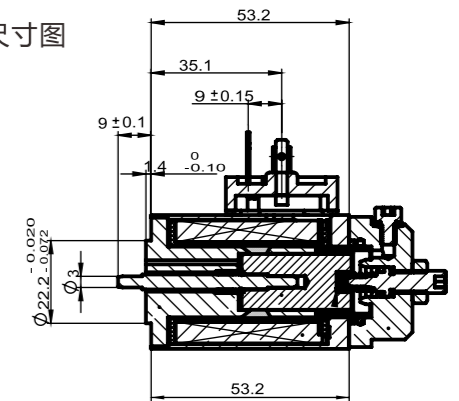
GP36比例溢流阀用电磁铁 Proportional Solenoids



技术参数Technical Data

额定电压 Rated Voltage:24 VDC  
 额定电流 Rated Current:0.68A  
 额定电阻 Resistance:25 ± 0.3Ω  
 额定行程 Rated Stroke: >1.8mm  
 全行程 Full Stroke :2.3~ 2.5mm  
 额定吸力 Rated Force:55N  
 导磁套耐油压Oil Pressure:21 Mpa  
 绝缘等级 Insulation class:F级  
 防护等级 Protection class:IP65

尺寸图



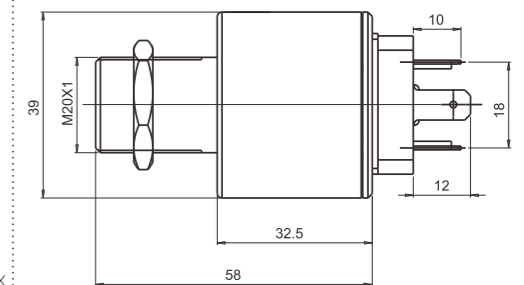
PS01 位置传感器 PS01 Position Sensor



技术参数Technical Data

电子感应位置切换精度 Switching Accuracy:<0.03%  
 供应电压 Supply Voltage:Ue =24V ± 20%DC  
 残余脉动 Working voltage pulse:< 10%  
 每个回路的电流输入  
 Current Consumption:≤40mA, 不带负载电流  
 切换电压 Switching Voltage:≤Ue  
 切换电流 Switching Current:≤400mA  
 防护等级 Protection Class:IP65  
 切换频率 Switching Frequency:5times/Sec.max  
 温度范围 Temperature Range:-20 to +85℃  
 耐油压 Pressure.Max:Max.31.5Mpa

尺寸图



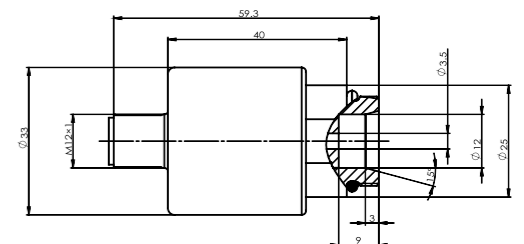
PS02位置开关 POSITION SENSOR



技术参数

规格 Size:φ 33mm  
 额定电压 Rated Voltage:24VDC  
 输出 Output:150mA Max  
 环境温度  
 Temperature Range:-20℃~+125℃  
 耐油压 Oil Pressure:35Mpa  
 防护等级  
 Degree of Protection:IP65

尺寸图

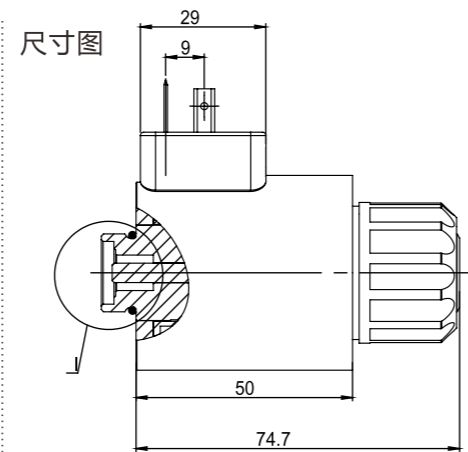


MFZ15-45YC



技术参数Technical Data

额定电压: DC24V (可定制其他规格)  
 额定电流: 1.29A  
 电阻 (20°C):  $18.6\Omega \pm 5\%$   
 额定功率: 31W  
 测试电流: 0.8A  
 吸力(0.8A): 48N  
 额定行程: 2.8mm  
 全行程:  $\geq 6.5\text{mm}$   
 通电持续率: 100%  
 工作油压: 21MPa  
 绝缘等级: H级  
 IP等级: IP65

