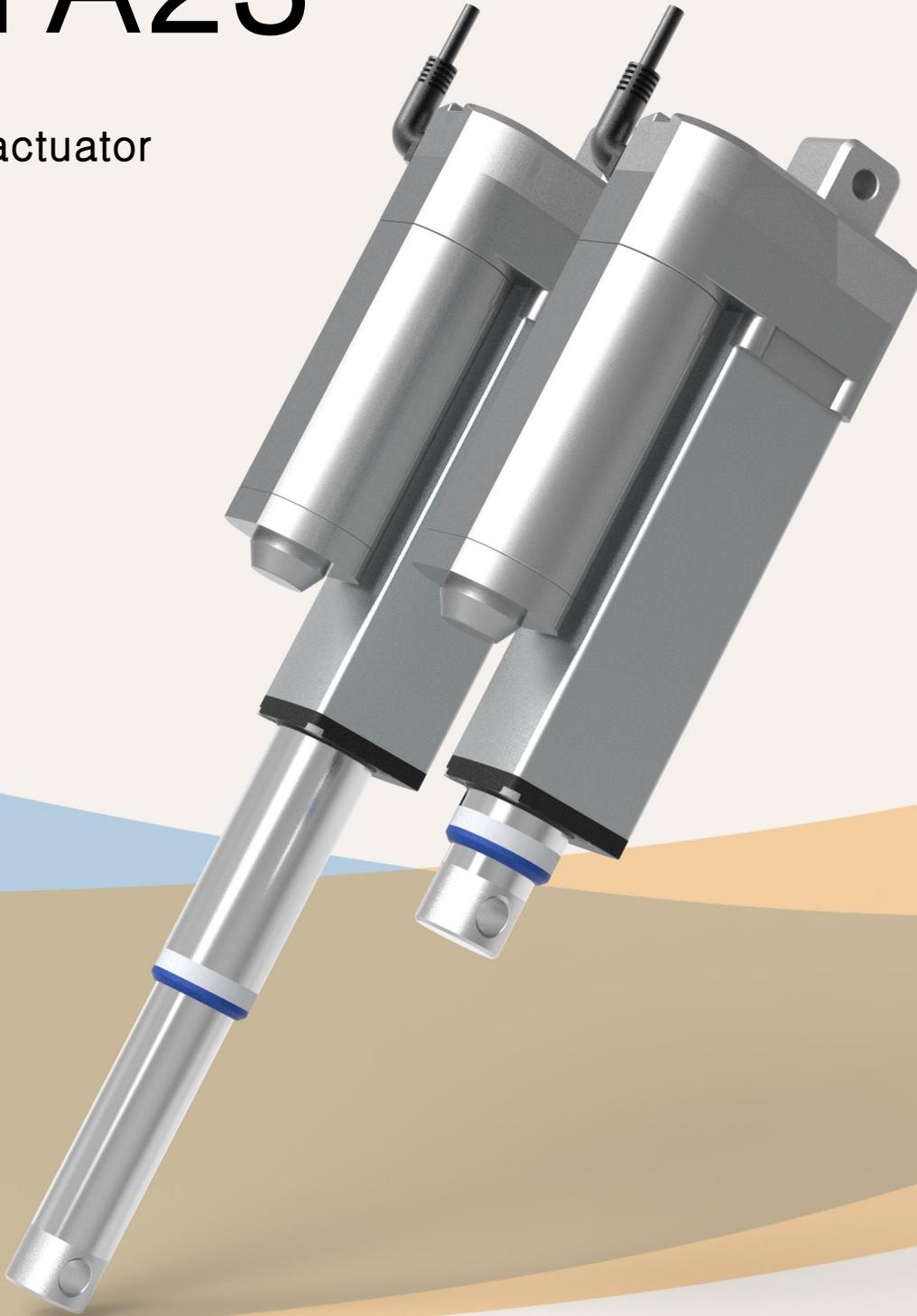


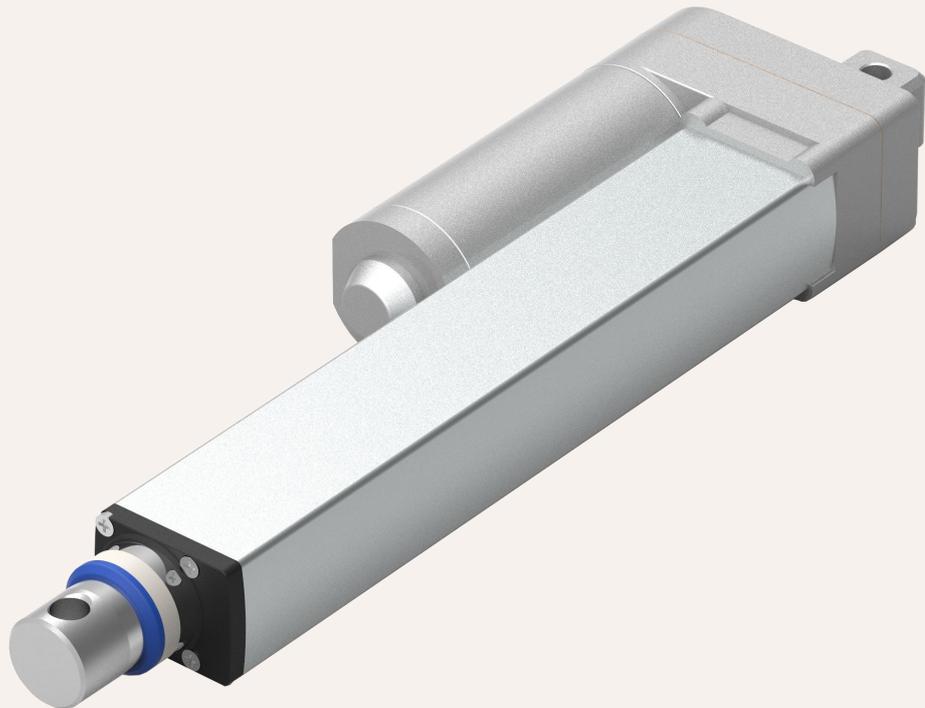
HTA23

Series
linear actuator



HTA23

Series
Linear Actuator



Applications

1. Furniture
2. Medical
3. Industrial
4. Automotive
5. Security

HTA23 is one of the most distinctive electric actuator products developed by GeMinG. It is suitable for furniture and working environments, such as TV lifting, height-adjustable working methods of home care beds, etc. One of the features of HTA23 is the three-section telescopic function that provides stable movement and is compatible with the smallest installation size and longer stroke options.

Functional Overview

| | |
|-------------------------------------|--|
| Operating Voltage: | 12V, 24V, 36V or 48V DC |
| Maximum thrust | 1,500N (push force only) |
| Maximum pulling force: | 1,500N (pull force) |
| Speed at full load: | 10.mm/s (load 1,500N) |
| Minimum installation size: | Stroke/2+165mm Stroke/2+185mm (stroke>1000 MM) |
| Dynamic lateral moment: | 30Nm |
| Static lateral moment: | 50Nm |
| color: | silver or customized |
| Voice: | 52DB |
| safety certificate: | CE |
| range of working temperature: | -25 ° C ~ +70 ° C |
| Full performance temperature range: | +5 ° C ~ +45 ° C |
| Protection level: | IP65 |
| Screw selection: | Trapezoidal screw |
| other options: | Hall sensor, active signal, passive signal |
| Control options: | Synchronous control (100%), independent control, CAN bus |
| Material: | High-strength metal zinc alloy gearbox and housing, |
| Limit switch: | Built-in limit switch (but not adjustable) |

