Save on energy, starts from me.

LEADING THE RECYCLING ECONOMY,
INNOVATIVE ENERGY-SAVING EMISSION REDUCTION!

Release 17

Electromagnetic Release

Be Suitable For Residual Current Circuit Breaker (RCCB) And Residual Current Circuit Breaker With Overcurrent Protection (RCBO) Products.

ISO9001 ISO14001 OHSAS18001

GB 16916.1
GB 16917.1
IEC 6008-1
IEC 6009-1

Oldlang Smart Electrical Co., Ltd.
Tel: +86-571-5729 4888 Fax: +86-571-5729 4680 E-mail: Oldlang_sale@163.com
http://www.Oldlang.com Add: No.2239, South Jinshi Road, Zhejiang 201515, P.R.China

Release 17

Electromagnetic Release

Be Suitable For Residual Current Circuit Breaker (RCCB) And Residual Current Circuit Breaker With Overcurrent Protection (RCBO) Products.

Oldlang Smart Electrical Co., Ltd.

TYPE OVERVIEW

Impedance Z (at Smin and 50Hz)	Ohmic resistance Rcu	Number of coil windings	Type	Mat. no.
3.5±20% Ω	1.35±10% Ω	160 Wdg	03	4040103
22.5±20% Ω	8.5±10% Ω	500 Wdg	04	4040104

Preferred values (all other types are available on request).

Mat.no. Explanation:

4 04 01 03

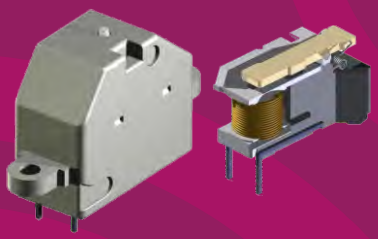
- 03 — The parameter identification code
- 01 — Installation
- 04 — Develop code
- 4 — Factory

CONSTRUCTION FEATURES

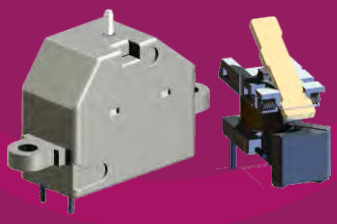
The magnetic relay Release 17 is designed according to the principle of a holding magnet relay for use in residual current circuit breakers. The tripping system consists of plunger, pole and armature.

At delivery, the permanent magnet in the magnetic relay is fully magnetized and the armature is in the closed position , that is to say in contact with the pole.

The tripping power, respectively the tripping current, is set by demagnetizing the integrated permanent magnet after installation.



Closed



Open

TYPE SPECIFICATIONS

Type	03/27/51	04/28/52	Tolerance
Tripping power Smax, range (μVA)	80 ~ 350	80 ~ 350	
Tripping power Smin	25μVA	25μVA	
Tripping current Itrip at Smax, range (mA)	4.0 ~ 10.0	1.0 ~ 3.9	
Tripping current Itrip at Smin	2.67 mA	1.05 mA	
Impedance Z at Smax	2.98Ω	19.13Ω	
Impedance Z at Smin	3.50Ω	22.5Ω	±20%
Ohmic resistance Rcu	1.35Ω	8.5Ω	±10%

Release 17

Electromagnetic Release

Be Suitable For Residual Current Circuit Breaker (RCCB) And Residual Current Circuit Breaker With Overcurrent Protection (RCBO) Products.

Oldlang Smart Electrical Co., Ltd.

MECHANICAL DATA

Item	Data
Weight	5.5gr
Linear trigger path s of plunger	2.1mm
Minimum free trigger path of plunger required	0.2mm
Minimum resetting path	2.1mm
Minimum plunger force (dynamic stabilized condition) at s = 0.2 mm	500mN
Minimum plunger force (dynamic stabilized condition) at s = 2.0 mm	280mN
Minimum static reset force	1200mN
Maximum static reset force	2000mN
Maximum reset energy W	6mJ

ELECTRICAL DATA

Item	Data
Maximum spread of tripping current Itrip at Smin , (K-factor)	1.1
Maximum cosφ at Smin	0.6

