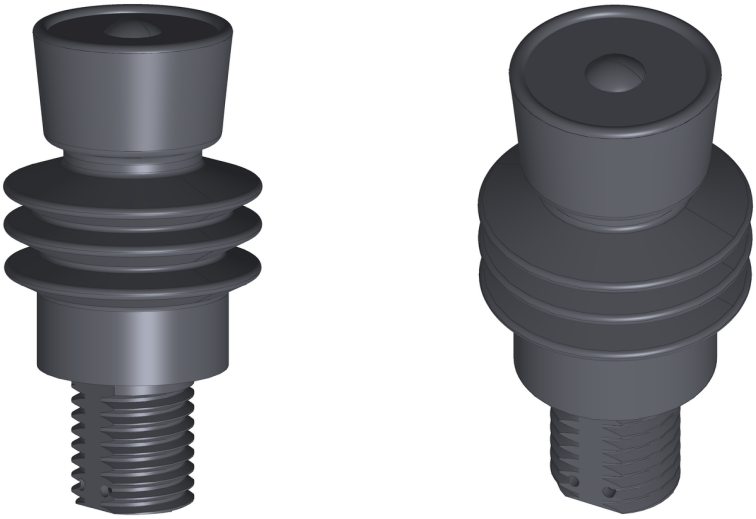
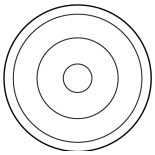
M10 Series

Dual-axis Hall-effect thumb joystick





M10-RR
Spring-return

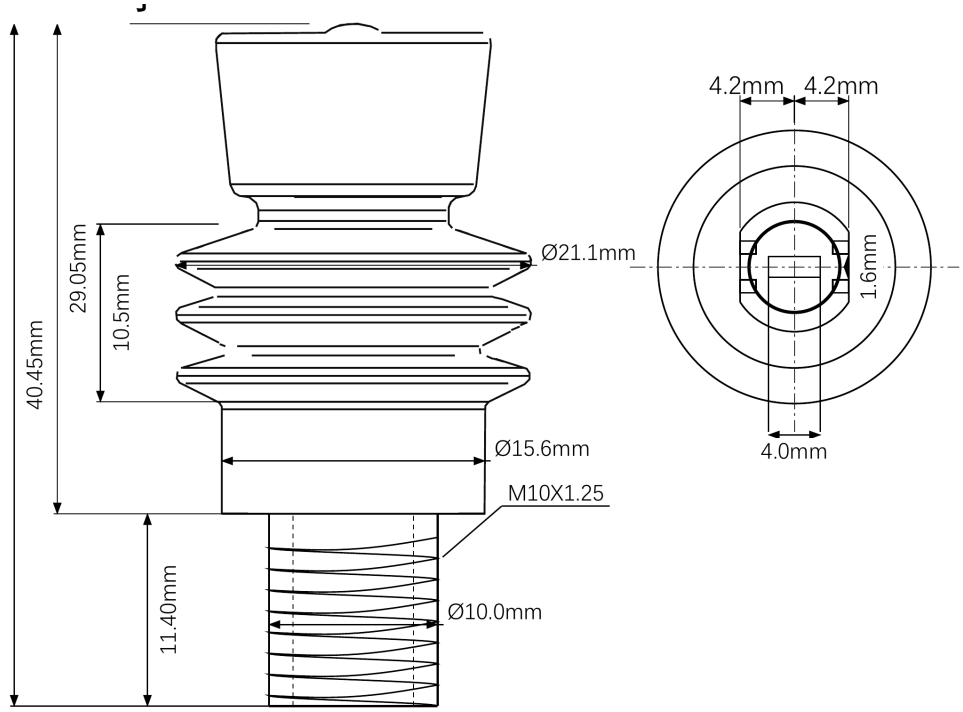
Key features

- Dual-channel output
- 3D Hall-effect sensing
- IP65–IP68 protection rating (customised on request)
- Output: analogue (0.5–4.5 V) / PWM (optional)
- Mechanical mode: spring-return
- M10×1.25 mounting thread

This document is for selection reference only. Final parameters, configurations and supply terms are subject to confirmation with Gudao and to the technical documents or contract agreed by both parties.

