

Power Clamp Cylinder

Conforming to the CNOMO Standard

Series *CLKZ1R*

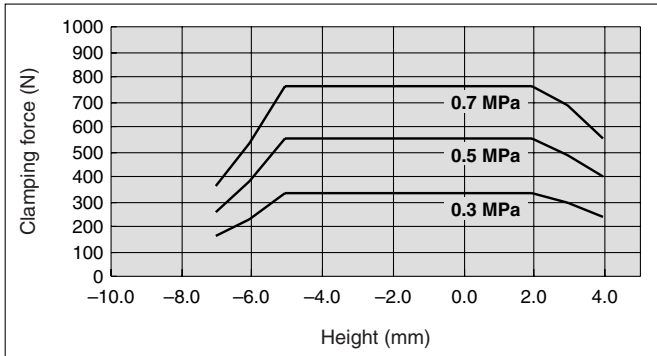


| | |
|-------------------|---------------|
| Special | CK□/M(D)JKA |
| For France | CLKZ1R |
| For Europe | CKZT |
| For North America | CKZ2N |
| | MK2T/MK2/MK |
| | C(L)KQ□ |
| For Asia | CLK2 |
| | CK□1 |

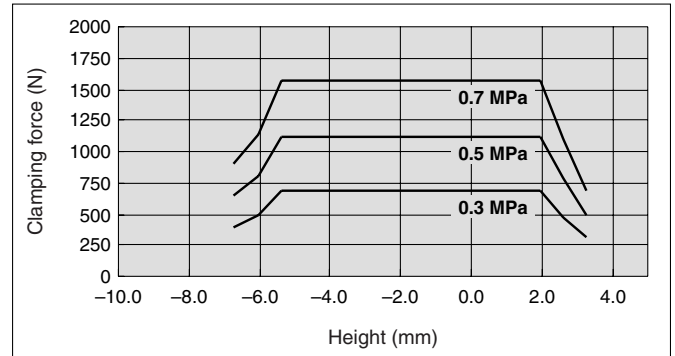
Clamping Force (measured at a position 100 mm from the fulcrum)

The work piece can be held with a constant clamping force regardless of its height. (-4 to +2 mm)

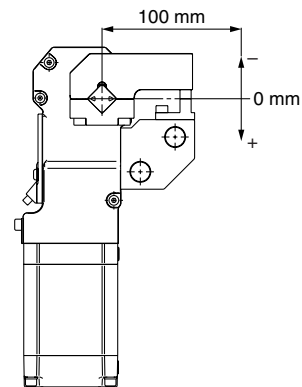
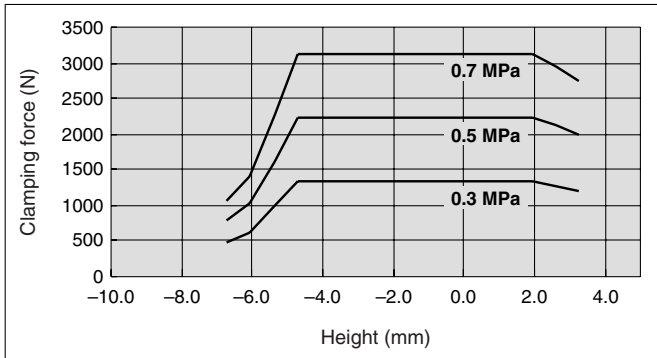
CLKZ1R040



CLKZ1R110



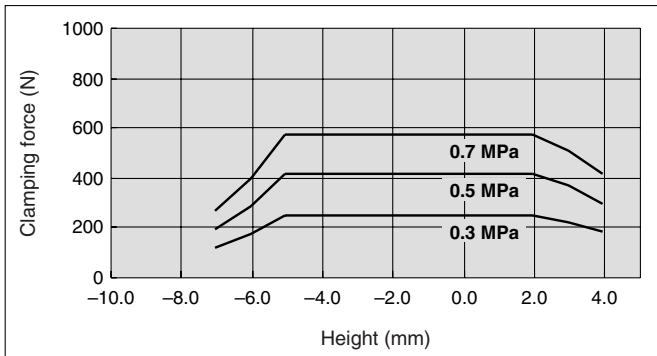
CLKZ1R200



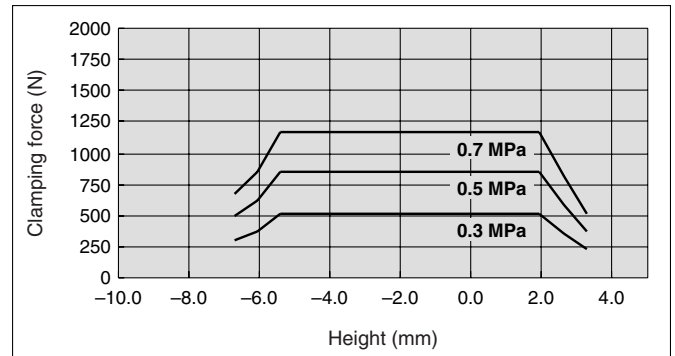
Holding Force (measured at a position 100 mm from the fulcrum)

The work piece can be clamped at a constant holding force regardless of its height. (-4 to +2 mm)

