



NOTICE OF APPROVAL

AVIS D'APPROBATION

Issued by statutory authority of the Minister of Industry
for:

Émis en vertu du pouvoir statutaire du ministre de
l'Industrie pour:

TYPE OF DEVICE

TYPE D'APPAREIL

Electricity Meters: Energy and Demand

Compteur d'électricité: Énergie et maximum

APPLICANT

REQUÉRANT

Power Measurement Limited
2195 Keating Cross Road
Saanichton, BC
V8M 2A5

MANUFACTURER

FABRICANT

Power Measurement Limited
2195 Keating Cross Road
Saanichton, BC
V8M 2A5

MODEL(S)/MODÈLE(S)

RATING/ CLASSEMENT

ION 7500
ION 7600

Wide ranging Voltage/Gamme étendue de tension:
60 to 347 volts (ac) (Line to Neutral)/60 à 347 volts (c.a.) (Phase neutre)
120 to 600 volts (ac) (Line to Line)/120 à 600 volts (c.a.) (Phase phase)
Frequency/fréquence: 60 Hz
0.1 to 20 amperes/ 0,1 à 20 ampères
2 element, 3 wire, delta/2 éléments, 3 fils, triangle
2 ½ element, 4 wire, wye/ 2½ éléments, 4 fils, étoile
3 element, 4 wire, wye/ 3 éléments, 4 fils, étoile

NOTE: This approval applies only to meters, the design, composition, construction and performance of which are, in every material respect, identical to that described in the material submitted, and that are typified by samples submitted by the applicant for evaluation for approval in accordance with sections 13 and 14 of the Electricity and Gas Inspection Regulations. The following is a summary of the principal features only.

SUMMARY DESCRIPTION:

This Notice of Approval applies equally to the ION 7500 and ION 7600 models. The difference between the model ION 7500 and the model ION 7600 is that the ION 7600 has additional power quality features as compared to the model ION 7500.

The meter is a solid state, four (4) quadrant, bi-directional, multi-function polyphase meter. The 7500/7600 ION is approved as a panel meter.

The meter is approved for bi-directional and four (4) quadrant energy metering

- S kW•h
- S kvar•h
- S kVA•h
- S V²•h and
- S I²•h

The meter is approved for bi-directional block interval, sliding window, and thermal demand metering

- S kW
- S kvar and
- S kVA.

The meter is approved for time-of-use metering.

The meter is approved for initiating energy pulses outputs from up to four (4) Form A or three (3) Form C outputs.

REMARQUE: Cette approbation ne vise que les compteurs dont la conception, la composition, la construction et le rendement sont identiques, en tout point, à ceux qui sont décrits dans la documentation reçue et pour lesquels des échantillons représentatifs ont été fournis par le requérant aux fins d'évaluation, conformément aux articles 13 et 14 du Règlement sur l'inspection de l'électricité et du gaz. Ce qui suit est une brève description de leurs principales caractéristiques.

DESCRIPTION SOMMAIRE:

Le présent avis d'approbation vise les modèles ION 7500 et ION 7600. Le modèle ION 7600 comporte plus de caractéristiques de puissance que le ION 7500, ce qui permet de les distinguer.

Il s'agit d'un compteur polyphasé multi-fonctions bidirectionnel à semi-conducteurs, quatre (4) quadrants. Les compteurs de modèle 7500/7600 ION sont approuvés comme appareil de tableau.

Le compteur est approuvé pour la mesure d'énergie bidirectionnelle, dans les quatre (4) cadrans

- S kW•h
- S kvar•h
- S kVA•h
- S V²•h et
- S I²•h

Le compteur est approuvé pour la mesure de maximum thermique, à intervalle d'intégration et à fenêtre mobile

- S kW
- S kvar et
- S kVA

Le compteur est approuvé pour la mesure selon le temps d'utilisation.

Le compteur est approuvé pour générer des impulsions de sortie à partir de quatre (4) sorties de forme A ou de trois (3) sorties de forme C au plus.

The ION 7500 and ION 7600 are approved for line loss compensation (LLC) and transformer loss compensation (TLC).

The ION 7500 and ION 7600 perform TLC and LLC in exactly the same manner.