Intelligent life

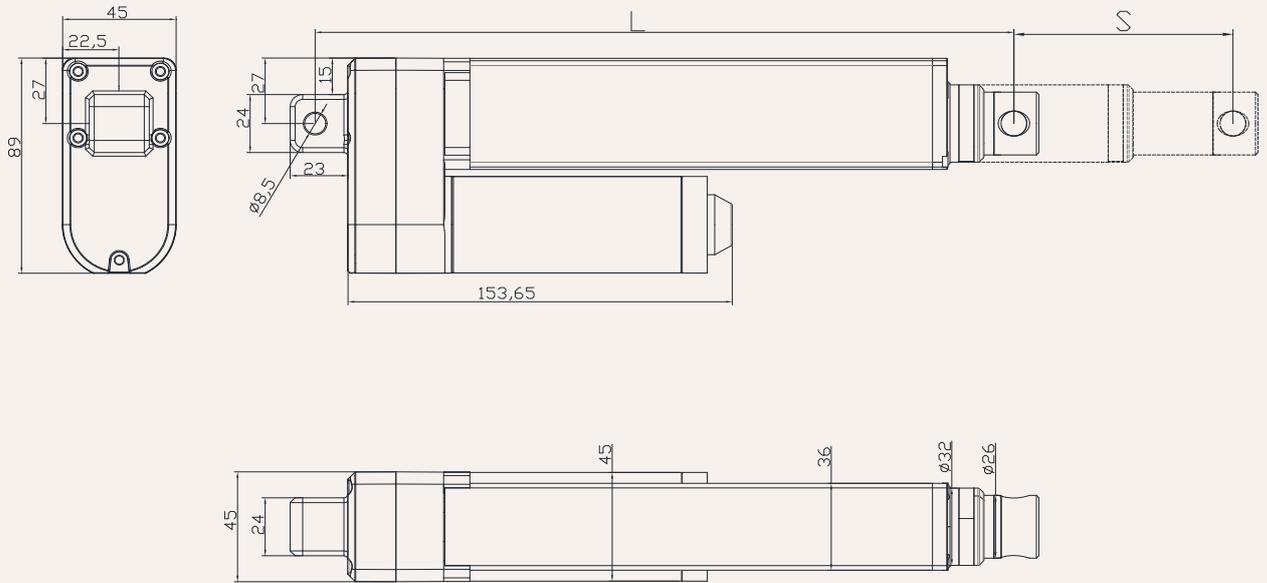
Along with living in a comfortable environment, the quality of life people value constantly improves.

However, designers have increasing demands for smart home design, GeMinG is meeting this need and helping to usher in new possibilities.



Drawings---with mounting attachment

Standard size
MM



S: Stroke

L: Retracted length

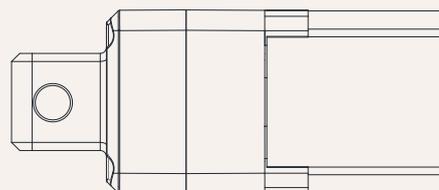
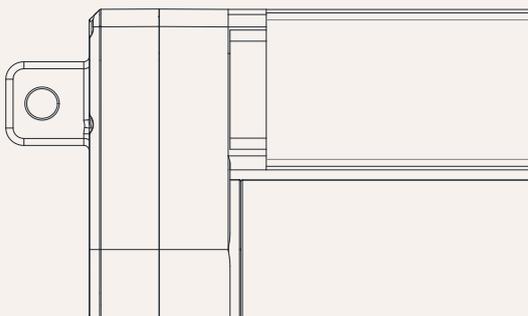
L= Stroke / 2 + 165 mm

> 1,000MM stroke, installation size L= Stroke / 2 + 185 MM

Installation angle (counterclockwise):

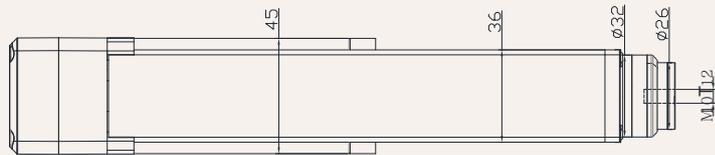
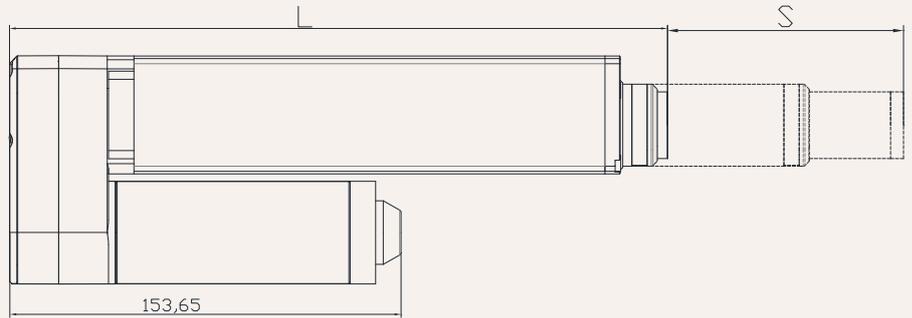
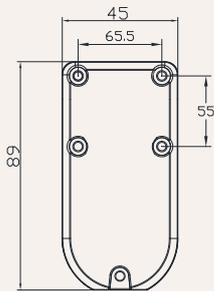
0 =0 degrees

