

温州联宝贸易有限公司

Wenzhou Linp Trading co., ltd.

乐清市欧姆特尔电子科技有限公司

Yueqing Omtter electronic technology co., ltd.

OM5000 系列工业手柄 OM5000 series industry handle



产品特点Product characteristic

- 摩擦定位，霍尔无接触角度检测。
The Friction localization, Hall non-contact angle detect.
- 单轴前后方向或单方向操作，中位或起点位置可带机械锁。
single axis front and back direction operation or single direction operation, the starting position or the center position could selecting mechanism locking.
- 宽电源电压范围，当选择DC24V电源电压时允许电压范围18V~36V。
With supply voltage scope, when choose the DC24V supply voltage permits voltage scope 18V~36V.
- 输出电压可选择0.5V~4.5V、0V~5V、0V~±5V、0V~10V、0V~±10V。
The output voltage could choose 0.5V~4.5V, 0V~5V, 0V~±5V, 0V~10V, 0V~±10V.
- 可选配微动开关（开关最大电流4A）或1A继电器开关。
Could select and match the micro switch (switch maximum current 4A) or 1A relay switch.

应用范围Application scope

该系列产品主要应用于矿山机械、工程车辆。

This series product mainly applies in the mining machinery, the project vehicles.

技术参数 Technical parameter

机械参数 Mechanical parameter

摇动角度: $\pm 45^\circ$ (HD 型柄 $\pm 25^\circ$)
Swing angle: $\pm 45^\circ$ (the HD type handle $\pm 25^\circ$)
启动角度: $\pm 3^\circ$
Starting angle: $\pm 3^\circ$
使用寿命: 大于1000 万次
Service life: Is bigger than 10,000,000 times
操作力: 15N (最大)
Operation strength: 15N (biggest)
限位力: 50N
Limit strength: 50N
重量: 450g (无上端)
Weight: 450g (without the top port)

电气参数 Electrical parameter

霍尔型 Hall type

电源电压: $5 \pm 0.5\text{Vdc}$

Power supply voltage: $5 \pm 0.5\text{Vdc}$

极限允许过电压: 30Vdc (连续使用)

Limit permission overvoltage: 30Vdc (continuous use)

反向极限允许电压: 15Vdc

The reverse limit permits the voltage: 15Vdc

输出电压范围 (可选):

Output voltage scope (optional): H51= 霍尔型, DC5V 电源, 0.5V~2.5V~4.5V 电压输出

H51= Hall type, DC5V power source, 0.5V~2.5V~4.5V voltage output

H52= 霍尔型, DC5V 电源, 0V~2.5V~5V 电压输出

H52= Hall type, DC5V power source, 0V~2.5V~5V voltage output

最小负载阻抗: $5\text{K}\Omega$

Minimum load impedance: $5\text{K}\Omega$

绝缘电阻: 大于 $50\text{M}\Omega$ (500Vdc 时)

insulate resistance: Is bigger than $50\text{M}\Omega$ (when 500Vdc)

带转换电路 with switching circuit

输入电压: DC12V (9~18V); DC24V (18~36V)

Input voltage: DC12V (9~18V); DC24V (18~36V)

最大电源电流: 25mA

Biggest power source electric current: 25mA

最大输出电流 (电压输出时): 20mA

Maximum output electric current (when voltage output): 20mA

继电器位置开关最大触点电流: 1A

Relay position switch biggest electronic contact point electric current: 1A

标准电压输出 Standard voltage output

输出电压范围 (可选):

Output voltage scope (optional):

U11=DC12V 输入, $-10\text{V}\sim 0\text{V}\sim +10\text{V}$ 电压输出

U11=DC12V input, $-10\text{V}\sim 0\text{V}\sim +10\text{V}$ voltage output

U12=DC12V 输入, $+10\text{V}\sim 0\text{V}\sim +10\text{V}$ 电压输出

U12=DC12V input, $+10\text{V}\sim 0\text{V}\sim +10\text{V}$ voltage output

技术参数 Technical parameter

U13=DC12V 输入, -5V~0V~+5V 电压输出
U13=DC12V input, -5V~0V~+5V voltage output
U14=DC12V 输入, +5V~0V~+5V 电压输出
U14=DC12V input, +5V~0V~+5V voltage output
U15=DC12V 输入, 0~+10V 电压输出
U15=DC12V input, 0~+10V voltage output
U21=DC24V 输入, -10V~0V~+10V 电压输出
U21=DC24V input, -10V~0V~+10V voltage output
U22=DC24V 输入, +10V~0V~+10V 电压输出
U22=DC24V input, +10V~0V~+10V voltage output
U23=DC24V 输入, -5V~0V~+5V 电压输出
U23=DC24V input, -5V~0V~+5V voltage output
U24=DC24V 输入, +5V~0V~+5V 电压输出
U24=DC24V input, +5V~0V~+5V voltage output
U25=DC24V 输入, 0~+10V 电压输出
U25=DC24V input, 0~+10V voltage output

