Emeris PR6 and PR7

Domestic and commercial electronic pulse transmitters

Advanced bi-directional inductive technology

ELSTER

Emeris PR6 and PR7
## For Automatic Meter Reading and Network Monitoring

Highly robust Elster's PR6 and PR7 solid state pulsers form the bases of an ultra reliable Automatic Meter Reading (AMR) system. Combining the inductive technology of the PR6 and PR7 with Elster's TRC600 radios generates one of the industry's most advanced and reliable AMR installations. Suitable for both Walk-by and Fix Networks Emeris meets the AMR needs of today's progressive Water Utility.

Secure fitting
Screws are used on bulk meters for secure fitting.

Advanced AMR
Combine the PR6 and PR7 pulsers with Emeris TRC600 radios for a highly reliable Advanced AMR system.
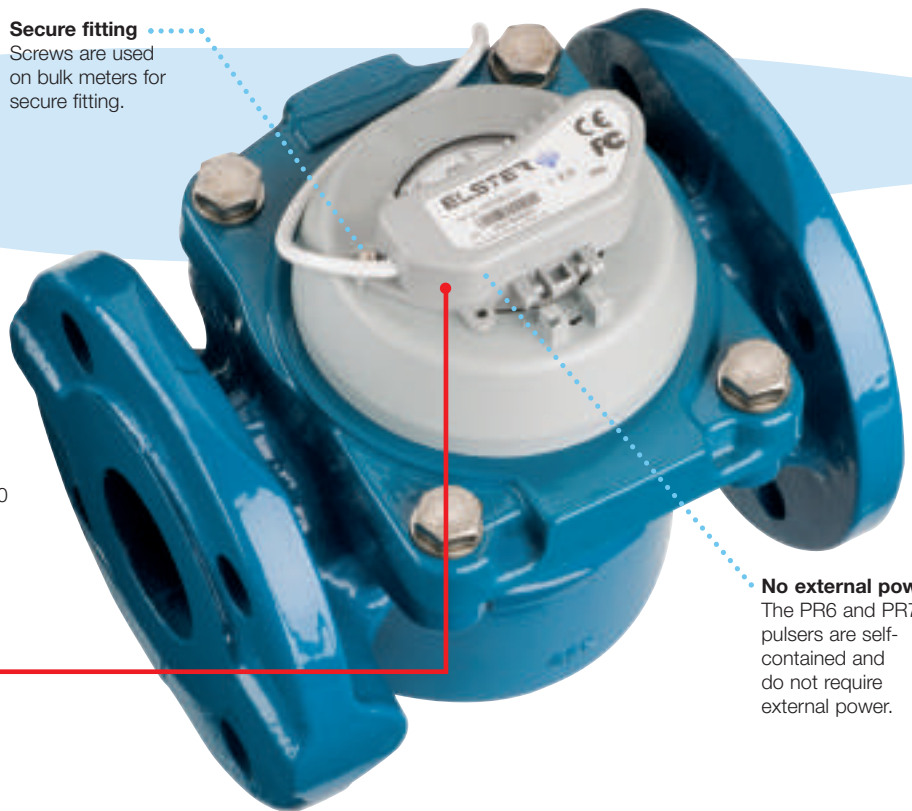
No external power
The PR6 and PR7 pulsers are self-contained and do not require external power.

Monitor network integrity

Do you need positive confirmation that there are no accidental (or intentional) backflows? Such flows can put the integrity of the water network at risk.

The PR6 and PR7 are bi-directional pulse transmitters for use with data loggers or Elster's TRC600 radios allowing monitoring of the water network system.

When they are used in a Fixed Network system, backflow alarms will be generated automatically.

There is no need to wait for the next meter visit, using the Emeris Advanced AMR system action can be taken immediately.

Data logging

Fully self-contained PR6 and PR7 pulsers do not need external power and are compatible with all major data loggers.

For residential meters, the battery life is designed to last for 12 to 14 years in normal use.

The high speed version of the PR7, designed to provide 1 litre/pulse from bulk meters has an excellent life expectancy in excess of 7 years in normal use.

Conformity to IP68
Robust IP68 design.

Easy and secure installation

PR6 and PR7 pulsers are both easy and quick to fit to pre-equipped Elster water meters. A simple push fit system is used with residential meters.