PHYSICAL DESCRIPTION

The meter incorporates a graphical LCD display, four (4) navigation buttons, a program and an escape button all located on the front panel. In addition there are five (5) softkey buttons located directly under the LCD.

The meter is approved to be used with an internal modem.

The meter has three (3) LED's located on the front panel. The top (green) shows that power is being delivered to the meter. The middle green LED pulses for every 1.8 kW•h. The bottom red LED is user programmable and expected for alarm notification purpose.

The rear panel has ten (10) LEDs used to show that the communication channels are operating properly and as programmed.

PROGRAMMING

The meter can be programmed (configured) either via the front display and keypad or via commands sent to any communications port.

Before the meter can communicate with a power-monitoring network, the meter has to be set up through the front panel.

Programming (enabling/disabling/configuration) of the billing registers is only possible when the meter is unsealed.

Les modèles ION 7500 et le ION 7600 sont approuvés pour la compensation de pertes de lignes et de pertes de transformation.

Les modèles ION 7500 et ION 7600 effectuent la compensation de pertes de lignes et de pertes de transformation de la même façon.

DESCRIPTION MATÉRIELLE

Le panneau avant du compteur comporte un afficheur graphique à cristaux liquides, quatre touches de navigation, une touche de programmation et une touche d'échappement. L'appareil est également doté de cinq (5) touches de fonction programmables situées directement sous le dispositif d'affichage.

Le compteur est approuvé pour être utilisé avec un modem interne.

Le panneau avant du compteur comporte trois (3) diodes électroluminescentes : une verte, située dans le haut, indique que le compteur est alimenté; une verte, située au milieu, clignote à tous les 1,8 kW•h; une rouge, située au bas du panneau, peut être programmée par l'utilisateur et sert à avertir en cas d'alarme.

Le panneau arrière comporte dix (10) diodes électroluminescentes servant à indiquer que les canaux de communication fonctionnent correctement selon la programmation.

PROGRAMMATION

Le compteur peut être programmé (configuré) à l'aide du clavier et de l'afficheur avant ou au moyen de commandes envoyées à un port de communication.

Avant de pouvoir communiquer avec un réseau de mesure en permanence de la puissance électrique, le compteur doit être réglé au moyen du panneau avant.

La programmation (activé/désactivé/configuration) des indicateurs de facturation ne peut être effectuée que lorsque le compteur n'est pas scellé.

Time-of-use programming includes four rates (A,B,C,D) weekdays, weekends, holidays. Programming includes up to four (4) seasons.

SEALING

An added security feature is performed by means of software prior to the meter being put in service and after verification or reverification.

THEORY OF OPERATION

The meter utilizes a 32-bit microprocessor and DSP technology to perform the metering functions.

The voltage and current inputs are digitally sampled at a rate of 128 samples per cycle on the model 7500 ION and at a rate of 256 samples per cycle on the model 7600 ION. Digital signal processing and numerical calculations are performed continuously on a half (1/2) cycle by half (1/2) cycle basis and second by second basis.

COMMUNICATIONS

The meter incorporates the following simultaneous/concurrent communication ports as follows;

- S one RS-232/RS-485 communication port;
- S one RS-485 internal modem communication port;
- S one Infrared IRDA communication port (front panel);
- S one internal modem communication port; and
- S one Ethernet communication port.

MODES OF OPERATION

Normal Operating Mode

This is the default mode of operation in that it is activated when power is supplied to the meter.

La programmation selon le temps d'utilisation comprend quatre taux (A, B, C, D) la semaine, la fin de semaine et les jours fériés. La programmation comporte quatre saisons au plus.

SCELLAGE

Un autre dispositif de sécurité est ajouté à l'aide d'un logiciel avant la mise en service du compteur et après la vérification ou la revérification.

PRINCIPE DE FONCTIONNEMENT

Les fonctions métrologiques du compteur sont effectuées à partir d'un microprocesseur de 32 bits et par traitement numérique des signaux.

Le modèle 7500 ION fait appel à l'échantillonnage numérique pour recueillir à chaque cycle 128 échantillons provenant de l'entrée de tension et de courant alors que le 7600 ION en recueille 256. Le traitement numérique des signaux et les calculs numériques sont effectués en continu à tous les demi-cycles et à toutes les secondes.

