Laser Measuring Device LE25 - SSI

Click Here for Quick Delivery Stock Options

Ref.: K-LE25-SSI-1
19.05.2020
010203002502010199

TRWin-Prog

Advantages

- Alternative for draw-wires
- Customer-specific solutions
- Flexible programming
- Further interfaces available
- Measures linear movements
- Measuring distances 25m/50m
- Rugged construction
- Wear-free detection

General Data

Characteristics - Validity	Min. operation time > 30 min
Supply - Supply voltage	18…27 VDC ± 5%
Current consumption no load	<= 150 mA
Integrated heating - Equipment	Option
- Nominal voltage	24 VDC ± 5 %
- Nominal power	24 W
Measuring principle	Phase shift measurement
Measuring length - Measuring against	Reflector foil
- Standard measuring range	0.2…25 m
- Range extension 1	50 m
Resolution	0.1 mm physically
Linearity deviation	± 2 mm FS, absolute
- FS:	Full-Scale
Reproducibility	± 1 mm
Light source - Laser diode	Red light
- Wave length λ	670 nm
- Laser protection class	2
- International safety standard	IEC 60825-1

Subject to change.

TR-Electronic GmbH
Eglishalde 6
78647 Trossingen
Tel. +49 (0) 7425 228-0
info@tr-electronic.de
www.tr-electronic.de

Laser Measuring Device LE25 - SSI

Ref.: K-LE25-SSI-1
19.05.2020
010203002502010199

General Data continuation

- American safety standard	FDA 21CFR 1040.10 / 1040.11
- American safety standard	observe "Laser-Notice No. 50"
- Radiant power P	<= 1 mW
Measurand output/refresh rate	1000 Values/s
Integration time	1 ms
SSI - Interface - SSI-Clock input	 Optocoupler
- SSI-Data output	RS-422, 2-wire
- SSI-Clock frequency	80...820 kHz
Parameter/Function, changeable	Resolution
	Output code
	Number of data bits
	Error outputs
	Integration time
	Intensity parameter
	Interpolation
	Preset parameter
	SSI-Parameter
	SSI-Output
	Temperature parameter
	Counting direction
	Velocity parameter
Type of parametrization	programmable
Programming - Tool	TR-Soft: TRWinProg
External inputs - Function input	 Preset adjustment
- Function input	Switch-off of the laser diode
- Function input	Error acknowledgement
- Type of parametrization	programmable
- Logic level, LOW	"0" < +2 V, <= ±35 V, 5 kOhm
- Logic level, HIGH	"1" > +8 V
- Number of inputs	1
External outputs - Status output	 Temperature
- Status output	Intensity
- Status output	Hardware
- Status output	Speed
- Status output	Position

Subject to change.

TR-Electronic GmbH
Eglishalde 6
78647 Trossingen
Tel. +49 (0) 7425 228-0
info@tr-electronic.de
www.tr-electronic.de

Laser Measuring Device LE25 - SSI

Ref.: K-LE25-SSI-1
19.05.2020
010203002502010199

General Data continuation

- Logic level, LOW	"0" < 1 V, <= 100 mA
- Logic level, HIGH	"1" > Supply Voltage – 2 V
- Type of parametrization	programmable
- Number of outputs	1

