

Out-Board Transmission System 2000 for Digital Data Transmission

Type 5248A...

Module for transmitting supply voltage and measurement data via the out-board of the wheel. Additionally measures the wheel angle. The system is used with this out-board transmission unit during road load testing.

- Transmission to outside of wheel
- Quick and easy mounting
- Accurate measurement of angular position
- All-weather use
- Suitable for all RoaDyn® System 2000 measuring wheels

Description

The unit transmits the supply voltage for the electronic components to the sensor and the data from the RoaDyn measuring wheel to the on-board electronics Type 9891A... . The supply voltage for the wheel electronics unit and load cells is transferred by induction. An optical method is used to transmit the data. The rotation angle of the wheel is also measured by an encoder. Transmission continues with the wheel stationary.

Application

The out-board transmission Type 5248A... is used as standard for the measuring wheels RoaDyn V6HT respectively S6HT System 2000. It can be used also for all other RoaDyn System 2000 measuring wheels, when space for the in-board transmission on the vehicle hub is limited.

Technical Data

Data Transmission

Principle	Optical (sender/receiver module)
Transmission rate	Mbit/s 2

Power Transmission

Principle	inductive
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Fig. 1: Out-board transmission module on the RoaDyn® S625 System 2000 measuring wheel

Angular Measurement

Principle	Optical (bar code/light pattern)
Number of counts per revolution	1 024
Angular resolution, static	° 0,35

Dimensions

Inside diameter	mm	18
Outside diameter	mm	75/100
Height	mm	46
Housing material	Anodized aluminium	
Connecting cable material	PTFE	
Weight	kg	0,45 (without cable and fixing arm)
Degree of protection	IP65	
Temperature range	°C	-20 ... 70
Supply voltage	V	5
On-board current consumption	mA	100 (without 50 kHz power transmission)

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Mounting

The out-board transmission unit is mounted over the wheel electronics unit with a Type Z31166 adapter using 4 Phillips screws. A Binder 910 series screwdown connector ensures a good electrical connection to the RoaDyn measuring wheel, whereas the connection to the on-board electronics is made with a Lemo connector and a Type Z30340A... extension cable, which is available in various lengths. The Type Z31170 retaining ring can be used to mount fixing arm Type 9893A or rear Type Z311006Q... with two M5 screws.

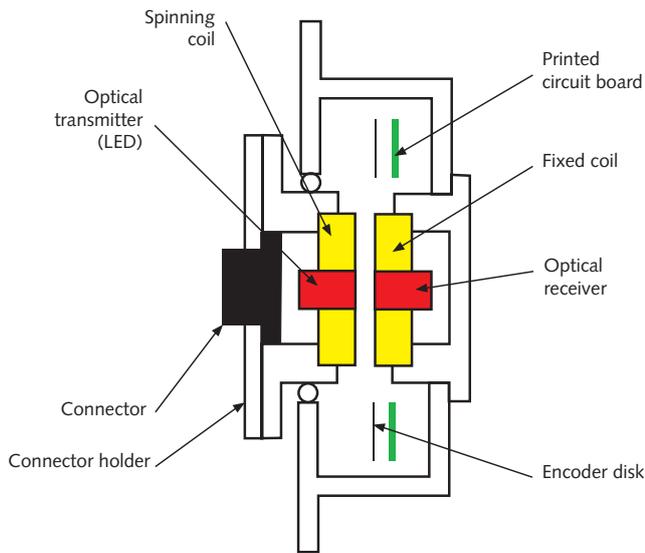


Fig 2: Section through rotary transmission unit

Included Accessories

- Adapter, wheel/angle encoder Type/Art. No.
Z31166
- Retaining ring for fixing arm Z31170
- 4 Phillips screws, M5x6 Z30623
- 4 Countersunk screws, M5x12 V100.0050
- 4 Spacer bolts, M4x30 V100.0065
- 4 Hexagon socket head cap screws, M4x12 V100.0066

Optional Accessories

- Fixing arm Type/Art. No.
9893A
- Fixing arm, truck, rear Z31006Q...
- Extension cable Z30340A...

Ordering Key

Out-Board Transmission System 2000 for digital Data Transmission

for RoaDyn® S6xy System 2000 measuring wheels	0
for RoaDyn® P6xy System 2000 measuring wheels	1

Type 5248A

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