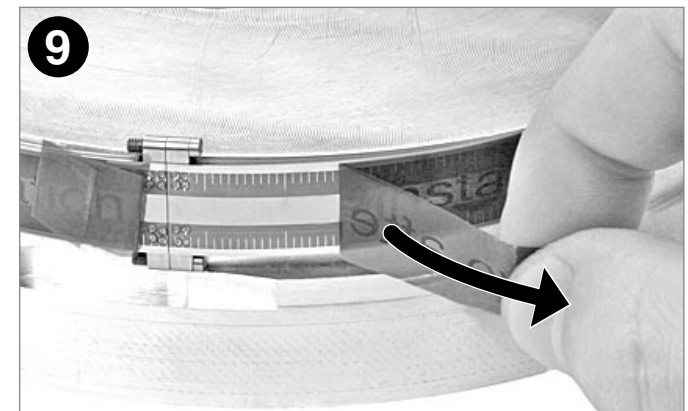
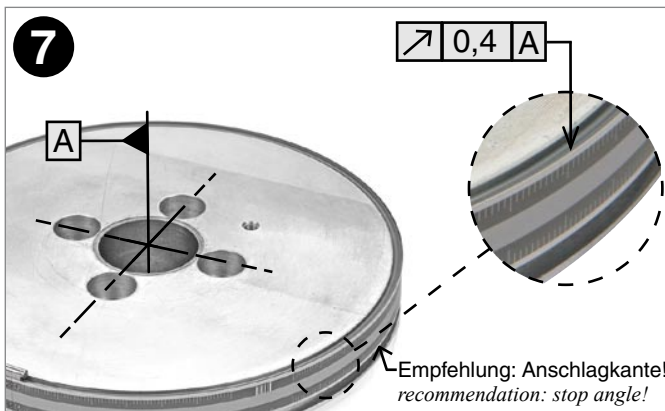
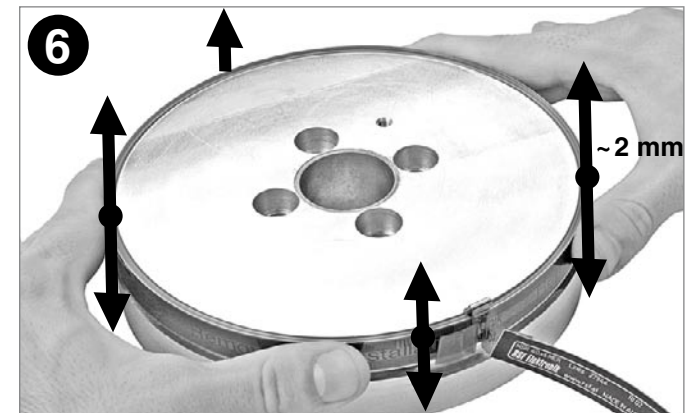
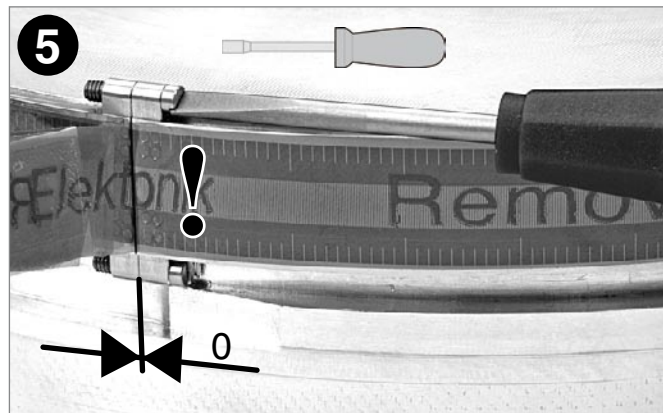
