

Product information

Scrutineering Data Logger – P9 Challenge

Mess- und Prüftechnik
für Industrie, Motorsport und Fahrzeugentwicklung

PI

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Scope of delivery

All cars



Components

1	Holder kit SDL Logger	5	Extension for pressure sensor Binder 711 - 711, 4-p, 3000 mm
2	AiM evo5 Scrutineering Data Logger	6	Pressure sensor 0-3 bar absolute Binder 711, 4-p
3	Mini USB Adapter USB - Connection to PC	7	Fixation Rivet nut and Silentbloc
4	AiM GPS Module GPS System, Binder 711, 5-p	8	Harness 37-p, SDL with Deutsch DTM connector for CAN

Order sheet

Invoice address

Company	
Contact person	
Address	
E-Mail	
Telephone	
VAT Reg. No	

Delivery address

Company	
Contact person	
Address	
E-Mail	
Telephone	

Data Logger Kit purchase

Part no.	Description	Price	Qty.
AEV51-S02	evo5 Kit SDL, without pressure sensor	2.362,00 €	
AEV51-S03	evo5 Kit SDL, with 1 pressure sensor	2.758,00 €	
AEV51-S04	evo5 Kit SDL, with 2 pressure sensors	3.154,00 €	

Connection cable car specific 12V & CAN Bus optional

Part no.	Description	Price	Qty.
CAK-SDL-BM43	Connecting cable SDL, GT3-053, BMW M4, DTM06-6S, SS2S	86,00 €	
CAK-SDL-M7203	Connecting cable SDL, GT3-052, McLaren 720s, DTM06-6S	69,00 €	
CAK-SDL-AMV32	Connecting cable SDL, GT3-051, Aston Martin Vantage, 8TA6	144,00 €	
CAK-SDL-P91R32	Connecting cable SDL, GT3-050, Porsche 991 R Gen2, DTM04-4P	69,00 €	
CAK-SDL-BC32	Connecting cable SDL, GT3-049, Bentley Continental, DTM06-6S	69,00 €	
CAK-SDL-NGR32	Connecting cable SDL, GT3-048, Nissan Nismo GT-R, DTM06-6S	69,00 €	
CAK-SDL-HN3	Connecting cable SDL, GT3-047, Honda NSX, ASDD	155,00 €	
CAK-SDL-LRCF3	Connecting cable SDL, GT3-046, Lexus RCF, DTM06-6S	69,00 €	
CAK-SDL-CC732	Connecting cable SDL, GT3-045, Corvette C7R, DTM04-4P	69,00 €	
CAK-SDL-F4883	Connecting cable SDL, GT3-044, Ferrari 488, AS607	161,00 €	
CAK-SDL-BM63	Connecting cable SDL, GT3-043, BMW M6, AS108	132,00 €	
CAK-SDL-MGT3	Connecting cable SDL, GT3-042, Mercedes GT, MQS - DT	144,00 €	
CAK-SDL-P91R3	Connecting cable SDL, GT3-041, Porsche 991 R, DTM04-6P	69,00 €	
CAK-SDL-LH3	Connecting cable SDL, GT3-040, Lamborghini Huracan, DTM06-6S	69,00 €	
CAK-SDL-AR83	Connecting cable SDL, GT3-038, Audi R8 LMS, DTM06-6S	69,00 €	
CAK-SDL-TS4	Connecting cable SDL, GT4-039, Toyota Supra, DT06-4S	69,00 €	
CAK-SDL-AR84	Connecting cable SDL, GT4-038, AUDI R8, 3B0 - 8D0	144,00 €	

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Part no.	Description	Price	Qty.
CAK-SDL-P7184	Connecting cable SDL, GT4-037, Porsche 718 Cayman, DT06-4S	69,00 €	
CAK-SDL-AM419	Connecting cable SDL, GT4-036, Aston Martin, DTM06-6S	69,00 €	
CAK-SDL-MGT4	Connecting cable SDL, GT4-033, Mercedes GT, MQS - DT	144,00 €	
CAK-SDL-ML5704	Connecting cable SDL, GT4-030, McLaren 570s, DTM06-6S	69,00 €	
CAK-SDL-BM44v2	Connecting cable SDL, GT4-029, BMW M4, AS6 --> DTM	144,00 €	
CAK-SDL-P9814	Connecting cable SDL, GT4-024, Porsche Cayman CS, DTM06-6S	69,00 €	
CAK-SDL-KXB4	Connecting cable SDL, GT4-021, KTM X-Bow, DTM06-6S	69,00 €	
CAK-SDL-P91C11	Connecting cable SDL, Cup, Porsche 991 GT3 Gen. I DTM06-8	226,00 €	
CAK-SDL-P91C21	Connecting cable SDL, Cup, Porsche 991 GT3 Gen. II, DTM06-6S	69,00 €	
CAK-SDL-P92C1	Connecting cable SDL, Cup, Porsche 992 GT3 Gen. I, DTM04-4P	69,00 €	
CAK-SDL-ALL	Connecting cable SDL, open wires	58,00 €	
CAK-SDL-CAN	Connecting cable SDL, OBDII via CAN	69,00 €	
CAK-SDL-KLI	Connecting cable SDL, OBDII via K-Line	69,00 €	

