## RESTART WITH AUTOTEST

### Technical data

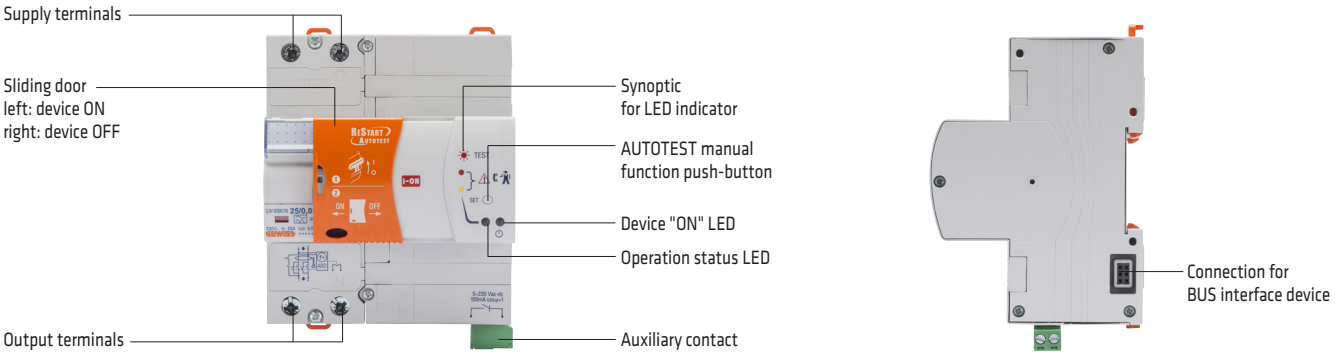
| TYPE | | ReStart with Autotest 2P | ReStart with Autotest PRO 2P | ReStart with Autotest PRO 4P |
|---|---|---|---|---|
| | |  |  |  |
| **Electrical characteristics** | | | | |
| **Standards:** | | EN 50557, EN 61008-1 | | |
| **Distribution system:** | | TT - TN-S | | |
| **Rated operational voltage (Ue):** | **(V)** | 230 AC [1] | | 400 AC |
| **Minimum operating voltage (min Ue)** | **(V)** | 85% Ue | | |
| **Maximum operating voltage (max Ue):** | **(V)** | 110% Ue | | |
| **Rated insulation voltage (Ui):** | **(V)** | 500 | | |
| **Dielectric strength test voltage between pole and earth:** | **(V)** | 2500 AC for 1 minute | | |
| **Rated impulse withstand voltage (Uimp):** | **(kV)** | 4 | | |
| **Overvoltage category:** | | III | | |
| **Rated frequency:** | **(Hz)** | 50 | | |
| **Residual making and breaking capacity (IΔm):** | **(A)** | 630 | | |
| **Rated conditional residual short-circuit current with fuse (IΔc):** | **(A)** | 10000 (gL 63A) for In=25-40A<br>10000 (gL 80A) for In=63A | | |
| **Number of poles:** | | 2 | | 4 |
| **Type of associated residual current circuit breaker:** | | A[IR] | | |
| **Rated current (In):** | **(A)** | 25 - 40 | 25 - 40 - 63 | |
| **Rated residual operating current (IΔn):** | **(mA)** | 30 | | 30 - 300 |
| **Rated non-operating resistance between live parts and earth (Rdo):** | **(kΩ)** | 20 | 8 | 8 (30mA) - 2.5 (300mA) |
| **Rated operating resistance between live parts and earth (Rd):** | **(kΩ)** | 70 | 16 | 16 (30mA) - 5 (300mA) |
| **Power loss at In:** | **(W)** | 2.2 (25A) - 5.4 (40A) - 6.2 (63A) | | 3.5 (25A) - 6 (40A) - 12 (63A) |
| **Off-load absorbed power:** | **(VA)** | 4 (cosφ=0.2) | | |
| **Power absorbed during automatic reclosing:** | **(VA)** | 41 (cosφ=0.5) | | |
| **Power supply:** | | from above | | |
| **Mechanical characteristics** | | | | |
| **Width in DIN modules:** | | 5 | | 7 |
| **Reclosing time:** | **(s)** | 10 | | |
| **Autotest cycle time:** | **(s)** | 7 | | |
| **Maximum operational frequency:** | **(oper./h)** | 30 | | |
| **Max mechanical endurance (total no. operations):** | | 4000 | | |
| **Maximum no. of consecutive automatic reclosure operations [2]:** | | 3 | | |
| **Counter reset time no. of consecutive automatic reclosure operations:** | **(s)** | 60 | | |
| **Section of circuit breaker terminals:** | **(mm²)** | flexible cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10<br>rigid cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10 | | |
| **Rated tightening torque:** | **(Nm)** | 2 | | |
| **Mounting position:** | | any | | |
| **Degree of protection:** | | IP20 (terminals) - IP40 (front) | | |
| **Pollution degree:** | | 2 | | |
| **Operating temperature:** | **(°C)** | -25 +40 | -25 +60 [3] | |
| **Stocking temperature:** | **(°C)** | -40 +70 | | |
| **Tropicalization:** | | 55°C - RH 95% | | |
| **Auxiliary contact characteristics** | | | | |
| **Type of contact:** | | Photomos (potential free contact) | | |
| **Operating voltage:** | **(V)** | 5-230 AC/DC | | |
| **Operating current:** | **(mA)** | 0,6 (min) - 100 cosφ=1 (max) | | |
| **Operating frequency:** | **(Hz)** | 50 | | |
| **Category of use:** | | AC12 | | |
| **Operating mode:** | | NO / NC / NC + impulse[4] | | |
| **Terminal section:** | **(mm²)** | ≤ 2.5 | | |
| **Rated tightening torque:** | **(Nm)** | 0.4 | | |
| **Autotest function** | | | | |
| **Regular and automatic RCCB test:** | | • | • | • |
| **Light signalling for autotest cycle in progress:** | | • | • | • |
| **Light signalling for any device anomaly:** | | • | • | • |
| **ReStart function** | | | | |
| **Automatic reclosure for untimely tripping:** | | • | • | • |
| **Earth leakage check:** | | • | • | • |
| **Continuous system check:** | | | • | • |
| **Interruption of reclosure operation in the event of a fault:** | | • | • | • |
| **Signalling of reclosure operation in progress:** | | • | • | • |
| **Light signalling of failure:** | | • | • | • |
| **Activation / exclusion of ReStart function:** | | • | • | • |
| **Auxiliary contact for remote operating status access:** | | • | • | • |
| **Internal electrical protection:** | | PTC | PTC | PTC |

[1] Power supply 230V phase-neutral [2] In the absence of a system fault [3] Average daily temperature ≤ +35°C
[4] Choosing NC + impulse option, auxiliary contact switches for 100ms at the end of each cycle of Autotest carried out successfully.

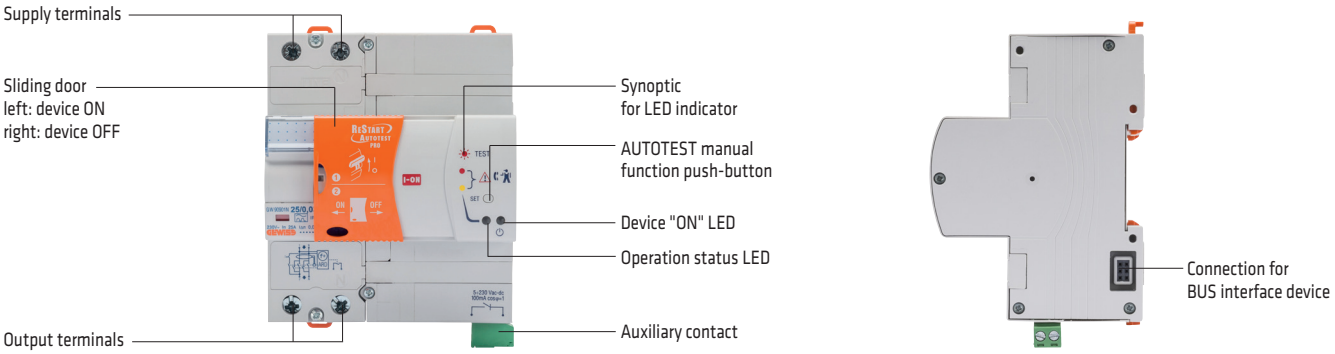
For technical information contact the Technical Assistance Service or visit gewiss.com

