

# Assembly Instructions

## Plug-in module for split processing unit Minocal

### Types

- Potential free relay output for energy
- Potential free relay output for energy and volume

### Supply Range

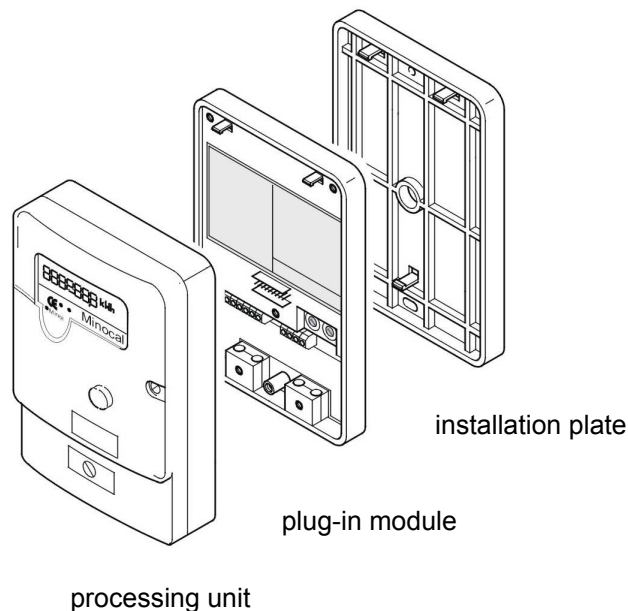
- Plug-in module with connecting lead 1,5 m (wiring for Minotel Contact at the factory)
- Assembly instructions

### Storage

- Dry and frost-free

### Installation

- Mount the installation plate
- Click the plug-in module into place at the installation plate
- Remove the fixing screw from the plug-in module
- Remove the cover of the service box of the processing unit
- Connect the processing unit with the plug-in module with the screw
- **The frontal screw has to be sealed again after finishing the installation of the processing unit!**



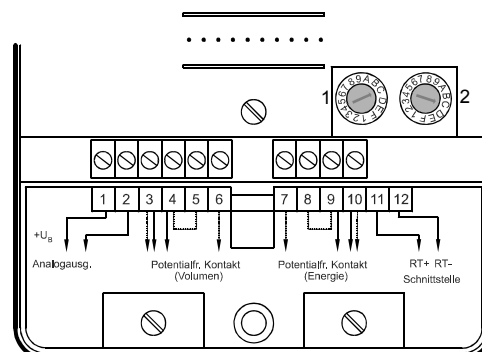
### Clamping on of the impulse outputs

#### Without Namur-wiring (wiring at the factory)

Plug clamp **7 and 8** for **impulse output energy** and plug clamp **3 and 4** for **impulse output volume**. The bridges between 4 and 5 resp. 8 and 9 have to be removed!

#### With Namur-wiring

Plug clamp **7 and 10** for **impulse output energy** and plug clamp **3 and 6** for the **impulse output volume**. The bridges between 4 and 5 resp. 8 and 9 are necessary!



### Potential free relay output

The potential free contacts are free usable relay contacts, over which the counting impulses are issued. The impulse output closes according to the impulse value (refer to the table) for the duration of 100 ms. If several impulses are issued during a measuring, the interval between 2 impulses is approx. 400 ms. Different query devices can be plugged to the contact outputs.

The user can define his connecting data into a wide range considering the nominal and limiting data of the contact. We point out that a possible rebounding of the contact has to be suppressed by the user.

The potential freedom ensures a trouble-free operation of the measuring device even with long wires. Basically the impulse contacts can be used with or without Namur-wiring.

### Impulse value of the contact outputs

processing unit type	energy [kWh/Impulse]	Volume [m <sup>3</sup> /Impulse]
<b>1 liter/impulse</b> (Q <sub>n</sub> 0,6-2,5 m <sup>3</sup> /h)	1	0,1
<b>10 liter/impulse</b> (Q <sub>n</sub> 3,5-15 m <sup>3</sup> /h)	10	0,1
<b>25 liter/impulse</b> (Q <sub>n</sub> 15-60 m <sup>3</sup> /h)	100	1
<b>250 liter/impulse</b> (Q <sub>n</sub> >60 m <sup>3</sup> /h)	100	1

### Technical data

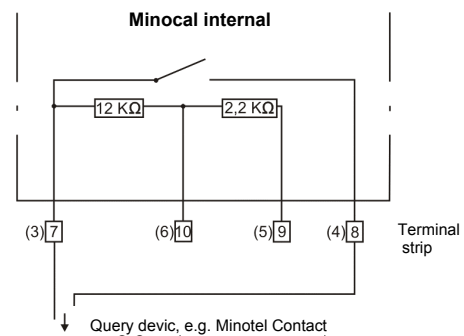
#### Contact without Namur-wiring (e. g. for Minotel Contact):

##### Nominal data

Switching current	150mA~/-
Switching voltage	75 V~/-
Switching capacity	5 VA
Contact isolation	10 <sup>10</sup> Ohm
Contact capacity	≤ 0,6 pF

##### Limiting data

Permanent limiting current (unplugged)	1 A
Electric strength (open contact)	140 V~/-



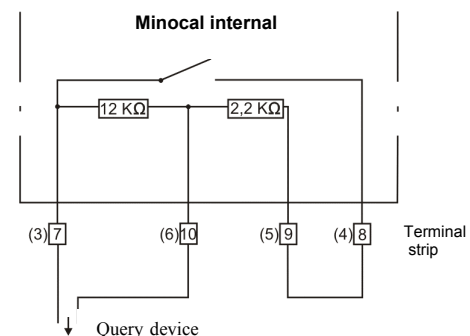
Plug **clamp 7 and 8** for the **impulse output energy** and plug **clamp 3 and 4** for the **impulse output volume**.

Remove the bridges between 4 and 5 resp. 8 and 9!

#### Contact with Namur wiring

Nominal data	
Open contact	12 kOhm
Closed contact	1,86 kOhm
Maximum voltage	30 V

Plug clamp 7 and 10 for impulse output energy, plug clamp 3 and 6 for the impulse output volume. The bridge between 4 and 5 resp. 8 and 9 is necessary!



#### Common data

Pulse duration (closed contact)	100 ms
Pulse break	400 ms
Rebounding time	0,5 ms