



更紧凑！更坚固！

- 坚固的轻合金/不锈钢外壳可选
- 轴径6/10/11/12/14/15mm可选
- 光电和磁式扫描方式可选
- 接口包括Profibus-DP; SSI CANopen以及其他
- 各式安装法兰可选

AV6A/M 系列

AV6A/M是为频繁振动/强冲击/潮湿/温度剧烈变化等恶劣环境设计的重载绝对值编码器。该系统是与重工业的电气维修部门和工厂制造部门的工程师密切合作开发的。轴径设计为:6/10/11/12/14mm带键可选,安装方式为50同步法兰/36夹紧法兰/美式方形法兰/欧式B10法兰等,该产品安装尺寸与大多数编码器保持兼容,可以无变更替换。

AV6A/M转动系统采用深沟球轴承,其承载力可达轴向80N,径向100N,远大于其他品牌编码器,经过优化的转动结构使得编码器在高速转动时更可靠,更稳定。因为采用机电分离+迷宫密封的结构,该系统防护等级可以达到IP67,在某些特殊场合我们可以提供IP68+69K(M)的选项。即使在恶劣的重工业条件下,该系统也不需要额外的保护。

AV6A/M采用不会碎裂的高温树脂码盘或磁性码盘,在保证精度的同时,亦提高了编码器耐振动耐冲击的性能。AV6A/M单圈分辨率最大可选16位,多圈可选14位,提供并口/SSI串口以及CANopen/DeviceNet/ModbusEthernet/Profinet/Profibus-DP/Ethernet-IP等众多总线接口,可选电缆输出或连接器输出。

轴型绝对值编码器

电气参数

A. 运行功率

1. 电压&电流

模拟量V输出	12-30VDC;15mA@24V
模拟量I输出	15-30VDC;40mA@24V
CANOpen	10-30VDC;100mA@10V,50mA@24V
DeviceNet	10-30VDC;100mA@10V,50mA@24V
J1939	10-30VDC;100mA@10V,50mA@24V
SSI	5-30VDC;125mA@5V,30mA@24V

2. 总电流 取决于总线形式以及电缆长度

B. 输出方式

1. 模拟量

V 输出 0.5-4.5V;0-5V;0.5-9.5V;0-10V

I 输出 0-20mA or 4-20mA

2. SSI 0-2MHz,由模块设定

3. CANOpen, J1939 20K to 1M Baud, node0-127/Default 25K, node32

4. DeviceNet 125K to 500K Baud

C. 计数方向 从编码器背面看, CCW旋转时递增(默认)

D. 每圈分辨率 4096 or 8192(12or13bits)其他分辨率请咨询

E. 最大圈数 4096-32768(12-15bits)

F. 驱动规格 见下表

G. 连接器 参考选型表格连接选项

H. 精度 $\pm 1/2$ LSB(12Bit), ± 2 LSB(16Bit)

± 0.35 deg(± 21 arc-min)

Analog Output:0.15%

BUS OPTIONS								
Electrical Specifications		Analog	CANOpen	DeviceNet	J1939	Profibus	SSI	Units
Input Voltage		12-30V	10-30V	TBD	10-30V	TBD	10-30V	VDC
Cable Drive Capacity		NA	TBD	TBD	TBD	TBD	4000' [1200m]*	feet
Protection	Reverse Voltage	yes	yes	TBD	TBD	TBD	yes	
	Short Circuit	yes	yes	TBD	TBD	TBD	yes	
	Transient	yes	yes	TBD	TBD	TBD	yes	

* @90k Baud w/24 AWG, 52.5 pF/meter (16 pF/foot)