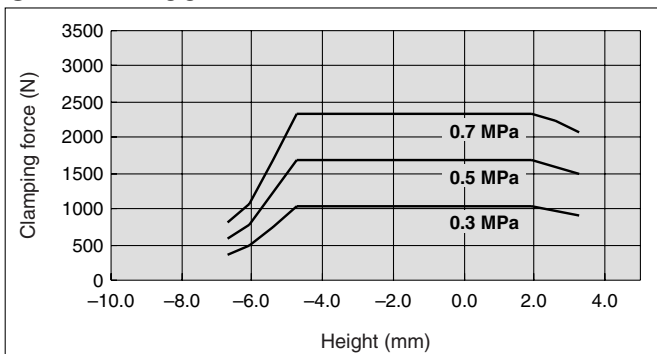
040



CLKZ1R110

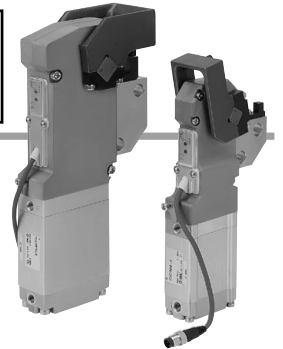


CLKZ1R200



Power Clamp Cylinder Conforming to the CNOMO Standard Series **CLKZ1R**

The CLKZ1R series is to be discontinued in November 2020. When selecting a product, consider selecting a CKZT series model as an interchangeable replacement.



How to Order

Cylinder Part No. **CLKZ1R 040 - N - X1121A - R1**

Power clamp cylinder conforming to the CNOMO standard

Category

| | |
|-----|-------------|
| 040 | 40daN type |
| 110 | 110daN type |
| 200 | 200daN type |

Without arm

Option

| Symbol | Arm angle |
|--------|-----------|
| Nil | 105° |
| X1121A | 15° |
| X1121B | 30° |
| X1121C | 45° |
| X1121D | 60° |
| X1121E | 75° |
| X1121F | 90° |

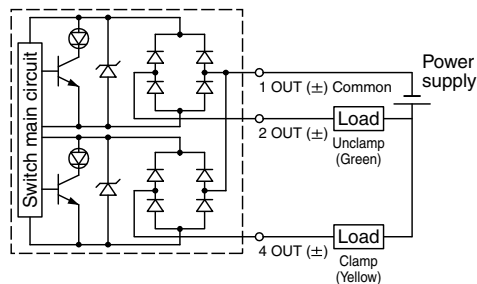
Cylinder Specifications

| Category | 040 | 110 | 200 |
|--|---|------------------------|------------------------|
| Fluid | Air (Non-lube) | | |
| Operating pressure range | 0.3 to 0.7 MPa | | |
| Proof pressure | 1.05 MPa | | |
| Operating temperature range | -10°C to +70°C | | |
| Port size | G1/8 | | |
| Cushion | Unclamp side rubber bumper | | |
| Arm angle | 105 ⁰ / ₋₅ (Standard) / 15°, 30°, 45°, 60°, 75°, 90° (Option) | | |
| Operating time (at supply pressure of 0.5 MPa) | Clamp: 0.5 s Unclamp: 0.5 s | | |
| Clamping force (at supply pressure of 0.5 MPa) | 40 N·m or more | 110 N·m or more | 200 N·m or more |
| Holding force (at supply pressure of 0.5 MPa) | 30 N·m or more | 82.5 N·m or more | 150 N·m or more |
| Max. allowable load (at supply pressure of 0.5 MPa) | 0.9 N·m | 1.3 N·m | 1.9 N·m |
| Max. allowable moment of inertia (at supply pressure of 0.5 MPa) | 0.01 kg·m ² | 0.02 kg·m ² | 0.03 kg·m ² |
| Unclamp side locking force | 2 N·m or more | 5.5 N·m or more | 10 N·m or more |
| Weight (including short arm) | 1.7 kg | 3.6 kg | 5.9 kg |

Proximity Switch

| Category | Proximity switch part no. |
|----------|---------------------------|
| 040 | D-NF001 |
| 110/200 | D-NF002 |

