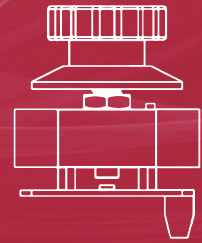


HRC series

Hall sensor rotary controller

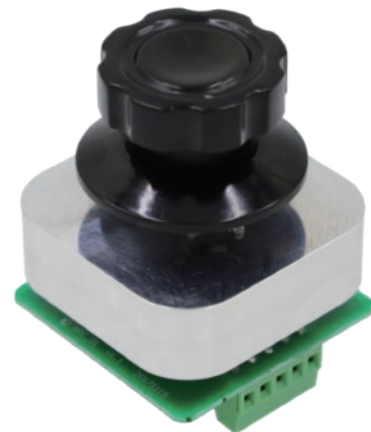


PRODUCT FEATURES

- Horizontal rotation or unidirectional rotation operation, friction positioning
- Strong hand feeling at the center position or end
- Non-contacting Hall effect sensor, high reliability, long lifetime
- Optional supply voltage 9~32Vdc
- Optional redundant output

MARKET FOCUS

- Velocity transform function of various construction machinery
- Control panel of road machinery
- Control panel or control armrest box of various oil machinery and mining machinery



TECHNICAL SPECIFICATIONS

① Mechanical data

- Rotation angle: $\pm 140^\circ$
(dual direction operation, customized)
 280° (unidirectional operation, customized)
- Breakout force: $(0.63 \pm 0.15) \text{ N} \cdot \text{M}$
- Operating force: $(0.1 \pm 0.05) \text{ N} \cdot \text{M}$
- Mechanical life: >5 million cycles
- Product weight: 350g

② Electrical data

- Supply voltage(V_s):
 $5.0 \pm 0.5 \text{ Vdc}$ or 9~32Vdc
- Current consumption:
<11mA (per channel)
- Center voltage: $2.5 \text{ V} \pm 4\% V_s$
- Output linearity tolerance: $\pm 3\%$
- Maximum overload voltage: 20Vdc
- Maximum reverse voltage: -10Vdc
- Load resistance: 10K Ω

③ Environmental data

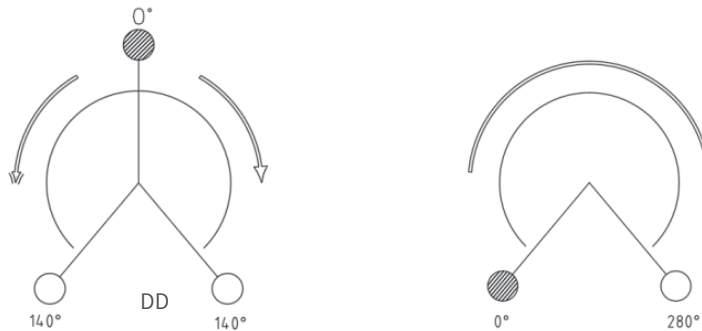
- Operating temperature: $-40^\circ\text{C} \sim +85^\circ\text{C}$
- Storage temperature: $-40^\circ\text{C} \sim +85^\circ\text{C}$

ORDERING CODES

HRC - ① - ② - ③ - ④

① Operation mode

DD	From center position, clockwise and counterclockwise operation
SD	Operation from end to end



② Output signal

H11	Supply voltage 5Vdc, 10%~50%~90%Vs ratiometer output
H13	Supply voltage 5Vdc, 20%~50%~80%Vs ratiometer output
H14	Supply voltage 5Vdc, 25%~50%~75%Vs ratiometer output
H21	Supply voltage 5Vdc, 10%~50%~90%Vs and 90%~50%~10%Vs redundant ratiometer output
H23	Supply voltage 5Vdc, 20%~50%~80%Vs and 80%~50%~20%Vs redundant ratiometer output
H24	Supply voltage 5Vdc, 25%~50%~75%Vs and 75%~50%~25%Vs redundant ratiometer output
W11	Supply voltage 9~32Vdc, 0.5~2.5~4.5V output
W13	Supply voltage 9~32Vdc, 1~2.5~4V output
W14	Supply voltage 9~32Vdc, 1.25~2.5~3.75V output
W21	Supply voltage 9~32Vdc, 0.5~2.5~4.5V and 4.5~2.5~0.5V redundant output
W23	Supply voltage 9~32Vdc, 1~2.5~4V and 4~2.5~1V redundant output
W24	Supply voltage 9~32Vdc, 1.25~2.5~3.75V and 3.75~2.5~1.25V redundant output