轴型绝对值编码器

机械参数

A. 转动力矩	60N.cm (20°C)
B. 加速度	5000转/分/秒。最大*
C. 转速	最大5000转/分*
D. 重量	8-10磅[3.5-4.5千克]
E. 振动	20 Gs, 5-2000 Hz(任何方向)
F. 冲击	100 Gs, 任何方向
G. 轴尺寸	Φ6/8/10/11/12/14(带键4/5)
H. 轴承载	轴向80N 径向100N
I. 外壳材质	钢外壳/铝合金
J. 轴材质	不锈钢
K. 工作温度	-25...+85°C
L. 储存温度	-40...+100°C
M. 环境湿度	< 90% RH, 无结露
N. 防护等级	IP66/67(DIN40050/IEC 529) IP68+69K (M)可选
O. EMC	EN 61000-6-4, EN 61000-6-2

型号代码

AV6A/M PART NUMBERS AND AVAILABLE OPTIONS									
Model	Shaft Size	Mounting Style	Bus Driver	Turns/PPR(per turn)	Wiring	Coding	Connector	Modifications	Identification
AV6A AV6M	B -6mm C -8mm D -10mm P -12mm R -15mm Z -特殊选项, 需咨询	1 -58mm 夹紧法兰, 10X20轴, 36子口, 3XM3, 3XM4@48mm 2 -58mm 同步法兰, 6X10轴, 50子口, 3XM4@42mm 3 -50mm 夹紧法兰, 30子口, 3XM3, 4XM4@ 40mm, 10*20轴* 4 -方形法兰 68*68, 50子口, 4X5.5 @方形56*56 B -B10 flange Z -特殊选项, 需咨询	C -CANOpen D -DeviceNet F -CANSafe K -Powerlink L -Parallel M -Modbus Ethernet N -Profinet P -Profibus DP R -Ethernet/IP S -SSI Z -特殊选项, 需咨询	X -0/0-single turn A -16/4 E -256/8 2 -4096/12 3 -8192/13 6 -65536/16 A -16/4 (only AV*M) E -256/8 (only AV*M) Z -特殊选项, 需咨询	A -Side E -End	X -00 Depending on the Bus Code 1 -Binary 2 -Gray	A -1xM12/5 pin B -2xM12/5 pin C -3xM12 4/5/5 pin D -2xM12/4 pin E -M12/8 pin F -M23/12 pin G -26pin J -2x cable entry K -3x cable entry M -M23/8pin W -Cable, 1m Z -特殊选项, 需咨询	000 -None 6xx -电缆出线xx米带插头电缆出线长度xx=M, 最长15m 700 -带配套插头 7xx -带配套插头/电缆出线长度xx=M, 最长15m 9xx -电缆出线长度xx=M, 最长15m Z -特殊选项, 需咨询	N -无特殊选项 Z -特殊选项, 请咨询

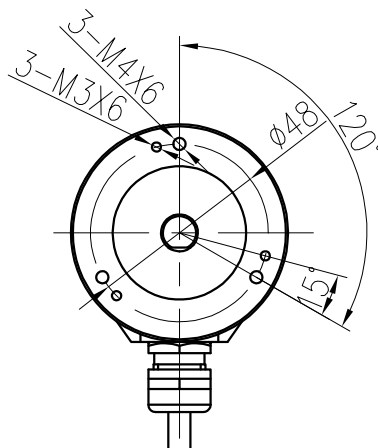
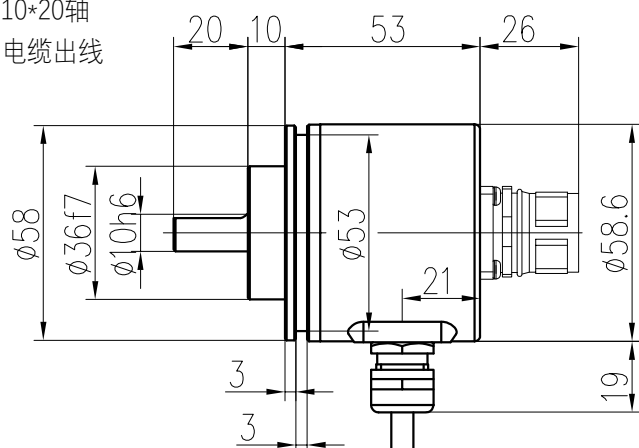
*profinet/profibus C选项插头类型不同, 以总线形式为准, 公司配置标准插头。

