

Wire rope transducer

with integrated amplifier



Description

The tecsis wire rope transducer is the first choice for retrofitting an overload safety system to hoists and cranes. Changes in the machine construction or a construction analysis are not necessary.

The task of the transducer is to survey the rope tension in an easy, robust and affordable way. The condition to use this sensor is a "dead end", where the rope is not in motion and fixed. The sensor is easily mounted to the rope with a clamp-on design in short time.

Operating this sensor in an overload protection system, the signal is monitored in a scalable load limiting electronic according to customer needs.

Features

- For overload protection on cranes, hoists and for tension measurement on ropes
- Ideal for retrofitting
- Stainless steel
- IP67
- Optional safety chain available
- Integrated amplifier

Measuring ranges

- From 1t to 30t (for rope diameter 8-44 mm)
- other measuring ranges on request

Applications

- Overload protection
- Tension measurement on ropes

Model: F9304

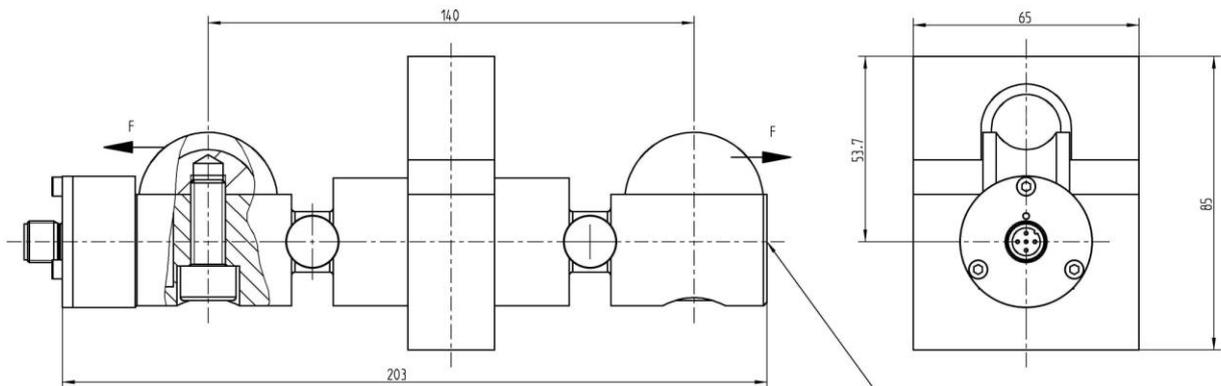
Technical data

Model	F9304	Option
Nominal load F_{nom}	1-30 t	
Rope diameter	8-44 mm	
Repeatability application	$<\pm 1.0\%$ of F.S.	
Limit load	$150\% F_{nom}$	
Breaking load	$> 300\% F_{nom}$	
Nominal temperature range	$-20 \dots +80^{\circ}\text{C}$	
Service temperature range	$-40 \dots +80^{\circ}\text{C}$	
Temperature effect - Span	$0,2\% F_{nom} / 10\text{K}$	
Temperature effect - Zero	$0,2\% F_{nom} / 10\text{K}$	
Isolation resistance	$>50\text{G}\Omega/50\text{V}$	
Analogue output		
- Output signal	4 ... 20 mA	2 x 4 ... 20 mA
- Excitation voltage	10 ... 30 VDC	others on request
Electrical connection	Plug M12x1	
Protection type (acc. to EN 60 529 / IEC 529)	IP67	
Material of measuring device	Stainless steel	
Accessories		Safety chain 1 m