标准电流输出 The standard electric current output

输出电流范围 (可选) :

Output current scope (optional): I21= 二线制 4mA ~12mA ~20mA 电流输出
I21= two-wire system 4mA~12mA~20mA electric current output
I22= 二线制 20mA ~4mA ~20mA 电流输出
I22= two-wire system 20mA~4mA~20mA electric current output

环境参数 Environment parameter

工作温度: -40°C ~+80 °C

Operating temperature: - 40°C~+80°C

防护等级: IP65

Protection rank: IP65

产品选型Product Selection

OM5000 - □□□ - □□□ - □□□ - □□□ - □□□ - □□□
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① ② ③ ④ ⑤ ⑥ ⑦

分项选型说明Sub-item selection instructions

① 产品系列号Product series number

OM5000系列工业手柄，单轴霍尔型摩擦定位，主要应用于矿山机械、工程车辆
The OM5000 series industry handle, the single axis Hall friction localization, mainly applies in the mining machinery, the project vehicles

② 操作方式The operating mode

FCF=摩擦定位，中位带手感
The FCF= friction localization, the center position with feel
FEF=摩擦定位，起点（或终点）带手感
FEF= friction localization, the beginning (or end point) with feel
FCL=摩擦定位，中位机械锁
FCL= friction localization, the center position machinery locking
FEL=摩擦定位，起点（或终点）机械锁
The FEL= friction localization, the beginning (or end point) the machinery locking

③ 输出信号Output signal

H51=霍尔型DC5V 电源，输出电压0.5V~2.5V~4.5V
H51= Hall type DC5V power source, output voltage 0.5V~2.5V~4.5V
H52=霍尔型DC5V 电源，输出电压0V~2.5V~5.0V
H52= Hall type DC5V power source, output voltage 0V~2.5V~5.0V
U11=DC12V输入，-10V~0V~+10V 电压输出
U11=DC12V input, -10V~0V~+10V voltage output
U12=DC12V输入，+10V~0V~+10V 电压输出
U12=DC12V input, +10V~0V~+10V voltage output
U13=DC12V输入，-5V~0V~+5V 电压输出
U13=DC12V input, -5V~0V~+5V voltage output
U14=DC12V输入，+5V~0V~+5V 电压输出
U14=DC12V input, +5V~0V~+5V voltage output
U15=DC12V输入，0~+10V 电压输出
U15=DC12V input, 0~+10V voltage output
U21=DC24V输入，-10V~0V~+10V 电压输出
U21=DC24V input, -10V~0V~+10V voltage output
U22=DC24V输入，+10V~0V~+10V 电压输出
U22=DC24V input, +10V~0V~+10V voltage output
U23=DC24V输入，-5V~0V~+5V 电压输出
U23=DC24V input, -5V~0V~+5V voltage output
U24=DC24V输入，+5V~0V~+5V 电压输出
U24=DC24V input, +5V~0V~+5V voltage output
U25=DC24V输入，0~+10V 电压输出
U25=DC24V input, 0~+10V voltage output
I21=二线制4mA~12mA~20mA 电流输出
I21= two-wire system 4mA~12mA~20mA electric current output
I22=二线制20mA~4mA~20mA 电流输出
I22= two-wire system 20mA~4mA~20mA electric current output

④ 微动开关Micro switch

MS00=无微动开关

MS00= without micro switch

MS11=带4A 起点位置微动开关

MS11= with 4A beginning position micro switch

MS12=带4A 前后位置微动开关

MS12= with 4A front and back position micro switch

⑤ 继电器开关Relay switch

RS0=无继电器开关

RS0= without relay switch

RS1=带1A 起点位置继电器开关

RS1= with 1A beginning position relay switch

RS2=带1A 前后方向及中位继电器开关

RS2= with 1A the front and back direction and the Intermediate position relay switch

⑥ 手柄上端The handle top port

TD=无按钮, 安装孔距尺寸为56mm*34mm

TD= without button, the installment pitch of holes size is 56mm*34mm

LD=按钮式机械锁, 安装孔距尺寸为56mm*34mm

LD= button type mechanical locking, the installment pitch of holes size is on56mm*34mm

BH=上提式机械锁,安装孔距尺寸为90mm*50mm

BH= raises the type mechanical locking, the installment pitch of holes size is 90mm*50mm

HD=无按钮, 安装孔距尺寸为56mm*56mm

HD= without button, the installment pitch of holes size is 56mm*56mm

SP=详见SP型手柄上端说明资料

SP= more details see the SP handle top port instruction.