## DEVICE DESCRIPTION

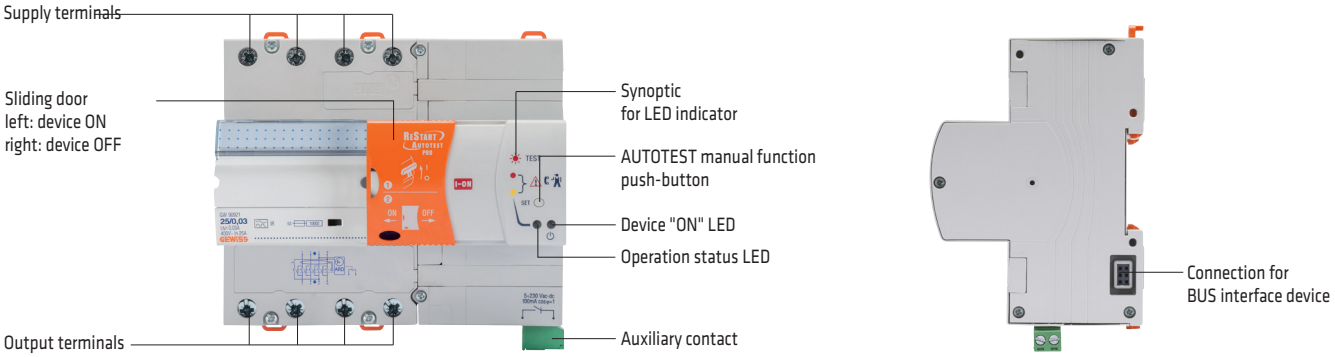
### ReStart with Autotest 2P




### ReStart with Autotest PRO 2P



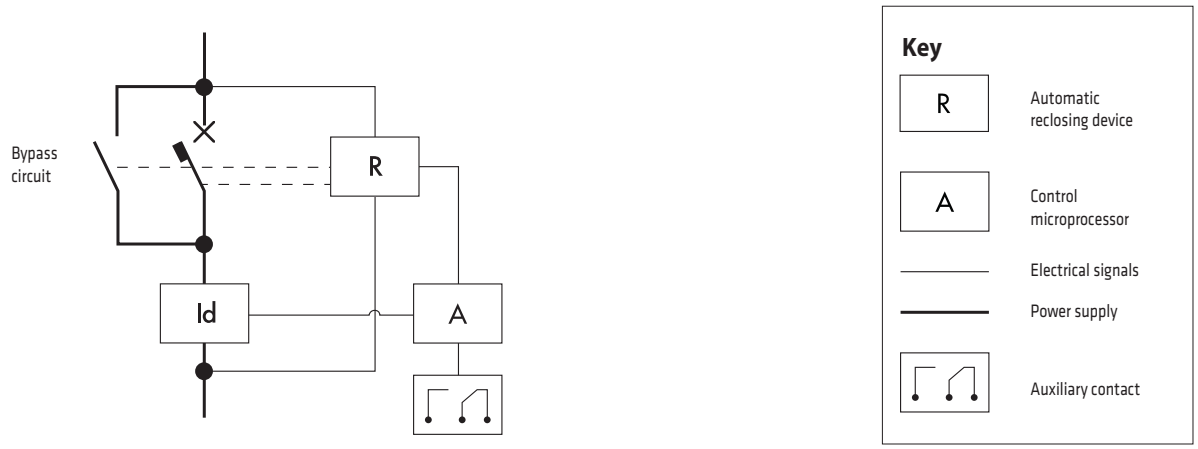

### ReStart with Autotest PRO 4P



## AUTOTEST FUNCTION

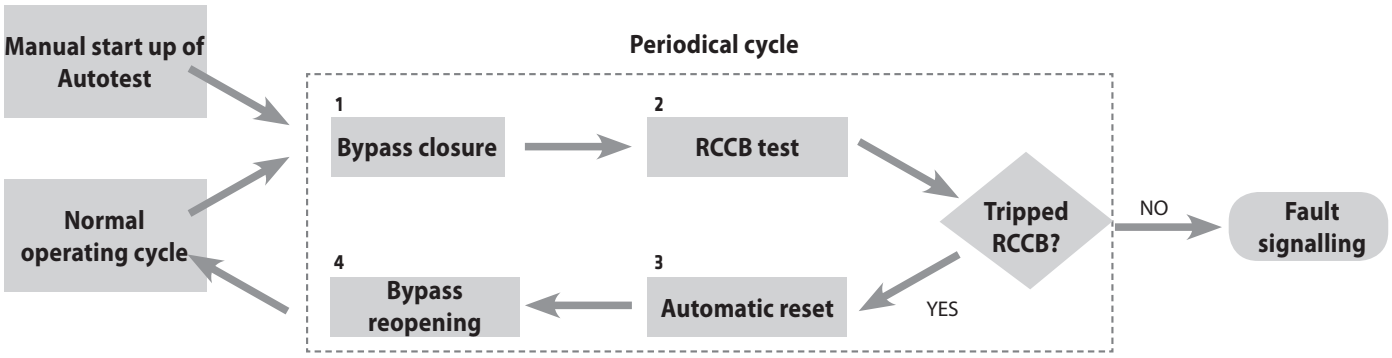
The Autotest function periodically tests the working of the residual current circuit breaker protection. During the test, a bypass circuit ensures electrical continuity meanwhile an additional RCCB protection device guarantees system safety. The automatic reclosing device ensures the automatic resetting of the lever of circuit breaker in ON position. Moreover, pressing the button on the front of the device at any time, Autotest immediately carries out an automatic test on the RCCB without interupting the power supply. This means test can be carried out during normal day-to-day operations without any inconvenience.

### Electrical diagram



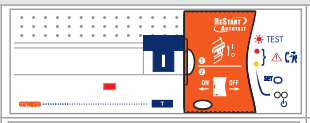
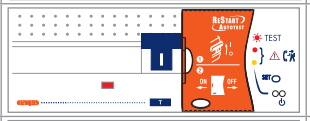
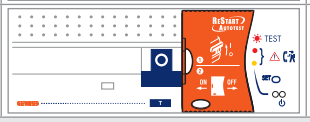
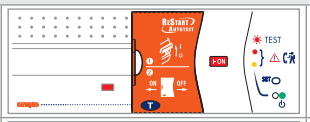
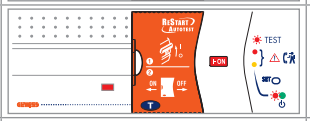
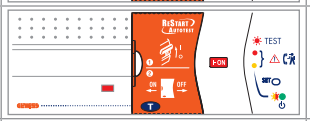

### Periodical test function

After installation, it is possible to start up the Autotest function manually (pressing the appropriate button) in order to check if the wiring is correct and to synchronise the periodical test function.



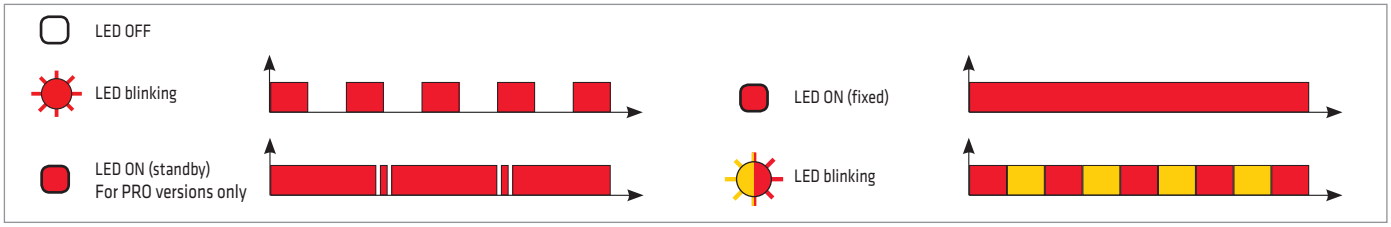
## ReStart with Autotest light signalling

ReStart with Autotest is equipped with two LEDs on the front which show the operation conditions of device. Precisely, the right LED is switched on when the device is activated, whereas the left LED shows the operation conditions.

| ReStart conditions | ReStart front | Lever position | LED indicators | | | Description |
|---|---|---|---|---|---|---|
| | | | Left LED | Right LED | Aux contact | |
| **MANUAL OPERATION** | | | | | | |
| Deactivated |  | I | ○ | ○ | **OFF** | ARD and autotest **OFF** |
| Deactivated for over 15 minutes |  | I | ○ | ○ | **ON** | ARD and autotest **OFF** |
| Deactivated |  | 0 | ○ | ○ | **OFF** | ARD and autotest **OFF** |
| **AUTOMATIC OPERATING CYCLE** (*) | | | | | | |
| Normal operation |  | I | ○ | ● | **OFF** | ARD and autotest ON<br>Automatic functions ON |
| Electric circuit check |  | 0 | ✳ | ● | **OFF** | ARD and autotest **checks the electric system insulation** |
| System failure |  | 0 | ● | ● | **ON** | ARD and autotest in **block condition** due to system fault<br>**For PRO versions** only, ARD and autotest in **standby condition** due to system fault |
| Periodic Autotest |  | I/0 | ✳ | ● | **OFF** | **Electric circuit check in progress**<br>**Electric system supplied** |
| Device fault |  | 0 | ● | ● | **ON** | There is a fault in Restart device after testing RCCB. It is possible to restore the proper functions. |
| Device fault |  | I | ● | ● | **ON** | There is a fault in Restart device after testing RCCB. It is possible to restore the proper functions. |
| Device failure |  | I | ◐ | ● | **ON** | ARD and autotest **not working**<br>Call a technician for replacement |
| Device failure |  | 0 | ◐ | ● | **ON** | ARD and autotest **not working**<br>Call a technician for replacement |

(*) Before sliding the plastic cover to the left to activate the device, it is necessary to set the circuit breaker in the "I" position.
NOTE: ReStart device can be in block condition (red led fixed) after 4 following trips too (t≤60s after previous trip).

### Key

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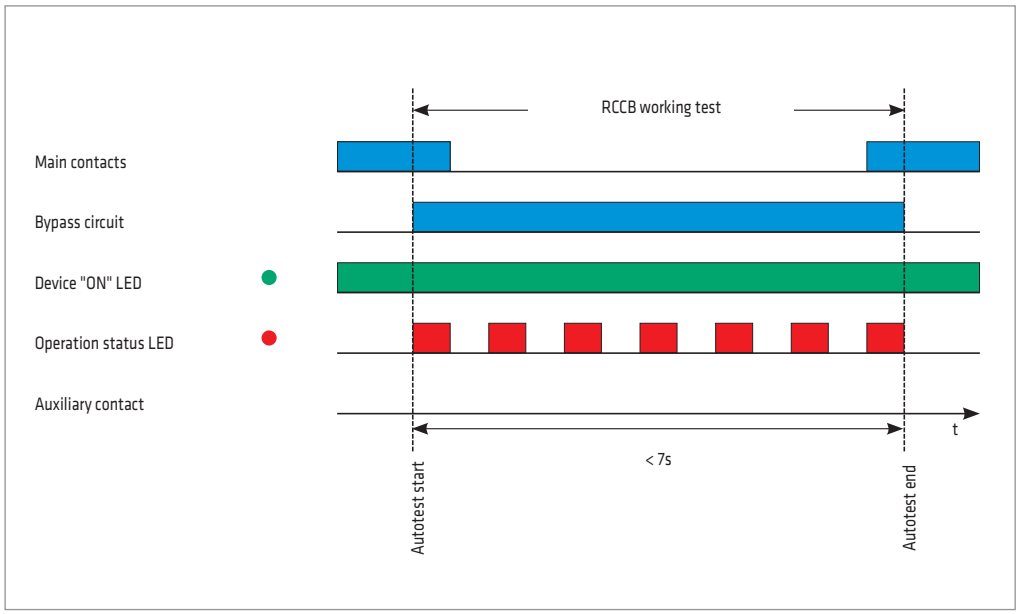
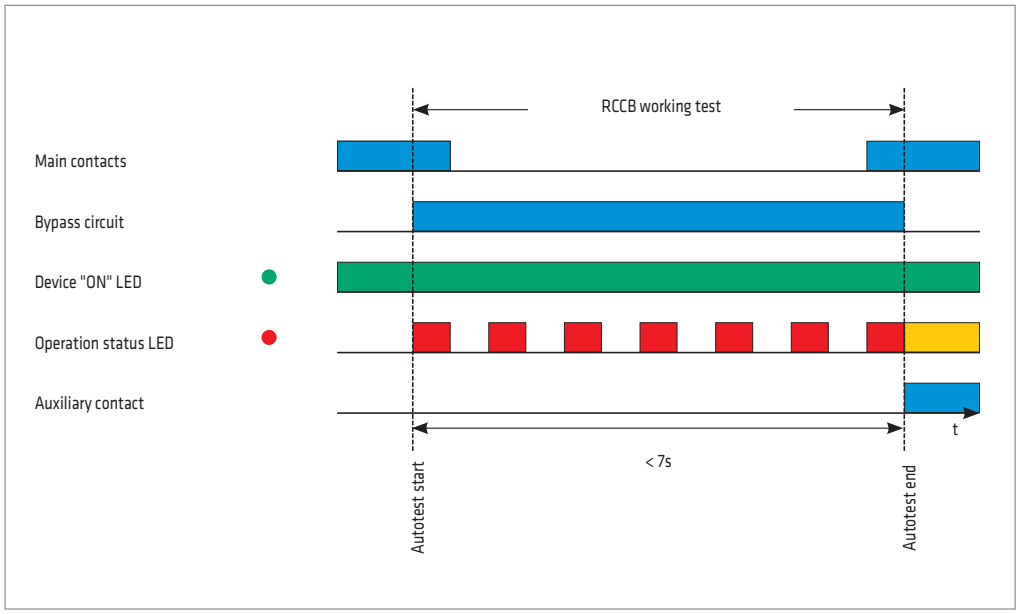
## ReStart with Autotest operation conditions

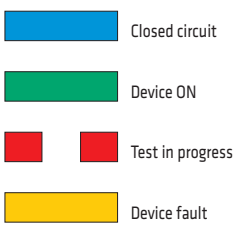
### Autotest function with positive result