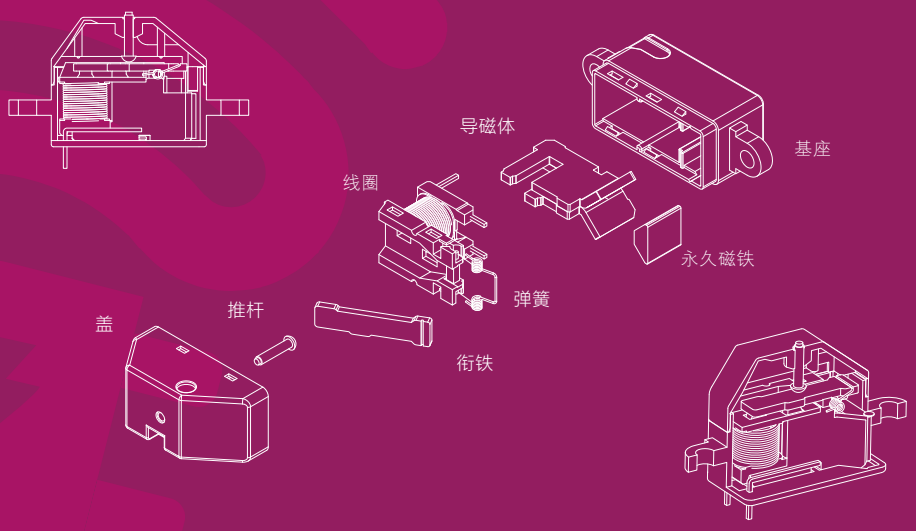
LIMITS

Item	Data
Maximum change of tripping current Itrip after 2000 electrical operations	±15%
Maximum change of tripping current Itrip in relation to position	±15%

EXTERNAL INFLUENCE IN SETTING RANGE

Item	Data
Minimum shock resistance at Smin	600m/s^2
Maximum external magnetic field Hpeak at Smin	4.5KA/m
Magnetic field for permanent change of current Hpeak at Smin	100KA/m
Ambient operating temperature	-25 ~ 100℃
Ambient storage temperature	-35 ~ 100℃
Temperature coefficient I0(v0=20℃), typical	-0.4%/Kelvin
Climatic resistivity	GB 16916/7 EN61008/9

EXPLODED PICTURE Release 17



Release 17

Electromagnetic Release

Be Suitable For Residual Current Circuit Breaker (RCCB) And Residual Current Circuit Breaker With Overcurrent Protection (RCBO) Products.

Oldlang Smart Electrical Co., Ltd.

MAGNETIC SETTING

Warning: The tripping system of Release 17 (plunger, armature, yoke pole) must be in a closed state during the process of magnetization or demagnetization. The plunger must be pushed down with an external force of 900mN < F < 2000mN.
Due to the external force, tripping and possible damages are prevented during the process of magnetization or demagnetization.

FORCE APPLICATION POINT FOR RELOADING AND TRIPPING

The force application angle must have a rotational symmetry to the plunger axis of ⩽15° to prevent inadmissible radial forces to the plunger,which would cause a deformation or a jamming of the plunger.

FREE PATH OF PLUNGER

The plunger must be spaced at least 0.2 mm from the loading or the tripping lever of the switch mechanism in the stand-by position (Release 17 ready-to-trip). That means, no external forces on the plunger, which could cause an unsteady threshold of operation, are allowed in this position.

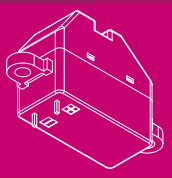
STATIC FORCE ON PLUNGER

The maximum static force on the closed plunger-armature-pole-system must be < 2000 mN to prevent deformation of the plunger, the rmature, or the pole surfaces.

ELECTRICAL CONNECTION

For the electrical connection the Release 17 has two pre-tinned pins, whose polarity is marked with + and – at the bottom of the housing. Mechanical deformation of the pins should be avoided to prevent damage to the coil in the relay.

Soldering time ⩽ 3 sec
Soldering temperature ⩽ 340 ℃



CLIMATE AND ENVIRONMENT

In the assembled state, the Release 17 complies with the climatic requirements of EN61008/9. As a general rule, it is not allowed to dampen the Release 17. Corrosive environments must be avoided. The Release 17 must not come in contact with liquids, grease, oil or dust as this could cause failure of the relay.