轴型绝对值编码器

AV6A/M 外形图

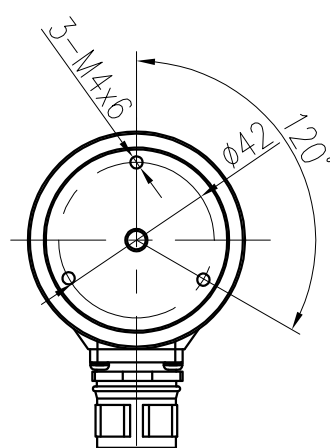
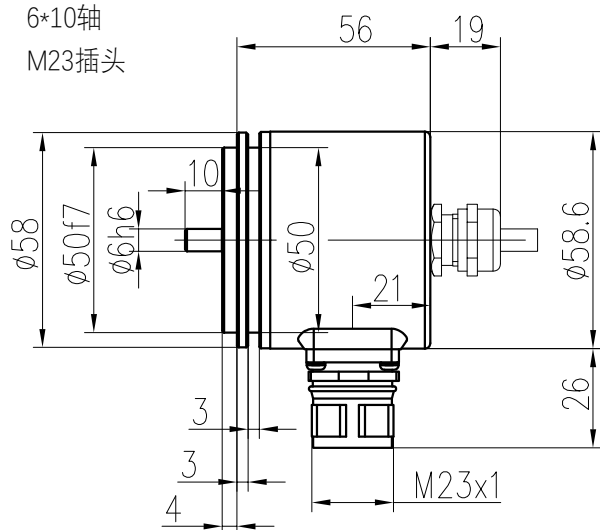
36子口, 58夹紧法兰