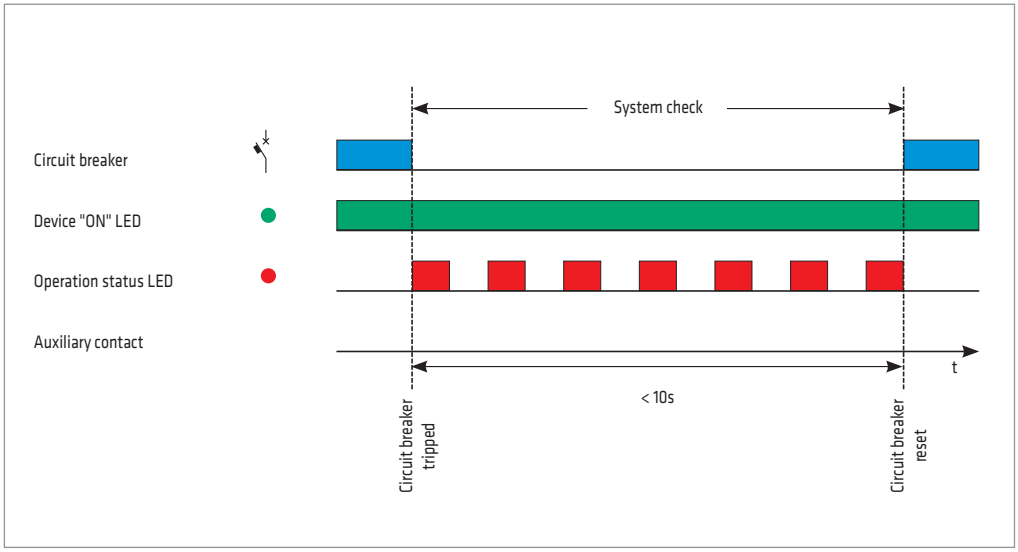

### Autotest function with negative result



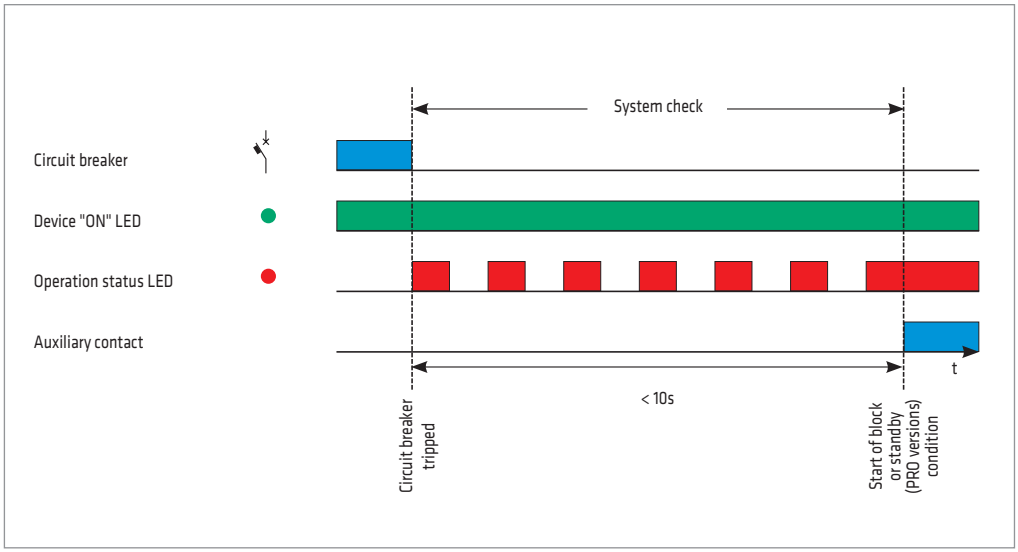

### Key



### ReStart function with positive result




### ReStart function with negative result




### Key

Closed circuit

Device ON

System check in progress

Device block
Device in standby (PRO version)

## RESTART RD

### Technical data

| TYPE | | ReStart Rd 2P | ReStart Rd PRO 2P | ReStart Rd PRO 4P |
|---|---|---|---|---|
| | |  |  |  |
| **Electrical characteristics** | | | | |
| **Standards:** | | EN 50557 | | |
| **Distribution system:** | | TT - TN-S | | |
| **Rated operational voltage (Ue):** | **(V)** | 230 AC (1) | | |
| **Minimum operating voltage (min Ue)** | **(V)** | 85% Ue | | |
| **Maximum operating voltage (max Ue):** | **(V)** | 110% Ue | | |
| **Rated insulation voltage (Ui):** | **(V)** | 500 | | |
| **Dielectric strength test voltage between pole and earth:** | **(V)** | 2500 AC for 1 minute | | |
| **Rated impulse withstand voltage (Uimp):** | **(kV)** | 4 | | |
| **Overvoltage category:** | | III | | |
| **Rated frequency:** | **(Hz)** | 50 | | |
| **Residual making and breaking capacity (IΔm):** | **(A)** | IΔm of the associated circuit breaker | | |
| **Rated conditional residual short-circuit current with fuse (IΔc):** | **(A)** | IΔc of the associated circuit breaker | | |
| **Number of poles:** | | 2 | | 4 |
| **Type of IDP RCCB:** | | AC - A - A[IR] - A[S] | | |
| **Rated current (In):** | **(A)** | 25 - 40 - 63 - 80 - 100 | | |
| **Rated residual operating current (IΔn):** | **(mA)** | 30 - 100 - 300 - 500 | | |
| **Rated non-operating resistance between live parts and earth (Rdo):** | **(kΩ)** | 8 (30mA) - 2,5 (100/300/500mA) | | |
| **Rated operating resistance between live parts and earth (Rd):** | **(kΩ)** | 16 (30mA) - 5 (100/300/500mA) | | |
| **Power loss at In:** | **(W)** | Power loss of the associated circuit breaker | | |
| **Off-load absorbed power:** | **(VA)** | 3 (cosφ=0.4) | | 4 (cosφ=0.2) |
| **Power absorbed during automatic reclosing:** | **(VA)** | 18 (cosφ=0.5) | | 45 (cosφ=0.5) |
| **Mechanical characteristics** | | | | |
| **Width in DIN modules:** | | 1 | | 3 |
| **Reclosing time:** | **(s)** | 10 | | |
| **Maximum operational frequency:** | **(oper./h)** | 30 | | |
| **Max mechanical endurance (total no. operations):** | | 4000 | | |
| **Maximum no. of consecutive automatic reclosure operations (2):** | | 3 | | |
| **Counter reset time no. of consecutive automatic reclosure operations:** | **(s)** | 60 | | |
| **Section of circuit breaker terminals:** | **($mm^2$)** | flexible cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10<br>rigid cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10 | | |
| **Circuit breaker rated tightening torque:** | **(Nm)** | 3 (IDP) - 2 (IDP NA) | | |
| **Mounting position:** | | any | | |
| **Circuit breaker degree of protection:** | | IP20 (terminals) - IP40 (front) | | |
| **Pollution degree:** | | 2 | | |
| **Operating temperature:** | **(°C)** | -5 +40 | -5 +60 (3) | -25 +60 (3) |
| **Stocking temperature:** | **(°C)** | -40 +70 | | |
| **Tropicalization:** | | 55°C - RH 95% | | |
| **Auxiliary contact characteristics** | | | | |
| **Can be fitted with auxiliary:** | | no | yes (with GWD0951) | already integrated in the ReStart |
| **Type of contact:** | | - | Photomos (potential free contact) | |
| **Operating voltage:** | **(V)** | - | 5-230 AC/DC | |
| **Operating current:** | **(mA)** | - | 0,6 (min) - 100 cosφ=1 (max) | |
| **Operating frequency:** | **(Hz)** | - | 50 | |
| **Category of use:** | | - | AC12 | |
| **Operating mode:** | | - | NO\NC\NO as signal of handle position | |
| **Terminal section:** | **($mm^2$)** | - | ≤ 2.5 | |
| **Rated tightening torque:** | **(Nm)** | - | 0.4 | |
| **ReStart function** | | | | |
| **Automatic reclosure for untimely tripping:** | | • | • | • |
| **Earth failure test:** | | • | • | • |
| **Earth leakage check:** | | | • | • |
| **Interruption of reclosure operation in the event of a fault:** | | • | • | • |
| **Signalling of reclosure operation in progress:** | | • | • | • |
| **Light signalling of failure:** | | • | • | • |
| **Activation / exclusion of ReStart function:** | | • | • | • |
| **Auxiliary contact for remote operating status access:** | | | • | • |
| **Internal electrical protection:** | | PTC | PTC | PTC |

(1) Power supply 230V phase-neutral (2) In the absence of a system fault (3) Average daily temperature ≤ +35°C

For technical information contact the Technical Assistance Service or visit gewiss.com

## RESTART RM

### Technical data

| TYPE | | ReStart Rm 2P | ReStart Rm PRO 2P | ReStart Rm PRO 4P | Rm TOP | | CM |
|---|---|---|---|---|---|---|---|
| | |  |  |  |  | |  |
| **Electrical characteristics** | | | | | | | |
| **Standards:** | | EN 50557 | | | - | | - |
| **Distribution system:** | | TT - TN-S | | | TT - TN - IT (1) | | TT-TN-IT |
| **Rated operational voltage (Ue):** | (V) | 230 AC (2) | | | | | |
| **Minimum operating voltage (min Ue)** | (V) | 85% Ue | | | | | |
| **Maximum operating voltage (max Ue):** | (V) | 110% Ue | | | | | |
| **Rated insulation voltage (Ui):** | (V) | 500 | | | | | |
| **Dielectric strength test voltage between pole and earth:** | (V) | 2500 AC for 1 minute | | | | | |
| **Rated impulse withstand voltage (Uimp):** | (kV) | 4 | | | | | |
| **Overvoltage category:** | | III | | | | | |
| **Rated frequency:** | (Hz) | 50 | | | | | |
| **Residual making and breaking capacity (IΔm):** | (A) | IΔm of the associated circuit breaker | | | | | |
| **Number of poles:** | | 2 | | 4 | | | |
| **Type of MDC RCBO:** | | AC - A - A[IR] - A[S] | | | | | |
| **Type of MT+BD RCBO:** | | - | | | AC - A - A[IR] - A[S] | | |
| **Rated current (In):** | (A) | from 6 to 32 | | | from 1 to 63 | | |
| **Rated residual operating current (IΔn):** | (mA) | 30 - 300 | | | 30 - 300 - 500 - 1000 | | |
| **Rated non-operating resistance between live parts and earth (Rdo):** | (kΩ) | 8 (30mA) - 2.5 (300mA) | | | 8 (30mA) - 2.5 (300/500/1000mA) | | - |
| **Rated operating resistance between live parts and earth (Rd):** | (kΩ) | 16 (30mA) - 5 (300mA) | | | 16 (30mA) - 5 (300/500/1000mA) | | - |
| **Rated non-operating resistance between live parts (Rcco):** | (Ω) | 0.4 | | 0.3 | | | - |
| **Rated operating resistance between live parts (Rcc):** | (Ω) | 2.3 | | 1.8 | | | - |
| **Power loss at In:** | (W) | Power loss of the associated circuit breaker | | | | | |
| **Off-load absorbed power:** | (VA) | 3 (cosφ=0.4) | | 16 (cosφ=0.2) | 15 (cosφ=0.1) | | 0 (cosφ=0.2) |
| **Power absorbed during automatic reclosing:** | (VA) | 18 (cosφ=0.5) | | 34 (cosφ=0.7) | 30 (cosφ=0.6) | | 30 (cosφ=0.6) |
| **Reclosing control:** | | automatic | | | automatic / remote (3) | | remote (3) |
| **Mechanical characteristics** | | | | | | | |
| **Width in DIN modules:** | | 1 | | 3 | 4 | | 2 |
| **Reclosing time:** | (s) | 10 | | | 3 (without system test)<br>10 (with system test) | | 3 |
| **Remote control opening time:** | (s) | - | | | 2 | | |
| **Maximum operational frequency:** | (oper./h) | 30 | | | | | |
| **Max mechanical endurance (total no. operations):** | | 4000 | | | 10000 | | |
| **Maximum no. of consecutive automatic reclosure operations (4):** | | 3 | | | | | - |
| **Counter reset time<br>no. of consecutive automatic reclosure operations:** | (s) | 60 | | | | | - |
| **Section of circuit breaker terminals:** | (mm²) | flexible cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10<br>rigid cable: ≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10 | | | | | |
| **Rated tightening torque:** | (Nm) | 2 | | | | | |
| **Mounting position:** | | any | | | | | |
| **Degree of protection:** | | IP20 (terminals) - IP40 (front) | | | | | |
| **Pollution degree:** | | 2 | | | | | |
| **Operating temperature:** | (°C) | -5 +40 | -5 +60 (5) | -25 +60 (5) | | | |
| **Stocking temperature:** | (°C) | -40 +70 | | | | | |
| **Tropicalization:** | | 55°C - RH 95% | | | | | |
| **Auxiliary contact characteristics** | | | | | | | |
| **Can be fitted with auxiliary:** | | no | yes (with GWD0951) | already integrated in the ReStart | already integrated in the ReStart | already integrated in the ReStart | already integrated in the ReStart |
| **Type of contact:** | | - | Photomos (potential free contact) | | Changeover | Photomos (potential free contact) | Changeover |
| **Operating voltage:** | (V) | - | 5-230 AC/DC | | 230 AC/ 30 DC | 5-230 AC/DC | 230 AC/ 30 DC |
| **Operating current:** | (mA) | - | 0,6 (min) - 100 cosφ=1 (max) | | 1,5 a.c. / 0,8 d.c. | 0,6 (min) - 100 cosφ=1 (max) | 1,5 a.c. / 0,8 d.c. |
| **Operating frequency:** | (Hz) | - | 50 | | | | |
| **Category of use:** | | - | AC12 | | | | |
| **Operating mode:** | | - | NO/NC/NO as signal of handle position | | CO | NO/NC/ INTERMITTENT | CO |
| **Terminal section:** | (mm²) | - | ≤ 2.5 | | | | |
| **Rated tightening torque:** | (Nm) | - | 0.4 | | | | |
| **ReStart function** | | | | | | | |
| **Automatic reclosure for untimely tripping:** | | • | • | • | • | | |
| **Earth leakage check:** | | • | • | • | • | | |
| **Short-circuit check:** | | • | • | • | • | | |
| **Adjustable insulation threshold:** | | | | | • | | |
| **Continuous system check:** | | | • | • | • | | |
| **Adjustable reset standby time (6):** | | | | | • | | |
| **Adjustable reclosing mode:** | | | | | • | | |
| **Interruption of reclosure operation in the event of a fault:** | | • | • | • | • | | |
| **Signalling of reclosure operation in progress:** | | • | • | • | • | | |
| **Light signalling of failure:** | | • | • | • | • | | |
| **Activation / exclusion of ReStart function:** | | • | • | • | • | | • |
| **Auxiliary contact for remote operating status access:** | | | • | • | • | | • |
| **Internal electrical protection:** | | PTC | PTC | PTC | PTC | | PTC |