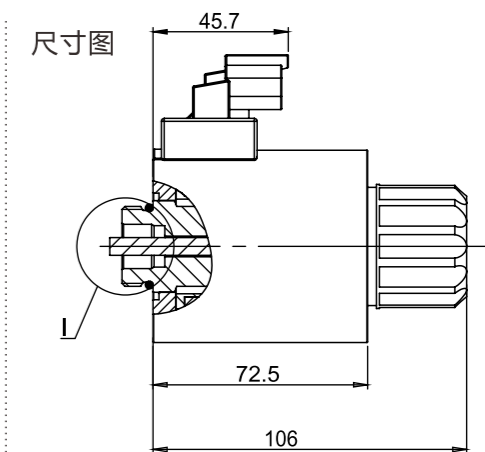


MFZ16-65YD



技术参数Technical Data

额定电压: DC24V (可定制其他规格)  
 额定电流: 1.67A  
 电阻 (20°C):  $14.4\Omega \pm 5\%$   
 额定功率: 40W  
 测试电流: 1A  
 吸力(1A): 90N  
 额定行程: 4mm  
 全行程:  $\geq 9\text{mm}$   
 通电持续率: 100%  
 工作油压: 21MPa  
 绝缘等级: H级  
 IP等级: IP69

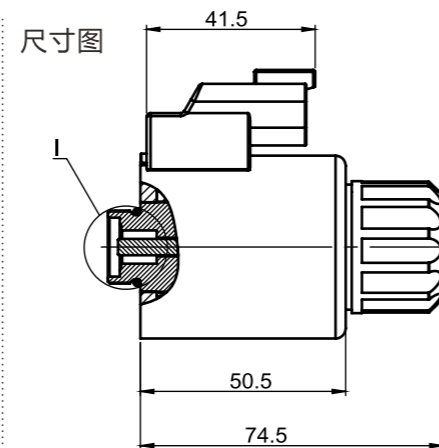


MFZ15-45YD

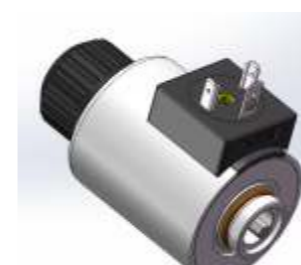


技术参数Technical Data

额定电压: DC24V (可定制其他规格)  
 额定电流: 1.29A  
 电阻 (20°C):  $18.6\Omega \pm 5\%$   
 额定功率: 32W  
 额定行程: 0.8mm  
 额定吸力:  $\geq 48\text{N}$   
 全行程:  $\geq 6.5\text{mm}$   
 通电持续率: 100%  
 工作油压: 21MPa  
 绝缘等级: H级

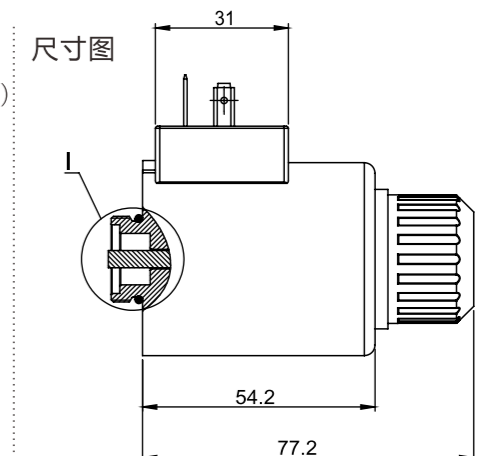


MFZ16-54YC



技术参数Technical Data

额定电压: DC12V (可定制其他规格)  
 额定电流: 3.16A  
 电阻 (20°C):  $3.79\Omega \pm 5\%$   
 额定功率: 38W  
 额定行程: 3mm  
 额定吸力:  $\geq 36\text{N}$   
 全行程:  $\geq 7\text{mm}$   
 通电持续率: 100%  
 工作油压: 21MPa  
 绝缘等级: H级

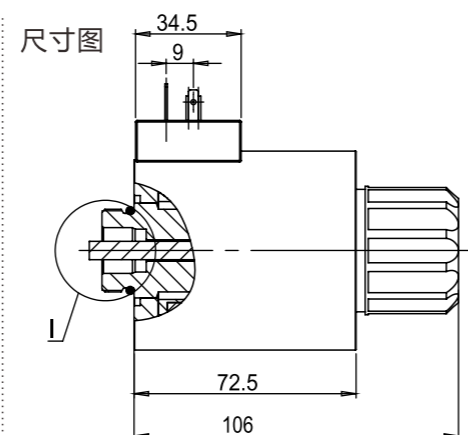


MFZ15-65YC



技术参数Technical Data

额定电压: DC24V (可定制其他规格)  
 额定电流: 1.67A  
 电阻 (20°C):  $14.4\Omega \pm 5\%$   
 额定功率: 40W  
 测试电流: 1A  
 吸力(1A): 90N  
 额定行程: 4mm  
 全行程:  $\geq 9\text{mm}$   
 通电持续率: 100%  
 工作油压: 21MPa  
 绝缘等级: H级  
 IP等级: IP65