COMMUNICATIONS

Le compteur comporte les ports de communication simultanés/concurrents suivants :

- S un port de communication RS-232/RS-485;
- S un port de modem interne RS-485;
- S un port infrarouge IRDA (panneau avant);
- S un port de communication de modem interne;
- S un port de communication Ethernet.

MODES DE FONCTIONNEMENT

Mode normal

Il s'agit du mode de fonctionnement qui est activé par défaut lorsque le compteur est mis sous tension.

Test Mode

The test mode can only be accessed by means of PEGASYS software. Seperate registers are used for all billing functions and all test mode registers are set to zero when the test mode is exited via software.

DISPLAY and INDICATORS

Local display of 7500/7600 ION register values is accomplished via a programmable LCD display. The number of registers that are displayed and the order in which they appear is programmable and set at the factory or by the owner prior to meter sealing.

SPECIFICATIONS

Operating Temperature: -20°C to +70°C

Firmware: Model 7500: V204, V231
Model 7600: V206, V231

REVISION

Rev. 1

The purpose of the revision 1 was to add the firmware version V206 for the model 7600. This revision also includes Line and Transformer Loss compensation.

Rev. 2

The purpose of revision 2 is to include firmware version 231 and to include 2 ½ element metering. The addition of line loss compensation and transformer loss compensation for the model 7500. The Approval also includes an optional Analog/Digital I/O expansion card.

Mode d'essai

Seul le logiciel PEGASYS permet l'accès au mode d'essai. Des indicateurs séparés sont utilisés pour les fonctions de facturation et tous les indicateurs en mode d'essai sont mis à zéro lorsque le logiciel est utilisé pour sortir du mode d'essai.

AFFICHEURS et VOYANTS

L'affichage local des valeurs d'enregistrement des modèles 7500/7600 ION peut être effectué à l'aide d'un afficheur à cristaux liquides programmable. Le nombre d'indicateurs affichés ainsi que leur ordre d'apparition peuvent être programmés. La programmation est effectuée à l'usine ou encore par le propriétaire avant le scellage du compteur.

CARACTÉRISTIQUES

Plage de températures de service : -20 °C à +70 °C

Microprogramme : modèle 7500: V204, V231
modèle 7600: V206, V231

RÉVISION

Rév. 1

La révision 1 visait à ajouté la version V206 du microprogramme pour le modèle 7600. Cette révision vise également à inclure la compensation pour les pertes de lignes et les pertes de transformation.

Rév. 2

La révision 2 vise à inclure la version 231 du microprogramme et à inclure la configuration 2 ½ éléments. L'ajout de la compensation pour les pertes de lignes et les pertes de transformation pour le modèle 7500. Cette révision vise également à inclure une carte d'expansion optionnel analogue/digital d'entrée/sortie.

EVALUATED BY

Fred Bissagar, Original, Rev. 1 and Rev. 2
 Complex Approval Examiner
 Tel: (613) 941-4610
 Fax: (613) 952-1754

ÉVALUÉ PAR

Fred Bissagar, original, Rév. 1 et Rév. 2
 Examineur d'approbation complexes
 Tél (613) 952-4610
 Fax: (613) 952-1754

