SP 4001 Assembly Instruction

1. Safety notes

1.1 Installation and startup
The rotary sensor must be installed by qualified personnel in consideration of all relevant safety regulations.

In case of unauthorized modifications, non-permitted usage or non-observance of installation instructions, the warranty and liability claims will be lost.

All personal protection measures must be taken before startup in case of a sensor defect or failure.

1.2 Electrical connections
The specified supply voltage is to be applied only at the terminals provided.

Non-observance of the pin configuration will result in destruction of the device and loss of warranty.

Please always check the connections carefully before turning on the system.

For a proper function the appropriate combination of male/female contact material is to be observed.

2. Installation

2.1 Terminal diagram

[Terminal diagram image]

Voltage divider free of load!
Wiper current
\( I_e \leq 1 \mu A \)

2.2 Output Signal

[Output signal graph]

3. Types

<table>
<thead>
<tr>
<th>Article Code</th>
<th>Resistance</th>
<th>Def. Electrical Angle</th>
<th>max. Voltage</th>
<th>Connector type</th>
<th>Output connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP 4001 101 001 001</td>
<td>1.2 kOhm</td>
<td>101°</td>
<td>77°</td>
<td>16 VDC</td>
<td>Delphi Metri Pack P/N 12162182</td>
</tr>
</tbody>
</table>

4. Installation Instructions:
Mount the sensor in such a way that the blade of the throttle body is solidly engaged by pressing the SP40 parallel down until the o-ring is fully embedded in bore hole (if necessary turn SP40 slightly to assist).

Bring SP40 into reference position .
Tighten screws with torque of 2,5 +/- 0,5 Nm.

To ensure proper sealing, presence and correct position of O-ring on the sensor has to be checked before assembly.

After disassembly of the sensor the o-ring must be replaced, otherwise the sealing function can not be guaranteed.
5. Dimensions

6. Mounting Interface:

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