



C25 Series

FEATURES

- Single axis or multi-axis operation, spring return or Y axis friction brake
- Robust joystick, applicable for severe environment
- Non-contacting Hall effect technology, high reliability, long lifetime
- Optional high current switch output
- Optional CANbus output
- Variety of multi-function handle available

APPLICATIONS

- Drive on-off valve and proportional valve, electrohydraulic control system
- Apply to construction machinery, hoisting machinery, agricultural machinery, road Machinery, Earth-moving machinery



SPECIFICATIONS

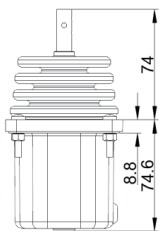
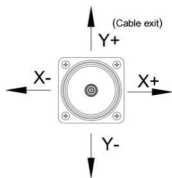
Mechanical data	
Travel angle	±20°(spring return) ±25° (friction hold)
Operating force ¹	10~20N (spring return) 1.7~2.2N·m (friction hold)
Mechanical life	>5 million cycles(spring return) >1 million cycles (friction hold)
Product weight	Appr. 850g
Electrical data	
Analog/Hall voltage output	
Supply voltage(Vs)	5.0±0.5Vdc or 9~32Vdc
Power current consumption	<9mA (per channel)
Center voltage	2.5V±3%Vs
Output linearity tolerance	±3%
Maximum overload voltage	30Vdc
Maximum Reverse voltage	-16Vdc
Load resistance	10KΩ
Analog/Hall voltage output	
Supply voltage(Vs)	9~32Vdc
Power current consumption	<30mA
Analog/Hall voltage output	
Supply voltage(Vs)	9~32Vdc
Power current consumption	<35mA
CANbus	
Supply voltage(Vs)	9~32Vdc
Power current consumption	<100mA (24V)

SPECIFICATIONS (CONTINUED)

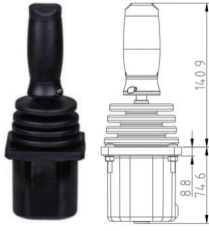
CAN version	CAN2.0b
CAN protocol	J1939 or CANopen Protocol
Baud rate	250Kbps (J1939 protocol) 10Kbps~1Mbps (CANopen Protocol)
Environmental data	
Operating temperature	-40°C~+85°C
Storage temperature	-40°C~+85°C
Protection class	IP ratings may vary from model to model, for more information, please consult our sales staff
EMC	EN IEC 6100-6-4-2019, 30MHz-1GHz EN IEC 6100-6-2-2019, 80MHz-6GHz
Impact	IEC60068-2-27, 50g, 11ms, 3 times/direction impact, in total 6 directions
Vibration	IEC60068-2-64, random vibration, 3.6gRMS, 100-200Hz, each axis lasts for one hour

¹ The measuring point is 126.4mm from the pivot center
Note: C25 series CAN bus products do not come with 120Ω terminal resistors by default.

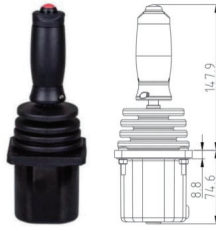
OUTLINE DIMENSIONS (UNIT:mm)



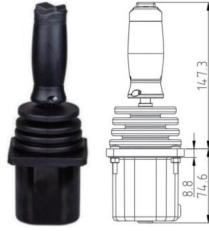
HA handle



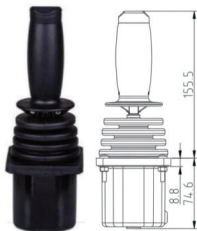
HB handle



HBS handle



HBR handle



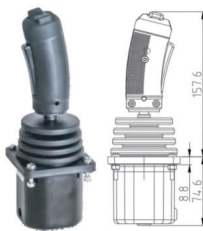
HD handle



HDS handle



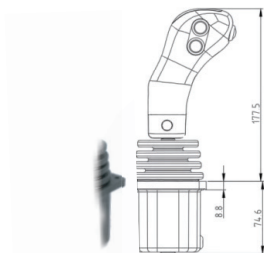
HDR handle



K1 handle



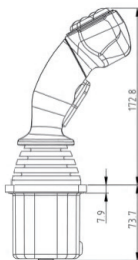
K2 handle



K4 handle



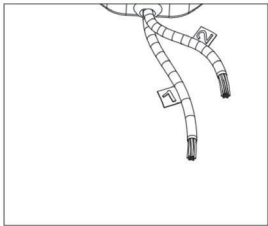
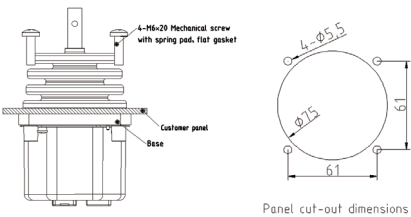
K9 handle