9 =90 degrees



Drawings---without mounting attachment

Standard size
MM



S: Stroke

L: Retracted length

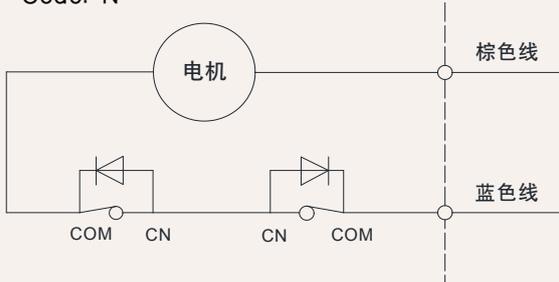
L= Stroke / 2 + 145 mm

Greater than 10 00MM stroke, installation size L= Stroke / 2 + 165 MM

Actuator wiring diagram

No signal feedback wiring diagram

Code: N



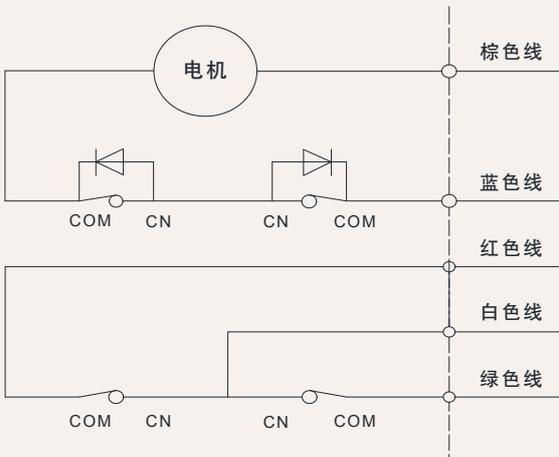
Wiring instructions:

- 1] Brown lead: motor positive +
- 2] Blue lead: motor negative -
- 3] When the push rod is extended: the brown wire is positive +, the blue wire is negative -
- 4] When the push rod is retracted: the blue line is positive +, the brown line is negative -

Signal feedback **passive or active**

Passive or active endpoint signal wiring diagram

Code: N passive signal, code: Y active signal



Wiring instructions:

- 1] Brown lead: motor positive +
- 2] Blue lead: motor negative -
- 3] When the push rod is extended: the brown wire is positive +, the blue wire is negative -
- 4] When the push rod is retracted: the blue line is positive +, the brown line is negative -
- 5] White line: signal output common line.
- 6] White and red lines: extend the end point signal,
- 7] White and green lines: retract end point signal,

Other signal descriptions

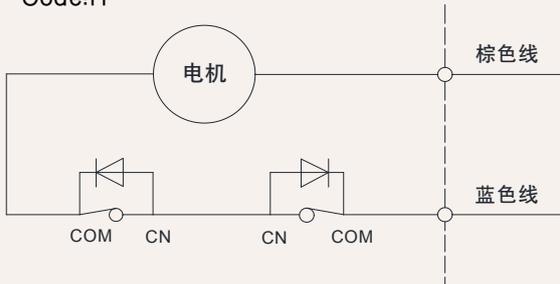
| Feedback signal | illustrate | Function |
|----------------------------------|--------------------------------|---|
| Active endpoint feedback signal | With the voltage of this model | When the push rod reaches the end point, a signal will be fed back. This signal will always exist and will disappear during the operation of the push rod. |
| Passive endpoint feedback signal | No voltage | When the push rod reaches the end point, it will feedback a signal. This signal always exists when the input power is not turned off. When the input power is turned off, the signal disappears. The signal will also disappear during the operation. |