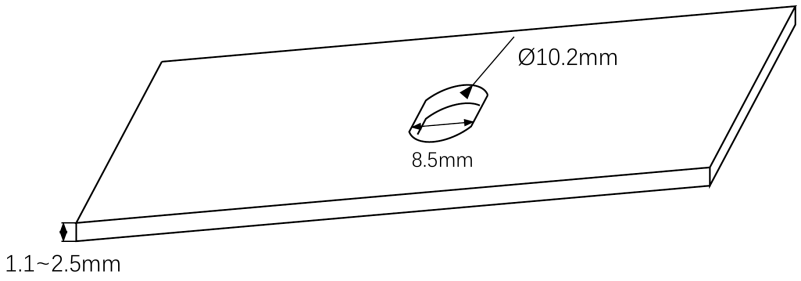
Chengdu Gudao Technology Co., Ltd.
No. 24, Section 1, South 1st Ring Road, Wuhou District, Chengdu, Sichuan, China
Tel / WeChat: +86 139 8004 0082 · Email: 13980040082@139.com · www.gudao-tech.com

Mounting dimensions



M10-RR · Spring-return

Recommended panel cut-out

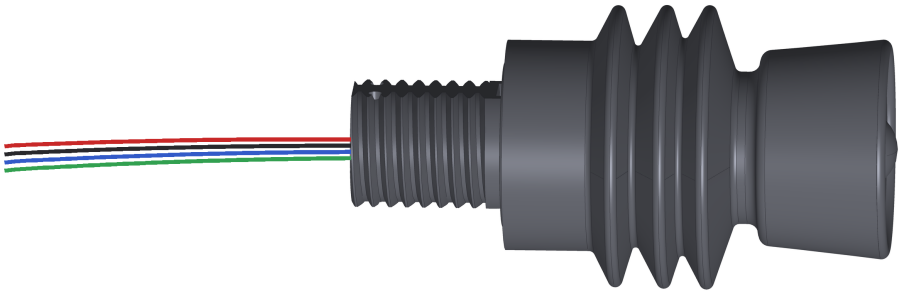


This document is for selection reference only. Final parameters, configurations and supply terms are subject to confirmation with Gudao and to the technical documents or contract agreed by both parties.

Chengdu Gudao Technology Co., Ltd.
No. 24, Section 1, South 1st Ring Road, Wuhou District, Chengdu, Sichuan, China
Tel / WeChat: +86 139 8004 0082 · Email: 13980040082@139.com · www.gudao-tech.com

Electrical parameters

Supply voltage	5 V
Output mode	Dual-channel analogue / dual-channel PWM
Output voltage range	0.5–4.5 V (customisable)
PWM duty cycle range	5%–95% (customisable)
PWM frequency	1000 Hz
Output current	8 mA (analogue output); 20 mA (PWM output)
Sensing method	Hall-effect



Wiring

Wire colour	Function
Red	Supply +5 V
Black	GND
Blue	OUT1
Green	OUT2

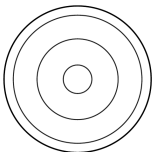
Environmental parameters

Protection rating	IP65–IP68 (customised on request)
Operating temperature	−40 °C to +85 °C
Storage temperature	−40 °C to +85 °C
EMC	Testing to the applicable standard (e.g. EN ISO 14982, ISO 13766-1) can be arranged per project.

This document is for selection reference only. Final parameters, configurations and supply terms are subject to confirmation with Gudao and to the technical documents or contract agreed by both parties.

Chengdu Gudao Technology Co., Ltd.
No. 24, Section 1, South 1st Ring Road, Wuhou District, Chengdu, Sichuan, China
Tel / WeChat: +86 139 8004 0082 · Email: 13980040082@139.com · www.gudao-tech.com

M10-RR · Spring-return



Operating characteristic: always returns to the centre position.

Maximum angle (each direction)	±22.5°
Operating force	3 N ± 0.5 N
Service life	> 1,000,000 cycles
Centring accuracy	0.3°

M10 series ordering code

M10 – **RR** – **45**

Series

M10

Operating type

RR = spring-return

Output type

50 = 0–5 V

45 = 0.5–4.5 V

40 = 1–4 V

PWM = PWM output

Example: M10-RR-45 = M10 series, spring-return, 0.5–4.5 V analogue output.

This document is for selection reference only. Final parameters, configurations and supply terms are subject to confirmation with Gudao and to the technical documents or contract agreed by both parties.

Chengdu Gudao Technology Co., Ltd.
No. 24, Section 1, South 1st Ring Road, Wuhou District, Chengdu, Sichuan, China
Tel / WeChat: +86 139 8004 0082 · Email: 13980040082@139.com · www.gudao-tech.com