Tube & adapter for pressure sensors

Part no.	Description	Price*	Qty.
CFT-SCLA03	Tube pressure sensor, 2 x M10x1 inside, 0°, 1,5 m	86,00 €	
CFT-SCLA06	Tube pressure sensor, 2 x M10x1 inside, 90°, 1,5 m	86,00 €	
CFT-ANSC03	Fitting M10x1 outside, both ends, steel	17,00 €	
CDA-3101	Pressure sensor 0 - 3 bar absolute, 711	242,00 €	
CVK-300101	Extension 300 cm, 711m - 711f, 4 pin	51,00 €	

Included in kit "with 1 pressure sensor" and "with 2 pressure sensors"

Order sheet rental

There is also the possibility to rent the Data Logger AiM evo5 for the races of the P9 Challenge. Therefor you only have to send this sheet additionally with your order sheet.

Data Logger Kit rental

Part no.	Description	Price	Qty.
DLG-P9CH	rental rate evo5 SDL, P9 Challenge, per event	300,00 €	

All prices are excluding 19% VAT

After receiving your order we will send you an invoice, this has to be paid in advance, then we will either send you the parts or bring them to the racetrack.

At the racetrack or before you must pay a deposit, depends on the needed parts, to memotec.

The Data logger must be handed in by the latest 60 minutes after opening of the Parc Fermé. Following parts can't be given back, because the technical condition can't be 100% certified:

- Special connection cable CAN Bus
- Turbo-/ Airbox pressure sensor
- Extension cable 3000 mm, 711 – 711, 4p
- Tube for pressure sensors
- Adapter for pressure sensors

After the event you will receive your deposit back from memotec.

Cost example Data logger rental 1 pressure sensor

Part no.	Description	Price
DLG-P9CH	rental rate evo5 SDL, P9 Challenge, per event	300,00 €
CAK-SDL-ALL	Connecting cable SDL, open wires	58,00 €
CDA-3101	Pressure sensor 0 - 3 bar absolute, 711	242,00 €
CVK-300101	Extension 300 cm, 711m - 711f, 4 pin	51,00 €
CFT-ANSC03	Fitting M10x1 outside, both ends, steel	17,00 €
CFT-SCLA03	Tube pressure sensor, 2 x M10x1 inside, 0°, 1,5 m	86,00 €
Total		754,00 €
Deposit is to be paid at the registration of the respective event.		2.062,00 €