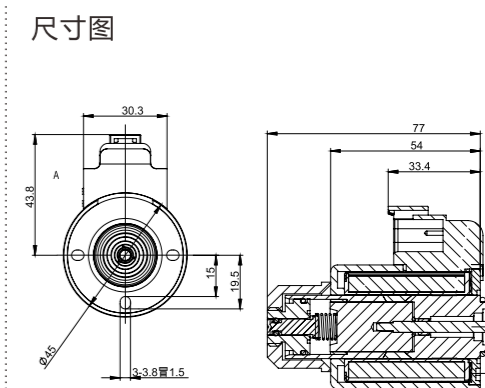


MFZ16-54YD



技术参数Technical Data

额定电压: DC24V (可定制其他规格)  
 额定电流: 1.76A  
 电阻 (20°C):  $4\Omega \pm 10\%$   
 最小比例行程: mm 2.5  
 最大行程: mm 7.3  
 操作频率: Hz  
 通电率: 100%  
 防护等级: IP 69K  
 工作油压: 21MPa  
 工作环境温度:  $-40^\circ\text{C} \sim 42^\circ\text{C}$   
 绝缘等级: F

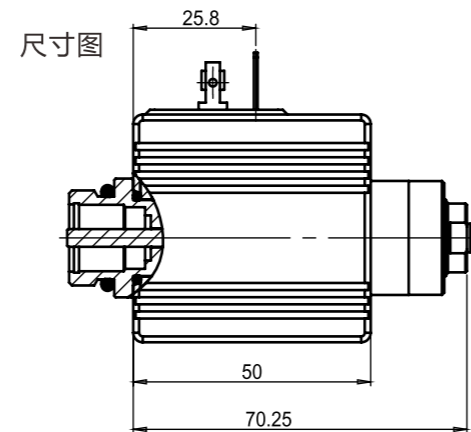


MFZ16-35YC工程多路阀用电磁铁 Engineering machinery application



技术参数 Technical Data

额定电压 Rated Voltage: 12VDC  
 额定电阻 Resistance: 4Ω (20°C)  
 额定功率 Rated Power: 36W  
 额定行程 Rated Stroke: 2.8mm  
 全行程 Full Stroke: ≥6mm  
 额定吸力 Rated Force: 30N  
 绝缘等级 Insulation class: H级  
 防护等级 Protection class: IP65

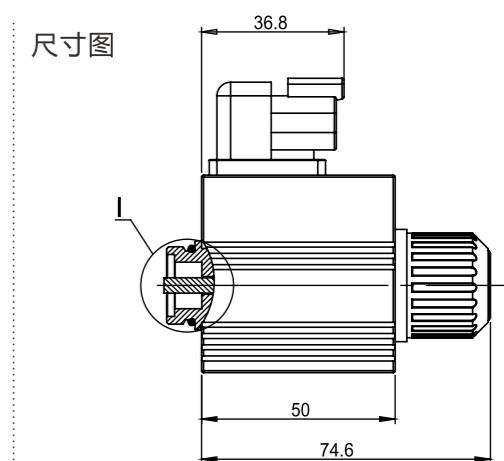


MFZ16-35YD-W

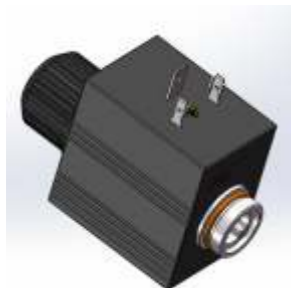


技术参数 Technical Data

额定电压: DC24V (可定制其他规格)  
 额定电流: 1.5A  
 电阻 (20°C): 16Ω ±5%  
 额定功率: 36W  
 额定行程: 2.5mm  
 额定吸力: ≥45N  
 全行程: ≥7mm  
 通电持续率: 100%  
 工作油压: 21MPa  
 绝缘等级: H级

