

REX[®] meter family

Installation instructions
IL42-4026J

General

This leaflet contains installation instructions for the solid-state, residential electricity meters in the REX family (referred to as "REX" within this IL) with the following form factors:

- self-contained: Forms 1S, 2S, and 12S
- transformer-rated: Forms 3S and 4S

All meters are calibrated and sealed before shipment. For proper installation, accuracy, and maximum life of the meters, use the following procedures.

▲ WARNING

Use authorized utility procedures to install and service metering equipment. Dangerous voltages are present. Equipment damage, personal injury, or death can result if safety procedures are not followed.

▲ WARNING

When using the REX meter with the internal service control switch, follow authorized utility procedures to reconnect electrical service. Property damage, personal injury, or death can result if proper safety precautions are not followed.

Installing the REX meter

- 1 Make sure the meter to be installed matches the service type (that is, form), current, capacity, voltage, and service socket.
- 2 Check the socket and verify that the wiring is correct. See "Internal wiring diagrams" on page 2 and "Installation wiring diagrams" on page 3 for wiring diagrams.
- 3 Make sure that the voltage disconnect or test link on the back of the meter is closed, if installed.
- 4 Position the meter so that all meter blades make contact with all socket jaws and then press the meter firmly into place.
- 5 Make sure the LCD turns on and the energy use indicator flashes if load is present.

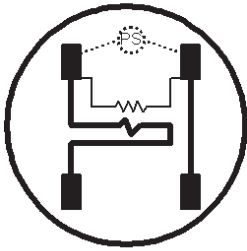
- 6 The LCD has two pulse arrows. The arrow pointing to the left indicates energy received; the arrow pointing to the right indicates energy delivered. For more information, see the technical manual for your meter.
- 7 Apply all seals and record any necessary information.

Internal wiring diagrams

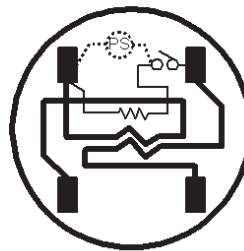
⚠ WARNING

Circuit closing devices must be used on current transformer secondaries. This applies to Form 3S and 4S meters. Dangerous voltages may be present if current transformer secondaries are open-circuited while the transformer is energized. Equipment damage, personal injury, or death can result if circuit-closing devices are not used.

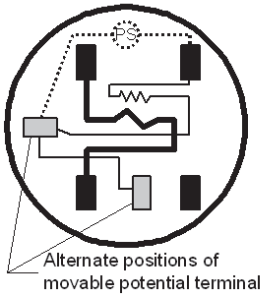
Form 1S



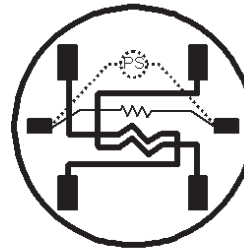
Form 2S



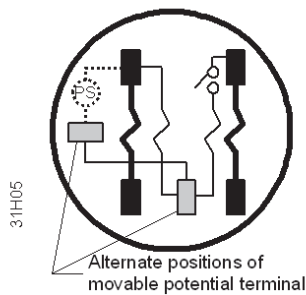
Form 3S



Form 4S



Form 12S

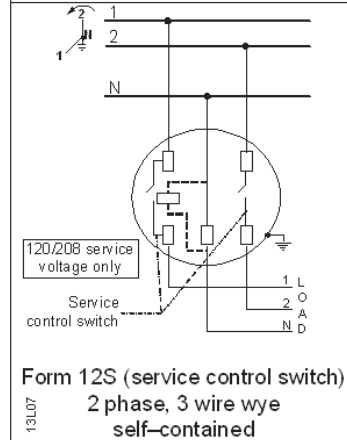
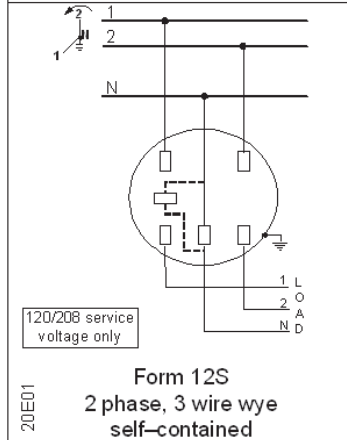
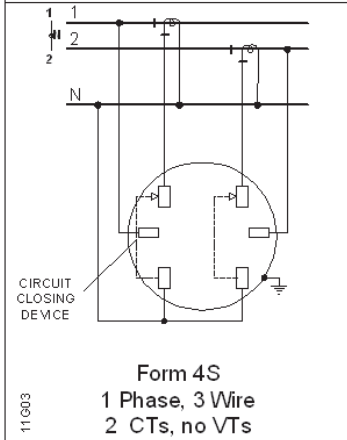
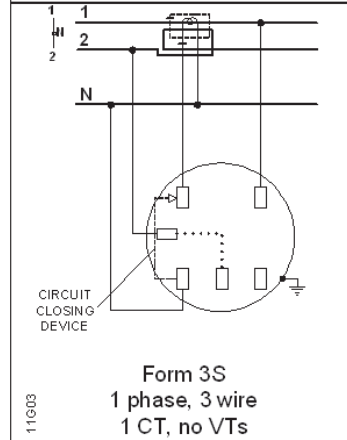
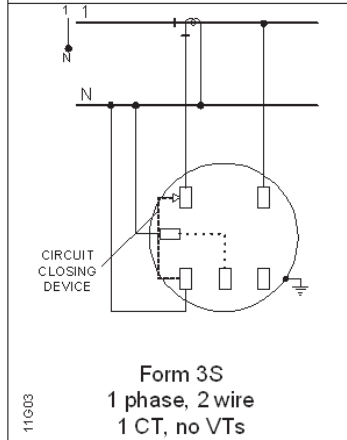
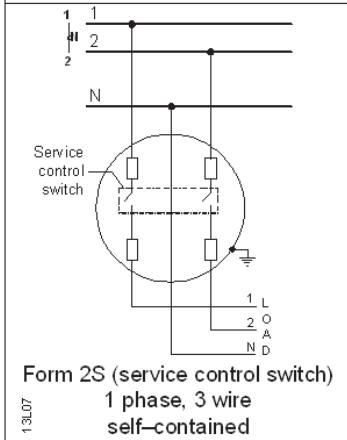
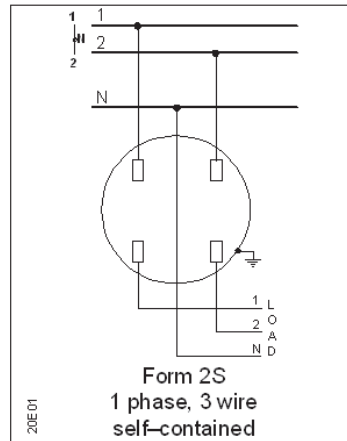
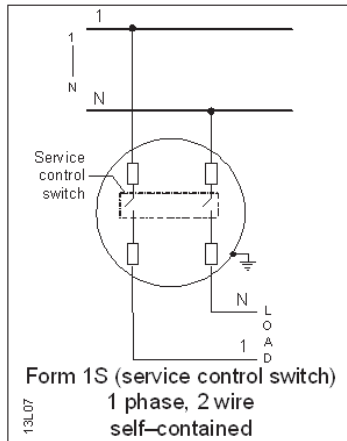
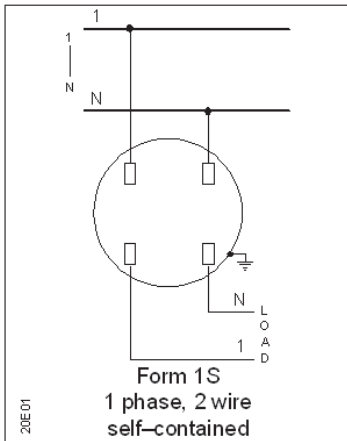


