

C25 SERIES

PRODUCT FEATURES

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- Ergonomic design, hand-operated
- Single axis or multi-axis operation
- Friction brake at Y axis
- Robust joystick, applicable for severe environment
- Non-contacting hall Effect technology, high reliability, long service life
- Configured with 2A@30Vdc micro switches
- J1939 and CANopen options
- Variety of multi-function grips available

MARKET FOCUS

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- Electro-hydraulic control
- Industry automation control



C25 Robust hand-operated multi-axis joystick

TECHNICAL SPECIFICATIONS

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Mechanical data

Travel angle: $\pm 20^\circ$
 Operating Force*: $10 \sim 20\text{N}$ (spring return), $1.7 \sim 2.2\text{Nm}$
 (Friction return)
 Maximum allowable force: 300N
 Service life: 5 million cycles (spring return), 1 million
 cycles (friction load)
 Weight: 850g (no handle fitted)
 *Measured 103mm from pivot point

Electrical data

Analog/Hall voltage output

Supply voltage: $5.0 \pm 0.5\text{Vdc}$ or $9 \sim 32\text{Vdc}$
 Power current consumption: $<9\text{mA}$ (per channel)
 Center voltage: $2.5 \pm 0.15\text{V}$
 Output linearity tolerance: $\pm 3\%$
 Maximum overload voltage: 20Vdc
 Maximum reverse voltage: -15Vdc
 Load resistance: $>10\text{K}\Omega$
 Insulation resistance: $>1000\text{M}\Omega$
 EMC: 100V/m

Analog/Modulation voltage output

Supply voltage: $9 \sim 36\text{Vdc}$
 Power current consumption: $<30\text{mA}$

Analog/Current output

Supply voltage: $9 \sim 36\text{Vdc}$
 Current consumption: $<30\text{mA}$

CANbus

Supply voltage: $9 \sim 36\text{Vdc}$
 Power current consumption: 55mA
 CAN version: CAN2.0b
 CAN protocol: J1939 or CANopen
 Baud rate: $125\text{Kbps} \sim 1\text{Mbps}$ (Default value: 250Kbps)

Micro switch channel

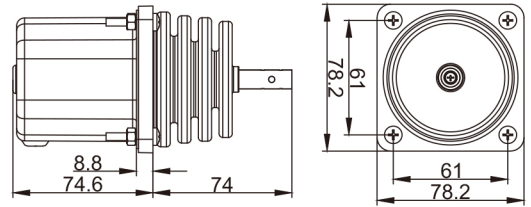
Configuration: 2 micro switches per axis, normal open
 Open angle: $2^\circ \sim 5^\circ$
 Load capacity: $3\text{A}@125\text{Vac}$; $2\text{A}@30\text{Vdc}$

Environmental data

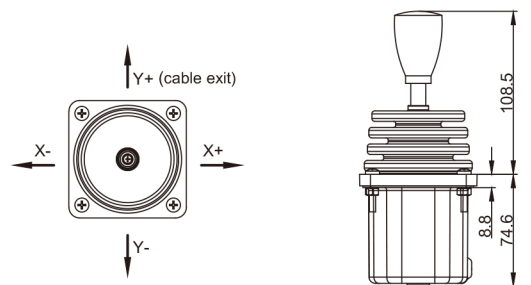
Operating temperature $-30^\circ\text{C} \sim +80^\circ\text{C}$	Storage temperature $-40^\circ\text{C} \sim +85^\circ\text{C}$	Protection class (IP) IP65 (above the panel)
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SHAPE DIMENSIONS

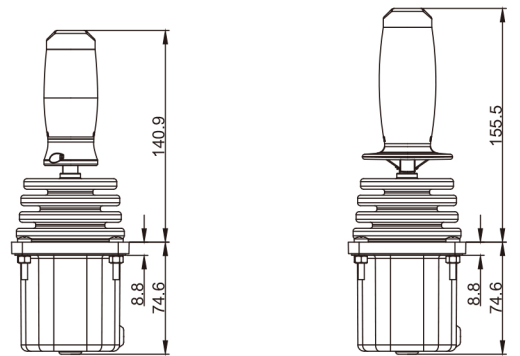
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C25P_shape

