

KiRoad wireless HDR

Digital far field telemetry for RoaDyn S6 WFTs

Type 9813C1, 9822A1,
5262A...

The KiRoad Wireless HDR system consists of on-board unit Type 9813C1, wheel unit Type 9822A1 and rotary encoder Type 5262A...

The system provides wireless transmission of measuring signals and system information between the wheel force transducer (WFT) and the on-board unit in the vehicle.

- Data transmission via WLAN
- Fast installation – no cabling and no adaptations
- No protrusions from the vehicle
- Exchangeable battery with approx. 4h capacity at -20°C (for winter testing)
- Digital data output for all channels via DTI, CAN or Ethernet
- No extension antenna mandatory
- Configuration and online display of measurement signals via KiCenter software



Technical data general

Wireless standard		IEE 802.11n
Transmitted channels		
Forces		F_x, F_y, F_z
Moments		M_x, M_y, M_z
Angle		A_n
Angle speed		A_s
Additional signals		temperature, battery voltage
Resolution	Bit	16
Sampling rate		
Signales forces / moments	Hz	1.000

Technical data onboard unit

Dimensions (LxWxH), approx.	mm	181x125x149
Weight	kg	2.5
Operating temperature range	°C	-20 ... 50
Degree of protection (cable mounted)	IP40	IP40
Power supply	VDC	10 ... 28
Power consumption max.	W	17
Data outputs		
Digital		DTI, CAN
Analog (8 signals, selectable)	V	$\pm 10 / \pm 5, (0 \dots 10, 0 \dots 5)$
USB (full speed)		2.0
Ethernet TCP/IP		yes

Technical data wheel unit

Dimensions (LxWxH), approx.	mm	184x184x62,8
Weight (without battery)	kg	0.8
Operating temperature range	°C	-20 ... 50
Degree of protection (cable mounted)		IP65
Power supply		Lithium-ion battery
Number of charging cycles		>500
Battery operating time (approx.)		
+20°C		>5
-20°C		>4
Shock resistance	g	50
Latency of data transmission	ms	538



Fig 1: RoaDyn S6 WFT with wheel unit

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This information corresponds to the current state of knowledge. Kistler reserves the right to make technical changes. Liability for consequential damage resulting from the use of Kistler products is excluded.

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Rotary encoder

For measuring the rotation angle of RoaDyn WFTs.

- Easy mounting by fixing with two clamping pins
- High measuring accuracy through precise detection of the angular position
- Low angle error, as no vehicle body support is required
- No protrusions from the vehicle

Technical data rotary encoder

Dimensions (LxWxH), approx.	mm	customized
Operating temperature range	°C	-40 ... 170
Rotational speed (max.)	rpm	2,800
Accuracy	°	0.1

Included accessories wheel unit

- Wheel unit (without exchangeable battery)

Ordering-no.

18043616

Optional accessories wheel unit

- Exchangeable battery incl. charging tray, charging device and mains cable EU
- Exchangeable battery
- Charging tray, charging device and mains cable EU

Ordering-no.

18044044

18044086

18044087

Included accessories Onboard Unit

- CAN connecting cable (2x)
- Ethernet cable
- USB cable
- Connecting cable for OBU/DT5302
- Power cable 4P DT5302
- Ethernet cable 8P DT5302
- Bar antenna (3x)
- Antenna adapter QMA to SMA (3x)
- USB memory stick 8 GB
- Peli Storm Case iM2750 with inlay

Ordering-no.

55155606

55155608

55155609

55156522

55156523

55158080

55157368

22000444

55250671

Optional accessories Onboard Unit

- Cable: Analog Output
- Rod antenna, 2.4 GHz, with 3 m cable

Ordering-no.

55159949

55269688

Ordering code

- KiRoad Wireless S6 Onboard Unit EU
- KiRoad Wireless S6 Onboard Unit NA
- KiRoad Wireless S6 wheel unit
- KiRoad Wireless S6 rotary encoder

Typ 9813C11

Typ 9813C12

Type 9822A1

Type 5262A...

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