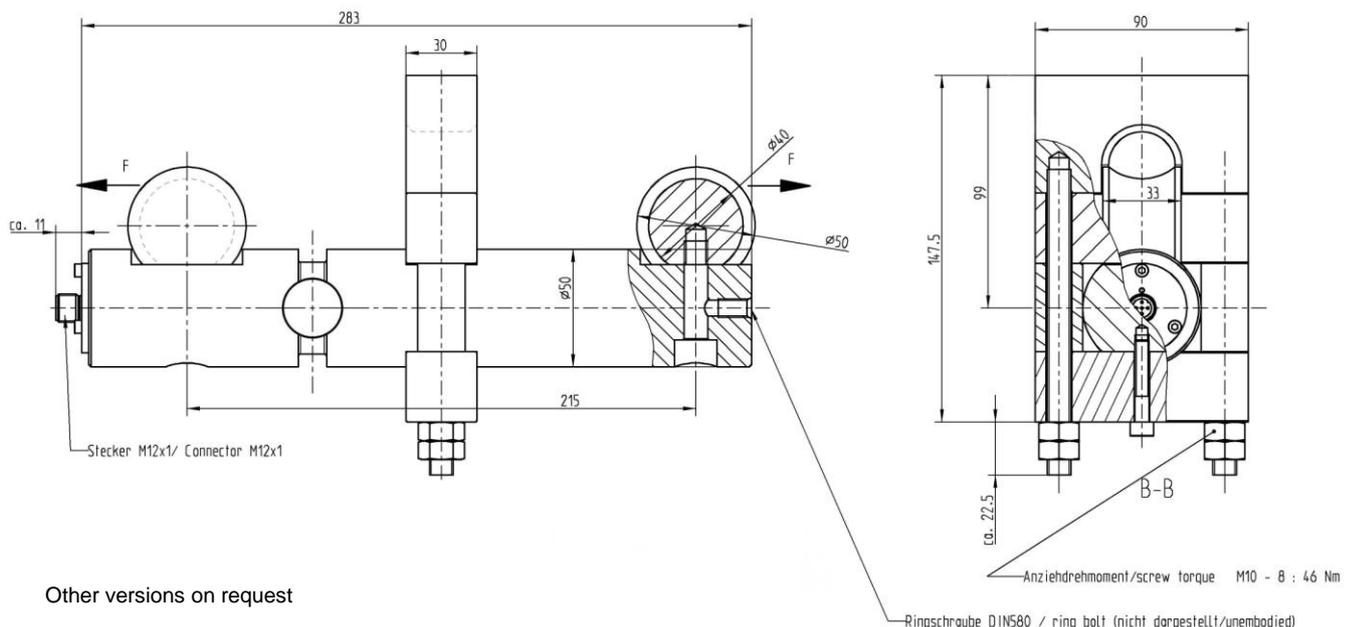
Of F.S. = of full scale

Dimensions

Version 1 (<25 mm rope diameter)



Version 2 (<25 mm rope diameter)

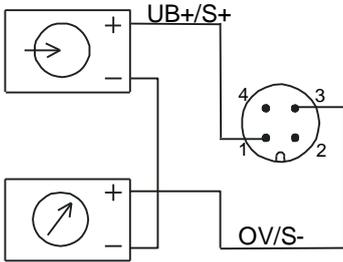


Other versions on request

Electrical connection

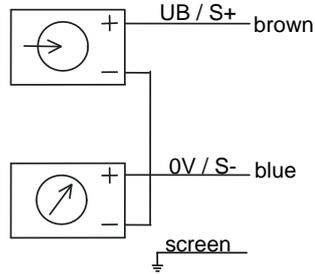
Output signal 4..20mA (2-wire)

Circular connector M12x1, 4-pin



940E01

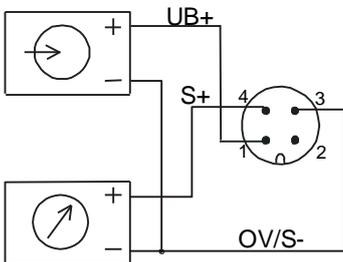
Cable outlet



940E03

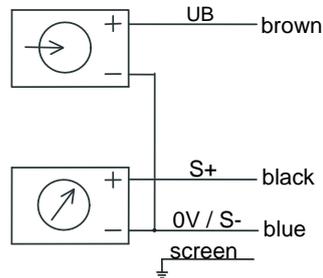
Output signal 0...10V (3-wire)

Circular connector M12x1, 4-pin



940E04

Cable outlet



940E06

Pin configuration of connector M12x1 (4-pin) /

Open cable outlet of the tectsis standard connection cable (STL 288, black)

Analogue output Electrical connection	4...20 mA (2 – wire)		0...10 VDC (3 – wire)	
	pin	cable outlet	pin	cable outlet
Supply: UB+	1	brown	1	brown
Supply: 0V	3	blue	3	blue
Signal: S+	1	brown	4	black
Signal: S-	3	blue	3	blue
⊥	thread M12x1	screen	thread M12x1	screen