* With 2 mounting screws



Switch Specifications

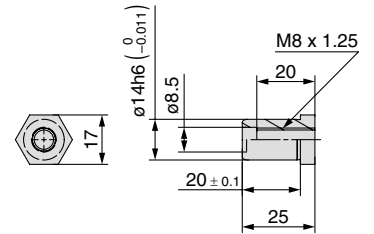
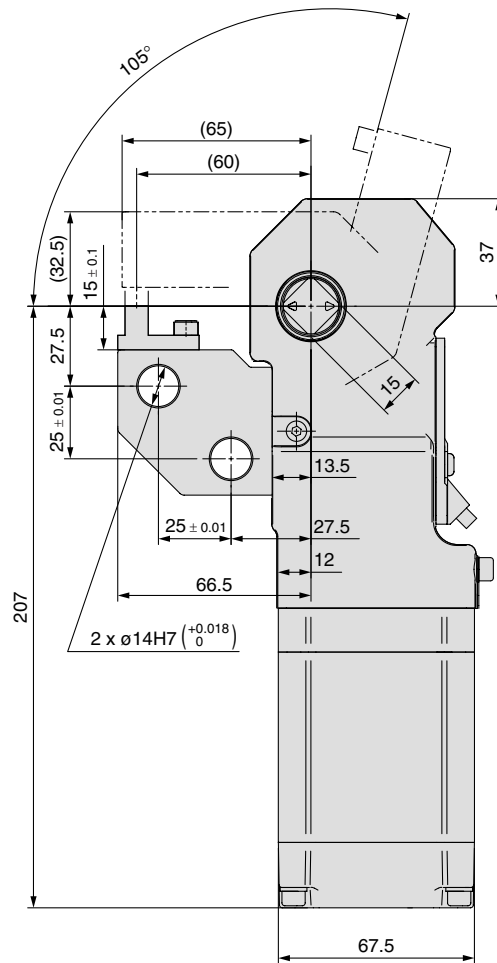
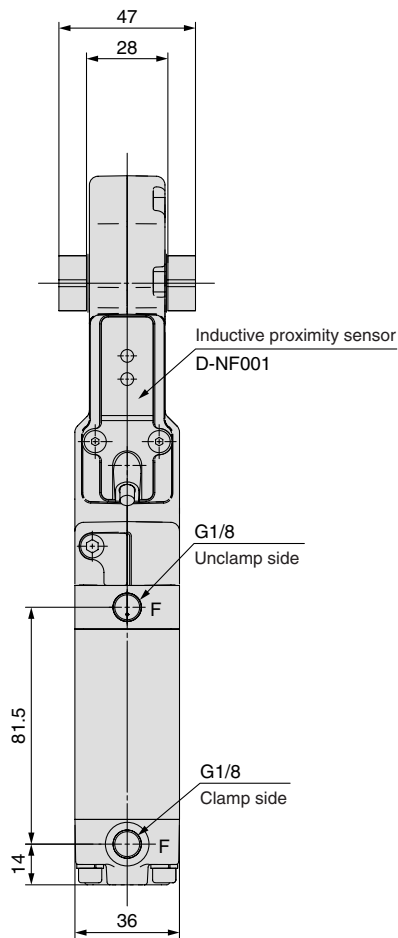
| | |
|--|---|
| Rated operating distance SN | 1.5 (mm) ± 10% |
| Reproducibility | ≤ 0.1 (mm) |
| Hysteresis | 0.1 (mm) ≤ H ≤ 1 (mm) |
| Applicable applied voltage | DC24 (V) |
| Supply voltage | DC10 to 30 (V) |
| Voltage drop | ≤ 5 (V) |
| Output function | Normally Open |
| Minimum operating current | 2.5 (mA) |
| Maximum operating current | 100 (mA) |
| Residual current | ≤ 0.6 (mA) |
| Nominal temperature of application | 25 (°C) |
| Ambient temperature | -10 (°C) ≤ Ta ≤ 70 (°C) |
| Degree of protection | IP67 |
| Protection against excess current (short circuit) or overloads | The detector is equipped with a protection system guaranteeing its correct operation in spite of an excess current of 2xIe (200 mA) for 100 μs. |
| Protection against polarity inversions | Non polarized |

Series CLKZ1R

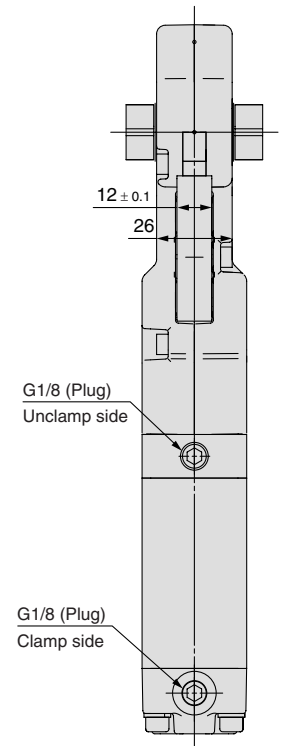
Dimensions

CLKZ1R040-N

1 dimension projection



Mounting Pin (2 pcs.)

