

BC-IR0200_Tyre_x_set-000

Tyre temperature measurement set with CAN

Function

- Tyre temperature measurement set with input for 6 infrared sensors, adapted for tyre measurement 0°C -200°C, and CAN output including:
- Box with sensor inputs and CAN output
- 2 Sensor sets with 3 | 4 infrared sensors

Areas of application

- Usable to measure tire surface temperature. Direct output of the physical values onto the CAN-bus.

Features

- With fixed emission factor (=table function) for Tyre included in the module.

Options

- Other emission factors available (on customer request)
- Possible to connect SA-IR1000V6 sensors to measure brake disc surface temperature (on customer request)



Technical specifications

Electrical characteristics

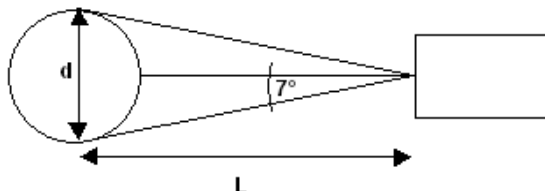
Power supply.....	8-18 V DC
Current consumption@12V.... (without any sensor)	50 mA

Channels (analog unit)

Analogue Inputs.....	up to 10
Sampling rate.....	max. 400 Hz / CH

IR temperature sensor

Supply voltage.....	5-16 V DC
Supply current.....	1 mA / Sensor
Object temperature range.....	-30 to +200 °C
Accuracy (combined linearity).	+ / - 2 % of FS
Measured distance.....	20-200 mm
Measured angle range.....	+/- 7 °



$$d = 2 * (\tan 7^\circ * L)$$



refer data sheet SA-IRxxxxV6-000 for more details

Mechanical characteristics

Dimensions.....	44 x 34 x 15 mm
Weight (w/ cables).....	typ. 120 g
Housing material.....	aluminium

Cable (analog unit, CAN-line)

type.....	Raychem, EPD
wire cross section..	4 x AWG 26
length.....	on request

Cable (IR sensors)

type.....	Raychem, EPD
wire cross section..	3 x 0.4 mm ²
length.....	on request

Vibration resistance

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

Environmental data

Ambient operating range	
analog unit.....	0 to +75 °C
IR sensors.....	-40 to +125 °C

Humidity.....	5 to 95 %
Sealing Class.....	IP 67

Ordering information

- 2 sets with 3 IR sensors. BC-IR0200_Tyre_6_set-000
- 2 sets with 4 IR sensors. BC-IR0200_Tyre_8_set-000

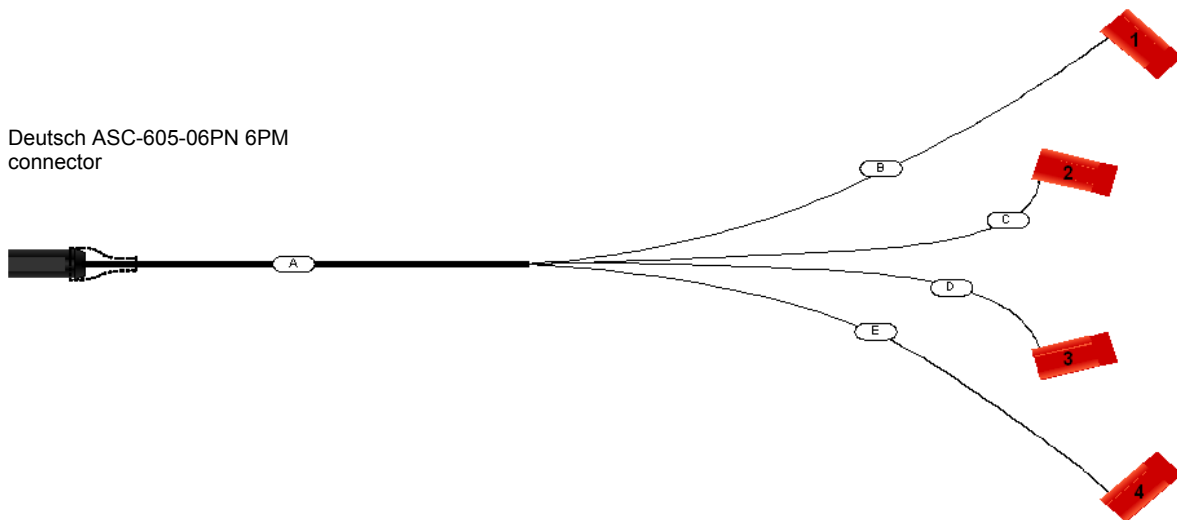
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Looms & cables

- Delivered with a looms to connect 3 or 4 sensors of the type SA-IR200V6-000. The Figure shows the loom for the set BC-IR0200_Tyre_8_set-000 (for example)
- Cable lengths A, B, C, D, E variable (on customer request)

Deutsch ASC-605-06PN 6PM
connector



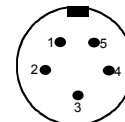
Connector layout

CAN-line (standard)

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

Connector types

Connector at module



Binder 712, 5 PM
(front side)

Mating plug



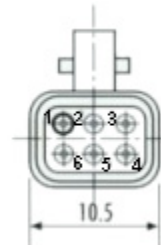
Binder 712, 5 PF
(front side)



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

Connector at module

2 x connectors of type Deutsch



Deutsch ASC-605-06PN 6PF
(front side)

- Use loom for direct connection with the analog unit