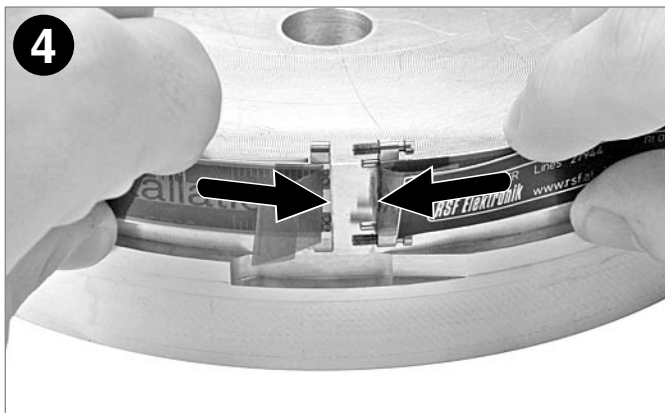
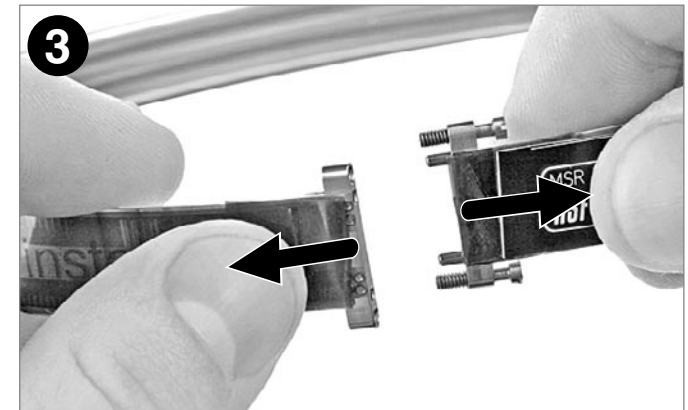
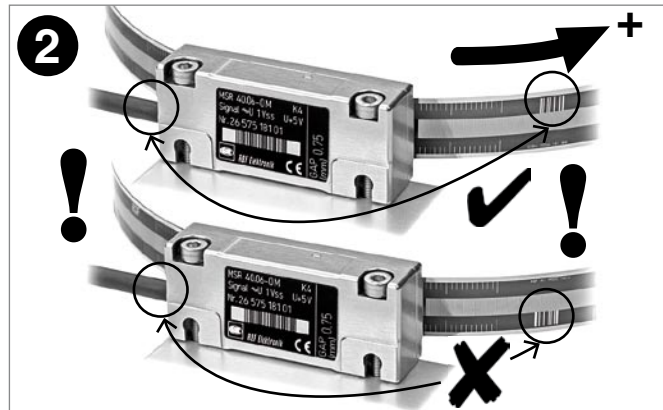
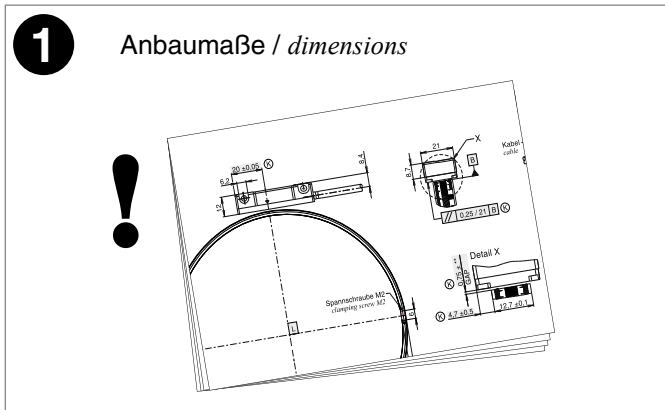
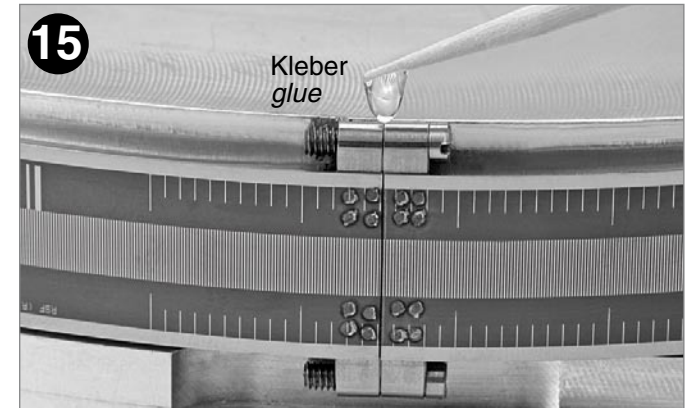