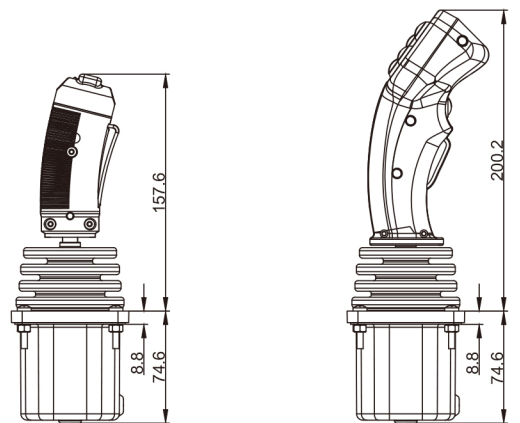


HA handle



HB handle

HD handle



K1 handle

K2 handle

ORDERING CODES » » » » » » » » » »

C25 - ① - ② - ③ - ④ - ⑤

① Operating mode

1AX	Single axis operation, aligned X axis direction, spring return
1AY	Single axis operation, aligned Y axis direction, spring return
1AF	Single axis operation, aligned Y axis direction, friction hold, center detent
2AS	Dual-axis operation in arbitrary direction, spring return, rigid guidance
2AD	Dual-axis operation in arbitrary direction, spring return, soft guidance
2AP	Dual-axis crossing operation, spring return

② Output signal

H11	Supply voltage $5V \pm 10\%V_{dc}$, 0.5~4.5V ratiometer output
H21	Supply voltage $5V \pm 10\%V_{dc}$, 0.5~4.5V redundant ratiometer output
W11	Supply voltage 9~32Vdc, 0.5~4.5V ratiometer output
W21	Supply voltage 9~32Vdc, 0.5~4.5V and 4.5~0.5V redundant ratiometer output
U11	Supply voltage 11.5~32Vdc, 0.5~10V regulated output
U13	Supply voltage 11.5~32Vdc, -10~0~+10V regulated output
I11	Supply voltage 9~32Vdc, 4~12~20mA regulated output
J33	Canbus output, protocol J1939, node address 33
J34	Canbus output, protocol J1939, node address 34
J35	Canbus output, protocol J1939, node address 35
J36	Canbus output, protocol J1939, node address 36
CA	Canbus output, protocol CANopen
USB	Digital output. USB port
RS232	Digital output. serial port
NA	NO electronic interface

③ Micro switch

N	No switch
S1	1 microswitch for single axis, center position
S2	2 microswitch for single axis, forward and reverse position
S4	4 microswitch for double axis, forward and reverse position

④ Handle options

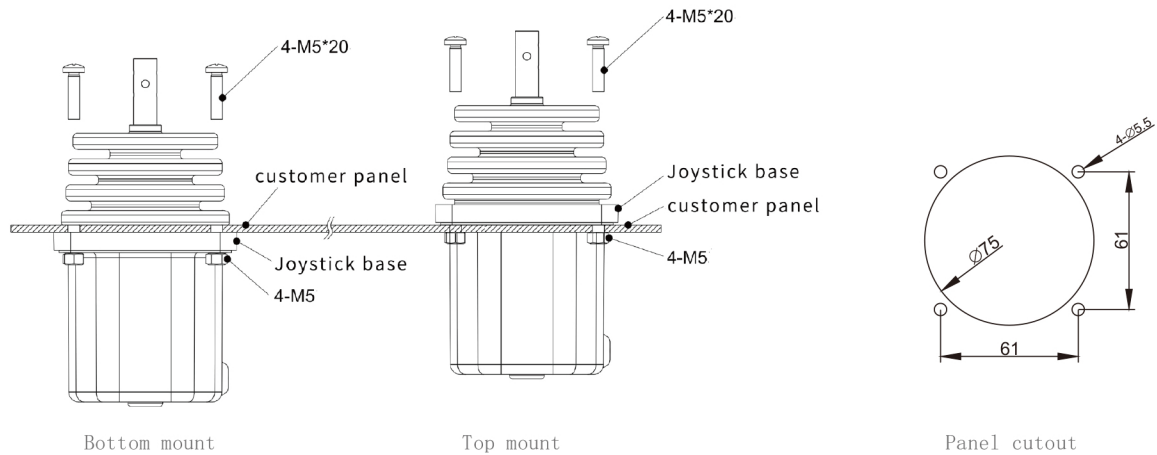
HA	HA handle
HB	HB handle, without top button switch
HBS	HB handle, with top button
HBR	HB handle, with top rocker switch
HD	HD handle, without top button switch
HDS	HD handle, with top button switch
HDR	HD handle, with top button switch
K1DR	K1 handle, with deadman switch and top rocker switch
K1NR	K1 handle, without deadman switch, with top rocker switch
K1DN	K1 handle, with deadman switch, without top rocker switch
K1NN	K1 handle, without deadman switch and top rocker switch
K2##	K2 handle, refer to K2 manual for detailed configurations