10*20轴
电缆出线



50子口, 58同步法兰

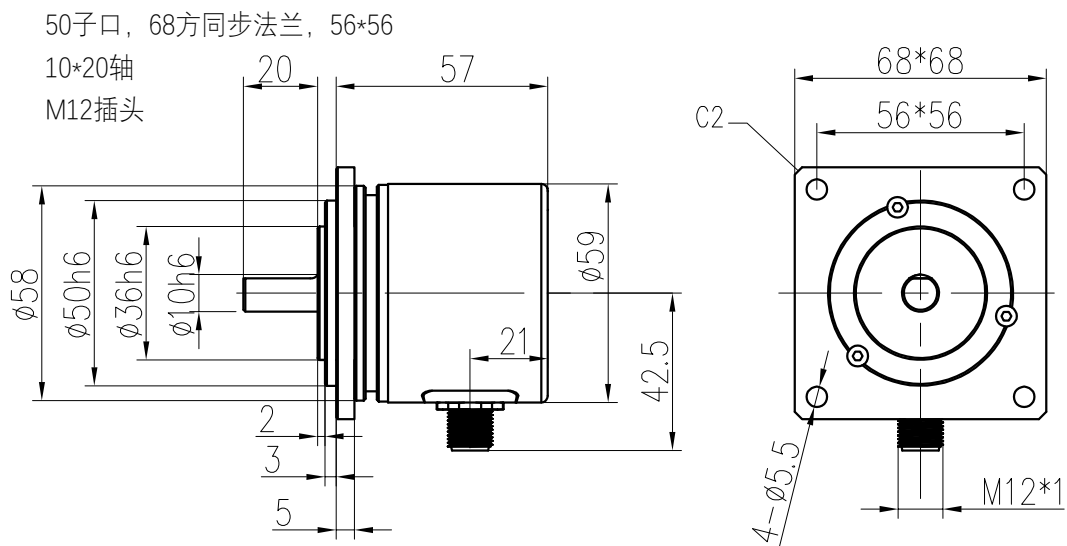
6*10轴
M23插头



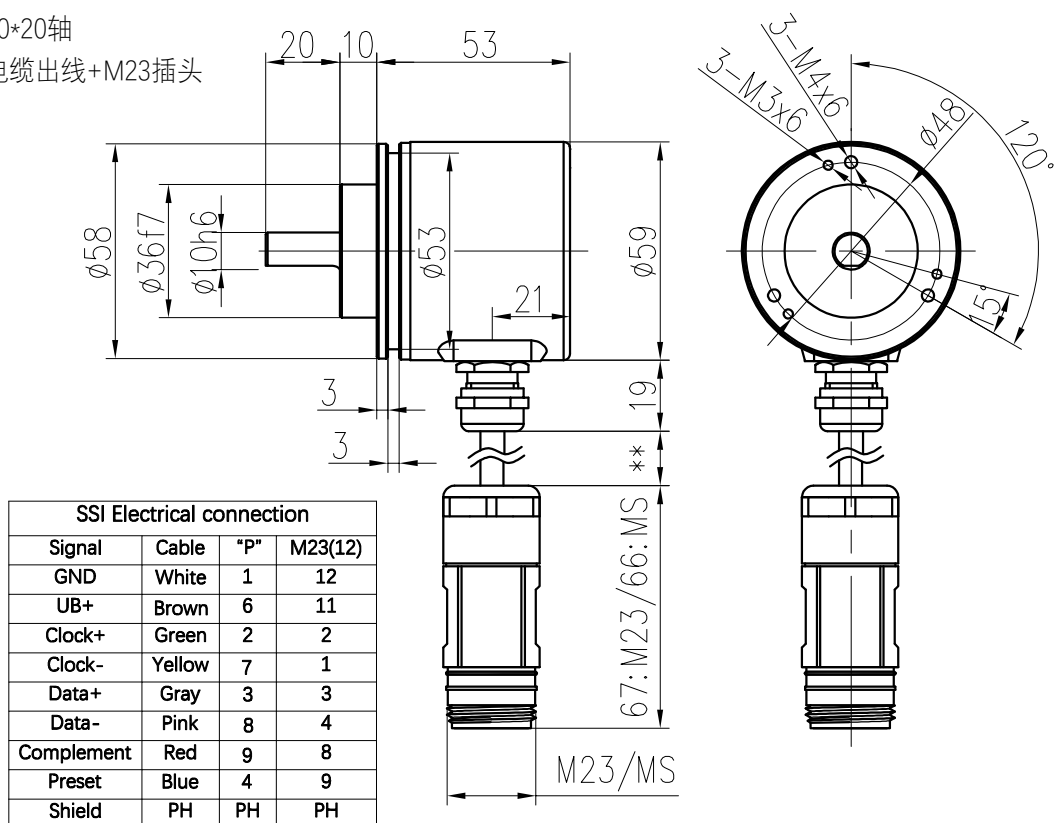
SSI Electrical connection			
Signal	Cable	"P"	M23(12)
GND	White	1	12
UB+	Brown	6	11
Clock+	Green	2	2
Clock-	Yellow	7	1
Data+	Gray	3	3
Data-	Pink	8	4
Complement	Red	9	8
Preset	Blue	4	9
Shield	PH	PH	PH