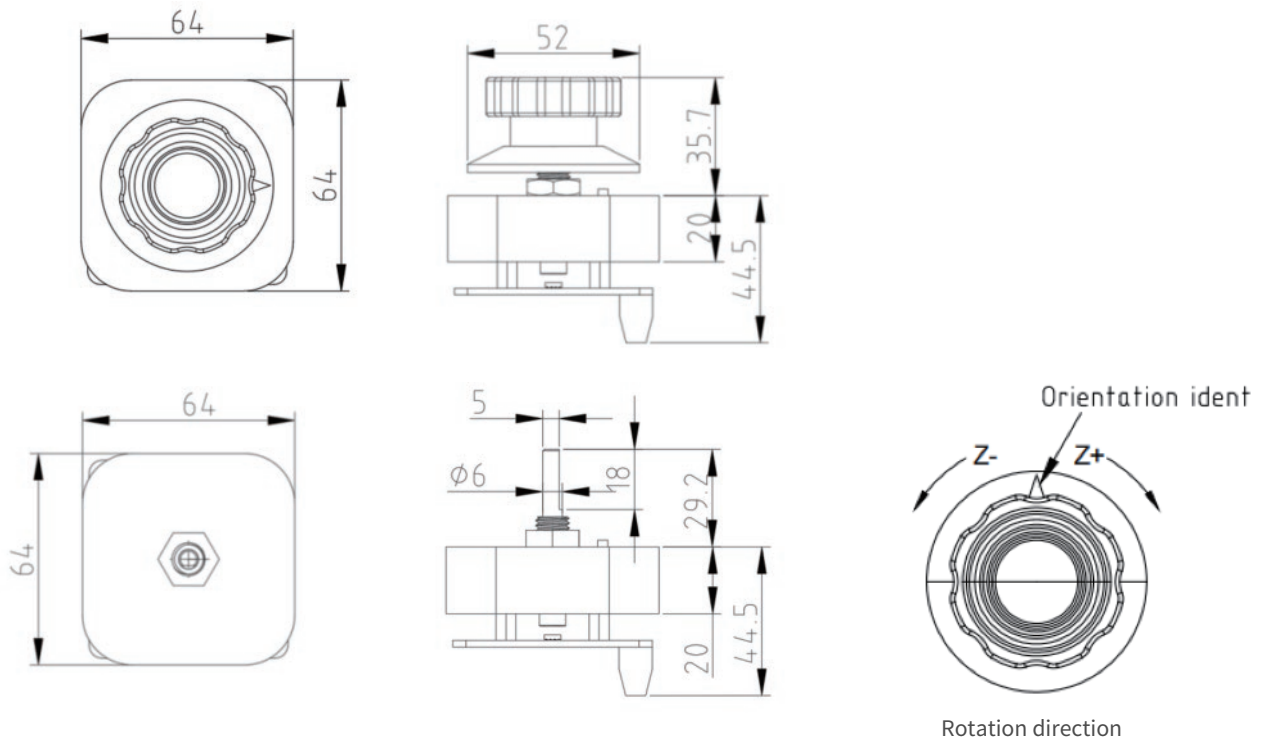
③ Rotating wheel

NRW	No rotation wheel
RW1	Rotation wheel (Ø52mm)
RW2	Rotation wheel (Ø66mm)

④ Wiring

L	Cable wiring (AF200, AWG28#, length 300mm)
T	Terminal block wiring (default)

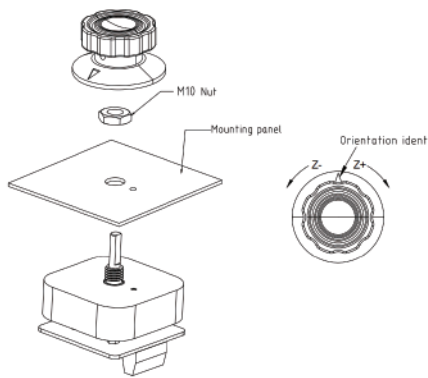
SHAPE DIMENSIONS



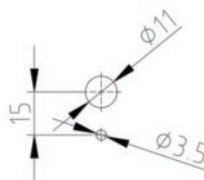
INSTALL

① MECHANICAL INSTALLATIONS

Note: The thickness of the panel is $\leq 4\text{mm}$



Mounting diagram



Panel cut-out dimensions

② ELECTRICAL CONNECTIONS

No.	Wire Map	Function description
1	J1-1	9-32VAdc
2	J1-2	GND
3	J1-3	5Vdc
4	J1-4	A-out
5	J1-5	B-out(Redundant hall)