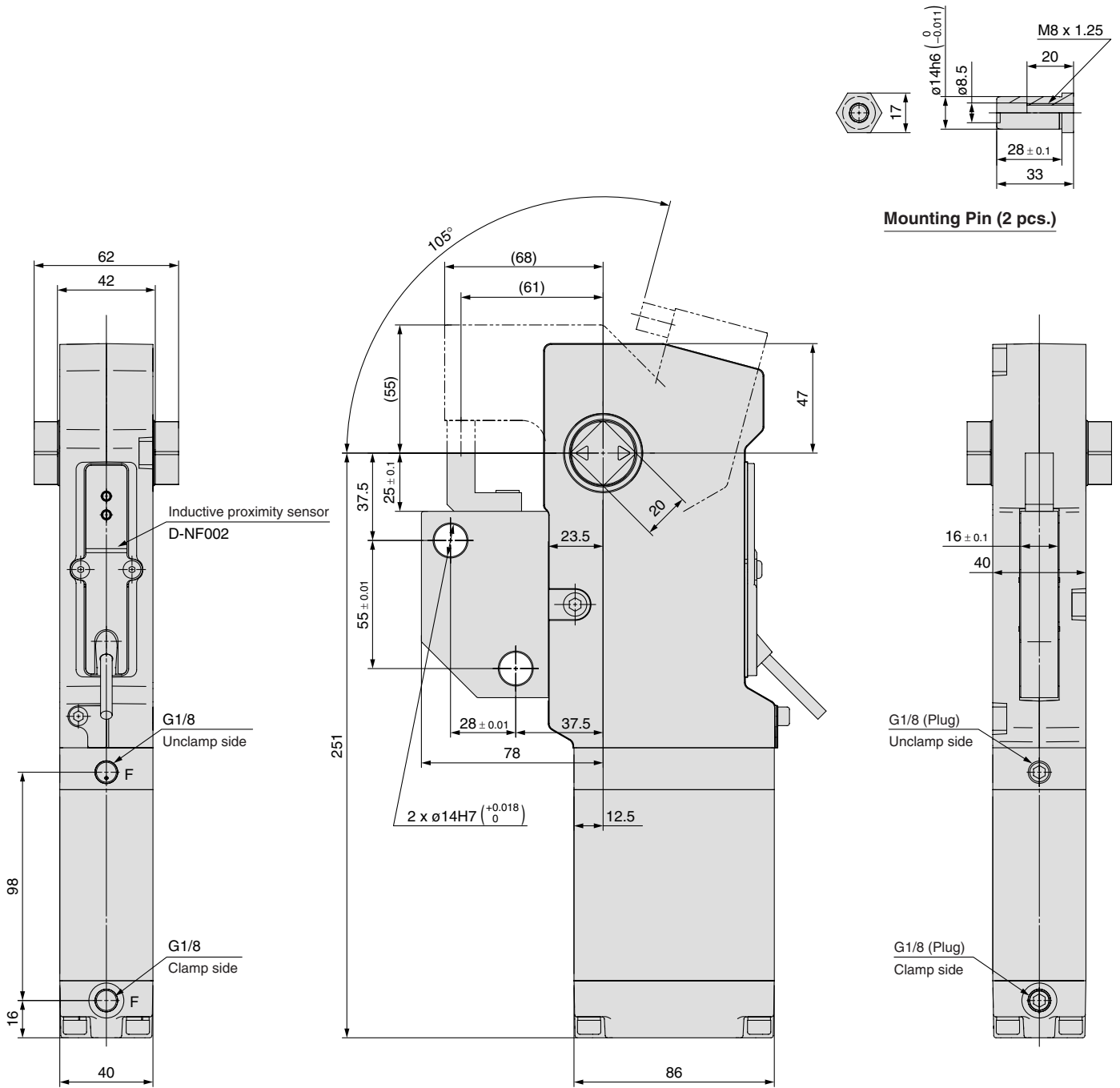


Power Clamp Cylinder
 Conforming to the CNOMO Standard **Series CLKZ1R**

Dimensions

CLKZ1R110-N

1 dimension projection



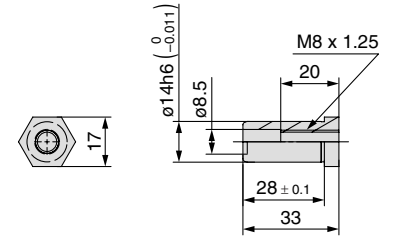
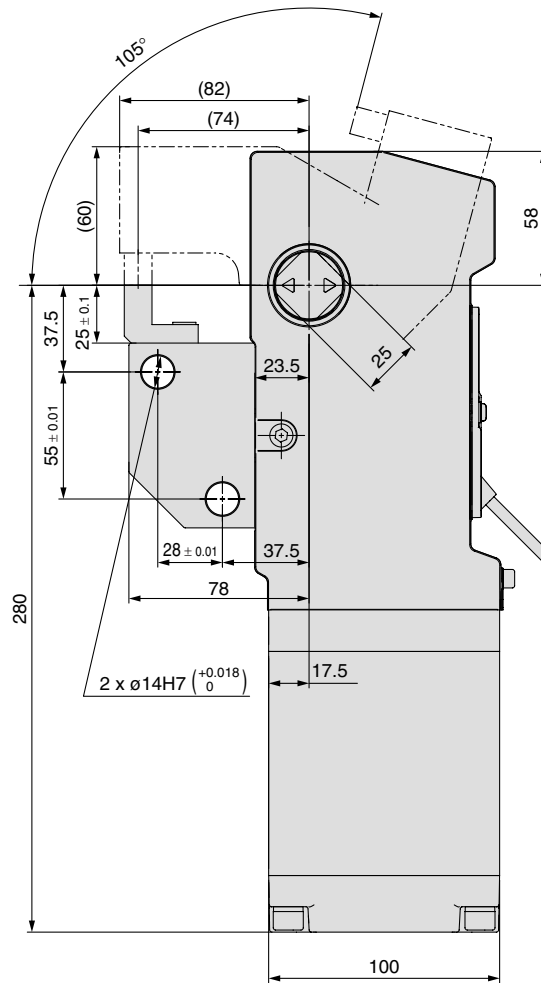
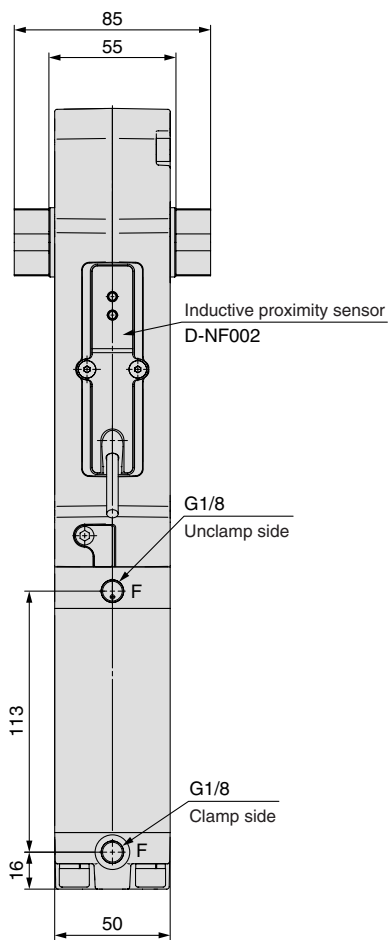
| |
|----------------------------|
| CK□1 |
| CLK2 |
| For Asia C(L)KQ□ |
| MK2T/MK2/MK |
| For North America CKZ2N |
| For Europe CKZT |
| For France CLKZ1R |
| Special CK□/M(D)UKA |

Series CLKZ1R

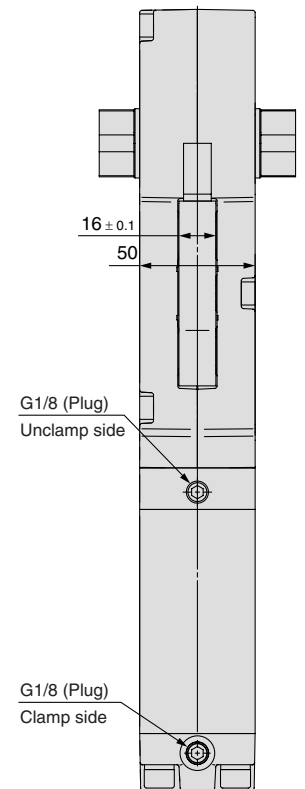
Dimensions

CLKZ1R200-N

1 dimension projection



Mounting Pin (2 pcs.)