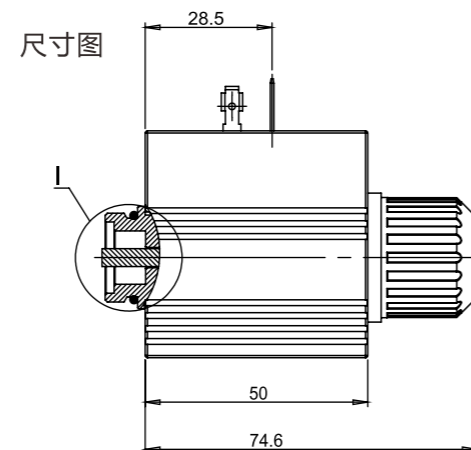


MFZ16-35YC-W



技术参数 Technical Data

额定电压: DC24V (可定制其他规格)  
 额定电流: 1.5A  
 电阻 (20°C): 16Ω ±5%  
 额定功率: 36W  
 额定行程: 2.5mm  
 额定吸力: ≥45N  
 全行程: ≥7mm  
 通电持续率: 100%  
 工作油压: 21MPa  
 绝缘等级: H级

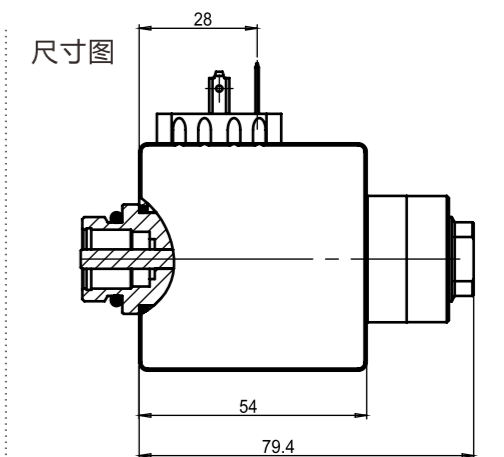


MFZ16-37YC工程多路阀用电磁铁 Engineering machinery application



技术参数 Technical Data

额定电压 Rated Voltage: 12VDC  
 额定电阻 Resistance: 2.4Ω (20°C)  
 额定功率 Rated Power: 60W  
 额定行程 Rated Stroke: 2.8mm  
 全行程 Full Stroke: ≥6mm  
 额定吸力 Rated Force: 30N  
 绝缘等级 Insulation class: H级  
 防护等级 Protection class: IP65

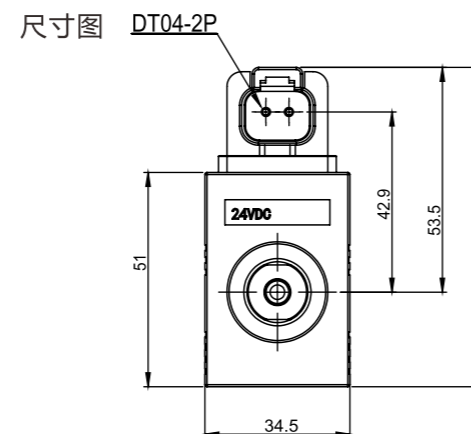


MFZ16-35YD



技术参数 Technical Data

额定电压: DC24V (可定制其他规格)  
 额定电流: 1.55A  
 电阻 (20°C): 15.5Ω ±5%  
 额定功率: 37W  
 额定行程: 2.8mm  
 额定吸力: ≥30N  
 全行程: ≥6mm  
 通电持续率: 100%  
 工作油压: 21MPa  
 绝缘等级: H级

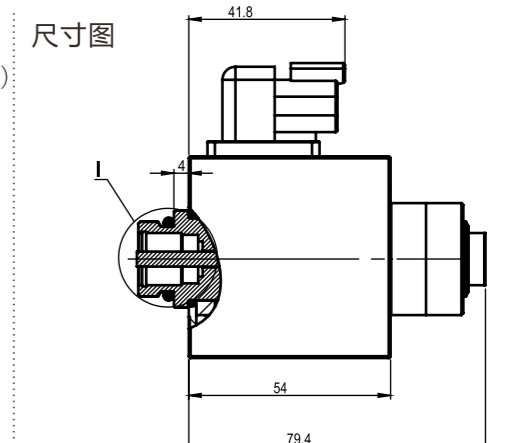


MFZ16-37YD



技术参数 Technical Data

额定电压: DC12V (可定制其他规格)  
 额定电流: 5A  
 电阻 (20°C): 2.4Ω ±5%  
 额定功率: 60W  
 额定行程: 2.8mm  
 额定吸力: ≥60N  
 全行程: ≥6mm  
 通电持续率: 100%  
 工作油压: 21MPa  
 绝缘等级: H级





