

Dear Customer,

you made a good selection buying this new *MMB* device. The product should be installed by a person specialising in the installation of such devices.

1. Safety Instructions

To install the electric cables, use existing cable ducts and looms, but do not run the cables parallel to ignition cables or parallel to cables leading to powerful consumers. Secure the cables with cable binders or adhesive tape.

- When you install the electric cables please also note:
- Do not run the cables over moving parts
- If the cables have to be run through drilled holes, protect the cables using grommets or rubber bushings etc.
- Ensure that the cables are not exposed to any tensile, compressive or shear forces.
- Use only a cable stripper to strip the cables. Adjust the cable stripper so that the individual strands are not damaged or cut off.New connections should be made only by using commercial crimp connectors.
- Crimped connections should be made only by using a cable crimping pliers.
- Insulate exposed leads in such a way that short circuits cannot occur.

Caution: Risk of short circuit through faulty junctions or damaged cables.

Please check all cables and connections for short circuits after you have finished the installation.

Short circuits in the electrical system can cause cable fires, battery explosions and damages to other electronic systems. Incorrect connections can lead to short circuits.

Use suitable tools for building-in the gauges and note the safety instructions of the tool manufacturers.

2. Technical Data

- Instrument height: approx. 85mm
- Diameter: 48 / 60 / 80 mm
- Weight: approx. 150g
- Wiring: M10x1 / M12x1 / M18
- Square: 1.8mm (0.0708 inch) 2.65mm (0.104 inch) Illuminating lamp: Bulb 12V/1.2W

3. Assembling to the vehicle

Before starting with the electric connections clamp the battery to disconnect it. Please note the safety instructions of item 1.

Remove the old speedometer, unscrew the speedometer drive cable and disconnect the wire for the lighting. The new speedometer should be assembled in a vibration-damped method.

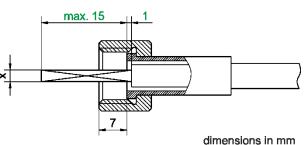
Please note the maximal allowed length of the drive cable square on the speedo input. (see illustration). If the drive cable square is too long, the speedo will be damaged. Fix the lock nut hand-tight.

The illumination lamp is of bipolar design and can be connected according to the vehicle's connection possibilities.

black – ground (-) red or grey – 12V (+)

Before start up connect the battery to the vehicle.

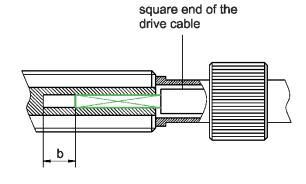
Pulsotronic-Anlagentechnik GmbH Geschäftsbereich: MMB Instrumente Neue Schichtstraße 7 D-09366 Niederdorf Tel: +49 (37296) 9383 570 Fax: +49 (37296) 9383 531 info@mmb-instrumente.de | www.mmb-instrumente.de



speedo input

drivecable -

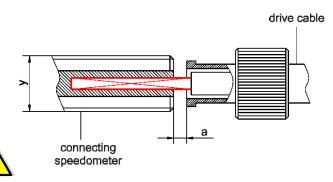
dimensions in m



clearance "b" necessary

WRONG

RIGHT



gap "a" is not allowed

4. Recycling notice

Please contact an authorised recycling company to dispose your wasted or inoperable devices properly.

Our products are manufactured with utmost care and they are in accordance with the relevant DIN-Standards (German Industrial Standards)

Pulsotronic GmbH & Co. KG is not liable for damages arising from improper handling.

Illuminating lamps are wearing parts and are excluded from warranty.