⑤ 出线方式

L	Cable wiring (AF200, 28#, length 500mm)
C	Connector wiring, connector model molex-5557
D	Deutsch connector (only for CANbus output)

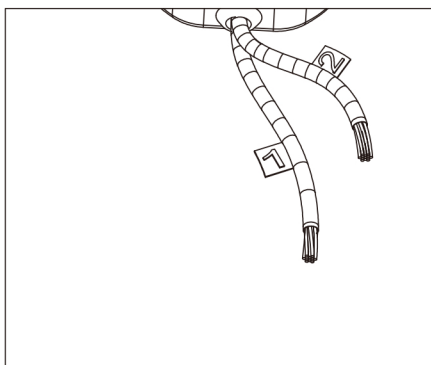
C25

MECHANICAL INSTALLATIONS » » » » » » » » » »

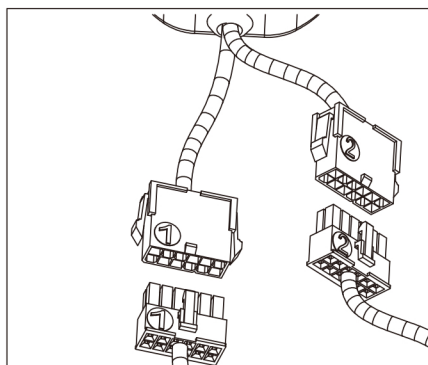


Note: the thickness of panel less than $\leq 4\text{mm}$

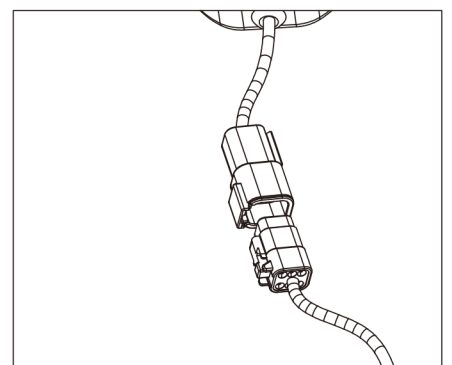
ELECTRICAL CONNECTIONS » » » » » » » » » »



Cabel wiring

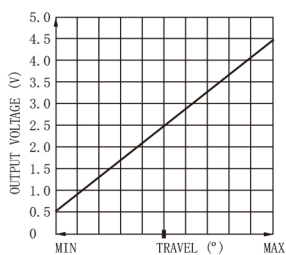


Connector
(molex 5557 Connector)

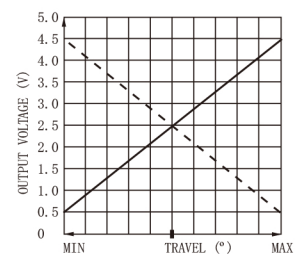


Connector
(DTMO4-6P Connector)

OUTPUT SIGNAL CURVE » » » » » » » » » »



H11/W11



H21/W21