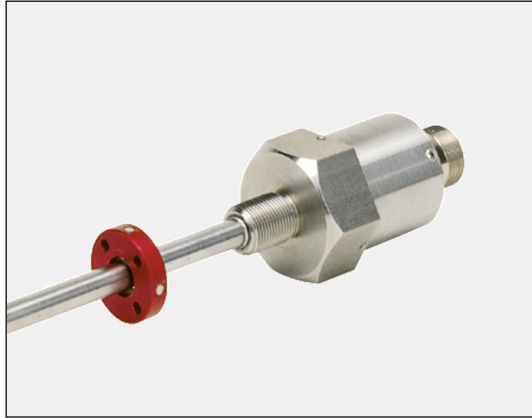
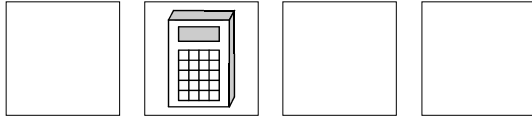


Linear-Encoder LA-41 ISI



- **High Pressure Type, Makes it Possible for Installation into Hydraulic Cylinders**
- **For Linear Measurement**
- **Non Contact and Wear Free**
- **Programmable, scaleable**
- **ISI (Incremental Serial Interface)**

Electrical Data

Measurement Principle	Magnetostrictive
Measuring Length (Stroke) Standard (mm).....	150, 300, 500, 700, 750, 1000, 1500, 2000, 2500, 3000, > 3000 by request
Sensor Capacity	max. 20 Bit
* Resolution	max. 0.01 mm
Operating Voltage	19-27 V DC
Power Dissipation (No Load)	< 5 Watt
Programmable via RS485	PT-100N Programming Terminal
Inputs	
* Load Input	Request for Encoder Position
* Preset	Adjust absolute position to a given set value (i.e. zero set)
Logic Levels	"0" < +2 VDC, "1" > + 8 VDC, max. 30 VDC
Output Options	
	Push-Pull (15 mA) or RS422
* Load Output	Verification of Load Request
Channel 1	A
Channel 1 neg.	A neg.
Channel 2	B
Channel 2 neg.	B neg.
* Load Frequency	Programmable (4 kHz to approx. 120 kHz)
Operating Speed	max. 1m/s at a resolution of 0,01 mm
Cycle Time	See Dimensional Drawing
Pin Configuration	Upon Request
*Programmable Parameters	

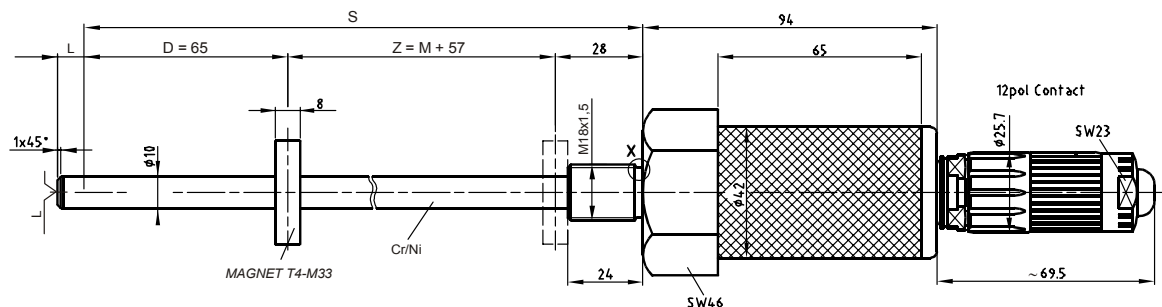
Environmental Data

Electromagnetic compatibility (EMC)	EN 61000-4-2 (IEC-801-2) / EN 61000-4-4 (IEC-801-4)
Operating Temperature	0°-70°C (32° to 158° F) (Optional -20° to +70°C) (-4° to 158° F)
Storage Temperature	-30° to +80°C (-22° to 178° F)
Relative Humidity	98 % (non condensing)
*Protection Class	IP 65 (DIN 40 050)
* The protection class of the sensor can be effected by the type of connector used.	

Mechanical Data

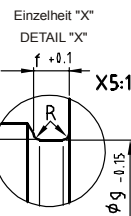
Linearity.....	< 0.05 % of Stroke Length
Repeatability.....	≤ 0.01 mm
Hysteresis.....	< 0.1 mm
Temperature Coefficient	< 5 µm / °C
Vibration (Sinus 50-2000 Hz)	
per DIN IEC 68-2-6.....	≤ 100 m/s ² (10g)
Shock (11ms) per DIN IEC 68-2-27.....	≤ 1000 m/s ² (100g)
Pressure Resistance (Option)	600 bar
Rod Material	Cr/Ni-alloy
Magnetic Field	< 3 mT (milli Tesla)
Operating Speed and Mounting Orientation.....	No restrictions
Magnet Type (Standard).....	T4-M33
Magnet Type(Option).....	T3-U64
Rod Mounting	Option
Mechanical Special Types.....	Upon Request
Connector.....	12 pin Contact Connector

Dimensional Drawing



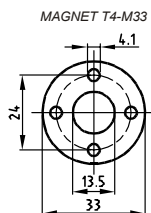
S = Stablänge
 D = Dämpfungszone: Keine Herstellergarantie für die Messdaten
 M = Messlänge: Typenbezogener Messweg
 Z = Zentraler Messbereich: Typenbezogener Messweg + 57 mm Reserve
 L = 5 mm Zusatzlänge mit M4x5 bei Option Stabspitzenlagerung

S = TOTAL LENGTH
 D = DAMPENING ZONE: IN THIS AREA NO MEASURING SIGNAL IS PRODUCED
 M = STROKE LENGTH
 Z = CENTRAL MEASURING AREA: EFFECTIVE AREA + 57 mm RESERVE
 L = 5 mm ADDITIONAL LENGTH WITH M4x5 FOR OPTION ROD MOUNTING



Maße entsprechen Einschraubzapfen DIN 3852-F
 DIMENSIONED TO DIN 3852-F

G	f	g	R	O-Ring
M18x1.5	2.3	15.9	0.4	15.4x2.1



Messlänge M (mm) STROKE LENGTH M (mm)	Stablänge S (mm) TOTAL LENGTH S (mm)	Zykluszeit (ms) CYCLE (ms)
150	300	1.0
300	450	1.0
500	650	1.5
700	850	2.0
750	900	2.0
1000	1150	2.0
1500	1650	2.75
2000	2150	3.5
2500	2650	4.5
3000	3150	5.25