Note: For other needs, please contact the GeMinG team

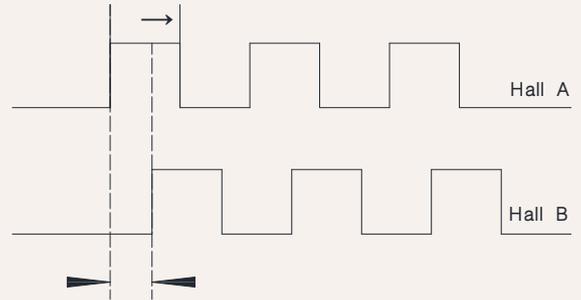
Signal feedback Hall sensor positioner

Hall signal motor circuit diagram

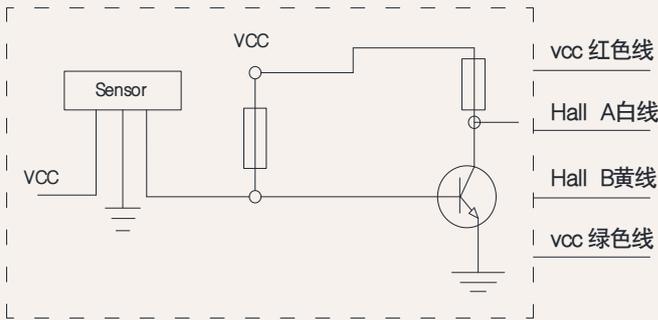
Code:H



Hall signal output waveform diagram



Hall signal internal circuit diagram



Wiring instructions:

Wiring instructions:

- 1] Brown lead: motor positive +
- 2] Blue lead: negative pole of motor -
- 3] Red lead: VCC 5V voltage input+
- 4] Green lead: GND 5V voltage input-
- 5] White lead: Hall signal output A
- 6] Yellow lead: Hall signal output B

Remark:

- 1) Support dual-channel/single-channel Hall encoder
- 2) Current consumption type digital output
- 3) High-speed reflection frequency from: 0 KHz-100 KHz
- 4) Applicable temperature range: -40 °C~+125 °C

| characteristic | symbol | Test Conditions | MI | RE | M | unit |
|---------------------------|---------|---------------------------|-----|-----|-------------|------|
| Supply voltage | Vcc | ---- | 3.5 | --- | twenty four | V |
| Output saturation voltage | Vce/sat | Vcc=14V; Ic=20mA | --- | 300 | 700 | MV |
| Output leakage current | 1 cex | Vce=14V; Vcc=14V | --- | <0 | 10 | UA |
| Input voltage | 1ce | Vcc=20V; Output open | --- | 1 | 10 | M |
| Output fall time | R | Vcc=14V; RL=820Ω; CL=20pF | --- | 0.3 | 1.5 | US |

load and speed

| serial number | Rated load Push N | Pull N | self-locking force static N | Rated load current A | Output speed no load 24V DC mm/s | Rated load 24V DC mm/s |
|------------------------|-------------------------|-----------|--------------------------------------|----------------------------|---|------------------------------|
| Motor voltage (24V DC) | | | | | | |
| A | 1,500 | 1,500 | 2000 | 4.1 | 11.5 | 9.2 |
| B | 1000 | 1000 | 1000 | 4.1 | 23 | 18.4 |
| C | 500 | 500 | 500 | 4.1 | 46 | 38 |
| D | 250 | 250 | 250 | 3.8 | 95 | 76 |

Remark

1. The speed and current on above chart are tested with push force.
2. For 12V motor, the speed is about the same and the current is about 2 times higher.
4. The current & speed in the table and graph are the test average values of the GeMinG control box configuration, and there is an error of about 10% depending on the control box model.

(The voltage is about 29V DC at no load, and drops to about 24V DC at rated load)

Stroke installation size reference chart

| HTA23 series | Stroke ± 2 (mm) | | | | | Installation dimensions ± 2 (mm) | | | | |
|--------------|-----------------|-----|-----|-----|-----|----------------------------------|-----|-----|-----|--|
| stroke | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | ... | |
| Installation | 190 | 215 | 240 | 265 | 290 | 315 | 340 | 365 | ... | |