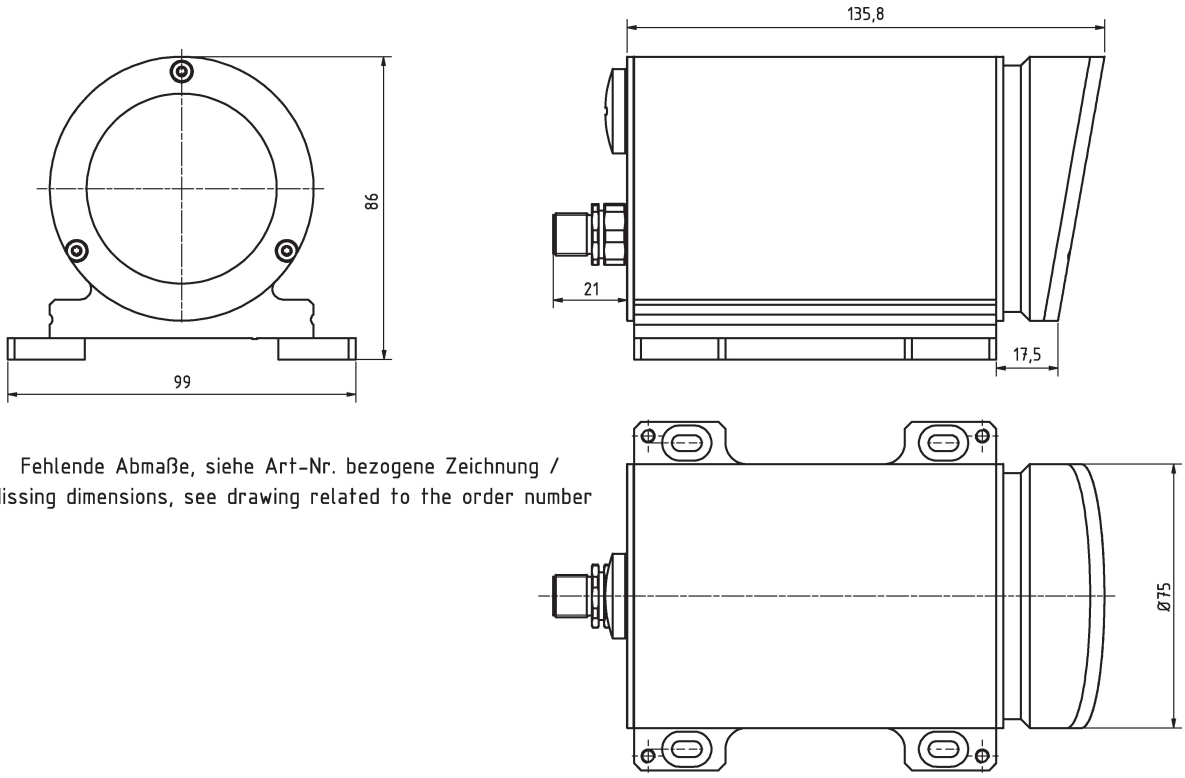
Environmental conditions

Vibration - Specific value	<= 50 m/s²
- Sine	50…2000 Hz
Shock - Specific value	<= 300 m/s²
- Half sine	11 ms
Immunity to disturbance	DIN EN 61000-6-2
Transient emissions	DIN EN 61000-6-3
Working temperature - Standard	0…+50 °C
- Optional	-30…+50 °C;
Storage temperature, dry	-20…+75 °C
Temperature drift	1 ppm/°C FS
- FS:	Full-Scale
Relative humidity	98 %, non condensing
Protection class - Standard	IP65

TR-Electronic GmbH
Eglishalde 6
78647 Trossingen
Tel. +49 (0) 7425 228-0
info@tr-electronic.de
www.tr-electronic.de

Ref.: K-LE25-SSI-1
19.05.2020
010203002502010199

Dimensional drawing



Fehlende Abmaße, siehe Art-Nr. bezogene Zeichnung /
Missing dimensions, see drawing related to the order number

Subject to change.

TR-Electronic GmbH
Eglishalde 6
78647 Trossingen
Tel. +49 (0) 7425 228-0
info@tr-electronic.de
www.tr-electronic.de

