

BALLUFF

Non-contact Analog Signal Transmission
... the new Radial Type Remote Systems



Non-contacting inductive energy and analog signal transmission for applications where cables are not permitted

Getting sensor signals from rotating machine parts or interchangeable tools is always a huge challenge for the designer. The same is true for supplying the sensors and actuators with power in such applications. Conventional approaches are usually based on contacting 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. Series BTL transducers with analog output can also be connected with no limitations.

Plugs BKS 08-CS-00
for unused inputs
(please order separately)



Housing size	
Type	
Transmission distance	
Mounting	



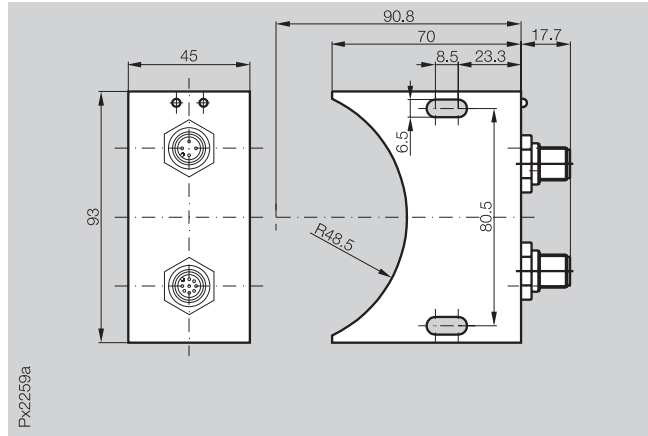
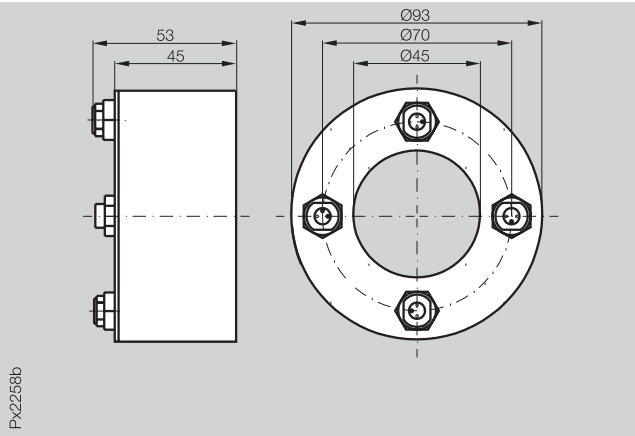
Transmitter	
Output sensor	
Assured transmission distance	
Supply voltage U_B incl. ripple	
Voltage drop U_d at I_a	
No-load supply current I_0 max.	
Off-state current I_f	
Short circuit protected	
Load resistance R_L (per output)	
Resolution	
Measuring range	Voltage input
	Voltage output
Radial offset	
Operating current (for sensors)	
Output voltage (for sensors)	
Rated insulation voltage U_i	
On-delay	
Ambient temperature range T_a	
Frequency of operating cycles f	
Function/power indicator	
Degree of protection per IEC 60529	
Housing material	
Material of sensing face	
Connection	
Recommended connector	
Weight	

For your electrical planning, please ask for the user's guide!