(1) For IT system reclosing without fault check
(2) Power supply 230V phase-neutral
(3) Impulse duration ≥ 200ms
(4) In the absence of a system fault
(5) Average daily temperature ≤ +35°C
(6) Automatic reclosure delay time: 0-1h

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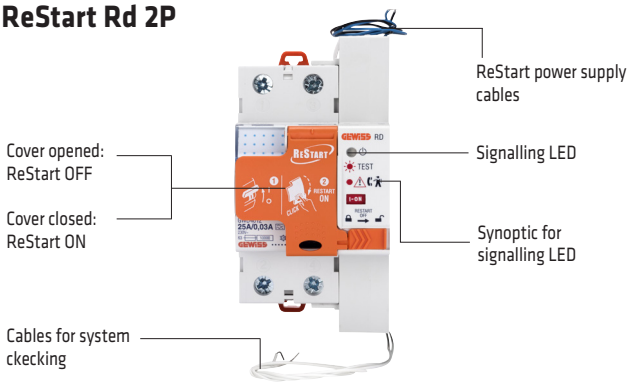
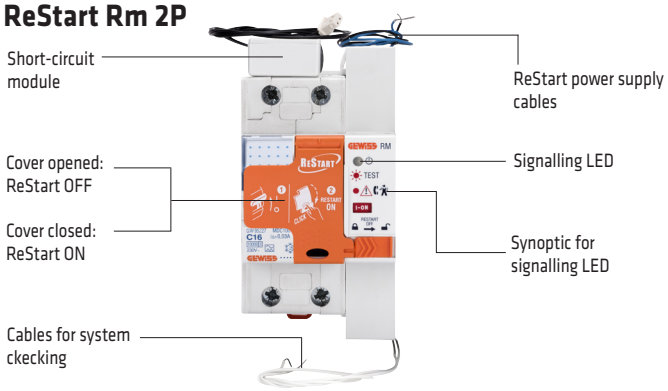
## AUTOMATIC RECLOSING DEVICES

## DEVICE DESCRIPTION

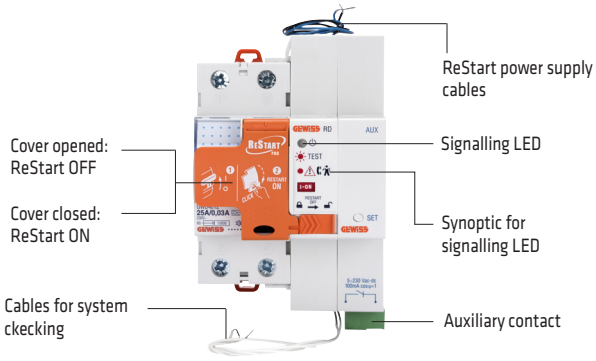
### ReStart Rd 2P



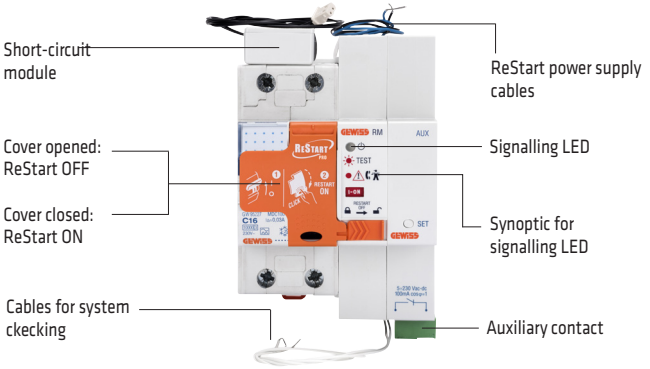

### ReStart Rm 2P



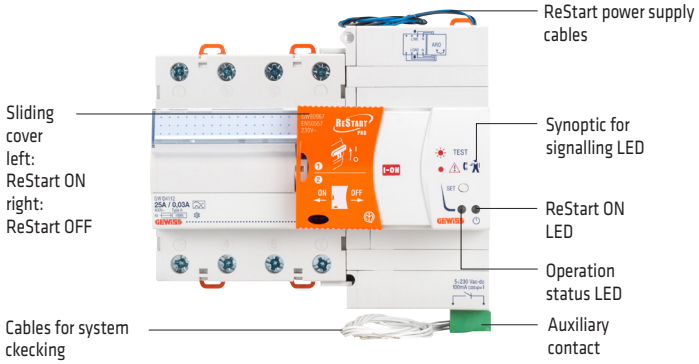

### ReStart Rd PRO 2P



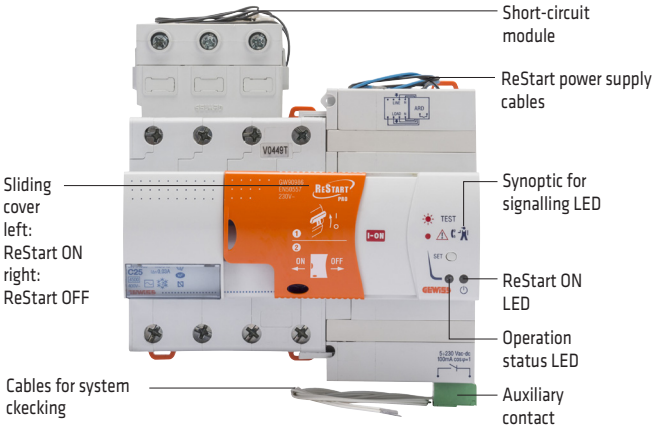

### ReStart Rm PRO 2P



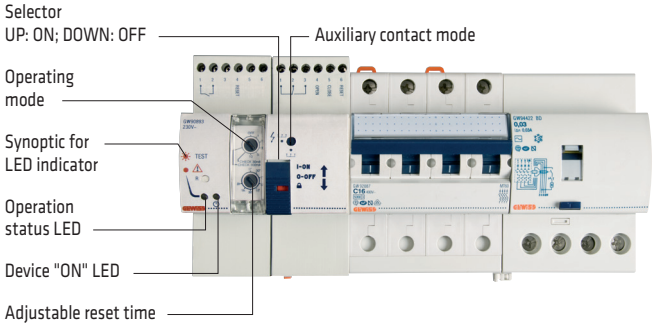

### ReStart Rd PRO 4P



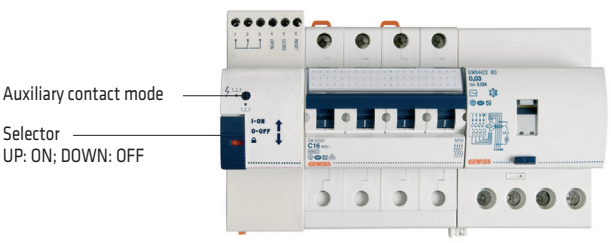

### ReStart Rm PRO 4P




### ReStart Rm TOP




### ReStart Cm

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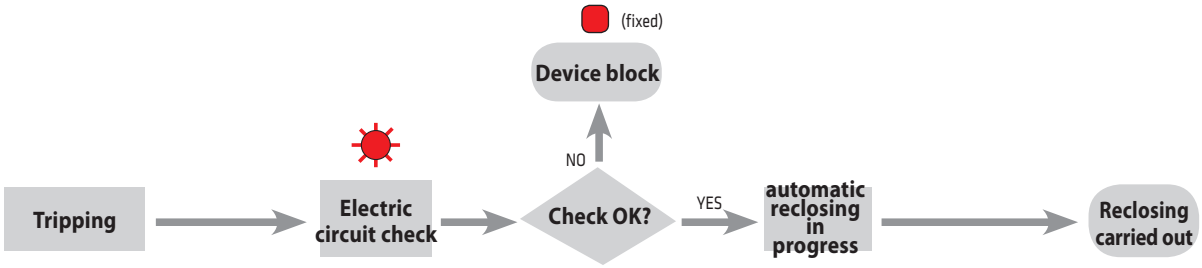
## AUTOMATIC RECLOSING FUNCTION

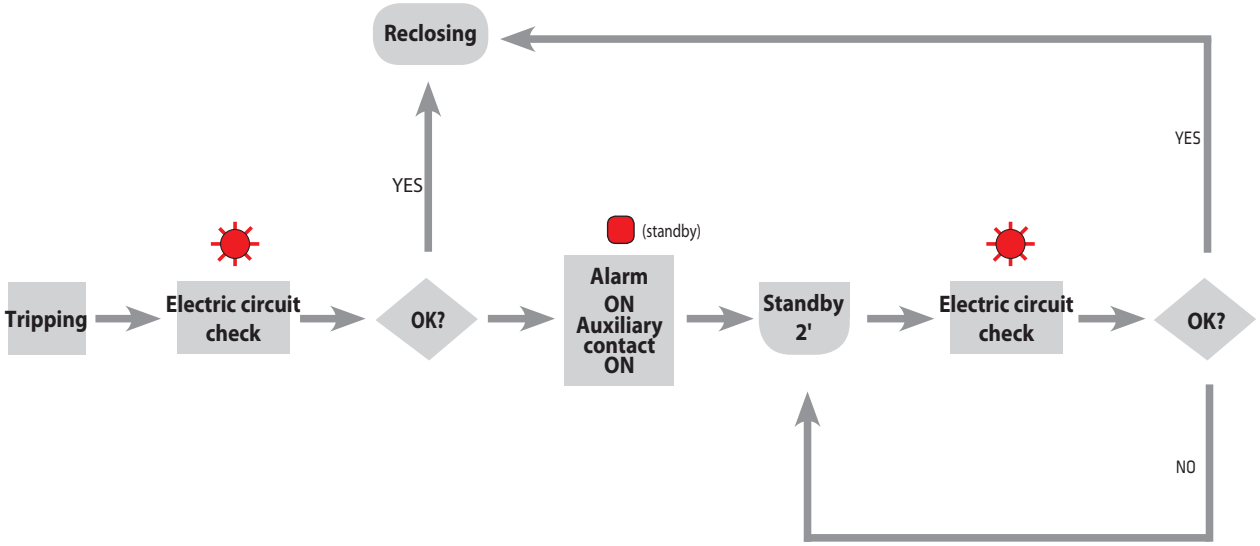
### ReStart with Autotest, Rd and Rm

The automatic reclosing  is carried out after an untimely tripping of the circuit breaker but only after an electrical circuit check. If a fault is found, the device sets itself on block condition and signals the fault by means of the front LED indicator.