轴型绝对值编码器

AV6A/M 外形图



36子口, 58夹紧法兰
10*20轴
电缆出线+M23插头



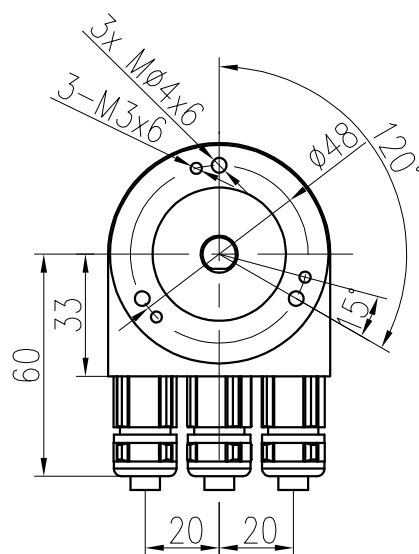
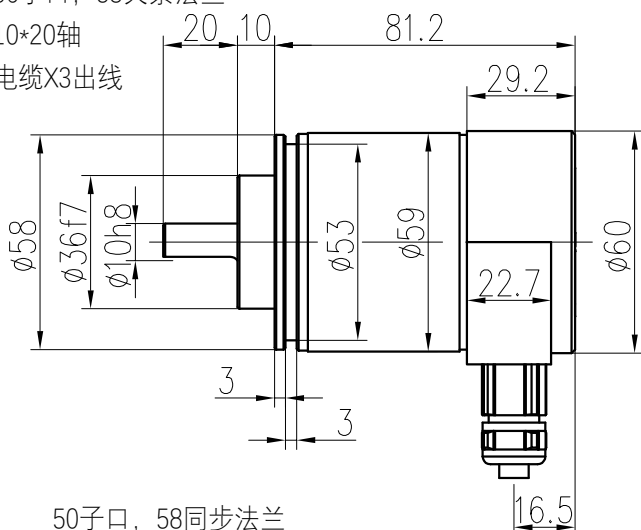
轴型绝对值编码器

AV6A/M 外形图

36子口, 58夹紧法兰

10*20轴

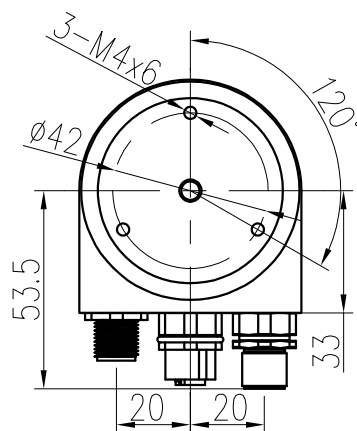
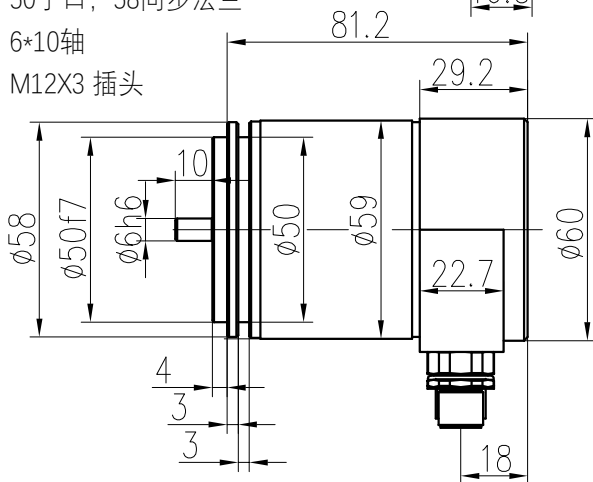
电缆X3出线



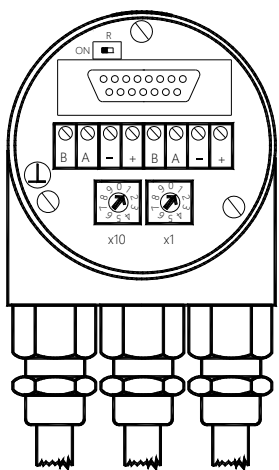
50子口, 58同步法兰

6*10轴

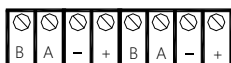
M12X3 插头



接线: 3x 电缆格兰-Profibus-DP

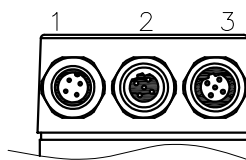


Connecting the data line and the power supply



Clamp	Description
B (Left)	Bus Line B (Bus In)
A (Left)	Bus Line A (Bus In)
-	0 V
+	10 - 30 V
B (Right)	Bus Line B (Bus Out)
A (Right)	Bus Line A (Bus Out)
-	0 V
+	10 - 30 V