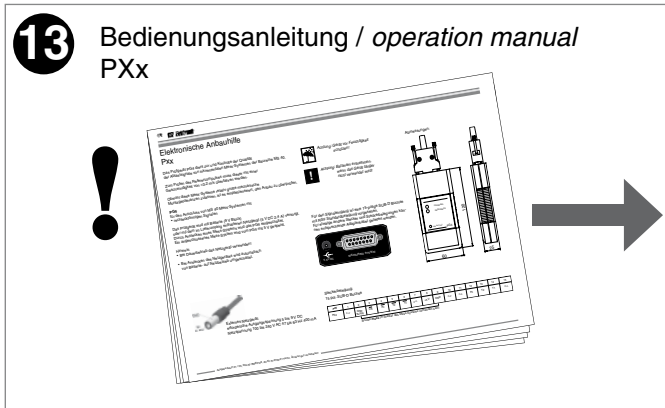
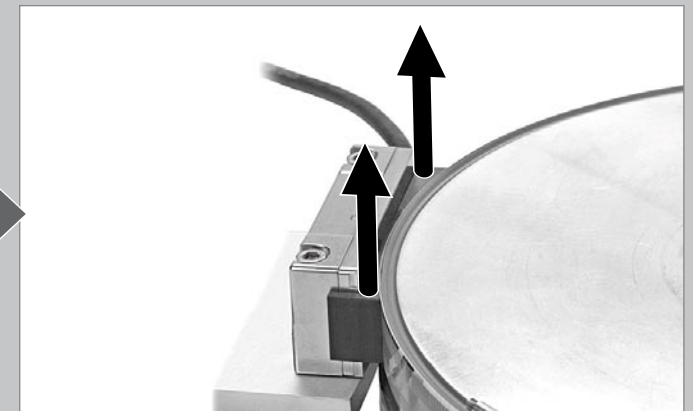
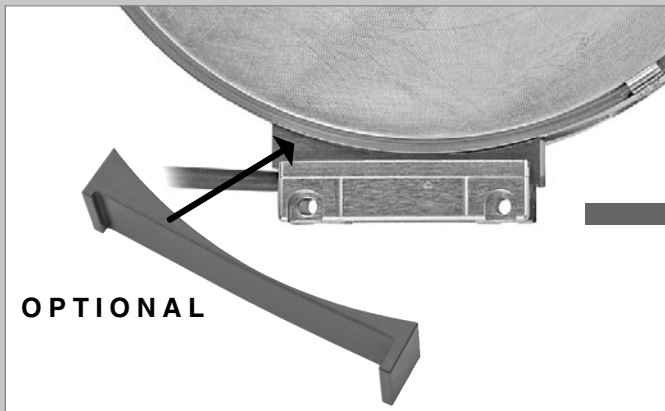
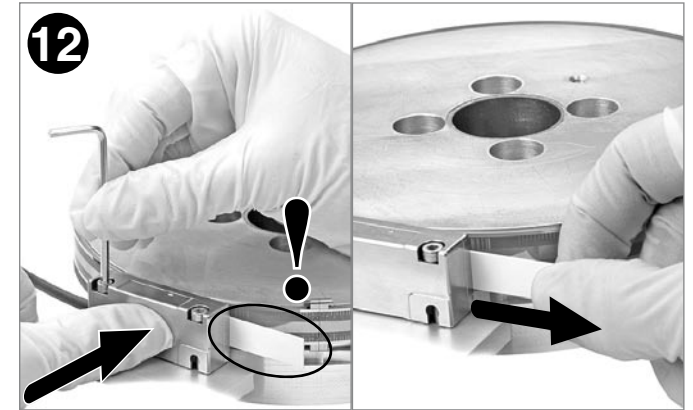