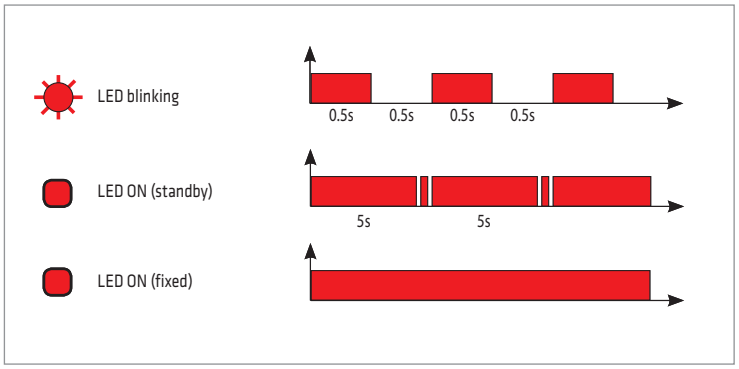



## RESTART WITH AUTOTEST, RD AND RM PRO VERSION

The circuit breaker is reclosed after an untimely tripping of the circuit breaker but only after a system check.
When the system check gives a negative result, the device goes into standby and signals this condition by means of the frontal LED indicator. System checks will then be carried out at 2' intervals, and the device will only reclose when the result of the test is positive. If no positive result is obtained, the device will remain in standby until the next test, or until a manual reset. The auxiliary contact signals the system fault.




### Key

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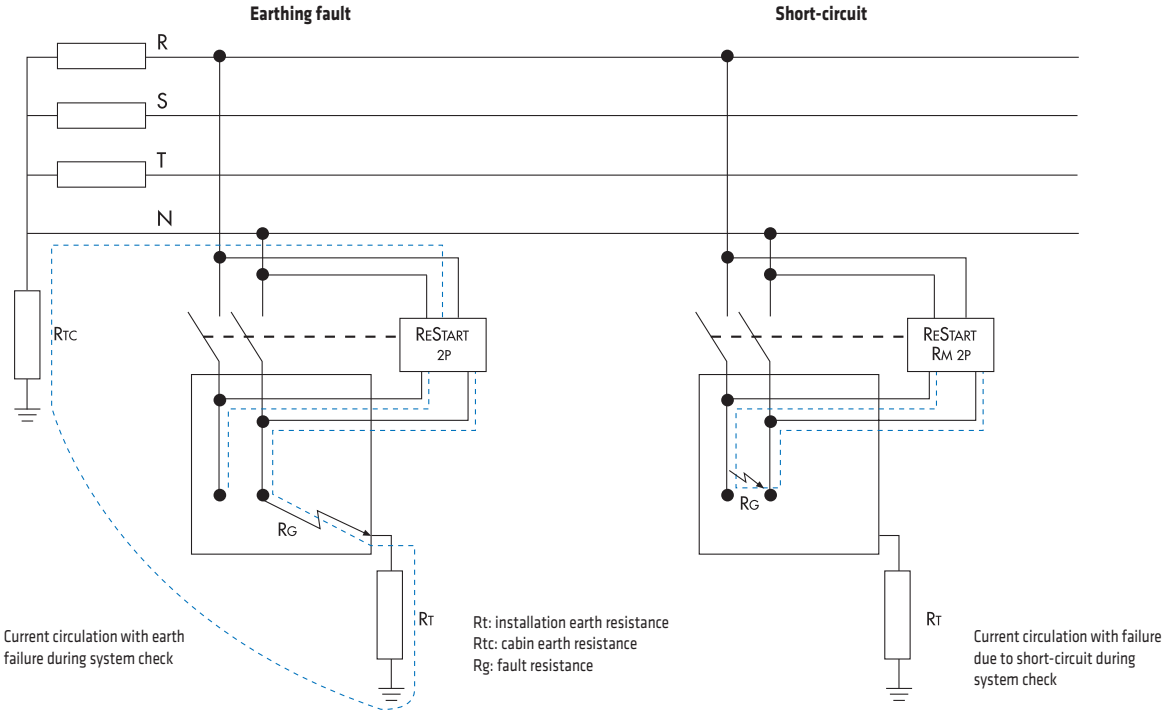
## System fault check

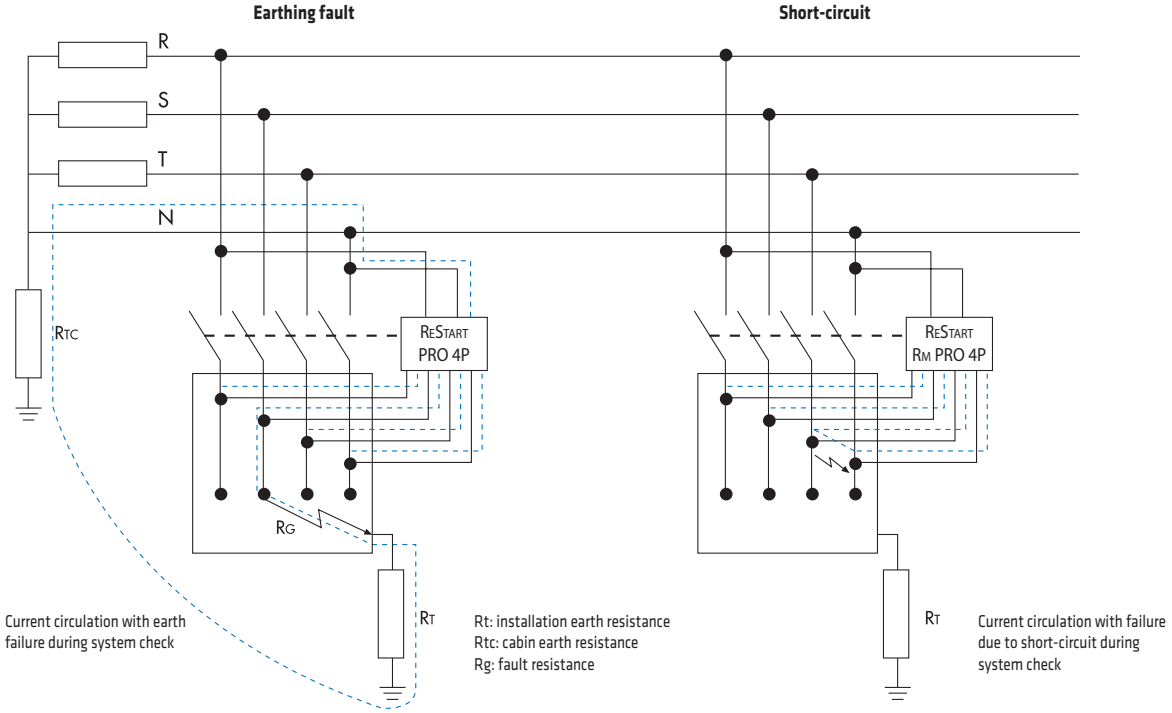
**Every device belonging to ReStart range** is equipped with internal electronic circuit which is able to check the system and then to carry out the automatic reclosing of the circuit breaker if the value of the insulation resistance measured by the electronic circuit is compatible with the predefined safety values.
During the system check ReStart injects a pulsant unidirectional current type in order to check the status of the system. The intensity of this current is extremely low in order to guarantee always the people safety. The figures below are given as an example to show the route taken by the current during system check for TT distribution systems both single and three phase.

**ReStart RM**, in addition to the check of the insulation resistance, carries out a system short circuit check.

### ReStart 2P



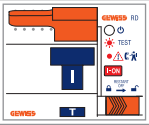
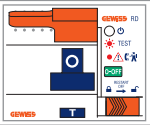
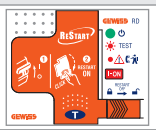
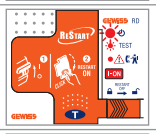

### ReStart 4P



## ReStart Rd and Rm light signalling

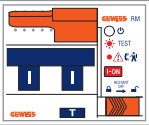
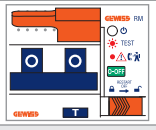
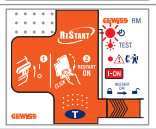
ReStart Rd and Rm are equipped with one LED on the front which shows the operation conditions of the device.

### ReStart Rd

| ReStart conditions | ReStart front | Lever position | Indicator LED | Description |
|---|---|---|---|---|
| **MANUAL OPERATION** | | | | |
| Deactivated |  | I | ○ | Reset device **OFF** |
| Deactivated |  | O | ○ | Reset device **OFF** |
| **AUTOMATIC OPERATING CYCLE (*)** | | | | |
| Normal operation |  | I | ● | Reset device **ON** |
| Electric circuit check |  | O | ✹ | Reset device in **electric system insulation check condition.** |
| System failure |  | O | ● | Reset device in **block** condition due to low insulation of downstream electric system. |

(*) Before sliding the plastic cover to the left to activate the device, it is necessary to set the associated circuit breaker in the "I" position.
NOTE: ReStart device can be in block condition (red led fixed) after 4 following trips too (t≤60s after previous trip).

### ReStart Rm

| ReStart conditions | ReStart front | Lever position | Indicator LED | Description |
|---|---|---|---|---|
| **MANUAL OPERATION** | | | | |
| Deactivated |  | I | ○ | Reset device **OFF** |
| Deactivated |  | O | ○ | Reset device **OFF** |
| **AUTOMATIC OPERATING CYCLE (*)** | | | | |
| Normal operation |  | I | ● | Reset device **ON** |
| Electric circuit check |  | O | ✹ | Reset device in **electric system insulation and short-circuit check conditions.** |
| System failure |  | O | ● | Reset device in **block** condition due to low insulation or short-circuiting fault of downstream electric system |

(*) Before sliding the plastic cover to the left to activate the device, it is necessary to set the associated circuit breaker in the "I" position.
NOTE: ReStart device can be in block condition (red led fixed) after 4 following trips too (t≤60s after previous trip).