NAMEPLATE AND MARKINGS

PLAQUE SIGNALÉTIQUE ET MARQUAGES

V ₁	V ₂	V ₃	V ₄	V _{ref}	I ₁₁	I ₁₂	I ₂₁	I ₂₂	I ₃₁	I ₃₂	I ₄₁	I ₄₂	I ₅₁	I ₅₂
3~ VOLTAGE INPUTS					3~ CURRENT INPUTS									
POWER MEASUREMENT TYPE: <input type="text"/> <small>Subfunction/Wavelength / without Meter</small> SERIAL NUMBER: <input type="text"/> MODEL NO.: <input type="text"/> CAL DATE: <input type="text"/> POWER SUPPLY: <input type="text"/> CURRENT INPUTS: <input type="text"/> VOLTAGE INPUTS: <input type="text"/> MAC ADDRESS: <input type="text"/> VTR: <input type="text"/> :1 FREQ.: <input type="text"/> CTR: <input type="text"/> TA: <input type="text"/> PK1: <input type="text"/> CA: <input type="text"/> MULT BY: <input type="text"/> IQ: <input type="text"/> OPERATING TEMP: <input type="text"/> MTC: <input type="text"/> W: <input type="text"/>					DANGER MORE THAN ONE LIVE CIRCUIT - SEE OR QRM M 3-DV EXPOSURE: SEE EQUIPEMENT INFERIEUR FUSELERS CIRCUIT'S SOUS TENSION, VOIR LE SCHEMA HAZARDOUS VOLTAGE CAN CAUSE SHOCK, BURNS, OR DEATH 1) DISCONNECT AND LOCKUP ALL POWER SOURCES AND 2) SHOCK ALL CURRENT TRANSFORMER SECONDARIES BEFORE RESUMING HIPOT / DIELECTRIC TEST CAUTIONS DO NOT HIPOT / DIELECTRIC TEST THE DIGITAL INPUTS, DIGITAL OUTPUTS, OR COMBINATION KEYS TERMINALS CURRENT AND VOLTAGE TERMINALS: MAXIMUM 3250V - FOR 1 INFINITE RELAY TERMINALS: MAXIMUM 2000V - FOR 1 INFINITE POWER SUPPLY INPUTS - REFER TO INSTALLATION GUIDE This device complies with Part 15 of the FCC Rules. 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. UL LISTED DIGITAL POWER METER ON 150V SF6000 CE KON U.S. PATENT 7,527,827; 7,527,828; 7,527,829; 7,527,830; 7,527,831; 7,527,832; 7,527,833; 7,527,834; 7,527,835; 7,527,836; 7,527,837; 7,527,838; 7,527,839; 7,527,840; 7,527,841; 7,527,842; 7,527,843; 7,527,844; 7,527,845; 7,527,846; 7,527,847; 7,527,848; 7,527,849; 7,527,850; 7,527,851; 7,527,852; 7,527,853; 7,527,854; 7,527,855; 7,527,856; 7,527,857; 7,527,858; 7,527,859; 7,527,860; 7,527,861; 7,527,862; 7,527,863; 7,527,864; 7,527,865; 7,527,866; 7,527,867; 7,527,868; 7,527,869; 7,527,870; 7,527,871; 7,527,872; 7,527,873; 7,527,874; 7,527,875; 7,527,876; 7,527,877; 7,527,878; 7,527,879; 7,527,880; 7,527,881; 7,527,882; 7,527,883; 7,527,884; 7,527,885; 7,527,886; 7,527,887; 7,527,888; 7,527,889; 7,527,890; 7,527,891; 7,527,892; 7,527,893; 7,527,894; 7,527,895; 7,527,896; 7,527,897; 7,527,898; 7,527,899; 7,527,900; 7,527,901; 7,527,902; 7,527,903; 7,527,904; 7,527,905; 7,527,906; 7,527,907; 7,527,908; 7,527,909; 7,527,910; 7,527,911; 7,527,912; 7,527,913; 7,527,914; 7,527,915; 7,527,916; 7,527,917; 7,527,918; 7,527,919; 7,527,920; 7,527,921; 7,527,922; 7,527,923; 7,527,924; 7,527,925; 7,527,926; 7,527,927; 7,527,928; 7,527,929; 7,527,930; 7,527,931; 7,527,932; 7,527,933; 7,527,934; 7,527,935; 7,527,936; 7,527,937; 7,527,938; 7,527,939; 7,527,940; 7,527,941; 7,527,942; 7,527,943; 7,527,944; 7,527,945; 7,527,946; 7,527,947; 7,527,948; 7,527,949; 7,527,950; 7,527,951; 7,527,952; 7,527,953; 7,527,954; 7,527,955; 7,527,956; 7,527,957; 7,527,958; 7,527,959; 7,527,960; 7,527,961; 7,527,962; 7,527,963; 7,527,964; 7,527,965; 7,527,966; 7,527,967; 7,527,968; 7,527,969; 