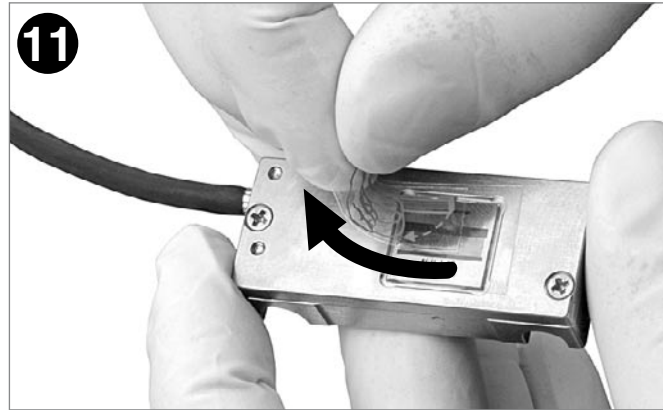
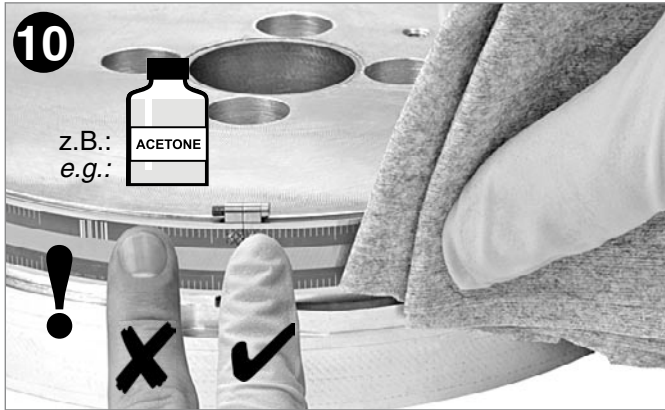
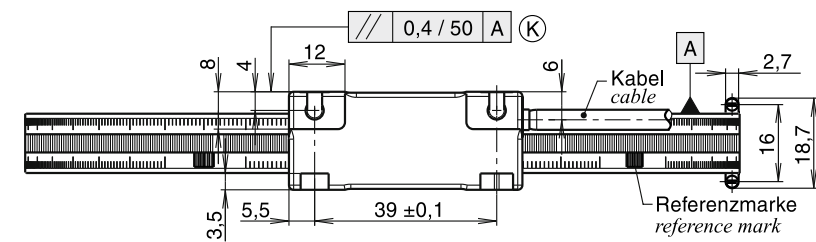
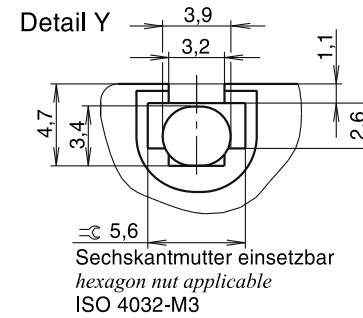
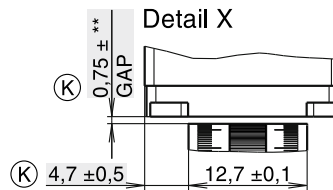