Release 17

Electromagnetic Release

Be Suitable For Residual Current Circuit Breaker (RCCB) And Residual Current Circuit Breaker With Overcurrent Protection (RCBO) Products.

Oldlang Smart Electrical Co., Ltd.

INFLUENCE OF EXTERNAL MAGNETIC FIELDS

Because the tripping current can be influenced by subsequently mounted magnetic conductive steel plates, the tripping current of a pre-set Release 17 has to be adjusted in the final arrangement! Depending on the strength of the magnetic field , external steady or alternating fields always have an influence on the tripping current. External live conductors should therefore be placed as far away as possible form the Release 17. If this cannot be done because of the particular construction, the whole arrangement has to be examined and improved via technical measurements according to each individual case.

While external fields with a magnetic field strength Hpeak ⩾4.5KA/m may cause a direct tripping of the RCTR-7, external fields with a magnetic field strength Hpeak ⩾100KA/m will induce irreversible magnetic adjustment to the Release 17 and its tripping current. These external magnetic influences on the tripping current of the Release 17 can be reduced by adding magnetic protective shields.

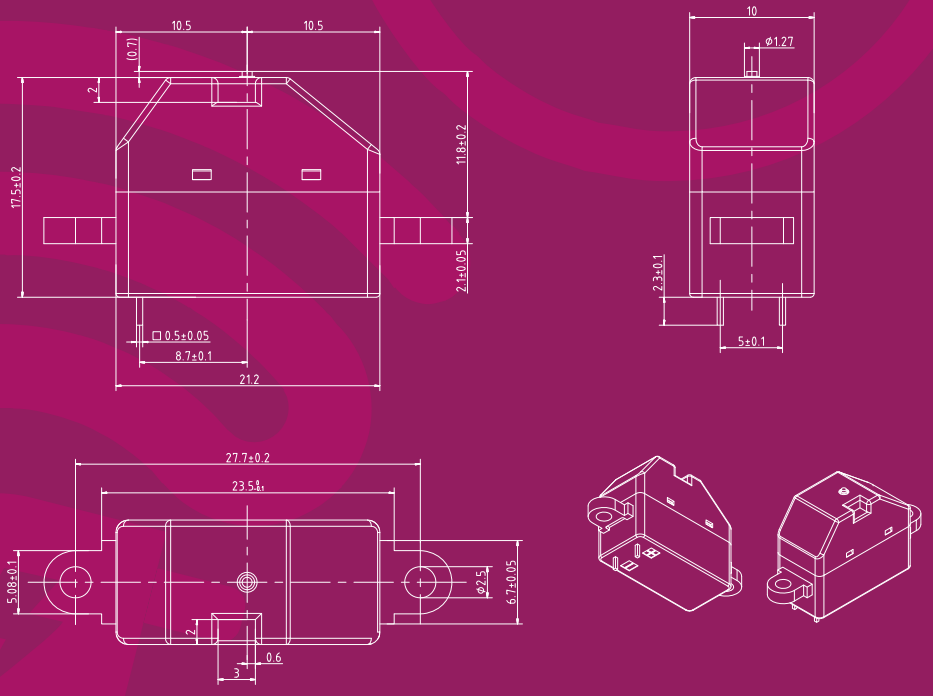
External magnetic fields, such as those generated from live conductors, can cause the undesired tripping of the Release 17 magnetic relay. To estimate this effect, some experimental data for different conductor-relay configurations have been illustrated below. The parameter r in this context means the distance between the conductor and the magnetic relay which causes tripping. The relevant magnetic field intensity calculation is an approximation without consideration to field deformation.

(Conductor: Diameter 8 mm, Ieff=600A, 50Hz / Magnetic release: Apparent power Snom = 25μVA).

OUTLINE SIZE AND CONNECTION DIAGRAM (mm)

Undimensioned tolerance
< 1mm:±0.2mm
1~5mm:±0.3mm
> 5mm:±0.5mm

Mounting hole size tolerance
±0.4mm



OLDLANG

Oldlang Smart Electrical Co., Ltd.

Tel: +86-571-5729 4888 Fax: +86-571-5729 4580 E-mail: Oldlang_sale@163.com http://www.Oldlang.com Add:No.2239, South Jinshi Road, Zhenjiang 201515, P.R.China.