Adapter

For mounting example, refer to page 217.

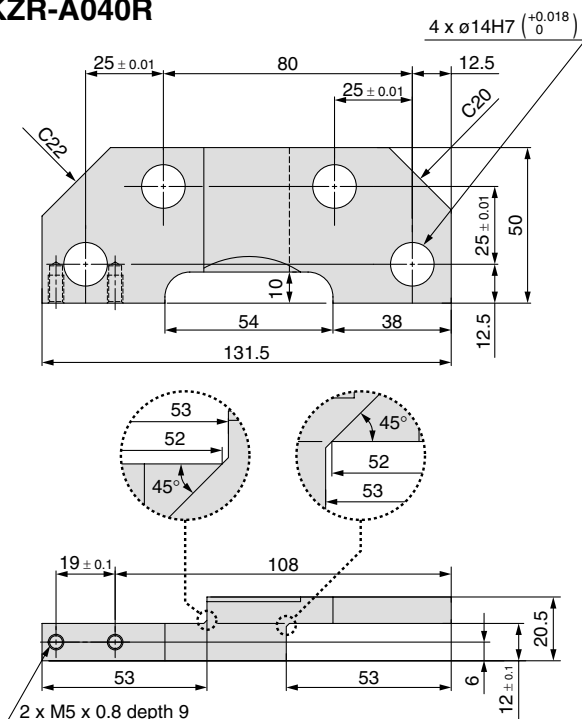
| Category | Right-handed type | Left-handed type |
|----------|-------------------|------------------|
| 040 | CKZR-A040R | CKZR-A040L |
| 110/200 | CKZR-A110R | CKZR-A110L |