Cost example Data logger rental 2 pressure sensors

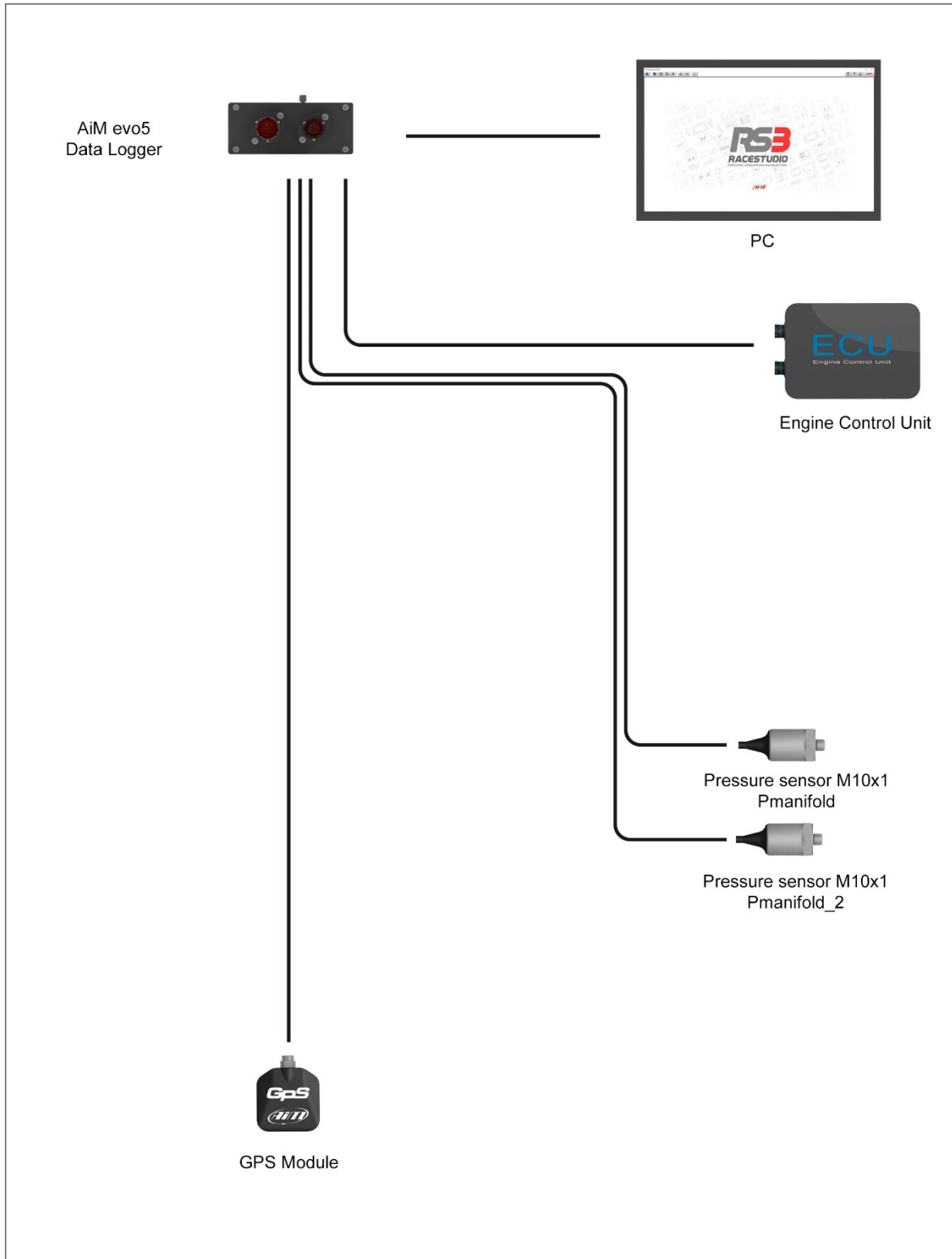
Part no.	Description	Price
DLG-P9CH	rental rate evo5 SDL, P9 Challenge, per event	300,00 €
CAK-SDL-ALL	Connecting cable SDL, open wires	58,00 €
CDA-3101	Pressure sensor 0 - 3 bar absolute, 711	484,00 €
CVK-300101	Extension 300 cm, 711m - 711f, 4 pin	102,00 €
CFT-ANSC03	Fitting M10x1 outside, both ends, steel	34,00 €
CFT-SCLA03	Tube pressure sensor, 2 x M10x1 inside, 0°, 1,5 m	172,00 €
Total		1.150,00 €
Deposit is to be paid at the registration of the respective event.		2.062,00 €