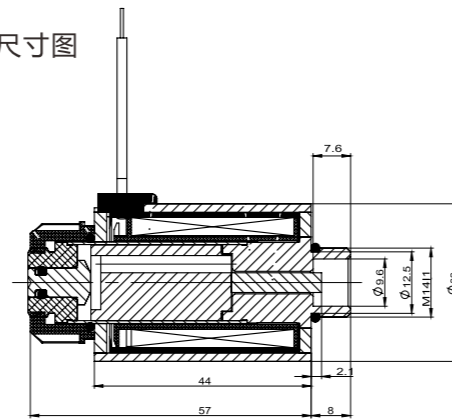
MFZ15-32YL工程多路阀用电磁铁 Engineering machinery application



技术参数Technical Data

额定电压 Rated Voltage:DC24 ± 10%  
 额定电阻 Resistance:22 ± 0.6 Ω (20°C)  
 额定行程 Rated Stroke:2mm  
 全行程 Full Stroke:2~2.5mm  
 额定吸力 Rated Force:20N  
 导磁套耐油压 Oil Pressure: < 10 Mpa  
 防护等级 Protection calss:IP67

尺寸图



节能控制模块 Holding Current Reduction



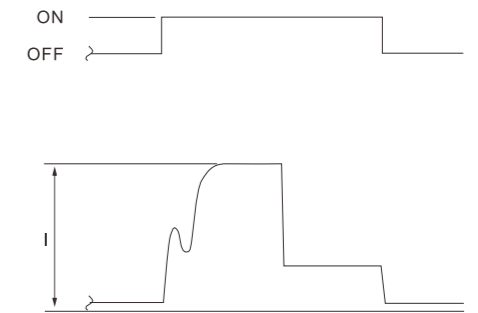
功能

减少线圈发热  
 缩短断开时间  
 延长电磁铁的使用寿命

特殊应用

大功率切换  
 提升响应速度

原理图



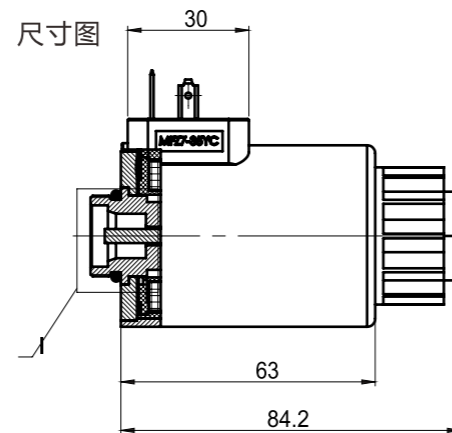
MFZ7-35YC



技术参数Technical Data

额定电压: DC24V (可定制其他规格)  
 额定电流: 0.21A  
 电阻 (20°C): 115.2 Ω ± 5%  
 额定功率: 5W  
 额定行程: 2.8mm  
 额定吸力: ≥35N  
 全行程: ≥6.5mm  
 通电持续率: 100%  
 工作油压: 21MPa  
 绝缘等级: H级

尺寸图



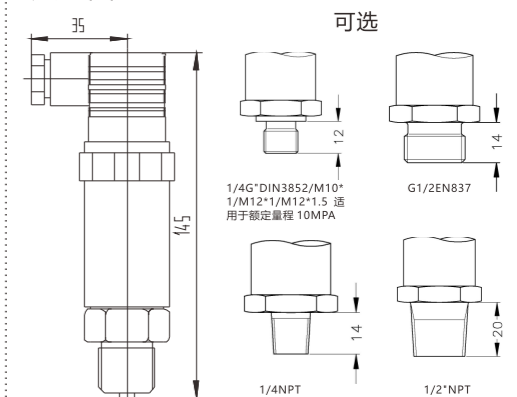
RSP31 压力传感器



技术参数Technical Data

不锈钢传感器  
 精度:0.25%FS  
 标准: 4...20mA / VS=14...36VDC(二线制)  
 可选: 0...10V / VS=12...36V(三线制)  
 0...5V / VS=12...36V (三线制)  
 可选择不同的压力接口  
 额定量程: 从0...3KPA至0...60MPA  
 测量介质: 与不锈钢兼容的各种液体、气体或蒸气  
 环境温度: -25°C...+85°C