1 dimension projection

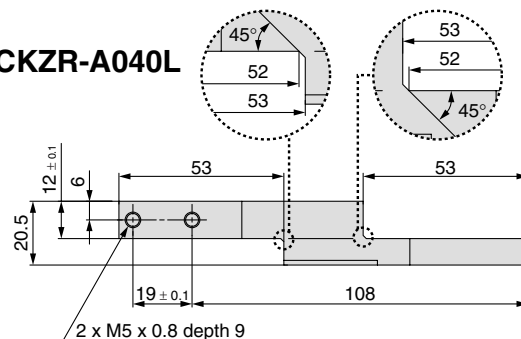
* 2 mounting pins

** Select long arm when using an adapter.

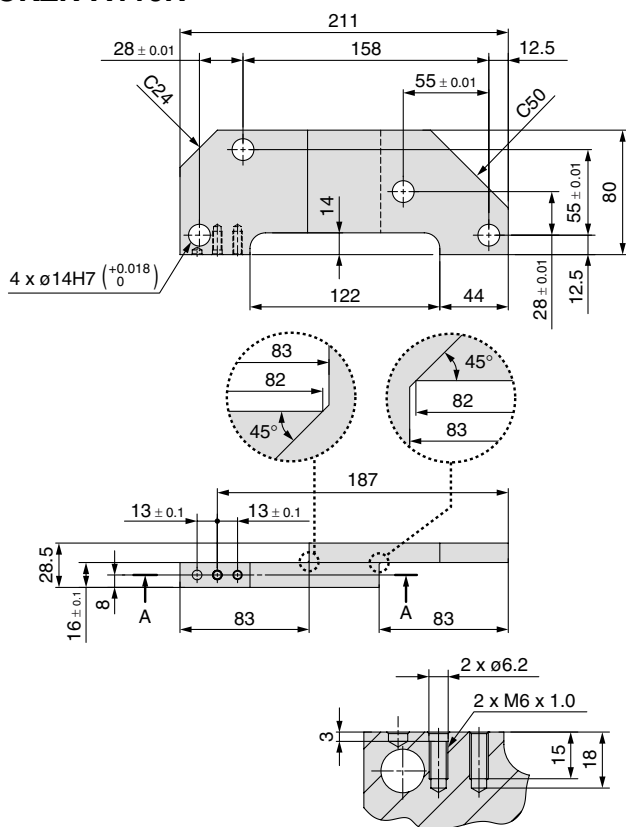
CKZR-A040R



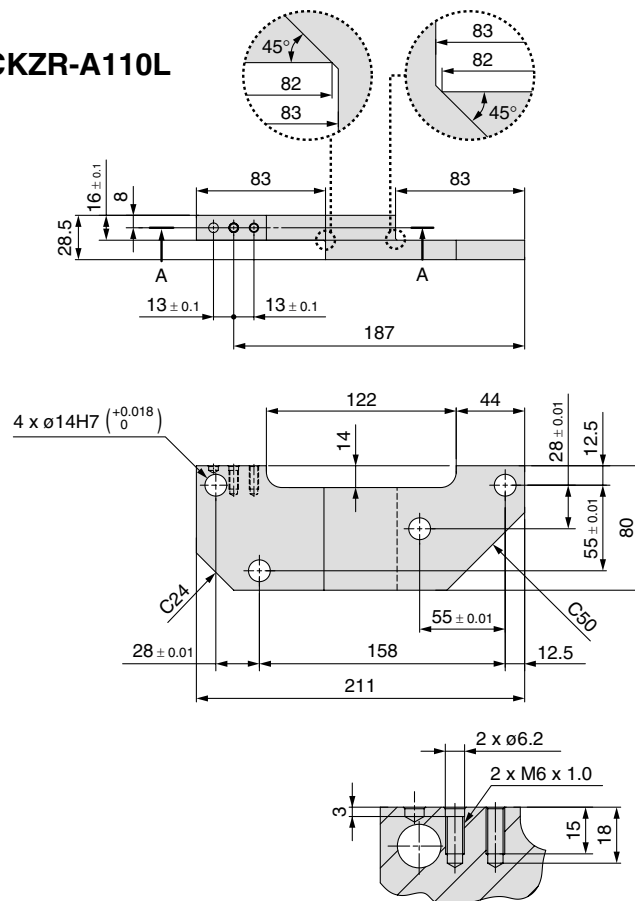
CKZR-A040L



CKZR-A110R



CKZR-A110L



Section A-A

Section A-A

For Asia: CK□1, CLK2, C(L)K□, MK2T/MK2/MK

For North America: CKZ2N

For Europe: CKZT

For France: CLKZ1R

Special: CK□/M(D)/UKA

Series CLKZ1R

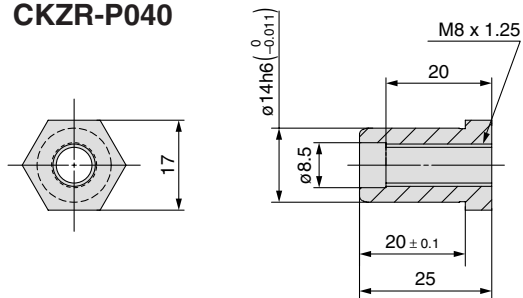
Mounting Pin

| Category | Mounting pin part no. |
|----------|-----------------------|
| 040 | CKZR-P040 |
| 110/200 | CKZR-P110 |

1 dimension projection

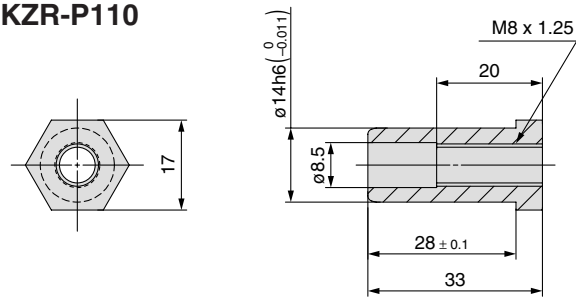
* Quantity: 2 pcs. for each

CKZR-P040



Mounting Pin (2 pcs.)

CKZR-P110



Mounting Pin (2 pcs.)

Arm

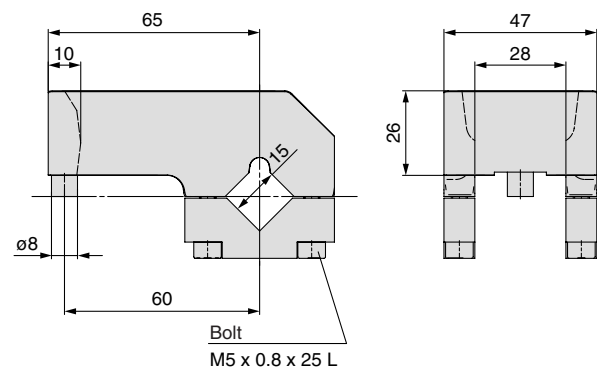
For mounting example, refer to page 217.

| Category | Short arm | Long arm |
|----------|--------------|--------------|
| 040 | CKZR-Y040 | |
| 110 | CKZR-Y110S | CKZR-Y110N |
| 200 | CKZR-Y200S-A | CKZR-Y200N-A |

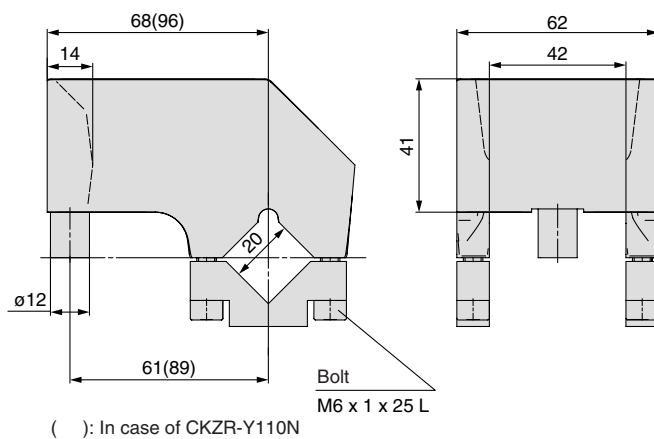
1 dimension projection

* Select long arm when using an adapter.