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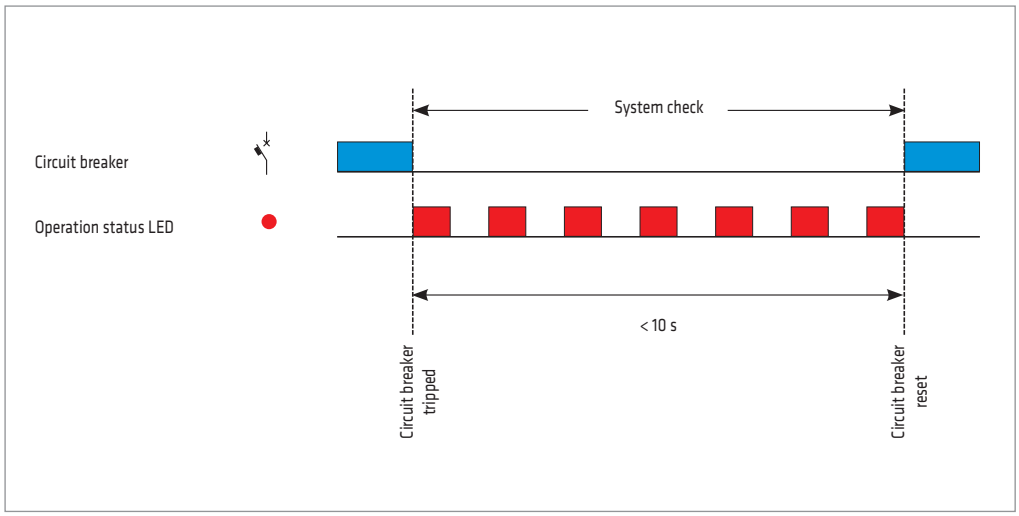
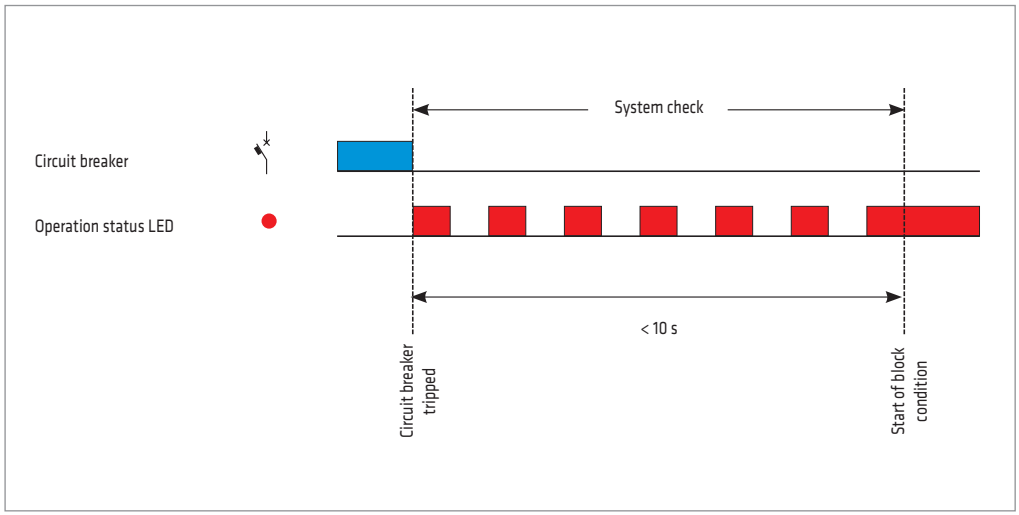
## ResStart Rd and Rm operation conditions

### ReStart function with positive result




### ReStart function with negative result




### Key

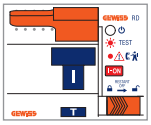
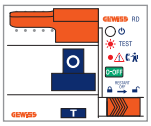
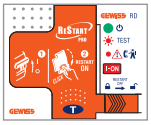
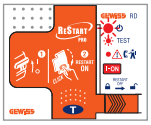
Closed circuit

System check in progress

Device block

## ReStart Rd and Rm PRO light signalling for circuit breakers 2 poles

ReStart Rd and Rm PRO for circuit breakers 2 poles are equipped with one LED on the front which shows the operation conditions of device.

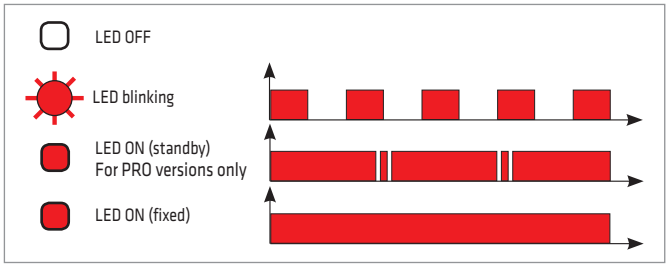
| ReStart conditions | ReStart front | Lever position | LED indicators | Description |
|---|---|---|---|---|
| **MANUAL OPERATION** | | | | |
| Deactivated |  | **I** | | Reset device **OFF** |
| Deactivated |  | **0** | | Reset device **OFF** |
| **AUTOMATIC OPERATING CYCLE** (*) | | | | |
| Normal operation |  | **I** | | Reset device ON |
| Electric circuit check |  | **0** | | Reset device in **system check condition.** |
| System insulation fault |  | **0** | (standby) | Reset device in **standby** conditions due to insulation fault of downstream electric system |

(*) Before sliding the plastic cover to the left to activate the device, it is necessary to set the associated circuit breaker in the "I" position.
NOTE: ReStart device can be in block condition (red led fixed) after 4 following trips too (t≤60s after previous trip)

Specifically, Restart Rm PRO may have the following operation condition:

| ReStart conditions | ReStart front | Lever position | LED indicators | Description |
|---|---|---|---|---|
| **AUTOMATIC OPERATION** | | | | |
| System short-circuit fault |  | **0** | (fixed) | Reset device in **block** condition due to short-circuit fault of downstream electric system |

### Key

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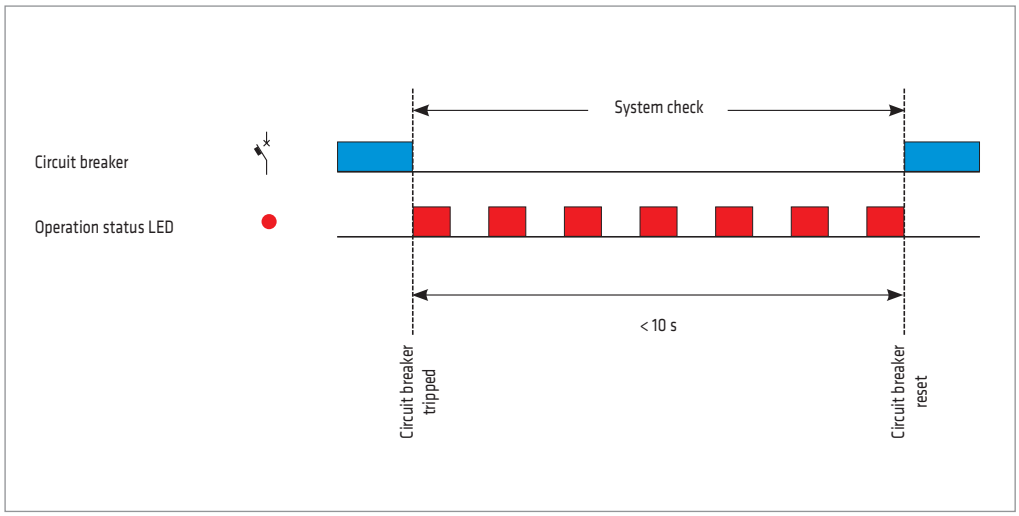
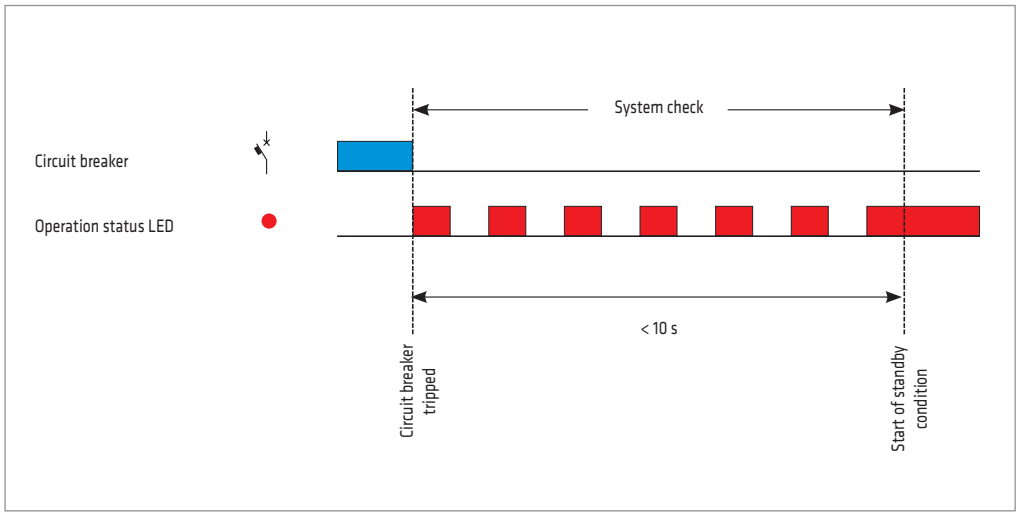
## Restart Rd and Rm PRO operation conditions for circuit breakers 2 poles

### ReStart function with positive result




### ReStart function with negative result




### Key

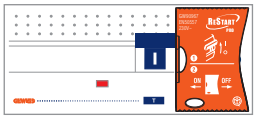
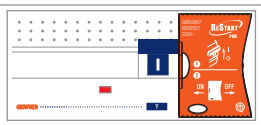
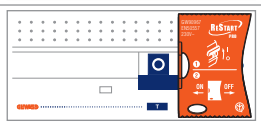
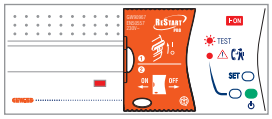
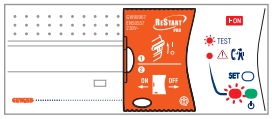
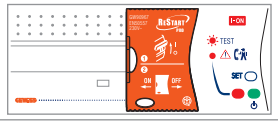
Closed circuit

System check in progress

Device standby

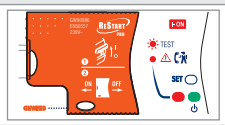
## ReStart Rd and Rm PRO light signalling for circuit breakers 4 poles

ReStart PRO for circuit breaker 4 poles is equipped with two LEDs on the front which show the operation conditions of device.
The right-hand LED is switched on when the device is activated, and the left-hand LED shows the operation conditions.

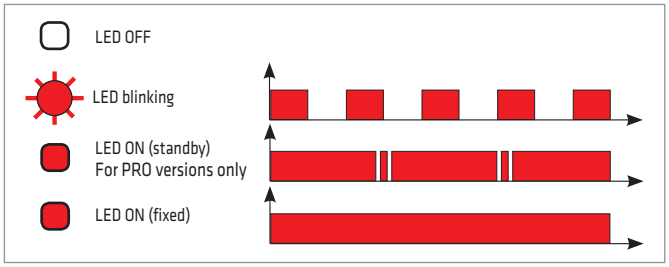
| ReStart conditions | ReStart front | Lever position | LED indicators | | | Description |
|---|---|---|---|---|---|---|
| | | | Left LED | Right LED | Aux contact | |
| **MANUAL OPERATION** | | | | | | |
| Deactivated |  | I | ○ | ○ | **OFF** | Reset device **OFF** |
| Deactivated for over 15 minutes |  | I | ○ | ○ | **ON** | Reset device **OFF** |
| Deactivated |  | 0 | ○ | ○ | **OFF** | Reset device **OFF** |
| **AUTOMATIC OPERATING CYCLE (*)** | | | | | | |
| Normal operation |  | I | ○ | ● | **OFF** | Reset device ON |
| Electric circuit check |  | 0 | ✹ | ● | **OFF** | Reset device in **system check condition.** |
| System insulation fault |  | 0 | ● (standby) | ● | **ON** | Reset device in **standby** conditions due to insulation fault of downstream electric system |

(*) Before sliding the plastic cover to the left to activate the device, it is necessary to set the associated circuit breaker in the "I" position.
NOTE: ReStart device can be in block condition (red led fixed) after 4 following trips too (t≤60s after previous trip)

Specifically, Restart Rm PRO may have the following operation condition:

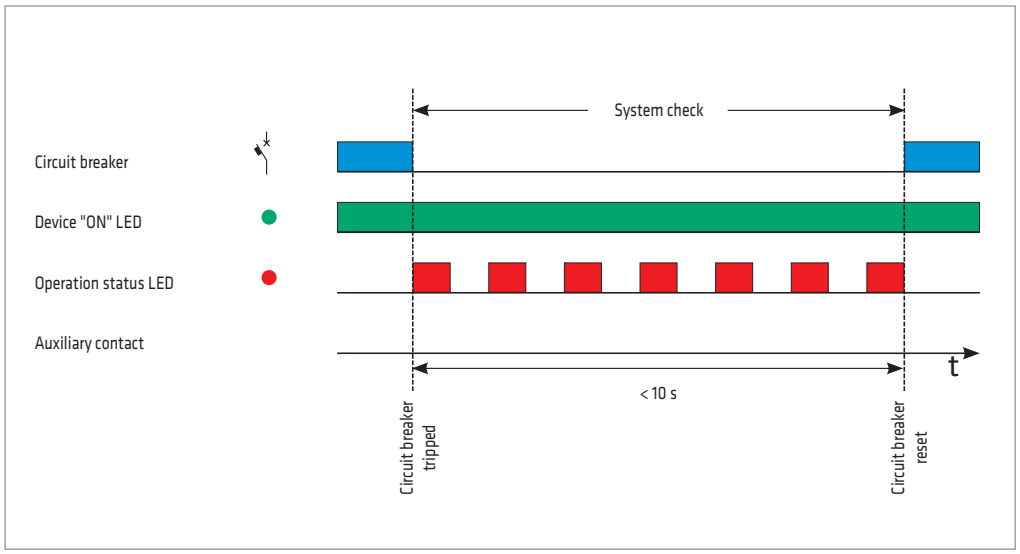
| ReStart conditions | ReStart front | Lever position | LED indicators | | | Description |
|---|---|---|---|---|---|---|
| | | | Left LED | Right LED | Aux contact | |
| **AUTOMATIC OPERATION** | | | | | | |
| System short-circuit fault |  | 0 | ● (fixed) | ● | **ON** | Reset device in **block** condition due to short-circuit fault of downstream electric system |

### Key

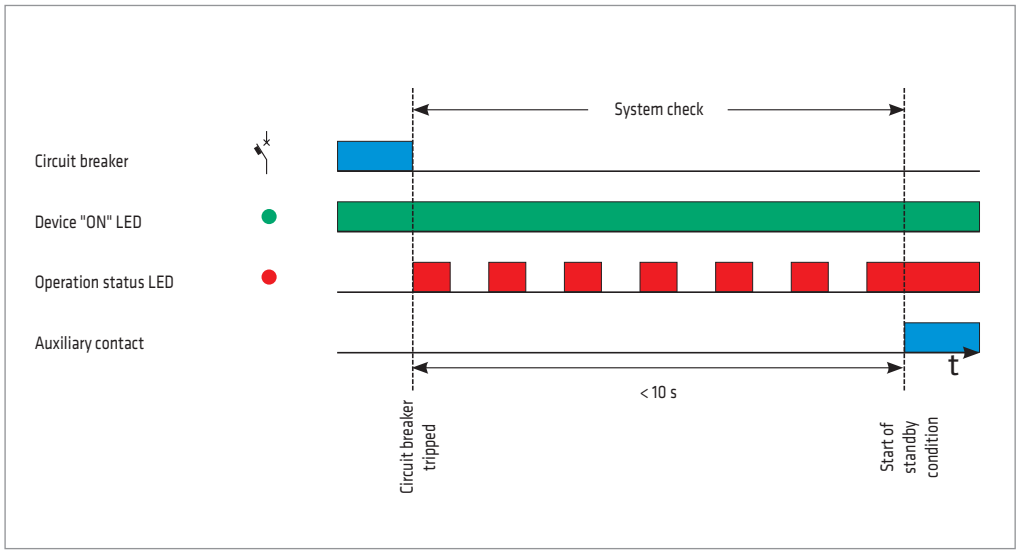


## Restart Rd and Rm PRO operation conditions for circuit breaker 4 poles

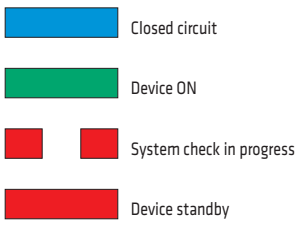
### ReStart function with positive result




### ReStart function with negative result

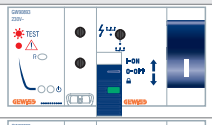
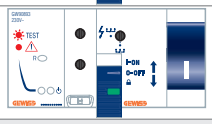
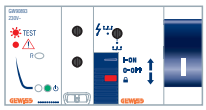
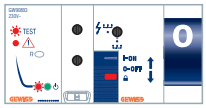
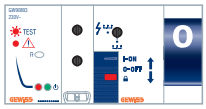



### Key



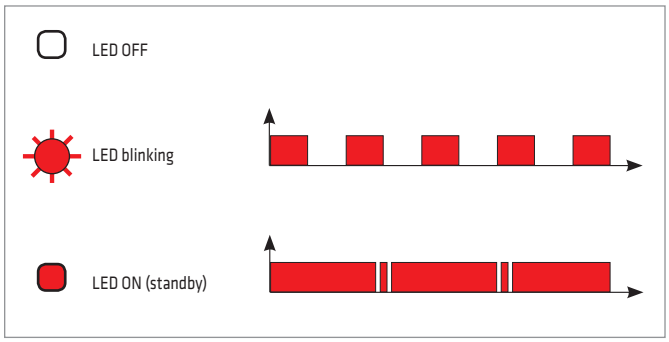
## ReStart Rm TOP light signalling

ReStart Rm TOP is equipped with two LEDs on the front which show the operation conditions of the device. In addition, by adjusting the two trimmers you can select the operation mode.

| ReStart conditions | ReStart front | Lever position | LED indicators | | | | Description |
|---|---|---|---|---|---|---|---|
| | | | Left LED | Right LED | Aux contact 1 | Aux contact 2 | |
| **MANUAL OPERATION** | | | | | | | |
| Deactivated |  | **I** | ○ | ○ | **OFF** | **ON (OFF)*** | Device OFF |
| Deactivated |  | **0** | ○ | ○ | **OFF** | **OFF** | Device OFF |
| **AUTOMATIC OPERATING CYCLE** | | | | | | | |
| Normal operation |  | **I** | ○ | ● | **OFF** | **ON** | Device ON |
| Electric circuit check |  | **0** | ✳ | ● | **OFF** | **OFF** | Device in **system check condition** |
| System failure |  | **0** | ● | ● | **ON** | **OFF** | Device in **standby** due to system fault |

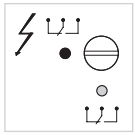
(*) If it has been set as fault indicator switch.

### Key




### Setting of Aux contact 2

Auxiliary switch for open/closed position

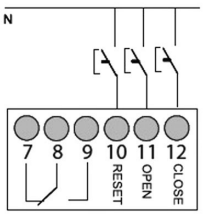



Auxiliary contact for fault indicator switch

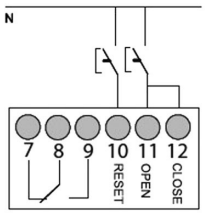

NOTE: to change the function Aux contact 2, from open/closed position to fault indicator switch and viceversa, it's required to turn the selector by screwdriver and to make an automatic reclosing cycle.

### Setting as motor operating

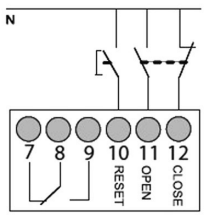
Push-button command




Cyclical command




Held command



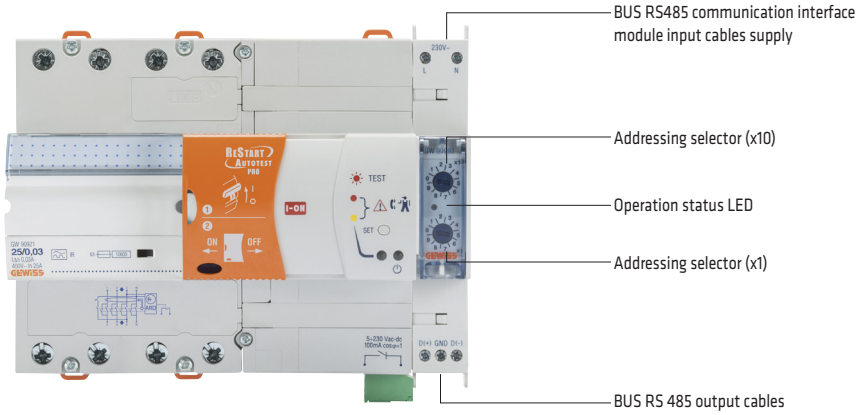

For technical information contact the Technical Assistance Service or visit gewiss.com

## BUS RS485 Communication interface module

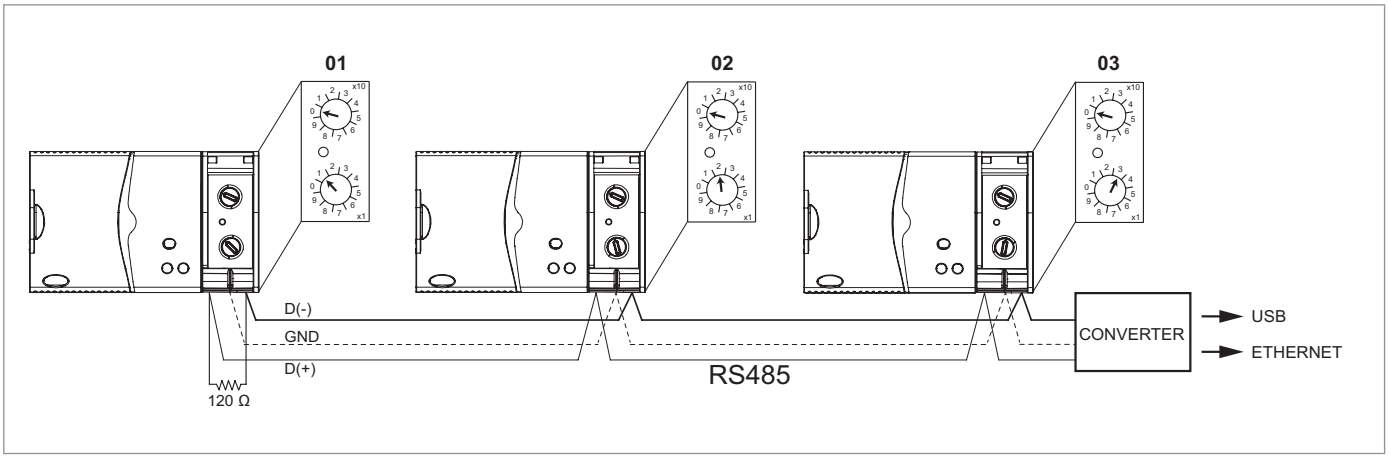
| Technical data | | |
|---|---|---|
| **Code:** | | **GW90992** |
| **Rated operational voltage (Ue):** | **(V)** | 230 a.c. |
| **Minimum operating voltage (min Ue):** | **(V)** | 85% Ue |
| **Maximum operating voltage (max Ue):** | **(V)** | 110% Ue |
| **Rated impulse voltage (Uimp):** | **(kV)** | 4 |
| **Rated frequency:** | **(Hz)** | 50 |
| **Width in DIN modules:** | | 1 |
| **Communication protocol:** | | modbus RS485 |
| **Number of addresses:** | | 1 ÷ 99 |
| **Transmission speed:** | | 38.400 baud rate |
| **Coupled with:** | | ReStart with Autotest (2 e 4 pole)<br>ReStart Rm PRO (4 pole)<br>ReStart Rd PRO (4 pole) |
| **Rated tightening torque:** | **(Nm)** | 0,4 |
| **Power loss:** | **(W)** | 1 |
| **Degree of protection:** | | IP20 |
| **Operating temperature:** | **(°C)** | -25...+60 [1] |
| **Maximum conductor cross section:** | **(mm²)** | 2,5 |
| **Sealable:** | | yes |