7,527,970; 7,527,971; 7,527,972; 7,527,973; 7,527,974; 7,527,975; 7,527,976; 7,527,977; 7,527,978; 7,527,979; 7,527,980; 7,527,981; 7,527,982; 7,527,983; 7,527,984; 7,527,985; 7,527,986; 7,527,987; 7,527,988; 7,527,989; 7,527,990; 7,527,991; 7,527,992; 7,527,993; 7,527,994; 7,527,995; 7,527,996; 7,527,997; 7,527,998; 7,527,999; 7,528,000; 7,528,001; 7,528,002; 7,528,003; 7,528,004; 7,528,005; 7,528,006; 7,528,007; 7,528,008; 7,528,009; 7,528,010; 7,528,011; 7,528,012; 7,528,013; 7,528,014; 7,528,015; 7,528,016; 7,528,017; 7,528,018; 7,528,019; 7,528,020; 7,528,021; 7,528,022; 7,528,023; 7,528,024; 7,528,025; 7,528,026; 7,528,027; 7,528,028; 7,528,029; 7,528,030; 7,528,031; 7,528,032; 7,528,033; 7,528,034; 7,528,035; 7,528,036; 7,528,037; 7,528,038; 7,528,039; 7,528,040; 7,528,041; 7,528,042; 7,528,043; 7,528,044; 7,528,045; 7,528,046; 7,528,047; 7,528,048; 7,528,049; 7,528,050; 7,528,051; 7,528,052; 7,528,053; 7,528,054; 7,528,055; 7,528,056; 7,528,057; 7,528,058; 7,528,059; 7,528,060; 7,528,061; 7,528,062; 7,528,063; 7,528,064; 7,528,065; 7,528,066; 7,528,067; 7,528,068; 7,528,069; 7,528,070; 7,528,071; 7,528,072; 7,528,073; 7,528,074; 7,528,075; 7,528,076; 7,528,077; 7,528,078; 7,528,079; 7,528,080; 7,528,081; 7,528,082; 7,528,083; 7,528,084; 7,528,085; 7,528,086; 7,528,087; 7,528,088; 7,528,089; 7,528,090; 7,528,091; 7,528,092; 7,528,093; 7,528,094; 7,528,095; 7,528,096; 7,528,097; 7,528,098; 7,528,099; 7,528,100; 7,528,101; 7,528,102; 7,528,103; 7,528,104; 7,528,105; 7,528,106; 7,528,107; 7,528,108; 7,528,109; 7,528,110; 7,528,111; 7,528,112; 7,528,113; 7,528,114; 7,528,115; 7,528,116; 7,528,117; 7,528,118; 7,528,119; 7,528,120; 7,528,121; 7,528,122; 7,528,123; 7,528,124; 7,528,125; 7,528,126; 7,528,127; 7,528,128; 7,528,129; 7,528,130; 7,528,131; 7,528,132; 7,528,133; 7,528,134; 7,528,135; 7,528,136; 7,528,137; 7,528,138; 7,528,139; 7,528,140; 7,528,141; 7,528,142; 7,528,143; 7,528,144; 7,528,145; 7,528,146; 7,528,147; 7,528,148; 7,528,149; 7,528,150; 7,528,151; 7,528,152; 7,528,153; 7,528,154; 7,528,155; 7,528,156; 7,528,157; 7,528,158; 7,528,159; 7,528,160; 7,528,161; 7,528,162; 7,528,163; 7,528,164; 7,528,165; 7,528,166; 7,528,167; 7,528,168; 7,528,169; 7,528,170; 7,528,171; 7,528,172; 7,528,173; 7,528,174; 7,528,175; 7,528,176; 7,528,177; 7,528,178; 7,528,179; 7,528,180; 7,528,181; 7,528,182; 7,528,183; 7,528,184; 7,528,185; 7,528,186; 7,528,187; 7,528,188; 7,528,189; 7,528,190; 7,528,191; 7,528,192; 7,528,193; 7,528,194; 7,528,195; 7,528,196; 7,528,197; 7,528,198; 7,528,199; 7,528,200; 7,528,201; 7,528,202; 7,528,203; 7,528,204; 7,528,205; 7,528,206; 7,528,207; 7,528,208; 7,528,209; 7,528,210; 7,528,211; 7,528,212; 7,528,213; 7,528,214; 7,528,215; 7,528,216; 7,528,217; 7,528,218; 7,528,219; 7,528,220; 7,528,221; 7,528,222; 7,528,223; 7,528,224; 7,528,225; 7,528,226; 7,528,227; 7,528,228; 7,528,229; 7,528,230; 7,528,231; 7,528,232; 7,528,233; 7,528,234; 7,528,235; 7,528,236; 7,528,237; 7,528,238; 7,528,239; 7,528,240; 7,528,241; 7,528,242; 7,528,243; 7,528,244; 7,528,245; 7,528,246; 7,528,247; 7,528,248; 7,528,249; 7,528,250; 7,528,251; 7,528,252; 7,528,253; 7,528,254; 7,528,255; 