⑦ 出线方式Wire out-way wiring

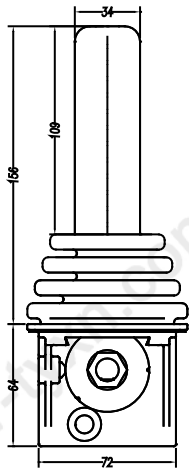
L1=1米屏蔽0.2平方护套线, 剥头搪锡

The L1=1 m shielded 0.2 square sheathed cable, stripping head Hot Dip Coating Tin

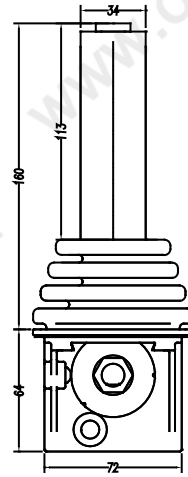
L2=2米屏蔽0.2平方护套线, 剥头搪锡

L2=2 m shielded 0.2 square sheathed cable, stripping head Hot Dip Coating Tin

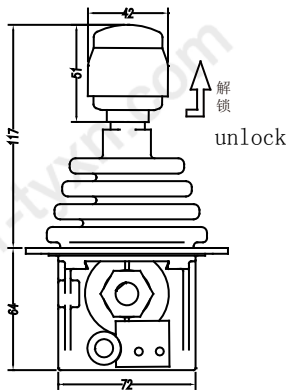
外形尺寸 External dimensions



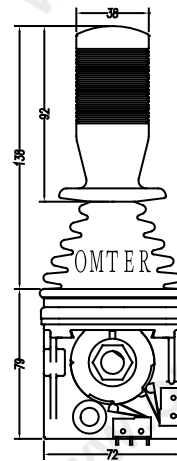
TD 上端 TD top port



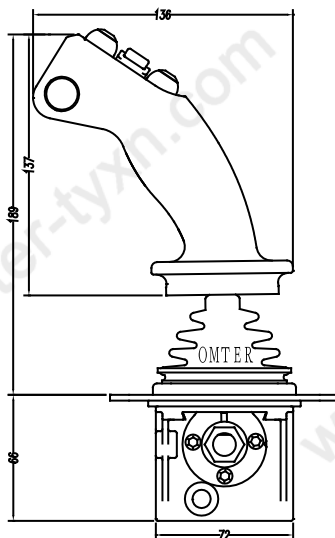
LD 上端 LD top port



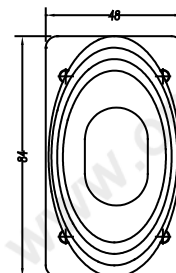
BH 上端 BH top port



HD 上端 HD top port



SP 上端 SP top port

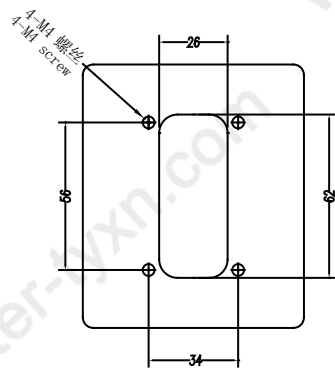


俯视图 Vertical view

机械安装The machinery installment

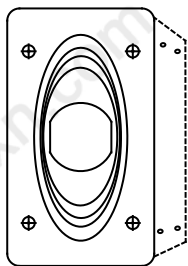


安装示意图Installs the schematic drawing



安装面板开孔示意图Mounting panel to the open hole schematic drawing

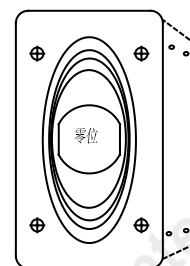
↑
前方向
Front direction



↓
零位
Zero position

单方向操作方向定义Single direction operation direction definition

↑
前方向
Front direction



↓
后方向
back direction

前后方向操作方向定义Front and back direction operation direction definition

产品安装 Product installment

电气安装 Electrical installment

线色	线序	TD /LD /HD	BH	SP
棕	1	9~18V 18~36V	9~18V 18~36V	5V
蓝	2	0V	0V	地
黑	3	输出正	输出正	下端电压输出
白	4	输出负	输出负	上端指拨轮电压输出
黄	5	开关公共端	开关公共端	按钮公共端
绿	6	前方向常开	前方向常开	A按钮
红	7	后方向常开	后方向常开	B按钮
紫	8	中位常开	中位常闭	C按钮
灰	9	中位常开	中位常闭	D按钮

Line color	Line No.	TD /LD /HD	BH	SP
Brown	1	9~18V 18~36	9~18V 18~36V	5V
Blue	2	0V	0V	ground
Black	3	Output positive	Output positive	Bottom port voltage output
White	4	Output negative	Output negative	Top port dial wheel voltage output
Yellow	5	Switch public port	Switch public port	Button public port
Green	6	Front direction normally open	Front direction normally open	A button
Red	7	back direction normally open	back direction normally open	B button
Purple	8	Intermediate position normally open	Intermediate position normal close	C button
Grey	9	Intermediate position normally open	Intermediate position normal close	D button