Components

P9 Challenge

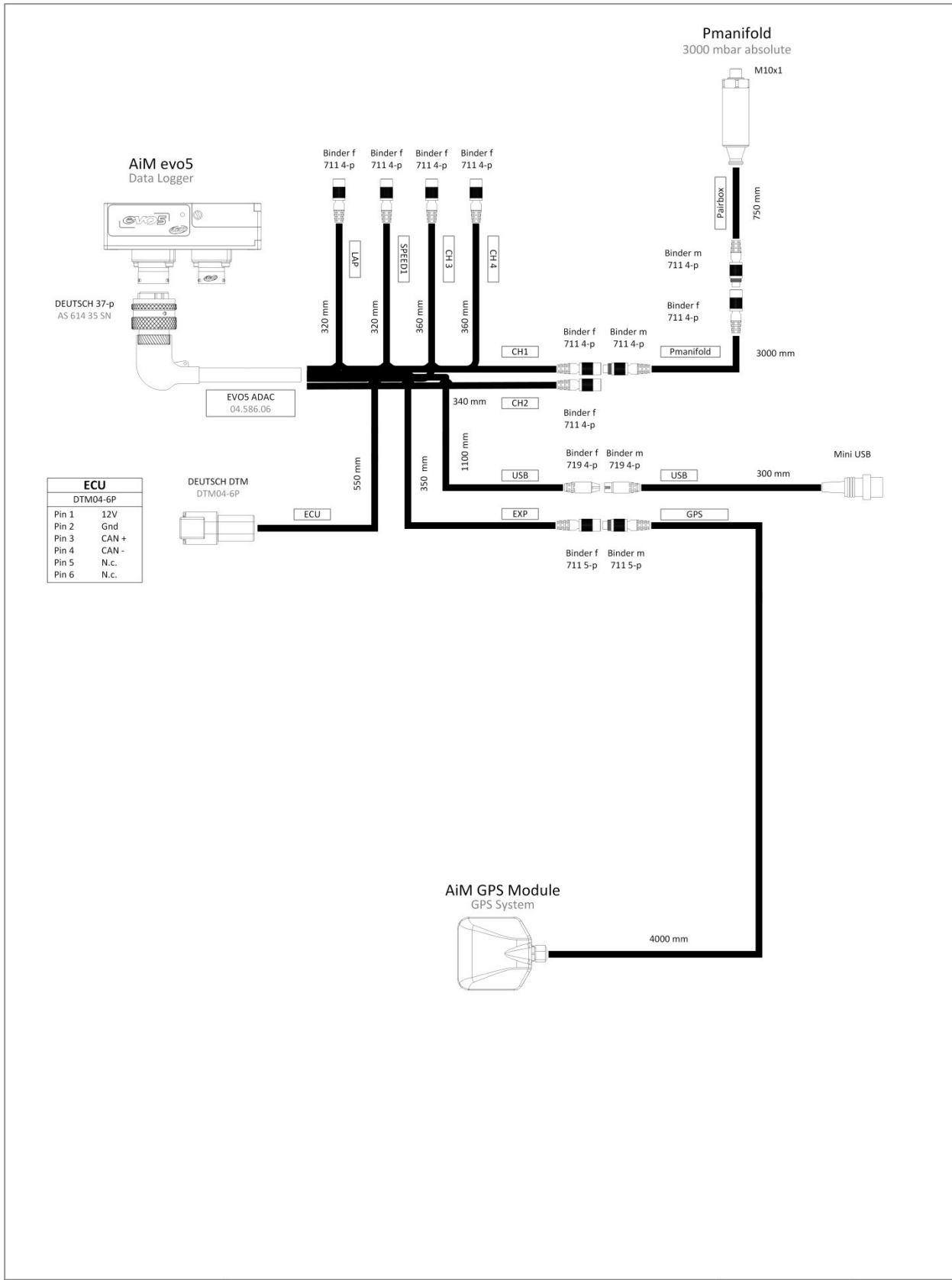
AEV51-oZ	evo5 without accessory, Scrutineering Data Logger Data logger with 3 CAN, WiFi, 8 analogue inputs
CKB-EV5104	Wiring harness evo5, 37 pin, SDL Binder 711 connector and 4 analogue inputs
BGPS91-M400	GPS-09 with 4,0 m cable length GPS System
CAK-USB201	USB-Adapter 719 4-p - Mini USB USB connection to data logger
CHG-SDL02	Holder kit for SDL Logger Holder for various SDL components
CDA-3101	Pressure sensor 0 - 3 bar absolute, 711 Pmanifold, M10x1
CVK-300101	Verlängerung 300cm, 711m – 711w, 4pin Pmanifold pressure sensor
CFT-SCLA06	Tube kit for pressure sensor Length and angle selectable from 0,5 m, 1,0 m, 1,5 m and 0° or 90°
optional	Connection cable, SDL, DTM06-6S CAN Bus adapter, connection between car and Logger (car specific)

Connection example



Designed by TME	Checked by TME	Approved by TME	Drawing N.	Date 13.01.2022	Scale
		Title Connection example Scrutineering Data Logger AiM evo5 GTC Race			
		File name AB_SDL_evo5_GTCR_2022_100	Rev 100	Sheet 1 of 1	

