

In-Board Transmission System 2000

Type 5240A..., 5242A...

Rotor and Stator for Digital Data Transmission

Module for transmitting supply voltage and measuring data. Additionally measures the wheel angle. The transmission unit is used in conjunction with the Type 9891A... on-board electronics system and Type 5241A... wheel electronics.

- Transmission from wheel in-board to vehicle
- Accurate measurement of angular position
- No projections beyond vehicle extremities
- All-weather use
- Special off-road version available

Description

The transmission module consists of a Type 5242A... rotor (ring antenna) and Type 5240A... stator. It transmits the supply voltage for the electronic components and bridges inductively. It also transmits the flow of data conditioned by the Type 5241A... wheel electronics unit to the inside of the wheel and into the non-rotating areas of the vehicle. The connection to the Type 9891A... on-board electronics system is made with extension cable Type Z30430A... connected to the stator. Transmission continues even with the wheel stationary. The Type 5248A0... out-board transmission unit is offered for the V6HT and S6HT measuring wheels and special cases.

Applications

System 2000 has been developed for transmitting and processing the load signals from the RoaDyn P625, P650, S625, S635 and S650 System 2000 measuring wheel systems. This ensures all of these System 2000 measuring wheels can be operated with a single on-board electronics system that also allows transmission and recording of additional data. Matching signal amplification and conversion modules for the additional sensors are also offered.



Fig. 1: In-board transmission consisting of rotor and stator

Technical Data

Stator Type 5240A...

Dimensions (LxWxH)	mm	98x55x18,5
Weight		
Stator		
with 1,5 m cable and heat shield	kg	0,26
for example Stator bolt, L30	kg	0,021
for example Stator bolt, L40	kg	0,028
for example Stator bolt, L50	kg	0,034
Operating temperature range	°C	-20 ... 120

Rotor Type 5242A...

Weight		
Transmission ring, M41	kg	0,30
Transmission ring, M52, M62	kg	0,3
Power transmission		inductive
Data transmission	Mbit/s	2
Angle measurement		permanent magnets

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Mounting

The rotor is connected to the measuring wheel in the factory. It fits the different geometric configurations and wheels of three available diameters. The stator can be used for all 3 rotor sizes and is mounted on the wheel mounting or the shock strut unit, or in some other suitable location around the hub. The gage Type Z39911 for RoaDyn® S6xy and Type Z17019-10 for RoaDyn P6xy are available for accurate positioning and alignment. The stator is connected to the on-board electronics Type 9891A... using the extension cable Type Z30430A..., which is available in various lengths. The remote control unit is connected to the MDSP card via a D-Sub connector.



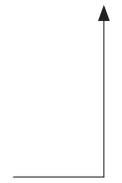
Fig. 2: Stator mounted on vehicle

Ordering Key

Type 5240A1,5

Stator

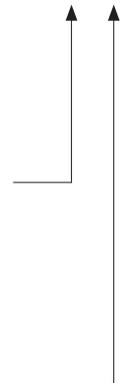
Bolt length 25 mm	25
Bolt length 30 mm	30
Bolt length 40 mm	40
Bolt length 50 mm	50
Bolt length 60 mm	60
Bolt length 70 mm	70
Bolt length 100 mm	100



Type 5242A

Rotor

Piezoelectric sensors (RoaDyn P)	1
Number of strain gage sensors 4 (RoaDyn S/V)	4
Number of strain gage sensors 5 (RoaDyn S/V)	5
Number of strain gage sensors 6 (RoaDyn S/V)	6



Pitch circle diameter sensor	250
Pitch circle diameter sensor	262
Pitch circle diameter sensor	286
Pitch circle diameter sensor	340

Included Accessories

Stator

- Stator holder assembly consisting of:
 stator holder,
 angle clamp stator holder,
 tube cable guide for stator holder
 hexagon socket head cap screw
 spring pin,
 spring steel stator holder, inboard
- Stator bolt
- Heat shield for stator housing

Type/Art. No.

- Z30520A
- Z30255
- Z30522A
- Z30623
- V100.0024
- V100.0085
- Z30521
- Z30382
- Z30514

Optional Accessories

- Extension cable

Type

- Z30430A...

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