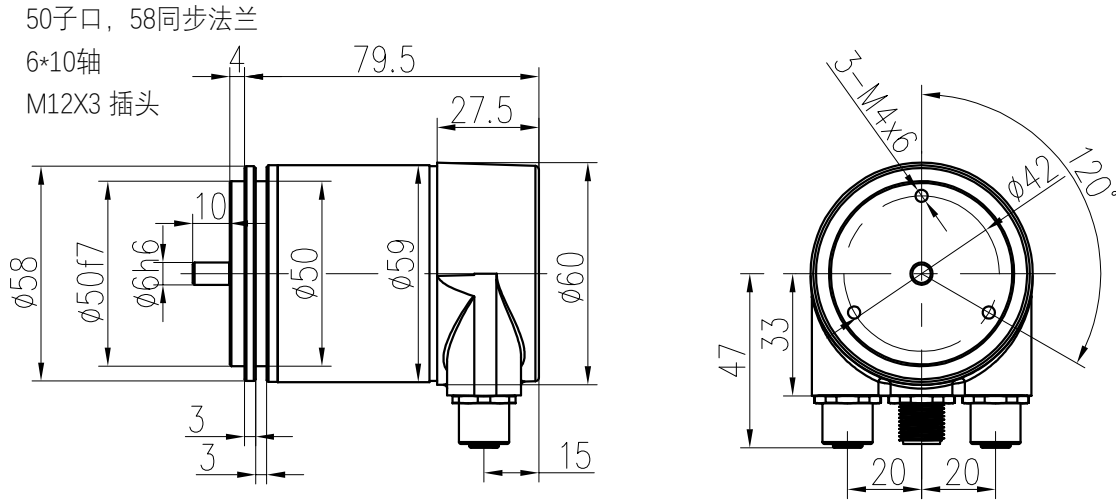
接线: 3x M12-Profibus-DP



Power Supply	Connector 1
Not Connected	Connector 1
GND	Connector 1
Not Connected	Connector 1
Not Connected	Connector 2
Busline A out	Connector 2
Not Connected	Connector 2
Bus line B out	Connector 2
-	Connector 2
+	Connector 2
Not Connected	Connector 3
Not Connected	Connector 3
Bus line A in	Connector 3
-	Connector 3
Not Connected	Connector 3
Bus line B in	Connector 3
Not Connected	Connector 3
Not Connected	Connector 3
Connector-View on Encoder	

轴型绝对值编码器

AV6A/M 外形图



接线: 3x M12-Profibnet

Connector 1 M12, Female, 4 pin, d coded		Connector 2 M12, Male, 4 pin, a coded		Connector 3 M12, Female, 4 pin, d coded	
SIGNAL	CONNECTOR	PIN	NUMBER		
Tx+	Connector 1	1			
Rx+	Connector 1	2			
Tx-	Connector 1	3			
Rx-	Connector 1	4			
Power	Connector 2	1			
Not Connected	Connector 2	2			
GND	Connector 2	3			
Not Connected	Connector 2	4			
Tx+	Connector 3	1			
Rx+	Connector 3	2			
Tx-	Connector 3	3			
Rx-	Connector 3	4			

Diagnostic LED	Color	Description for LED = on
Active1	Yellow	Incoming and outgoing traffic for port 1
Link1*	Green	Link to another Ethernet component for port 1
Active2	Yellow	Incoming and outgoing traffic for port 2
Link2*	Green	Link to another Ethernet component for port 2
Stat1	Green	Status 1, details in the user manual
Stat2	Red	Status 2, details in the user manual

* Flashes with 2Hz if engineering identification call is activated and link connection is available