7,528,256; 7,528,257; 7,528,258; 7,528,259; 7,528,260; 7,528,261; 7,528,262; 7,528,263; 7,528,264; 7,528,265; 7,528,266; 7,528,267; 7,528,268; 7,528,269; 7,528,270; 7,528,271; 7,528,272; 7,528,273; 7,528,274; 7,528,275; 7,528,276; 7,528,277; 7,528,278; 7,528,279; 7,528,280; 7,528,281; 7,528,282; 7,528,283; 7,528,284; 7,528,285; 7,528,286; 7,528,287; 7,528,288; 7,528,289; 7,528,290; 7,528,291; 7,528,292; 7,528,293; 7,528,294; 7,528,295; 7,528,296; 7,528,297; 7,528,298; 7,528,299; 7,528,300; 7,528,301; 7,528,302; 7,528,303; 7,528,304; 7,528,305; 7,528,306; 7,528,307; 7,528,308; 7,528,309; 7,528,310; 7,528,311; 7,528,312; 7,528,313; 7,528,314; 7,528,315; 7,528,316; 7,528,317; 7,528,318; 7,528,319; 7,528,320; 7,528,321; 7,528,322; 7,528,323; 7,528,324; 7,528,325; 7,528,326; 7,528,327; 7,528,328; 7,528,329; 7,528,330; 7,528,331; 7,528,332; 7,528,333; 7,528,334; 7,528,335; 7,528,336; 7,528,337; 7,528,338; 7,528,339; 7,528,340; 7,528,341; 7,528,342; 7,528,343; 7,528,344; 7,528,345; 7,528,346; 7,528,347; 7,528,348; 7,528,349; 7,528,350; 7,528,351; 7,528,352; 7,528,353; 7,528,354; 7,528,355; 7,528,356; 7,528,357; 7,528,358; 7,528,359; 7,528,360; 7,528,361; 7,528,362; 7,528,363; 7,528,364; 7,528,365; 7,528,366; 7,528,367; 7,528,368; 7,528,369; 7,528,370; 7,528,371; 7,528,372; 7,528,373; 7,528,374; 7,528,375; 7,528,376; 7,528,377; 7,528,378; 7,528,379; 7,528,380; 7,528,381; 7,528,382; 7,528,383; 7,528,384; 7,528,385; 7,528,386; 7,528,387; 7,528,388; 7,528,389; 7,528,390; 7,528,391; 7,528,392; 7,528,393; 7,528,394; 7,528,395; 7,528,396; 7,528,397; 7,528,398; 7,528,399; 7,528,400; 7,528,401; 7,528,402; 7,528,403; 7,528,404; 7,528,405; 7,528,406; 7,528,407; 7,528,408; 7,528,409; 7,528,410; 7,528,411; 7,528,412; 7,528,413; 7,528,414; 7,528,415; 7,528,416; 7,528,417; 7,528,418; 7,528,419; 7,528,420; 7,528,421; 7,528,422; 7,528,423; 7,528,424; 7,528,425; 7,528,426; 7,528,427; 7,528,428; 7,528,429; 7,528,430; 7,528,431; 7,528,432; 7,528,433; 7,528,434; 7,528,435; 7,528,436; 7,528,437; 7,528,438; 7,528,439; 7,528,440; 7,528,441; 7,528,442; 7,528,443; 7,528,444; 7,528,445; 7,528,446; 7,528,447; 7,528,448; 7,528,449; 7,528,450; 7,528,451; 7,528,452; 7,528,453; 7,528,454; 7,528,455; 7,528,456; 7,528,457; 7,528,458; 7,528,459; 7,528,460; 7,528,461; 7,528,462; 7,528,463; 7,528,464; 7,528,465; 7,528,466; 7,528,467; 7,528,468; 7,528,469; 7,528,470; 7,528,471; 7,528,472; 7,528,473; 7,528,474; 7,528,475; 7,528,476; 7,528,477; 7,528,478; 7,528,479; 7,528,480; 7,528,481; 7,528,482; 7,528,483; 7,528,484; 7,528,485; 7,528,486; 7,528,487; 7,528,488; 7,528,489; 7,528,490; 7,528,491; 7,528,492; 7,528,493; 7,528,494; 7,528,495; 7,528,496; 7,528,497; 7,528,498; 7,528,499; 7,528,500; 7,528,501; 7,528,502; 7,528,503; 7,528,504; 7,528,505; 7,528,506; 7,528,507; 7,528,508; 7,528,509; 7,528,510; 7,528,511; 7,528,512; 7,528,513; 7,528,514; 7,528,515; 7,528,516; 7,528,517; 7,528,518; 7,528,519; 7,528,520; 7,528,521; 7,528,522; 7,528,523; 7,528,524; 7,528,525; 7,528,526; 7,528,527; 7,528,528; 7,528,529; 7,528,530; 7,528,531; 7,528,532; 7,528,533; 7,528,534; 7,528,535; 7,528,536; 7,528,537; 7,528,538; 7,528,539; 7,528,540; 7,528,541; 7,528,542; 