10BASE-T1L SPE
SPE Media Switch
Sustainable implementation of Single Pair Ethernet

→ Conversion between 10 Mbit/s and 100 Mbit/s signals within Industrial Ethernet networks
→ Connecting SPE devices to RTE networks and merging IT and OT connectivity
→ PROFINET-IO Device & EtherNet/IP Adapter support for 10BASE-T1L and 100BASE-TX networks
→ Variation for IEC 63171-2 and IEC 63171-6 connectors
→ Compact design and reduced wiring
→ Supports cable length up to 1.000 m

One device - multiple applications

The SPE Media Switch enables the conversion of different speed grades within Industrial Ethernet networks. It translates between 100BASE-TX Fast Ethernet (100Mbit/s) and the 10Mbit/s long range Single Pair Ethernet standard 10BASE-T1L according to IEEE 802.3cg.

This creates multiple possible applications: The SPE Media Switch allows integrating new SPE devices, like sensors or actuators, into brown field installations using superordinate Real-Time-Ethernet protocols PROFINET or EtherNet/IP. Thus, it is a fast and efficient method to provide the PLC with additional sensor data from the field based on SPE technology within an existing network topology.

Vice versa, it is possible to connect legacy Fast Ethernet devices based to a superordinate SPE network. Here, the installation is focused on sustainability, in reusing the existing and mostly costly field devices into a new network installation based on SPE.

Furthermore, additional sensors can be added to existing machines without using their control network. So IoT functionality can be added independently by measuring extra parameters for further processing on higher levels in the automation pyramid to improve predictive maintenance use cases.

One device - multiple applications

Available in 2024
**Product information**

**Technical Data**

Integrate new SPE sensors in brownfield applications.

**Integration of legacy sensors in SPE networks.**

**Add IOT functionality to existing installations.**

<table>
<thead>
<tr>
<th>Technical Data</th>
<th>NS 90-RE-SPE</th>
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</thead>
<tbody>
<tr>
<td><strong>Operating Voltage</strong></td>
<td>24V</td>
</tr>
<tr>
<td><strong>Dimensions (L x W x H)</strong></td>
<td>94,1 x 25,2 x 85,5 mm</td>
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<tr>
<td><strong>Processor</strong></td>
<td>netX90</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>DIN rail</td>
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<tr>
<td><strong>Connectors</strong></td>
<td>SPE, Ethernet RJ45</td>
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</tbody>
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Note: All technical data may be changed without further notice.

→ SPE Media Switch  
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