[1] Average daily temperature ≤ +35°C

### Device description



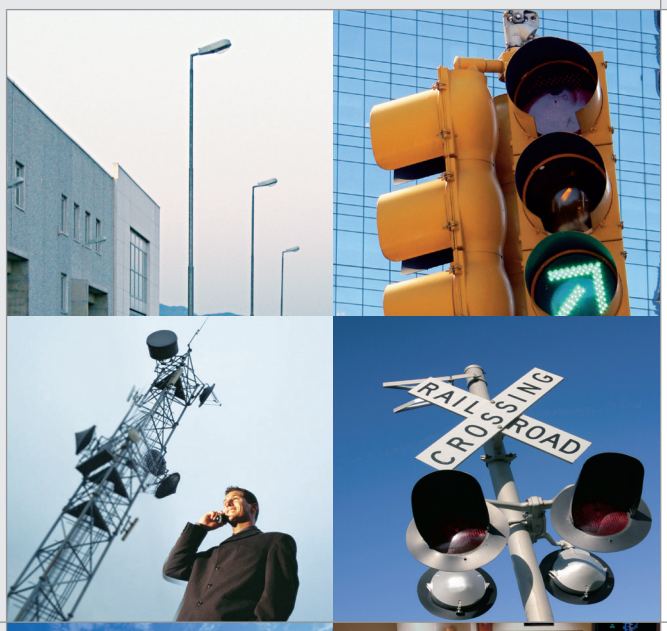

### Connection example



## Application examples

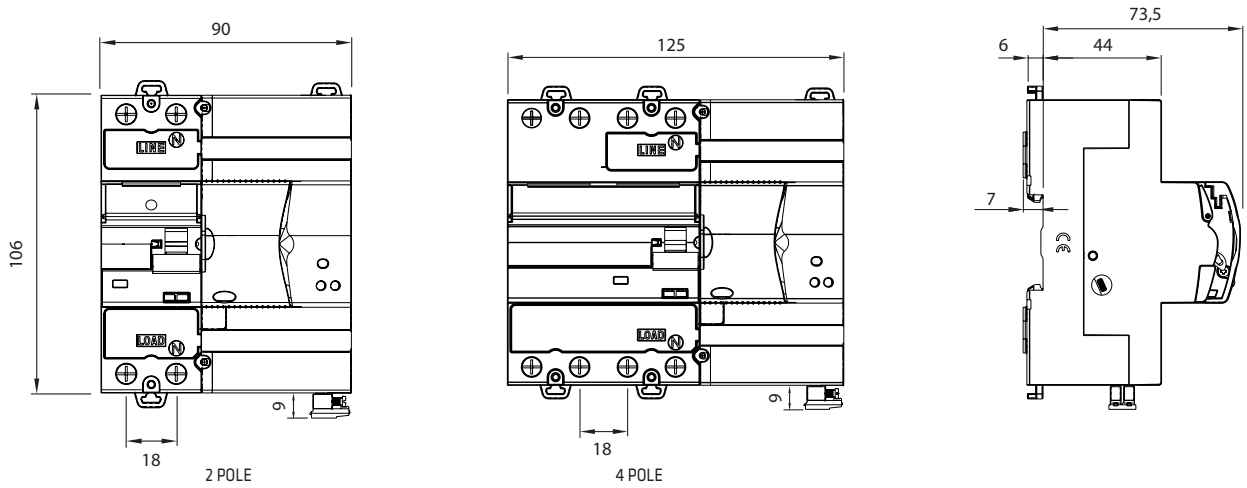
### ReStart PRO and ReStart Rm TOP

With Restart PRO it is possible to monitor the insulation level after tripping for an indefinite period of time (until acceptable values are obtained and the automatic reset operation is performed). This control system is indispensable where the system's insulation level can suddenly drop, due to weather conditions, and then rise thus allowing reset operations once optimal conditions are re-established.

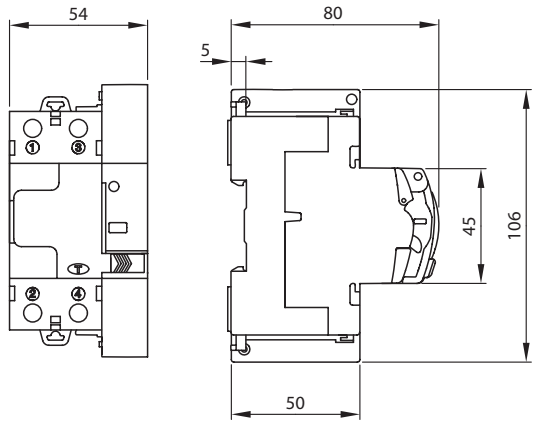
| | | SPECIFICATIONS | TYPICAL SYSTEMS |
|---|---|---|---|
| OUTDOOR SYSTEMS |  | - Exposure to atmospheric disturbance<br>- Insulation levels depending on weather conditions (temperature and humidity)<br>- Presence of electronic power supplies<br>- Extensive damage due to blackout<br>- Difficult accessibility of electrical circuit | - Lighting in public places<br>- Outdoor lighting in gardens and squares<br>- Sporting facilities<br>- Traffic lights<br>- Signalling<br>- Pollution control stations<br>- Telecommunication installations<br>- Radio links<br>- Traffic-information panels<br>- Advertising hoardings |
| INDOOR SYSTEMS |  | - Strong presence of electronic power supplies<br>- Extensive damage due to blackout<br>- Need for guaranteed service continuity<br>- Sensitivity to disturbance induced by mains supply and by atmospheric conditions<br>- Insulation levels depending on weather and operating conditions | - Small, medium, and large tertiary sector<br>- Industrial plants<br>- Data processing centres<br>- Garages<br>- Pumping systems<br>- Catering<br>- Supermarkets<br>- Ice-cream shops<br>- Alarm system protection<br>- CCTV system protection<br>- Access monitoring system protection<br>- Door and automatic gate protection |

## Dimension tables

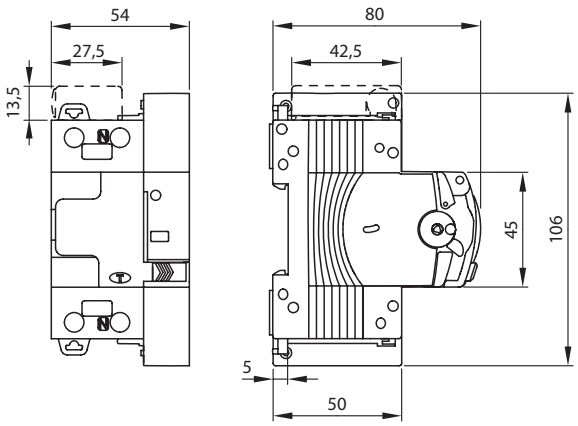
### ReStart with Autotest



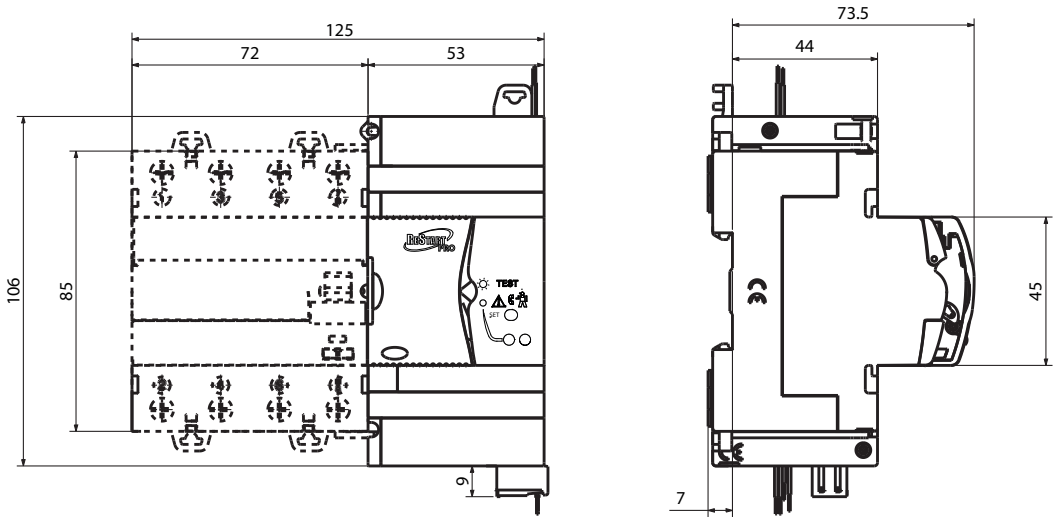

### ReStart Rd and Rd PRO 2P



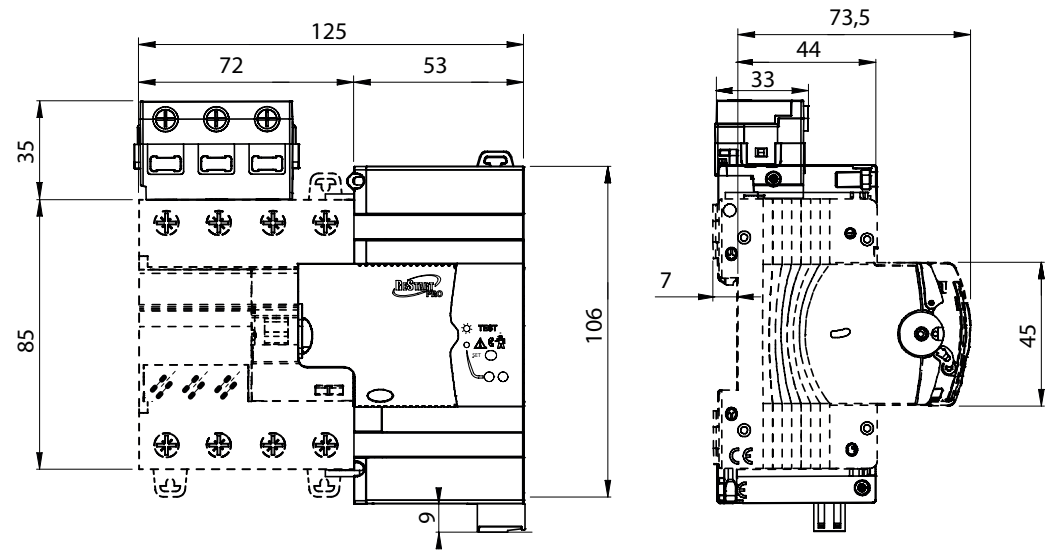

### ReStart Rm and Rm PRO 2P



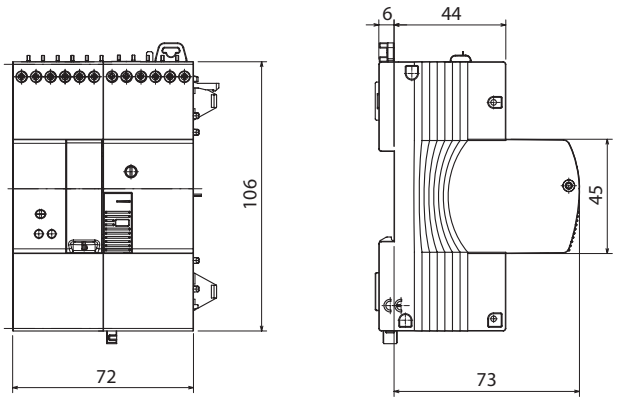
**ReStart Rd PRO 4P**



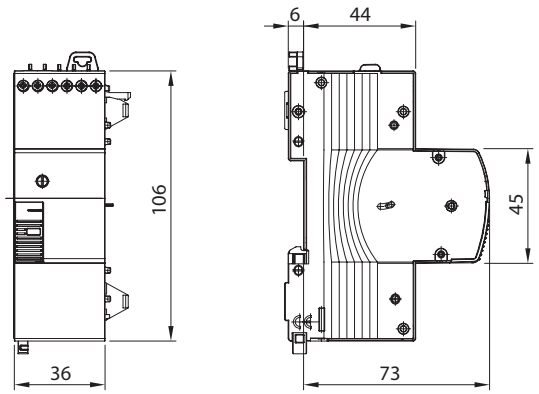

**ReStart Rm PRO 4P**



### ReStart Rm TOP




### ReStart Cm




### BUS RS485 Interface module