尺寸图



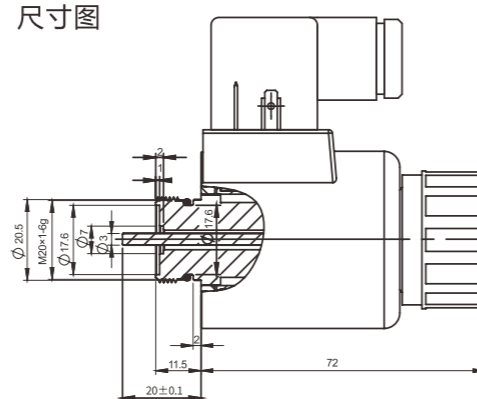
MFZ10C-37YC 球阀用电磁铁 MFZ10C-37YC Solenoid for Ball Valve



技术参数Technical Data

额定电压 Rated Voltage:24VDC  
 额定行程 Rated Stroke:1.2mm  
 全行程 Full Stroke :2.5  
 额定吸力 Rated Fprce:90N  
 消耗功率 Rated Power:30W  
 耐油压 Rated Pressure:21 MPa  
 防护等级 Protection calss:IP65

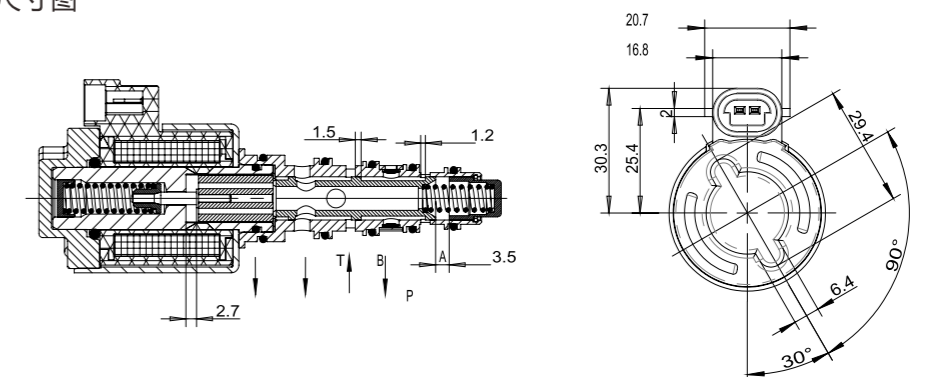
尺寸图



DF380电磁插装阀



尺寸图



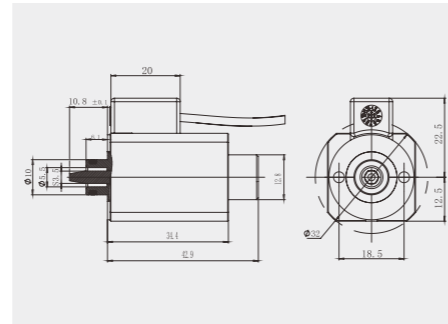
Z8系列

Z8-08YL电磁铁



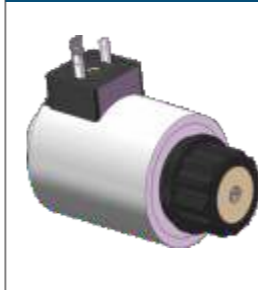
技术参数 Technical Data

额定电压 / Rated Voltage(V)	DC24 (可定制)
额定吸力 / Rated Force(N)	≥8
额定行程 / Rated Stroke(mm)	1.65
全行程 / Full Stroke(mm)	≥3.2
消耗功率 / Rated Power(W)	≤11
最高工作压力 / Maximum Working Pressure(MPa)	≤15
操作频率 / Frequency of operation (T/h)	12000



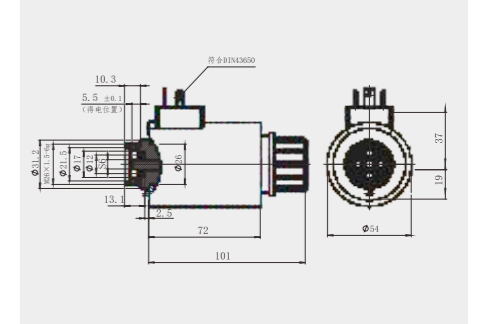
Z/J10系列

Z10-70YC



技术参数 Technical Data

额定电压 / Rated Voltage(V)	DC24 (可定制)
额定吸力 / Rated Force(N)	≥70
额定行程 / Rated Stroke(mm)	4
全行程 / Full Stroke(mm)	≥9
消耗功率 / Rated Power(W)	≤38
最高工作压力 / Maximum Working Pressure(MPa)	≤121
操作频率 / Frequency of operation (T/h)	12000