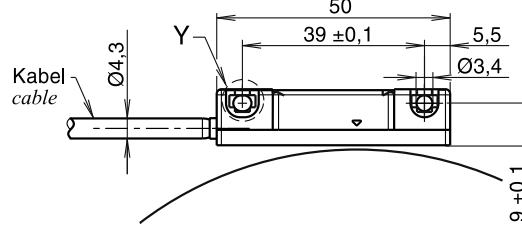
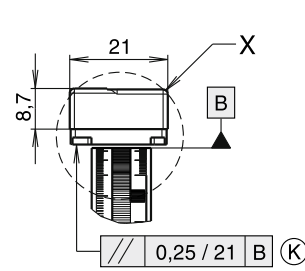
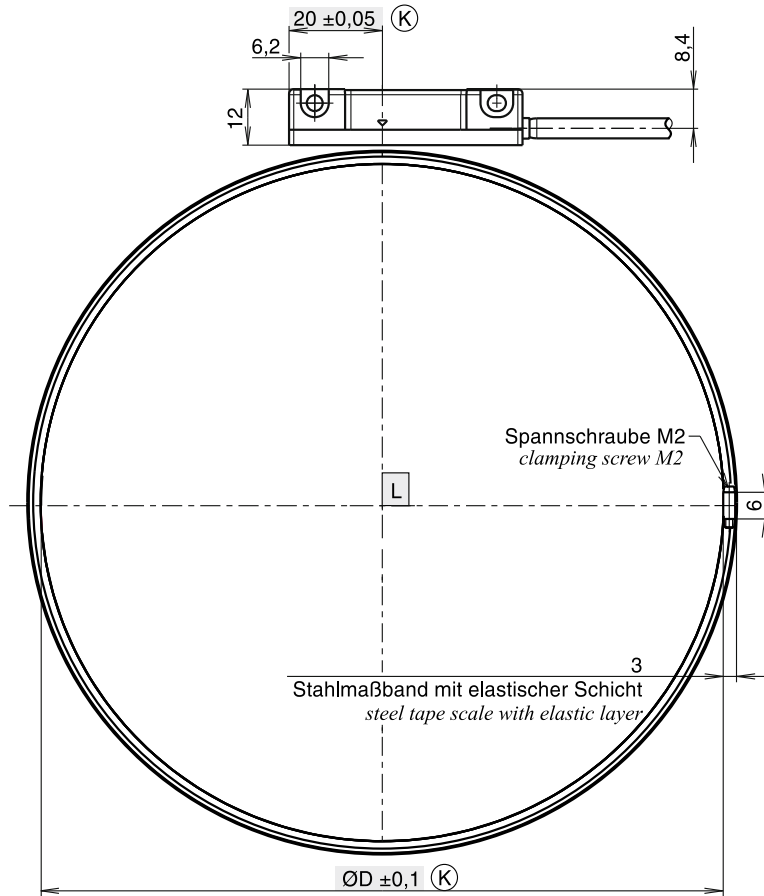
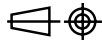