7,528,543; 7,528,544; 7,528,545; 7,528,546; 7,528,547; 7,528,548; 7,528,549; 7,528,550; 7,528,551; 7,528,552; 7,528,553; 7,528,554; 7,528,555; 7,528,556; 7,528,557; 7,528,558; 7,528,559; 7,528,560; 7,528,561; 7,528,562; 7,528,563; 7,528,564; 7,528,565; 7,528,566; 7,528,567; 7,528,568; 7,528,569; 7,528,570; 7,528,571; 7,528,572; 7,528,573; 7,528,574; 7,528,575; 7,528,576; 7,528,577; 7,528,578; 7,528,579; 7,528,580; 7,528,581; 7,528,582; 7,528,583; 7,528,584; 7,528,585; 7,528,586; 7,528,587; 7,528,588; 7,528,589; 7,528,590; 7,528,591; 7,528,592; 7,528,593; 7,528,594; 7,528,595; 7,528,596; 7,528,597; 7,528,598; 7,528,599; 7,528,600; 7,528,601; 7,528,602; 7,528,603; 7,528,604; 7,528,605; 7,528,606; 7,528,607; 7,528,608; 7,528,609; 7,528,610; 7,528,611; 7,528,612; 7,528,613; 7,528,614; 7,528,615; 7,528,616; 7,528,617; 7,528,618; 7,528,619; 7,528,620; 7,528,621; 7,528,622; 7,528,623; 7,528,624; 7,528,625; 7,528,626; 7,528,627; 7,528,628; 7,528,629; 7,528,630; 7,528,631; 7,528,632; 7,528,633; 7,528,634; 7,528,635; 7,528,636; 7,528,637; 7,528,638; 7,528,639; 7,528,640; 7,528,641; 7,528,642; 7,528,643; 7,528,644; 7,528,645; 7,528,646; 7,528,647; 7,528,648; 7,528,649; 7,528,650; 7,528,651; 7,528,652; 7,528,653; 7,528,654; 7,528,655; 7,528,656; 7,528,657; 7,528,658; 7,528,659; 7,528,660; 7,528,661; 7,528,662; 7,528,663; 7,528,664; 7,528,665; 7,528,666; 7,528,667; 7,528,668; 7,528,669; 7,528,670; 7,528,671; 7,528,672; 7,528,673; 7,528,674; 7,528,675; 7,528,676; 7,528,677; 7,528,678; 7,528,679; 7,528,680; 7,528,681; 7,528,682; 7,528,683; 7,528,684; 7,528,685; 7,528,686; 7,528,687; 7,528,688; 7,528,689; 7,528,690; 7,528,691; 7,528,692; 7,528,693; 7,528,694; 7,528,695; 7,528,696; 7,528,697; 7,528,698; 7,528,699; 7,528,700; 7,528,701; 7,528,702; 7,528,703; 7,528,704; 7,528,705; 7,528,706; 7,528,707; 7,528,708; 7,528,709; 7,528,710; 7,528,711; 7,528,712; 7,528,713; 7,528,714; 7,528,715; 7,528,716; 7,528,717; 7,528,718; 7,528,719; 7,528,720; 7,528,721; 7,528,722; 7,528,723; 7,528,724; 7,528,725; 7,528,726; 7,528,727; 7,528,728; 7,528,729; 7,528,730; 7,528,731; 7,528,732; 7,528,733; 7,528,734; 7,528,735; 7,528,736; 7,528,737; 7,528,738; 7,528,739; 7,528,740; 7,528,741; 7,528,742; 7,528,743; 7,528,744; 7,528,745; 7,528,746; 7,528,747; 7,528,748; 7,528,749; 7,528,750; 7,528,751; 7,528,752; 7,528,753; 7,528,754; 7,528,755; 7,528,756; 7,528,757; 7,528,758; 7,528,759; 7,528,760; 7,528,761; 7,528,762; 7,528,763; 7,528,764; 7,528,765; 7,528,766; 7,528,767; 7,528,768; 7,528,769; 7,528,770; 7,528,771; 7,528,772; 7,528,773; 7,528,774; 7,528,775; 7,528,776; 7,528,777; 7,528,778; 7,528,779; 7,528,780; 7,528,781; 7,528,782; 7,528,783; 7,528,784; 7,528,785; 7,528,786; 7,528,787; 7,528,788; 7,528,789; 7,528,790; 7,528,791; 7,528,792; 7,528,793; 7,528,794; 7,528,795; 7,528,796; 7,528,797; 7,528,798; 7,528,799; 7,528,800; 7,528,801; 7,528,802; 7,528,803; 7,528,804; 7,528,805; 7,528,806; 7,528,807; 7,528,808; 7,528,809; 7,528,810; 7,528,811; 7,528,812; 7,528,813; 7,528,814; 7,528,815; 7,528,816; 7,528,817; 7,528,818; 7,528,819; 7,528,820; 7,528,821; 7,528,822; 7,528,823; 7,528,824; 7,528,825; 7,528,826; 7,528,827; 7,528,828;									