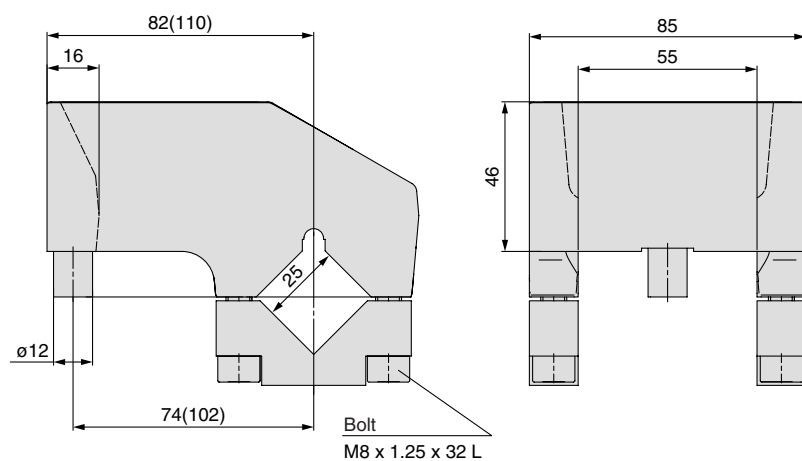
CKZR-Y040



CKZR-Y110^S_N

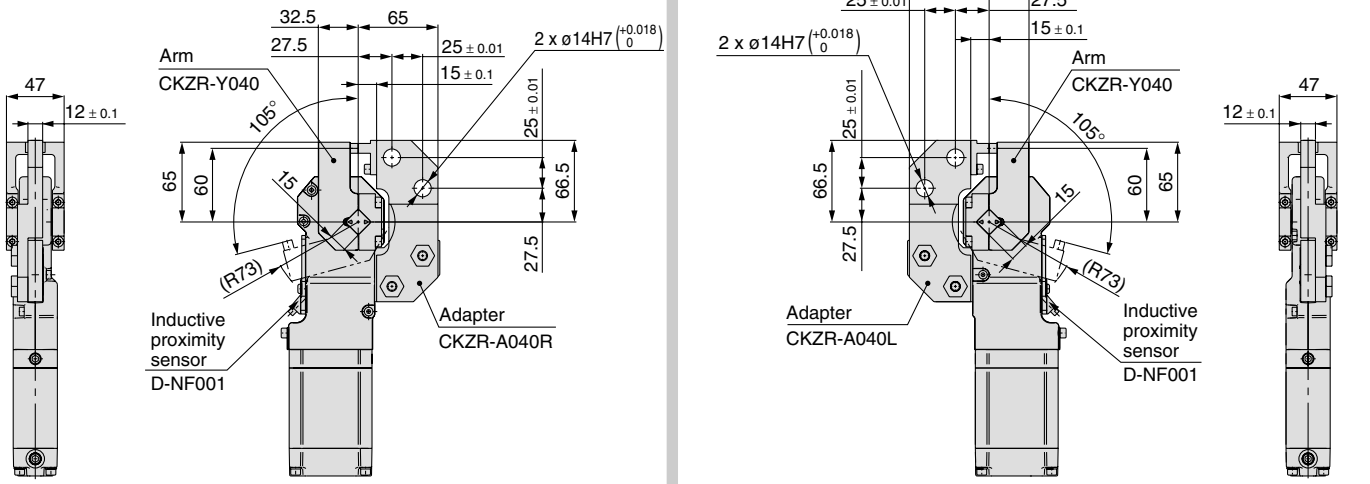


CKZR-Y200^S_N-A

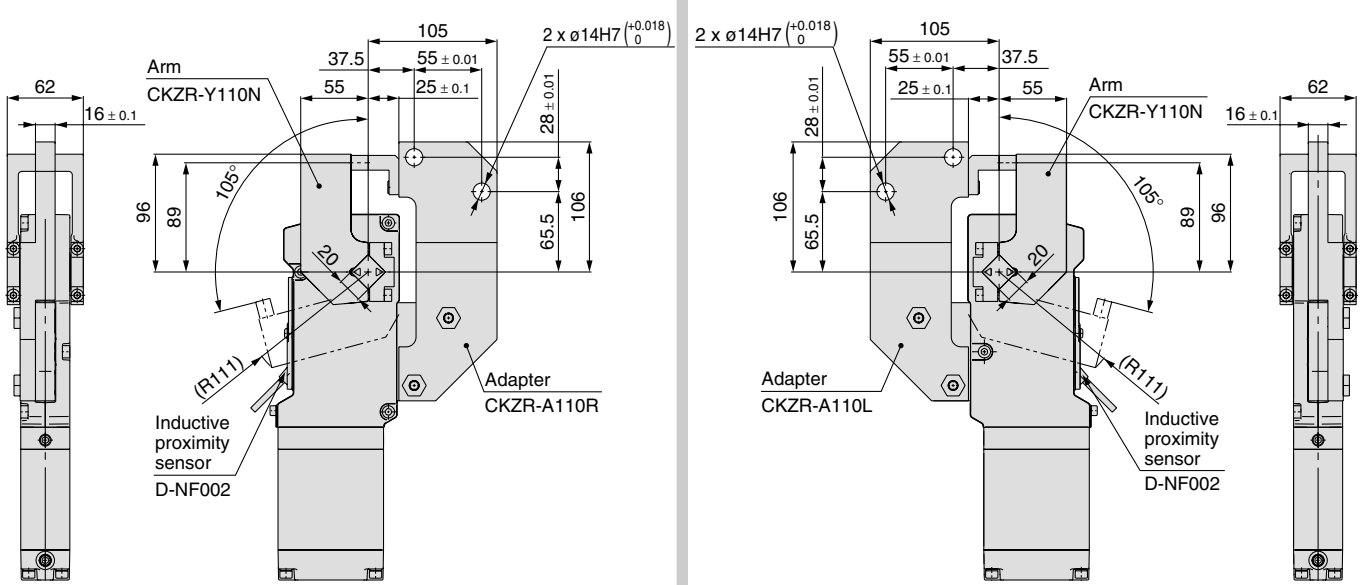


Adapter/Arm Mounting Example

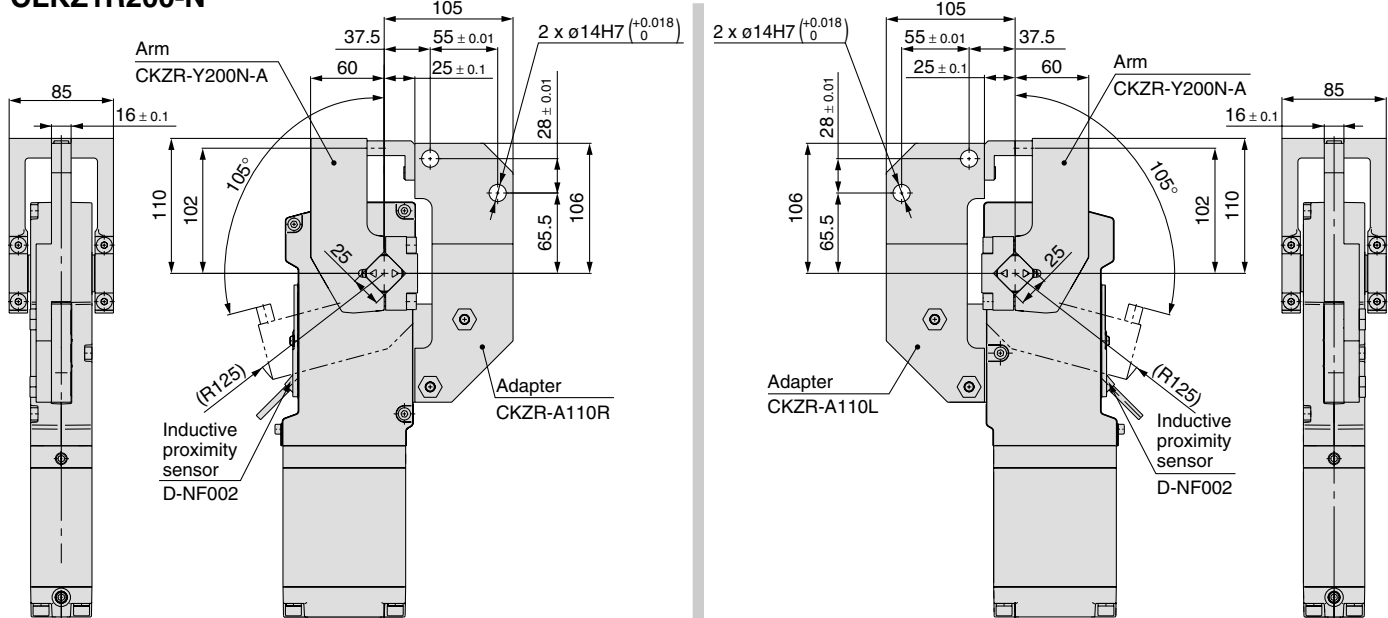
CLKZ1R040-N



CLKZ1R110-N



CLKZ1R200-N



- CK□1
- CLK2
- For Asia
- C(L)K□□
- MK2T/MK2/MK
- For North America
- CKZ2N
- For Europe
- CKZT
- For France
- CLKZ1R
- Special
- CK□/M(D)UKA



Series CLKZ1R Specific Product Precautions

Be sure to read this before handling. Refer to pages 222 and 223 for Safety Instructions and "Precautions for Handling Pneumatic Devices" (M-03-E3A) for Actuator Precautions.

How to Release the Lock Manually

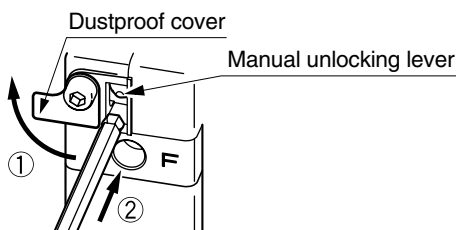
Warning

When equipment is removed, confirm the safety process. Cut the supply pressure for this equipment and exhaust all residual compressed air in the system.

Do not release the lock manually by using an external force such as a load and spring force. The cylinder could move suddenly, which could be very dangerous.

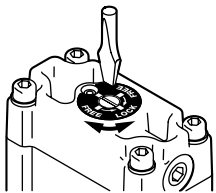
How to release the lock on the clamp side

- 1) Open the dustproof cover at the upper part of the port on the clamping side.