# Montageanleitung / *Mounting Instruction*

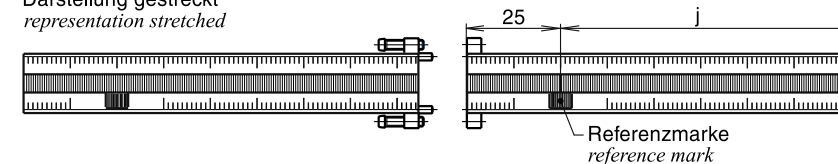
## MSR 40 MER Stahlmaßband mit elastischer Schicht und Spansschloss/*steel tape scale with elastic layer and clamping element*







Darstellung gestreckt  
representation stretched



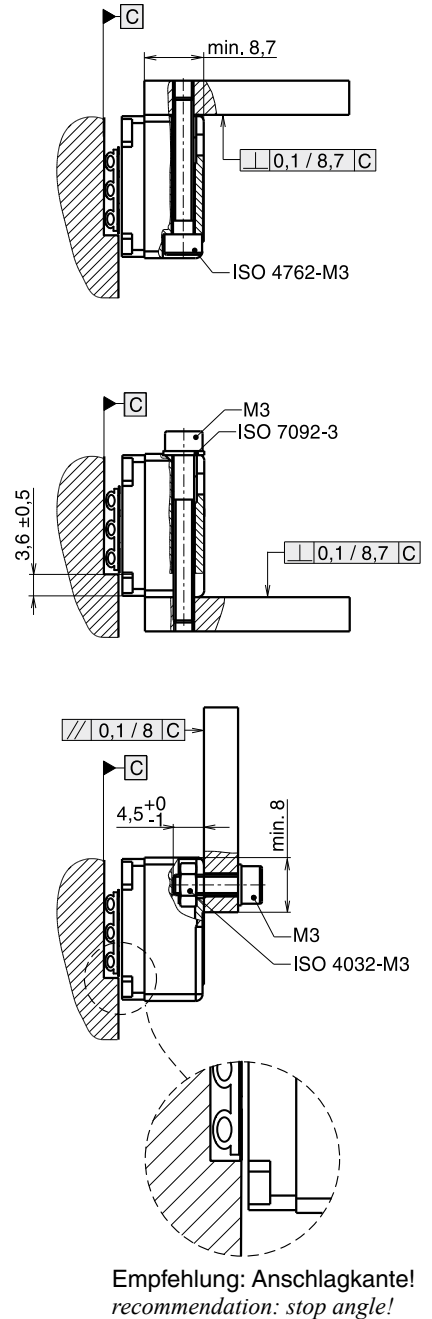
(K) = kundenseitige Anbaumaße  
required mating dimensions

\*\*  $D < \varnothing 500 = +0,2 \text{ mm} / -0,1 \text{ mm}$   
\*\*  $D \geq \varnothing 500 = +0,4 \text{ mm} / -0,2 \text{ mm}$

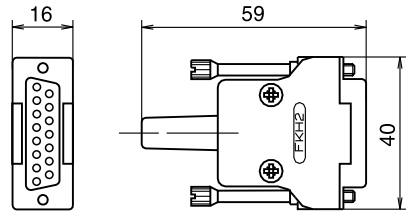
L = Lagerung  
bearing

D = Wellendurchmesser  
shaft diameter

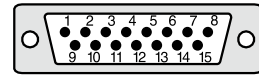
Referenzmarke / reference mark:  
j = zusätzliche Referenzmarken  
im Abstand von  $n \times 100 \text{ mm}$   
= additional reference marks  
separated by  $n \times 100 \text{ mm}$



**Stecker LD15 15-polig**  
Connector LD15 15-pin



**PIN Belegung (Sicht auf Stiftseite)**  
Pin-out (view on pins)



**Steckerbelegung / Connector pin out**

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Rechtecksignale über Line Driver Square wave signals via Line Driver	nc	Sensor 0 V	Us	RI	T2	T1	Sensor +5 V	+5 V	0 V	nc	nc	RI	T2	T1	Schirm shield

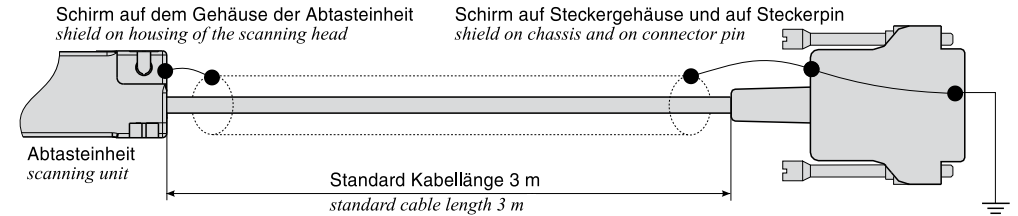
PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Spannungssignale Voltage signals	nc	Sensor 0 V	nc	RI	A2	A1	Sensor +5 V	+5 V	0 V	nc	nc	RI	A2	A1	Schirm shield

- **Sensor:**  
Die Sensor-Pins sind im Steckergehäuse auf die jeweilige Spannungsversorgung gebrückt  
*The sensor-pins are bridged in the chassis with the particular power supply*
- **Schirm** ist zusätzlich mit dem Steckergehäuse verbunden  
*The shield is connected with the chassis*

