Non-Contact Energy and Data Transmission

The system has a modular design for non-contact transmission of energy for powering up to 8 binary PNP sensors on rotating shafts, axles or tables.

The switching state of each sensor is transmitted over the air gap to the stationary component. The system works independently of the rotation speed, and transmission is reliable even under the harshest ambient conditions.

Since no mechanically contacting parts are used, this technology completely eliminates all service and maintenance procedures.

- No-slip rings necessary
- Intelligent, compact and noise-immune system: inductive, non-contact, wear-free
- Connects up to 8 sensors
- Integrated supply energy for the sensors
- Connect, turn on, process data

*Order as a set
Part number: RPEM 4502P-ST05
1 x Output sensor RPEM 4502P-ST and
1 x Connector BKS-S 96-PU-05 and
1 x Connector BKS-S 97-PU-05 (Connector with 5 m PUR cable)

For your electrical planning, please ask for the user’s guide!
### RPTM 4502P-S49
- **Transmitter:** 2 mm
- **Output sensor:** stationary
- **Power Supply:** 24 V DC, ±5%
- **Current:** ≤ 1.5 V, ≤ 30 mA per output, ≤ 700 mA, ≤ 50 µA
- **Temperature:** 0...+70 °C
- **Protection:** IP 67
- **Connectors:** BKS-S 82-00/BKS-S 91-00
- **Weight:** 755 g

### RPEM 4502P-ST*
- **Transmitter:** 2 mm
- **Output sensor:** stationary
- **Power Supply:** 24 V DC, 75 V DC
- **Current:** ≤ 160 mA, ≤ 160 mA
- **Temperature:** 0...+70 °C
- **Frequency:** 1000 Hz
- **Protection:** IP 67
- **Connectors:** BKS-S 08-CS-00
- **Weight:** 340 g

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**Plugs BKS 08-CS-00**
- for unused inputs
- (please order separately)
**Non-contacting inductive energy and analog signal transmission for applications where cables are not permitted**

The transmission of sensor signals from rotating machine members or from interchangeable tools often represents a difficult challenge for the designer. The same applies to the power supply for the sensors and actuators in such applications. Conventional approaches are usually based on contact- and wear-prone solutions such as slip rings or mechanical connections.

But electronic solutions are non-contacting, wear-free and are for the most part immune to contamination. Availability of a reliable and at the same time quick-disconnect link for power and data is indispensable in such circumstances. The Remote System from Balluff offers a wear-free, non-contacting alternative. This flexible solution approach with the option of radial or axial coupling gives the user a new range of freedom.

New to the system is transmission of up to 4 independent analog signals with a single Radial system. The greater level of power provided for the sensors makes it possible to connect different analog systems.

Non-contacting signal transmission from BAW inductive distance sensors or BIL magneto-inductive displacement sensors is no longer a problem. BTL linear displacement transducers with analog output can also be connected with no restrictions.

**Plugs BKS 08-CS-00**

for unused inputs

(please order separately)

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**Table: Technical Specifications**

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<th>Specification</th>
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<td>Supply voltage U_D incl. ripple</td>
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<td>Voltage drop U_d at I_c</td>
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<td>No-load current I_0 max.</td>
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<td>Off-state current I_r</td>
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<td>Measuring range V_in</td>
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<td>Material of sensing face</td>
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<td>Recommended connector</td>
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<tr>
<td>Weight</td>
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</tbody>
</table>

For your electrical planning, please ask for the user’s guide!
## Inductive Transmission Systems

### Power Remote Sensor

Radial type system for max. 4 analog signals 0...10 V DC

<table>
<thead>
<tr>
<th>Transmitter</th>
<th>Output sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 93 mm</td>
<td>93 x 70 x 45 mm</td>
</tr>
<tr>
<td>2 mm on shaft Ø 45 mm</td>
<td>stationary</td>
</tr>
</tbody>
</table>

### RNEM 4502-4V10-S4

- 2 mm ± 1 mm
- 24 V DC ± 5 %
- ≤ 1.5 V
- ≤ 800 mA
- ≤ 50 µA
- yes
- ≥ 1 kΩ
- 12 bits
- 4 x 0...10.65 V DC
- ≤ 10 ms
- 0...+70 °C
- IP 67
- PETP
- Connectors BKS-S 82-00 or BKS-S 91-00
- 650 g

### RNEM 4502-4V10-S49

- 2 mm ± 1 mm
- 24 V DC ± 5 %
- ≤ 1.5 V
- ≤ 800 mA
- ≤ 50 µA
- yes
- ≥ 1 kΩ
- 12 bits
- 4 x 0...10.65 V DC
- ≤ 10 ms
- 0...+70 °C
- IP 67
- PETP
- Connectors BKS-S 82-00 or BKS-S 91-00
- 650 g

**For connecting max. 4 analog sensors**

### Connectors

- BKS-S 82-00 or BKS-S 91-00
- BKS-S115-PU_-
- 650 g

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**Connectors**

- BKS-S 82-00 and BKS-S115

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**Connectors**

- BKS-S 82-00 or BKS-S 91-00
- BKS-S115-PU_-
- 650 g