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BC-TMS_LDL_Rec_V2-000 — Telemetrie receiver tyre monitoring system

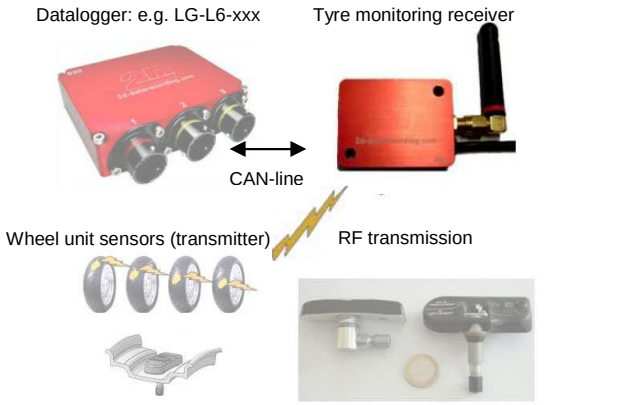
Function

The 2D TMS system consists of battery powered wireless sensors fitted to a wheel rim which send data over a RF link to a compact receiver placed within the vehicle.
The receiver sends the values via CAN-line to a connected 2D datalogger (e.g. LG-L6-xxx or LG-L7-xx)

Features

- Real time transmission of temperature, pressure, status and RSSI* on 433.92 MHz using FSK (frequency shift keying)
- Usable for measurement on bike and car by using different wheel unit sensors.
- Easy CAN identifier setup and configurable by 2D software WinIt
- Compact, durably, lightweight modular concept.

* **RSSI** = **R**eceived **S**ignal **S**trength **I**ndication



WUS: mechanical concept SA-TMS_LDL_B-000 SA-TMS_LDL_C-000

Technical specifications

Electrical characteristics

Power supply	8 - 18	V DC
Current consumption@12V	30	mA
RF Frequency	433.92	MHz
Emmission RF	FSK	Manchester
Sensitivity	-100	dBm

CAN-interface

CAN baudrates (software switchable by 2D WinIt)
100 / 125 / 250 / 500 / 1000 kBaud

CAN identifiers:

CAN 2.0A (standard)	11	Bit
CAN 2.0B (on request)	29	Bit

CAN send ID's	2	ID's

CAN frame:

date rate	1	Hz / ID
channel allocation	2	Wheels / ID
number of CAN ID's	2	ID's
sum data rate	16 samples / sec	

Mechanical characteristics

Weight	35	g
Dimensions	44x34x11	mm
Housing material	aluminium	

RF-antenna (2 possible)

short	length	55	mm
	weight	9	g
long	length	165	mm
	weight	12.5	g

Cable

type	Raychem DR-25	
wire cross	4 x AWG24	
length	150	mm

Connector

2D standard CAN	Binder, 712 5PM	
RF-antenna	SMA (std)	

Environmental

Operating temperature	-10 to +75	℃
Humidity	5 - 95	%
Sealing class	IP	67

Vibration resistance

Shock	40	G
	10	ms
Vibration tested at	12	G
	1000	Hz

Ordering information

Art.No.:.....BC-TMS_LDL_Rec_V2-000

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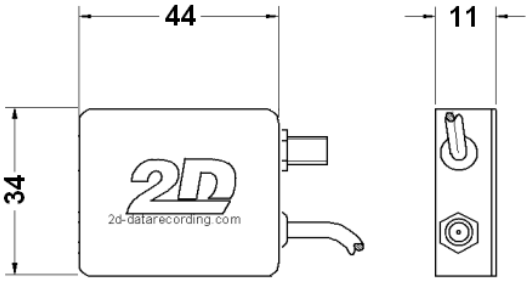
Dimensions



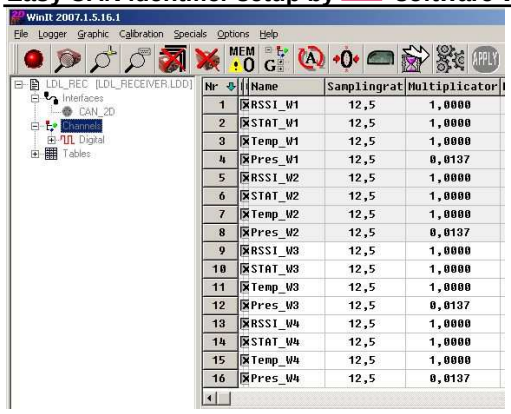
CAN frame layout

Mnemonic signification — Resolution

Temp_ = Temperature –20°to 125℃ — 1℃ / bit
Pres_ = Pressure 0 to 3,5 bar (abs. ambient pressure) — 13.7mbar / bit
STAT_ = Status
RSSI_ = **R**eceived **S**ignal **S**trength **I**dentification (RSSI)

Identifier	Data 0	Data 1	Data 2	Data 3	Data 4	Data 5	Data 6	Data 7
0x600h	RSSI _FL	STAT_FL	Temp_Fl	Pres_FL	RSSI _FR	STAT _FR	Temp _FR	Pres_FR
0x604h	RSSI _RL	STAT_RL	Temp_RL	Pres_RL	RSSI _RR	STAT _RR	Temp _RR	Pres_RR

Easy CAN identifier setup by 2D software WinIt



Connector layout

CAN-line (standard)

CAN-line Binder 712, 5pin

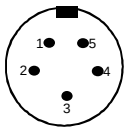
Pin	Name	Description	Color (standard)
1	CAN H	CAN Bus High	white
2	CAN L	CAN Bus Low	green
3	GND	Ground	black
4	n.c.	Not connected	-
5	Vext	Power IN (8-18V)	red

RF antenna

	Name	Description
	Pin	signal
	outline	GND

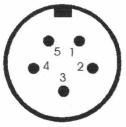
Connector type

Connector at module



Binder 712, 5 PM
(front side)

Mating plug



Binder 712, 5 PF
(front side)

Connector at module

SMA, female

Mating plug

SMA, male (GPS antenna)

On request some options are possible for the CAN-line connector of all 2D CAN modules. Please take a look at the product group [Connectors] in the 2D Product catalog

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