Both knurled thumbscrews and screws are used for bulk meters. Tamper evident labels can also be used to monitor attempts to remove the pulse units.

Ultra reliable Automatic Meter Reading

**PR6 pulser
with V210 counter**
A remote customer display can be obtained by adding a ScanCounter.

PR6 pulser with C4000 counter
Data logging can be done using industry standard loggers. Either uni-directional or bi-directional pulses can be logged.

ScanCounter
The ScanCounter is fully compatible with both PR6 and PR7 pulsers generating a touch read system with leak and tamper alarms.

Visible meter reading
The meter reading on the V210 volumetric meter is clearly visible after the PR6 pulser has been fitted.

Choosing an inductive pulse unit

Elster Meter		
V200 Q3 2.5		PR6
V200 Q3 4.0		PR6
V200 Q3 6.3		PR6
V200 Q3 10		PR7
V200 Q3 16		PR7
H4000P	40mm to 125mm	PR6
S2000P		PR6
H4000	40mm to 300mm	PR7
S2000		PR7

Currently there is one variant of the PR6 and three variants of the PR7.

Available variants

The inductive pulser range includes different K factor options. Each pulser also has two outputs, each of which gives the bi-directional pulse data in different ways.

Type	K factor	Primary output	Secondary output	Others	
PR6	1:1	F + R	C + RevAlarm	Tamper	–
PR7	1:10	F + R	C + RevAlarm	Tamper	High speed
PR7	10:10	F + R	C + RevAlarm	Tamper	–

Consult Elster for other options.

Understanding the outputs

PR6 and PR7 pulsers have outputs designed for every need. Each pulser has both primary and secondary outputs. The use of each output is highlighted below, together with diagrams showing examples of the pulse trains.

Primary output

The primary output has two wires: one carries pulses when the meter is operating in both forward and reverse directions; the other is a direction flag. This is suitable for use with bi-directional counters, Emeris TRC600 radios and with data loggers. Use it with Elster's ScanCounter (in bi-directional mode) in a fully bi-directional remote display and touch read system.

Secondary output

The secondary output also has two wires: one carries a pulse stream that compensates for any reverse flow; the other indicates compensation is in process. Use it with Elster's ScanCounter (in uni-directional mode) and with data loggers and TRC600 radios where backflow monitoring is not required.

Determining the pulse weight

The pulse weight is a combination of the PR6/PR7's K factor and the meter's pulse factor. In all cases the pulse weight is calculated by multiplying the meter's pulse factor by the pulser's K factor.

The Primary and Secondary K factors are printed on the pulser label.

The meter's pulse factor is found on the dial face or the surrounding shroud.

PR6   Designed for the V200 range of volumetric meters and H4000P and S2000P bulk meters.

Meter pulse factor	Pulser type	K factor	Primary output pulse weight litres/pulse	Secondary output pulse weight litres/pulse
PR6P:1	PR6	1:1	1	1
PR6P:10	PR6	1:1	10	10

PR7   Designed for the H4000 and S2000 range of bulk meters.

Meter pulse factor	Pulser type	K factor	Primary output pulse weight litres/pulse	Secondary output pulse weight litres/pulse
PR7P:1	PR7	*1:1	1	1
PR7P:1	PR7	*1:10	1	10
PR7P:1	PR7	*1:-	1	No output
PR7P:1	PR7	10:10	10	10
PR7P:10	PR7	*1:1	10	10
PR7P:10	PR7	10:10	100	100

Connection table

Self power types (2925M1221, 2925M1222 and 2925M1224)

Primary output		Secondary output		Others	
Yellow	White	Red	Green	Brown	Black
All pulses	D.flag	Compensated pulses	C.flag	Tamper	Common

External power type (2925M1223)

Primary output		Secondary output		Others	
Yellow	White	Red	Green	Brown	Black
All pulses	D.flag	Power input 3V dc	No connection	Tamper	Common

D.flag = Direction flag.   C.flag = Compensation flag

*The PR7 pulser is used on the H4000 bulk meter, as a result the pulse per litre high speed output is very quick. It should only be used with data loggers which are capable of registering 5ms pulses.

The Company's policy is one of continuous improvement and the right is reserved to modify the specifications without notice.

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