Ø 93
transmitter
2 mm
on shaft Ø 45 mm



93x70x45 mm
output sensor
stationary



RNTM 4502-4V10-S 49

RNEM 4502-4V10-S 4

2 mm ±1 mm

2 mm ±1 mm

24 V DC ±5 %

≤ 1.5 V

≤ 800 mA

≤ 50 µA

yes

yes

≥ 1 kΩ

12 bits

12 bits
4x0...10.65 V DC

4x0...10.65 V DC

±1 mm

±1 mm

180 mA

24 V DC

75 V DC

≤ 10 ms

0...+70 °C

0...+70 °C

250 Hz/channel

yes/yes

IP 67

IP 67

PETP

PETP

PETP

PETP

connector

connector

BKS-S 82-00 or BKS-S 91-00

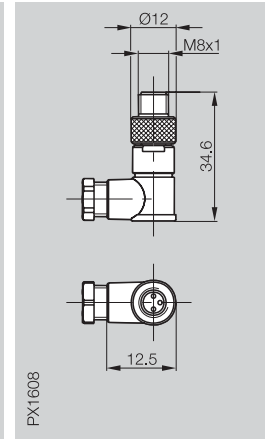
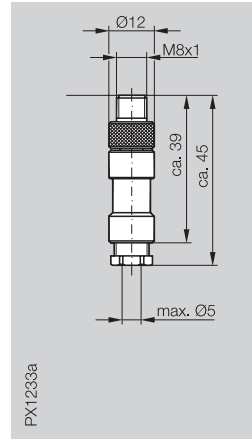
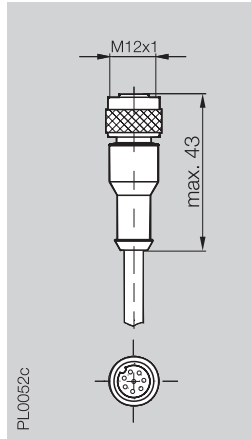
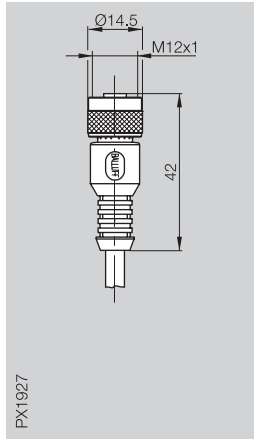
1x BKS-B 19-1-PU-__ and 1x BKS-S 115-PU-__

650 g

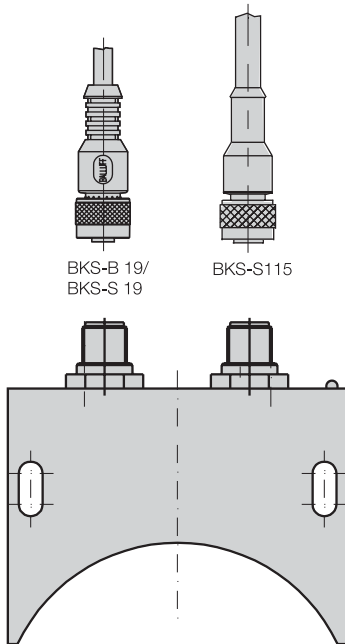
250 g

for connecting max. 4 analog sensors

Connector	BKS-B 19	BKS-S115-PU-__	BKS-S 82-00	BKS-S 91-00
Type	straight female	straight female	straight male	angle male
Application	output sensor RNEM 4502-... supply voltage	output sensor RNEM 4502-... analog output	transmitter RNTM 4502-... sensor connection	transmitter RNTM 4502-... sensor connection

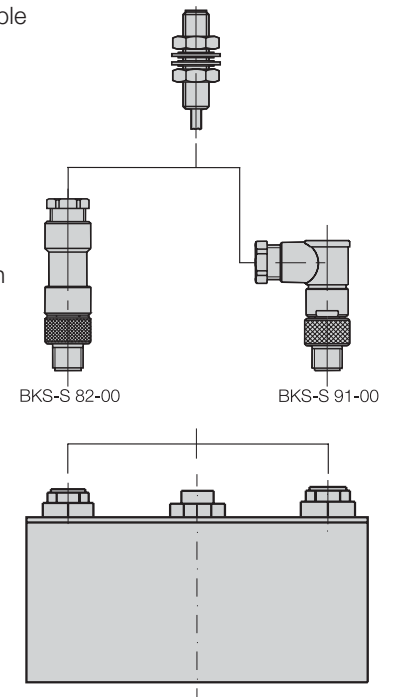


no LED, NC or NO	BKS-B 19-1-__	BKS-S115-PU-__	BKS-S 82-00	BKS-S 91-00
no LED, complementary	BKS-B 19-4-__			
Manufacturer	Balluff	Lumberg	Binder	Binder
Supply voltage U_B	10...30 V DC	10...55 V DC	10...30 V DC	10...30 V DC
Cable	molded-on PVC/PUR	molded-on PUR	for user assembly	for user assembly
No. of wires × cross-section	3×0.34 mm ² /4×0.25 mm ²	8×0.25 mm ²	3 × max. 0.25 mm ²	3 × 0.25 mm ²
Cable diameter			max. Ø 5 mm	max. Ø 5 mm
Connection			solder	solder
Degree of protection per IEC 60529	IP 67	IP 67	IP 67	IP 67
Ambient temperature range T_a	-25...+85 °C	-20...+80 °C	-40...+85 °C	-40...+85 °C



Sensor with cable

Connector for user assembly with connection thread



Balluff GmbH
 Schurwaldstrasse 9
 73765 Neuhausen a.d.F.
 Germany
 Phone +49 7158 173-0
 Fax +49 7158 5010
 balluff@balluff.de
 www.balluff.com