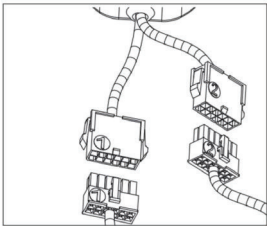
K13 handle

MECHANICAL INSTALLATIONS

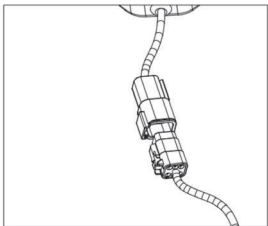
ELECTRICAL CONNECTIONS



Cabel wiring



Connector
(Molex 5557 Connector)



Connector
(DTM04-6P Connector)

ORDER GUIDE

C25		Multi-axis joystick	
		Code	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
		1AE	Single axis operation, aligned Y axis direction, friction hold, front, middle and back detent
		2AS	Dual-axis operation in arbitrary direction, spring return, rigid guidance(convex point)
		2AD	Dual-axis operation in arbitrary direction, spring return, soft guidance (Non-convex point)
		2AP	Dual-axis crossing operation, spring return
		Code	Output signal
		H11	Supply voltage 5Vdc, 10%~50%~90%Vs output
		H13	Supply voltage 5Vdc, 20%~50%~80%Vs output
		H14	Supply voltage 5Vdc, 25%~50%~75%Vs output
		H21	Supply voltage 5Vdc, 10%~50%~90%Vs and 90%~50%~10%Vs redundant output
		H23	Supply voltage 5Vdc, 20%~50%~80%Vs and 80%~50%~20%Vs redundant output
		H24	Supply voltage 5Vdc, 25%~50%~75%Vs and 75%~50%~25%Vs redundant output
		W11	Supply voltage 9~32Vdc, 0.5~2.5~4.5V ratiometer output
		W13	Supply voltage 9~32Vdc, 1~2.5~4V ratiometer output
		W14	Supply voltage 9~32Vdc, 1.25~2.5~3.75V ratiometer output
		W21	Supply voltage 9~32Vdc, 0.5~2.5~4.5V and 4.5~2.5~0.5V redundant ratiometer output
		W23	Supply voltage 9~32Vdc, 1~2.5~4V and 4~2.5~1V redundant ratiometer output
		W24	Supply voltage 9~32Vdc, 1.25~2.5~3.75V and 3.75~2.5~1.25V redundant ratiometer output
		U11	Supply voltage 11.5~32Vdc, 0~10V 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
		RS232*	RS232 serial digital signal output
		USB*	Digital output USB port
		NA	No analog output
C25	1AX	H11	

ORDER GUIDE (CONTINUED)

C25		Multi-axis joystick	
		Code	Micro switch
		N	No micro switch
		S1	Single axis, center switch
		S2	Single axis, forward and backward direction switch
		S4	Double axis, each axis with forward and backward direction switch
		Code	Handle options
		HA	HA handle
		HB	HB handle, without top button switch
		HBS	HBS handle, with top button
		HBR	HBR handle, with top rocker switch
		HD	HD handle, without top button switch
		HDS	HDS handle, with top button switch
		HDR	HDR handle, with top rocker switch
		K5DR	K5 handle, with deadman switch and top rocker switch
		K5NR	K5 handle, without deadman switch, with top rocker switch
		K5DN	K5 handle, with deadman switch, without top rocker switch
		K5NN	K5 handle, without deadman switch and top rocker switch
		K2##	K2 handle, refer to K2 manual for detailed configurations
		K4##	K4 handle, refer to K4 manual for detailed configurations
		K9##	K9 handle, refer to K9 manual for detailed configurations
		Code	Handle options
		L	Cable wiring (AF200, AWG28#, length 500mm)
		C	Connector wiring, Molex 5557, (additional terminal of plug-in connector: molex-5559)
		D	Deutsch connector (Deutsch DTM04-6P, only for CANbus output)
C25	S1	HB	L
Complete Type Specification			