Laser distance measurement

LE-25 SSI 48M

Click Here to go back to General Data Sheet

Order No.:2600-01002
19.5.2020 / 0102030025

Technical data

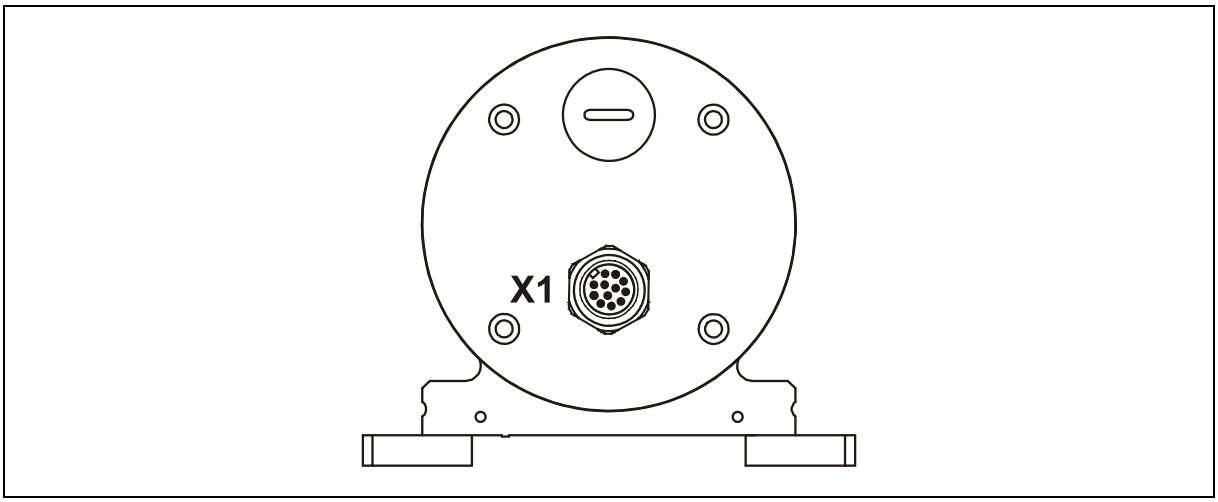
MEASURING RANGE	48M
INTERFACE	SSI
OUTPUT LEVEL	RS485
CODE	PROGRAMABLE
RESOLUTION	1,0
SUPPLY VOLTAGE	18-27V
TEMPERATURE RANGE	0-50°C
PROTECTION Class	IP65
LASER PROTECTION CLASS	2
CONNECTOR TYPE	12P.M12-CONNECTOR
CONNECTOR-POSITION	AXIAL
PINOUT NO.	TR-ELE-TI-DGB-0026
REFLECTIVE-FOIL	YES
OPTIONS ENC	FULL STROKE LINEARIZED
OPTIONS ENC	PROGRAMMABLE

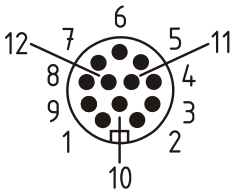
GL	Wellenausführung glatt / shaft type cylindrical
FL	Wellenausführung mit Fläche / shaft type with flat surface
N	Wellenausführung mit Nut / shaft type with slot
Hohlw	Hohlwelle / hollow shaft
Klemme	mit Klemmring / with clamping ring
Grundw	Grundwelle / fundamental shaft
SLG	Seillängengeber / cable retractor
ZB	Zentrierbund / centre ring
Tachofl	Tachoflansch / tachometer flange
DAG	DAG-Schutzgehäuse / DAG protective housing
TK	Teilkreis / pitch circle

TR-Electronic GmbH
Eglishalde 6
78647 Trossingen
Tel. +49 (0) 7425 228-0
info@tr-electronic.de
www.tr-electronic.de

Steckerbelegung / Pin Assignment

LE-25, SSI Interface



X1	Flanschstecker / *Male socket* (M12x1-12 pol. A-coded)	
1	SSI-Clock_IN –	Steckseite / *Mating Face* 
2	SSI-Clock_IN +	
3	SSI-Data_OUT +	
4	SSI-Data_OUT –	
5	TRWinProg + (RS485 +)	
6	TRWinProg – (RS485 –)	
7	GND, 0V; Versorgung / *Supply voltage*	
8	Switching Output; High: > US–2 V, Low: < +1 V	
9	Switching Input;High: > +8 V, Low: < +2 V	
10-11	18 – 27 V DC / 24 V DC; Supply voltage Standard / Heizung *(Heating)*	
12	GND, 0V; Versorgung / *Supply voltage*	

- Kabelspezifikation
  - Versorgung: ≥ 0.34 mm² (empfohlen 0.5 mm²) und geschirmt
  - Differentielle Daten (±): ≥ 0.25 mm² und geschirmt.
    Zur Sicherstellung der Signalqualität und zur Minimierung möglicher Umwelteinflüsse wird jedoch empfohlen, zusätzlich ein paarig verseiltes Kabel zu verwenden.