**Schirmverbindungen / Cable shielding**

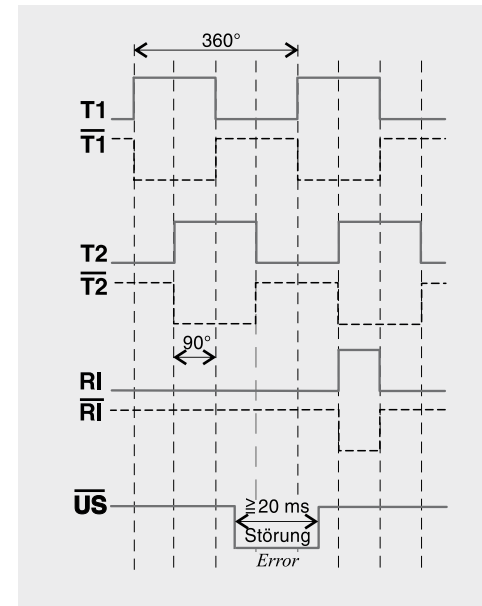
Geschirmtes PUR-Kabel, Standard, Ø4,3 mm  
Biegeradius einmalig > 10 mm, dauernd > 50 mm,  
Torsion > 300.000 Zyklen, Schleppkette > 5.000.000 Zyklen  
Das Steckergehäuse muss galvanisch mit Schutzerde verbunden sein

*Shielded PUR-cable, standard, Ø 4.3 mm*  
*bending radius fixed mounting > 10 mm, continuous flexing > 50 mm*  
*torsion > 300,000 cycles, dragchain > 5,000,000 cycles*  
*The connector housing must be connected to protective ground*