APPROVAL:

The design, composition, construction and performance of the meter type(s) identified herein have been evaluated in accordance with regulations and specifications established under the Electricity and Gas Inspection Act. Approval is hereby granted accordingly pursuant to subsection 9(4) of the said Act.

The sealing, marking, installation, use and manner of use of meters are subject to inspection in accordance with regulations and specifications established under the Electricity and Gas Inspection Act. The sealing and marking requirements are set forth in specifications established pursuant to section 18 of the Electricity and Gas Inspection Regulations. Installation and use requirements are set forth in specifications established pursuant to section 12 of the Regulations. Verification of conformity is required in addition to this approval for all metering devices excepting instrument transformers. Inquiries regarding inspection and verification should be addressed to the local inspection office of Industry Canada.

Original signed by:

René Magnan, P. Eng
Director
Approval Services Laboratory

APPROBATION:

La conception, la composition, la construction et le rendement du(des) type(s) de compteurs identifié(s) ci-dessus, ayant fait l'objet d'une évaluation conformément au Règlement et aux prescriptions établis aux termes de la Loi sur l'inspection de l'électricité et du gaz, la présente approbation est accordée en application du paragraphe 9(4) de la dite Loi.

Le scellage, l'installation, le marquage, et l'utilisation des compteurs sont soumis à l'inspection conformément au Règlement et aux prescriptions établis aux termes de la Loi sur l'inspection de l'électricité et du gaz. Les exigences de scellage et de marquage sont définies dans les prescriptions établies en vertu de l'article 18 du Règlement sur l'inspection de l'électricité et du gaz. Les exigences d'installation et d'utilisation sont définies dans les prescriptions établies en vertu de l'article 12 du dit règlement. Sauf dans les cas des transformateurs de mesure, une vérification de conformité est requise. Toute question sur l'inspection et la vérification de conformité doit être adressée au bureau local d'Industrie Canada.

Copie authentique signée par:

René Magnan, ing.
Directeur
Laboratoire des services d'approbation

Date: **JAN 30 2003**

Web Site Address / Adresse du site internet:
<http://mc.ic.gc.ca>