

PointSenz Transducers Frequently Asked Questions

Why does the PointSenz PCM 10-A have such an unusual base ?

The PCM 10-A has been designed for quick and easy installation into the Alstom (formerly GEC) and GRS points machines, the clip locates and the cover securely 'locks' the unit in place. For alternative locations/applications the PCM 10-P & SP1 provide the option to panel mount the unit.

Will the PointSenz measure both positive and negative current ?

Yes, the PointSenz transducer has the ability to measure both positive and negative current.

Why is the output of the PointSenz unit 12mA when there is zero current flowing through the transducer ?

Because the PointSenz transducer has a 4 to 20mA current output it is necessary that the transducer output be set to mid-way between 4 and 20mA for zero current measured to allow for both positive and negative current measurement.

Can the PointSenz be connected to a true differential data acquisition system or single ended data acquisition system.

The PointSenz transducer can be connected to both a true differential data acquisition and a single ended data acquisition systems since there is an internal connection inside the transducer between 0V and the -ve load.

Will the PointSenz measure AC current as well as DC ?

Yes the PointSenz will measure both AC & DC currents. It has however been optimized for DC operation since most railway points machines have DC motors fitted to them.

Why does the standard unit have such a short cable ?

Since it is not known how far the points machine will be from the customers data acquisition system, and this distance will vary from points machine to points machine, a waterproof connector is provided for linking the unit to any length of cable desired by the customer.

Why does the power supply have such a large tolerance ?

It is a requirement of the railway standard EN 50155.

Will I damage the unit if I connect it up wrong ?

Although we do not recommend connecting the pointSenz up incorrectly, it should not suffer any internal damage as the unit has been designed with reverse polarity protection built in.

Why should live conductors be switched off during installation of the PointSenz ?

This is particularly important in the rail industry where cables and conductors are usually many years old. The insulation may have become damaged and therefore as a safety precaution conductor to be measured should be turned off prior to installation.

Why is the PointSenz water resistant and rated to IP67 ?

Since points machines are generally installed at outside locations, it is possible that they may be subject to adverse weather conditions, flooding being one of these. It is not a requirement that the points machine will operate whilst flooded however it must operate once any floodwater has subsided. The PointSenz transducer (not SP1 version) has been designed to take the possibility of flooding in to account and is IP67 rated to prevent the ingress of water.

Can we buy the PointSenz without a connector or different connector fitted ?

Yes, The PCM 10-A & PCM 10-P both come fitted with a waterproof connector and short cable (0.25 meters in length), The PCM 10-P/SP1 has a 2 meter with a flying lead output to allow the customer to connect to different connectors or direct to a data acquisition system. If quantities permit it is also possible to customise the Pointsenz for different cable lengths and connectors. Please contact LEM for more information.