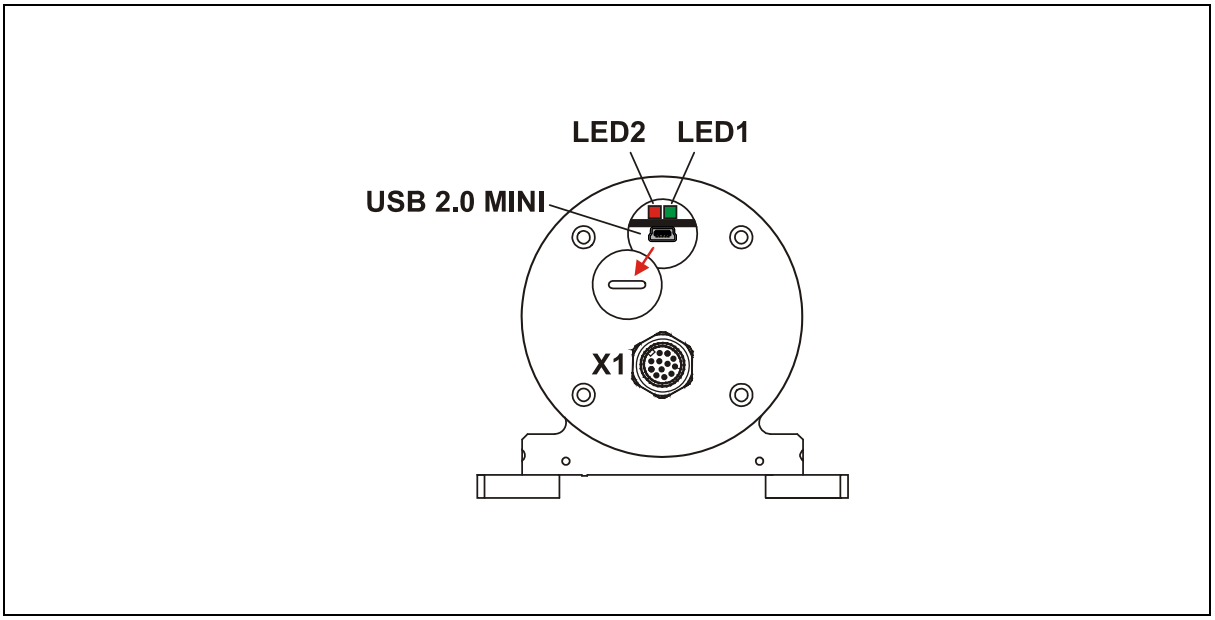
Generell ist der Kabelquerschnitt mit der Kabellänge abzugleichen.

- *Cable specification*
  - *Supply voltage: ≥ 0.34 mm² (recommended 0.5 mm²) and shielded*
  - *Differential Data (±): ≥ 0.25 mm² and shielded.*
    To guarantee the signal quality and minimization of possible environmental influences it is recommended urgently to use a shielded twisted pair cable

General the cable cross section and the cable length must be well-matched.

Steckerbelegung / Pin Assignment

Diagnosis-LEDs



LED1: grün / *green*

Status	Beschreibung / *Description*
AUS / *OFF*	Spannungsversorgung fehlt oder wurde unterschritten / *Voltage supply absent or too low*
AN / *ON*	Normalbetrieb, Mess-System OK / *Normal mode, measuring system OK*
blinkend / *flashing*	USB-Schnittstelle in Betrieb / *USB interface in operation*

LED2: rot / *red*

Status	Beschreibung / *Description*
AUS / *OFF*	Kein Fehler vorhanden / *No error present*
AN / *ON*	Mindestens ein Mess-System - Fehler aufgetreten / *At least one measuring system - error occurred*