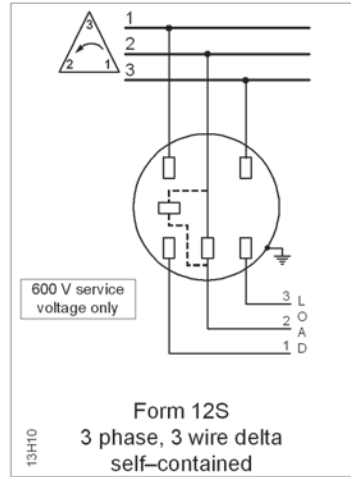
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Installation wiring diagrams

⚠ WARNING

Circuit closing devices must be used on current transformer secondaries. This applies to Forms 3S and 4S meters. Dangerous voltages are present if current transformer secondaries are open-circuited while the transformer is energized. Equipment damage, personal injury, or death can result if circuit-closing devices are not used.





FCC and Industry Canada Compliance

The radio module is manufactured directly onto the meter main circuit board, and the module is inserted into the electronic housing of the meter at manufacture. It has no user serviceable parts. For the most current REXUniversal meter compliance information, see PG42-1060.

User Information (Part 15.105): This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna
- increase the separation between the equipment and the receiver
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- consult the dealer or an experienced radio/TV technician for help

If you experience trouble with this equipment, please use the Return Material Authorization (RMA) feature available at the Online Customer Services at www.elstersolutions.com. Do not attempt to repair this equipment yourself unless you are replacing the entire module.

Compliance Statement (FCC Part 15.19 and Industry Canada): This device complies with part 15 of the FCC Rules and with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

Énoncé de Conformité: Cet appareil est conforme à la Partie 15 des règles de la FCC et aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'utilisation de cet appareil est soumise aux deux conditions suivantes : (1) Cet appareil ne doit pas provoquer d'interférences nocives et (2) cet appareil doit accepter toutes les interférences reçues notamment celles pouvant provoquer un fonctionnement intempestif de l'appareil.

Antenna Compliance: Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

REX2 meter: This radio transmitter has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

REX2 meter: Le présent émetteur radio a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

- PCTEL (MAXRAD) MFB9150 unity gain Fiberglass omnidirectional: 2.15 dBi
- PCTEL (MAXRAD) MFB9153 3dB Fiberglass omnidirectional: 5.15 dBi
- Antenex TRA9023P(NP) (white body) or Antenex TRAB9023P(NP) (black body): 3 dBi

REXUniversal: This radio transmitter has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

REXUniversal: Le présent émetteur radio a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

- On Board Printed 900 MHz Slot Antenna: 4.1 dBi
- On Board Printed 2.4 GHz PIFA Antenna: 3.8 dBi

Warning (Part 15.21): Changes or modifications not expressly approved by Elster could void the user's authority to operate the equipment.

RF Radiation Safety Guidelines: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated to provide a separation distance of at least 28 cm from all persons.

Directives de Sécurité de Radiofréquence: Cet équipement est conforme aux limites d'exposition aux radiations définies par la Commission Fédérale des Communications (FCC) pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance d'au moins 28 cm de séparation de toutes personnes

Collocation Statement: This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Déclaration de Co-localisation: Cet émetteur ne doit pas être co-localisé ou opérant en conjonction avec aucune autre antenne ou transmetteur.

Notes:

DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY

There are no understandings, agreements, representations, or warranties either express or implied, including warranties of merchantability or fitness for a particular purpose, other than those specifically set out by any existing contract between the parties. Any such contract states the entire obligation of the seller. The contents of this document shall not become part of or modify any prior existing agreement, commitment, or relationship.

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