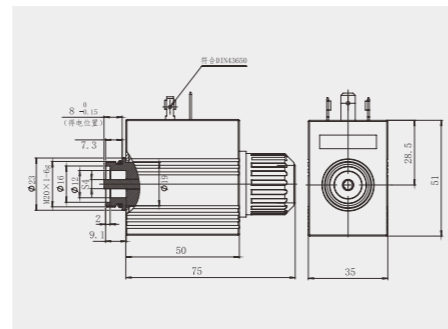
Z/J16系列

Z16-35YC-W



技术参数 Technical Data

额定电压 / Rated Voltage(V)	DC24 (可定制)
额定吸力 / Rated Force(N)	≥24
额定行程 / Rated Stroke(mm)	2.5
全行程 / Full Stroke(mm)	≥7.1
消耗功率 / Rated Power(W)	≤36
最高工作压力 / Maximum Working Pressure(MPa)	≤21
操作频率 / Frequency of operation (T/h)	12000



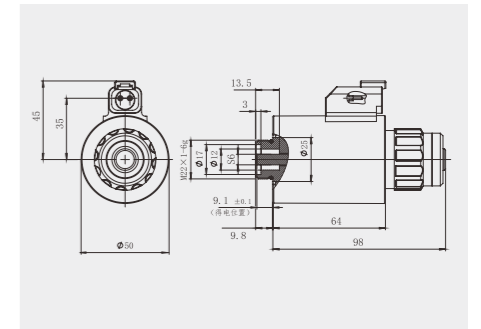
Z/J13系列

Z13-40YD



技术参数 Technical Data

额定电压 / Rated Voltage(V)	DC24 (可定制)
额定吸力 / Rated Force(N)	≥40
额定行程 / Rated Stroke(mm)	3
全行程 / Full Stroke(mm)	≥7.5
消耗功率 / Rated Power(W)	≤43
最高工作压力 / Maximum Working Pressure(MPa)	≤21
操作频率 / Frequency of operation (T/h)	12000



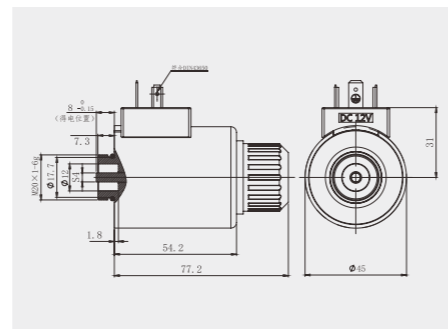
Z/J16系列

Z16-54YC



技术参数 Technical Data

额定电压 / Rated Voltage(V)	DC12 (可定制)
额定吸力 / Rated Force(N)	≥54
额定行程 / Rated Stroke(mm)	2.8
全行程 / Full Stroke(mm)	≥7.1
消耗功率 / Rated Power(W)	≤40
最高工作压力 / Maximum Working Pressure(MPa)	≤21
操作频率 / Frequency of operation (T/h)	12000



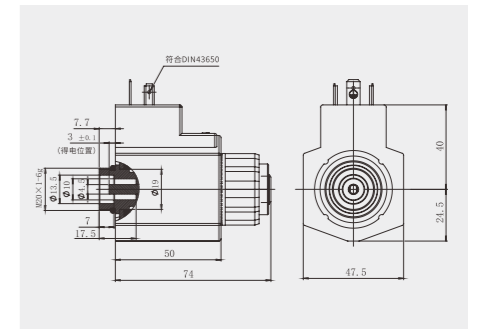
Z/J9系列

Z9-20YC/P



技术参数 Technical Data

额定电压 / Rated Voltage(V)	DC24 (可定制)
额定吸力 / Rated Force(N)	≥8
额定行程 / Rated Stroke(mm)	2.8 (3)
全行程 / Full Stroke(mm)	≥6.1
消耗功率 / Rated Power(W)	≤30
最高工作压力 / Maximum Working Pressure(MPa)	≤21
操作频率 / Frequency of operation (T/h)	12000



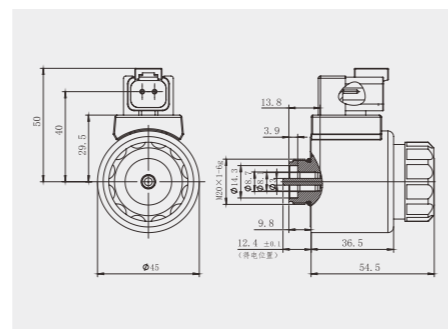
Z/J12系列

Z12-25YD



技术参数 Technical Data

额定电压 / Rated Voltage(V)	DC24 (可定制)
额定吸力 / Rated Force(N)	≥25
额定行程 / Rated Stroke(mm)	2.8
全行程 / Full Stroke(mm)	≥6.1
消耗功率 / Rated Power(W)	≤26
最高工作压力 / Maximum Working Pressure(MPa)	≤21
操作频率 / Frequency of operation (T/h)	12000