- 2) Insert a hexagon wrench and flip up the manual unlocking lever.



How to release the lock on the unclamp side

Move the dial of the head cover to the FREE position with a flat-head screwdriver.

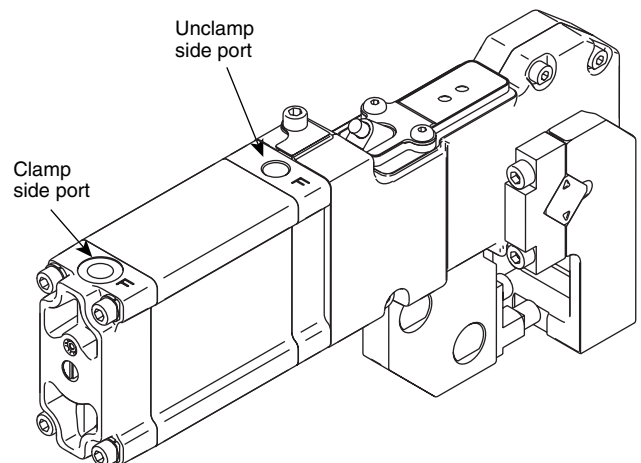


Note) At the time of shipment from the factory, the locking mechanism on the unclamp side is not engaged. When that mechanism is used, change the dial to the LOCK position.

Preparation for Operation

Warning

- 1) Be sure to supply air pressure to the clamp side port before re-starting the cylinder from the clamping position. Pressurizing to the unclamp side port without applying air pressure to the clamp side port will release the lock and cause the cylinder to move suddenly, which could be very dangerous.



Pneumatic Circuit

Caution

- 1) Do not use a 3-position valve. This valve could unexpectedly supply air pressure, which would release the lock.
- 2) Mount the speed controller so as to provide meter-out control. Using the speed controller as a meter-in could cause operating failure.
- 3) Be careful not to allow a reverse flow of exhaust pressure from a common exhaust-type valve manifold. A reverse flow of exhaust pressure could release the lock. Use an independent exhaust-type valve manifold or independent valve.