Note: The stroke can be customized

HTA23 model description selection code table

HTA23 – 24 – A – 200 – 265 – O1 – O1 – 0 – 2 – T – NT – H – 07
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

| | | | | | |
|---|---------------------------------------|---|---|--------------------------|------------------|
| ① | Product number | HTA23 | | | |
| ② | Voltage | 12=12V DC, 24=24V DC, | | | |
| ③ | Loading(n)@speed (mm/s) | Please refer to page 08 | | | |
| ④ | Stroke(mm) | Please refer to page 08 | | | |
| ⑤ | Installation dimensions (mm) | Please refer to page 04 | | | |
| ⑥ | upper type | O 1 = ordinary type, hole diameter 8.5mm U1 = clevis, slot width 8mm , hole diameter 8.5mm M1 = Type M, M16 thread , depth 15 mm T1 = T type, M16 thread, length 15mm L1 = L type, width 12mm , hole diameter 8.5mm N = customized | O2 = ordinary type, aperture 10.5mm U2 = clevis, slot width 8mm, hole diameter 10.5mm M2 = Type M, M18 thread , depth 15 mm T2 = T type, M18 thread, length 15mm L2 = L type, width 12mm , hole diameter 10.5mm | | |
| ⑦ | lower type | O1 = ordinary type, hole diameter 8.5mm | O2= ordinary type, aperture 10.5mm | | |
| ⑧ | Installation angle (counterclockwise) | 0 =0°, degree | 1 =90°, degrees | | |
| ⑨ | Outlet type | 1 =bare wire 3 = four-pin straight plug 0 =customized | 2 = Four-pin elbow connector 4 = Six-pin straight plug | | |
| ⑩ | Lead screw options | T = trapezoidal screw (preferred by default) | G = | | |
| ⑪ | control method | A = no control | T = synchronous control | C = CAN bus | D= Customization |
| ⑫ | Signal output options | N = None | H = Hall sensor | W=passive signal | U=active signal |
| ⑬ | Line length | 07 =Cable length 700mm | 10 = cable length 1000mm | 15 = cable length 1500mm | 00 = customized |

Attachment Description Selection Code Table

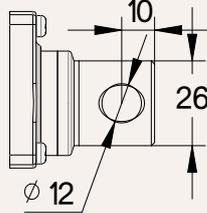
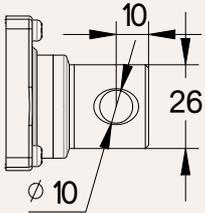
Extend the upper end form:

O1= No slot, hole diameter 8.5MM

O2= No slot, hole diameter 10.5MM

U1 = U-shaped, slot width 8mm , hole diameter 8.5mm

U2 = U-shaped, slot width 8mm, hole diameter 10.5mm



M1 = Type M, M16 thread , depth 15 mm

M2 = Type M, M18 thread , depth 15 mm

T1 = T type, M16 thread, length 15mm

T2 = T type, M18 thread, length 15mm

L1 = L type, width 12mm , hole diameter 8.5mm

L2 = L type, width 12mm , hole diameter 10.5mm

G1 = spherical plain bearing, bore diameter 12mm, model GS12

G2 = spherical plain bearing, bore diameter 14mm, model GS14

Lower form:

Installation angle (counterclockwise)

O1 = Conventional ordinary type, hole diameter 8.5mm

O2= Conventional ordinary type, aperture 10.5mm

D1 = 90° degree , hole diameter 8.5mm

D2 = 90° degree , hole diameter 10.5mm

Attachment Description Selection Code Table

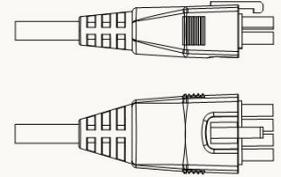
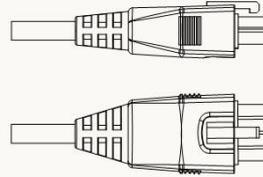
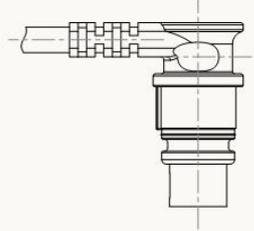
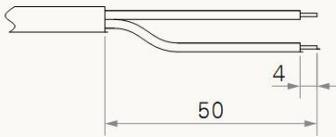
Outlet plug-in form:

1 =bare wire

2 = Four-pin elbow connector

3 = four-pin straight plug

4 = Six-pin straight plug



0 =customized