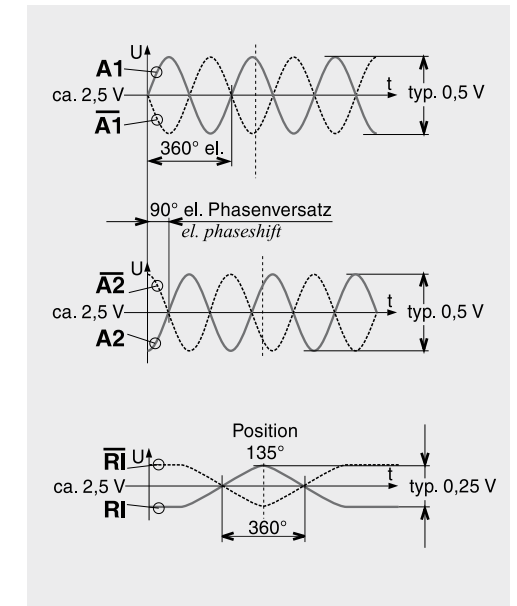


**Ausgangssignale / Output signals**

**Rechtecksignale**  
*Square wave signals*



**Sinusförmige Spannungssignale**  
*Voltage signals*



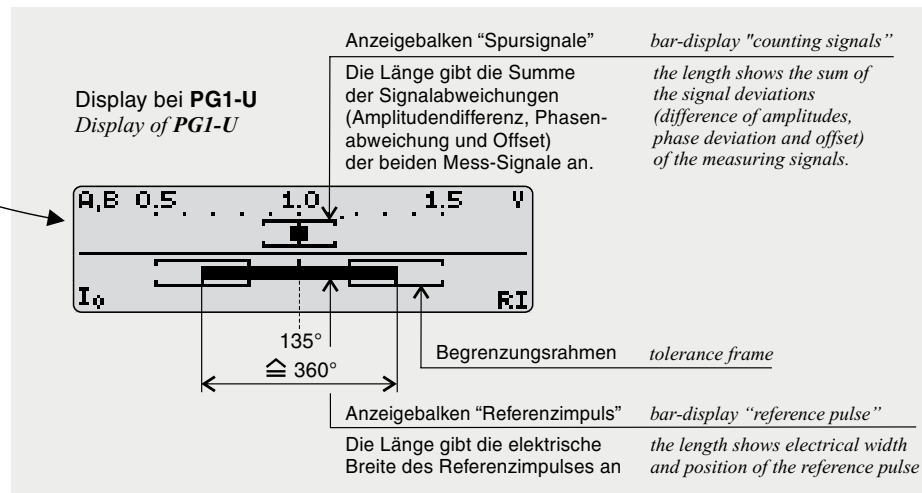
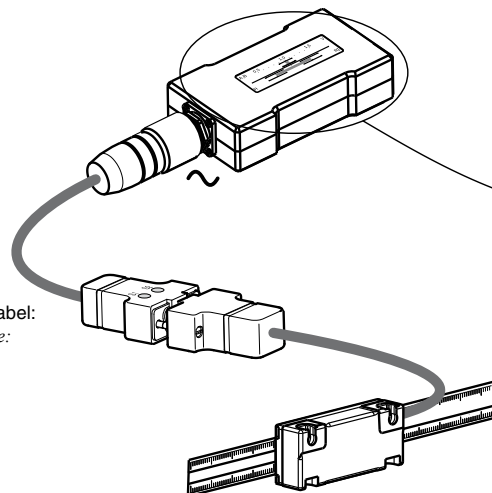
Zur einfacheren Kontrolle bietet RSF Elektronik verschiedene Prüfgeräte an, mit deren Hilfe dieser Vorgang schnell und komfortabel durchzuführen ist.  
 For the easier control RSF offers various signal test boxes. With these test boxes all encoder signals can be quickly and easily checked.

Sinusförmige Spannungssignale 1 V<sub>ss</sub> / *Voltage signals 1 V<sub>pp</sub>* = **PG1-U, PG-U**  
 Rechtecksignale / *Square wave signals* = **PG4, PS4**

- **PG1-U:**  
 alle funktionsrelevanten Signalgrößen werden mit LCD-Balkenanzeigen dargestellt (siehe auch Bedienungsanleitung PG1-U)

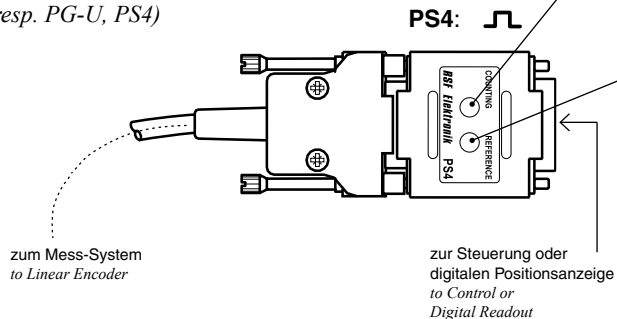
*all relevant signals are displayed with LCD-bars (also in operation manual PG1-U)*

Artikel-Nummer Adapterkabel:  
 article-number adapter cable:  
 998200000083



- **PG4 / PG-U, PS4**  
 alle funktionsrelevanten Signalgrößen werden mit LED's angezeigt (siehe auch Bedienungsanleitung PG4, PG-U, PS4)

*all relevant signals are displayed with LED's (also in operation manual PG4 resp. PG-U, PS4)*



LED Anzeige / <i>status of LEDs</i>	Information
<b>COUNTING (Zählsignale) / <i>counting signals</i></b> - Rot / <i>red</i> - Grün / <i>green</i>	Spursignale außerhalb der Toleranz / <i>track signals out of tolerance</i> Spursignale ok / <i>track signals ok</i>
<b>REFERENCE (Referenzimpuls) / <i>reference impulse</i></b> (nur beim Überfahren der Referenzmarke) / <i>(only by passing the reference mark)</i> - Rot / <i>red</i> bzw. leuchtet nicht (PS4) / <i>resp. doesn't shine (PS4)</i> - Orange / <i>orange</i> - Grün / <i>green</i>	RI außerhalb der Toleranz / <i>RI out of tolerance</i> RI geringfügig außerhalb der Toleranz / <i>RI slightly out of tolerance</i> RI ok