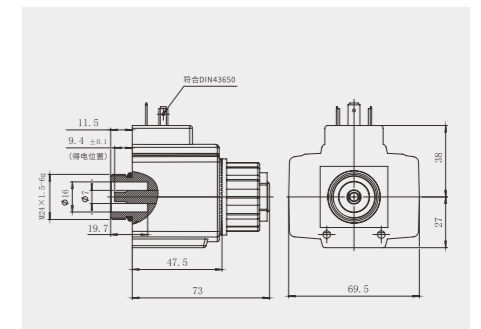
Z/J9系列

J9-50YC



技术参数 Technical Data

额定电压 / Rated Voltage(V)	AC220 (可定制)
电源频率 / Power frequency (Hz)	50
额定吸力 / Rated Force(N)	≥50
额定行程 / Rated Stroke(mm)	4
全行程 / Full Stroke(mm)	≥8
消耗功率 / Rated Power(W)	≤40
最高工作压力 / Maximum Working Pressure(MPa)	≤21
操作频率 / Frequency of operation (T/h)	12000



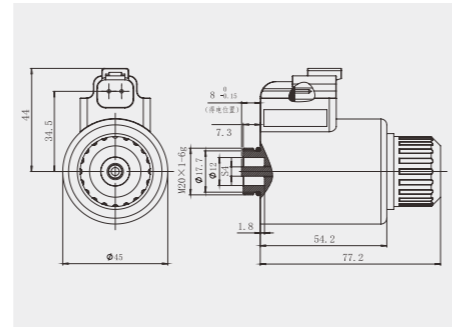
Z/J16系列

Z16-54YD-W



技术参数 Technical Data

额定电压 / Rated Voltage(V)	DC12 (可定制)
额定吸力 / Rated Force(N)	≥54
额定行程 / Rated Stroke(mm)	2.8
全行程 / Full Stroke(mm)	≥7.1
消耗功率 / Rated Power(W)	≤401
最高工作压力 / Maximum Working Pressure(MPa)	≤21
操作频率 / Frequency of operation (T/h)	12000



电磁阀 SV1-A



电磁阀 SV4-D



电磁阀 SV4-A

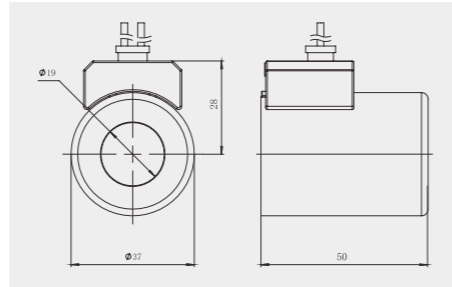
比例系列

GP37-L



技术参数 Technical Data

额定电压 / Rated Voltage	12/24V
额定功率 / Rated Power	26W
绝缘等级H级 / ClassH Insulation	H级 ClassH
防护等级 / Protection class	IP65
备注 / Note	电压和功率可订制 (Voltage and power can be customized)



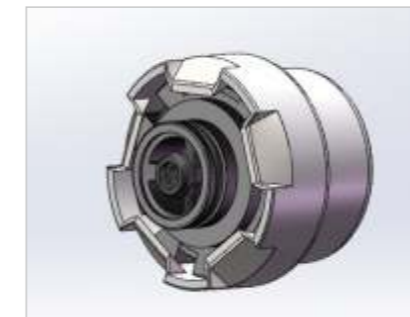
SV2-D



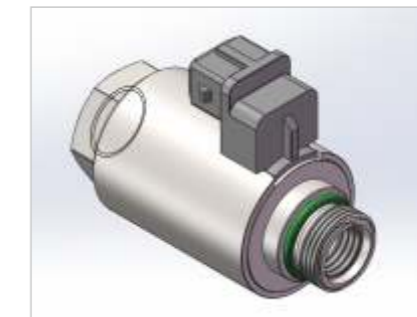
气阀



CDC电磁阀



溢流阀



GP37-A



电磁阀DF360



φ35吸盘式电磁铁



插装阀用电磁铁



DF380涡轮增压电磁阀