Wiring Scrutineering Data Logger

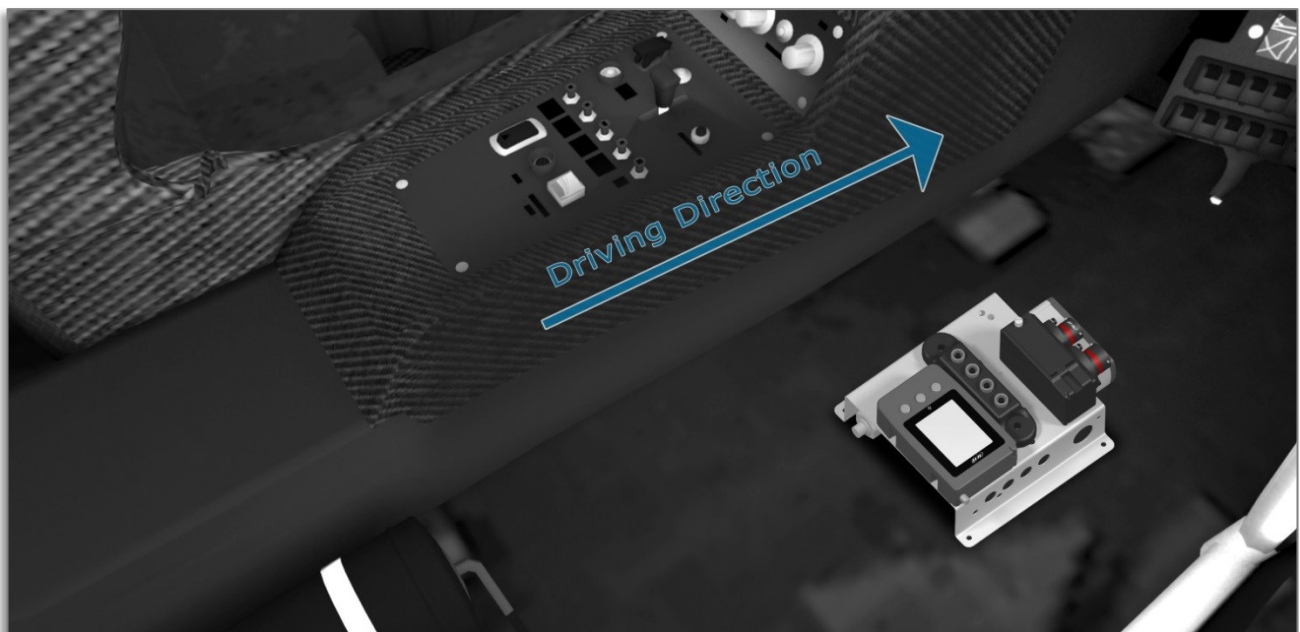
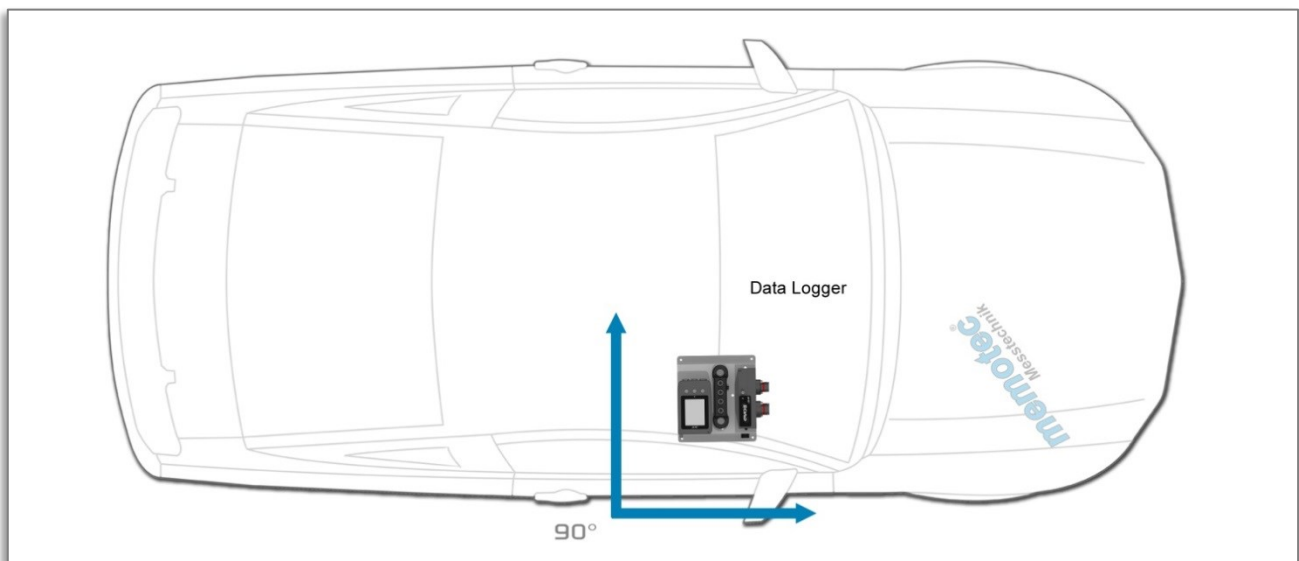


	Title Wiring Scrutineering Data Logger evo5 VLN 2017		Date 28.10.2016	Rev 100
	File name Wiring_SDL_evo5_VLN_2017_100	Designed by TME	Scale	Sheet 1 of 1

Mounting of the Scrutineering Data Logger parts

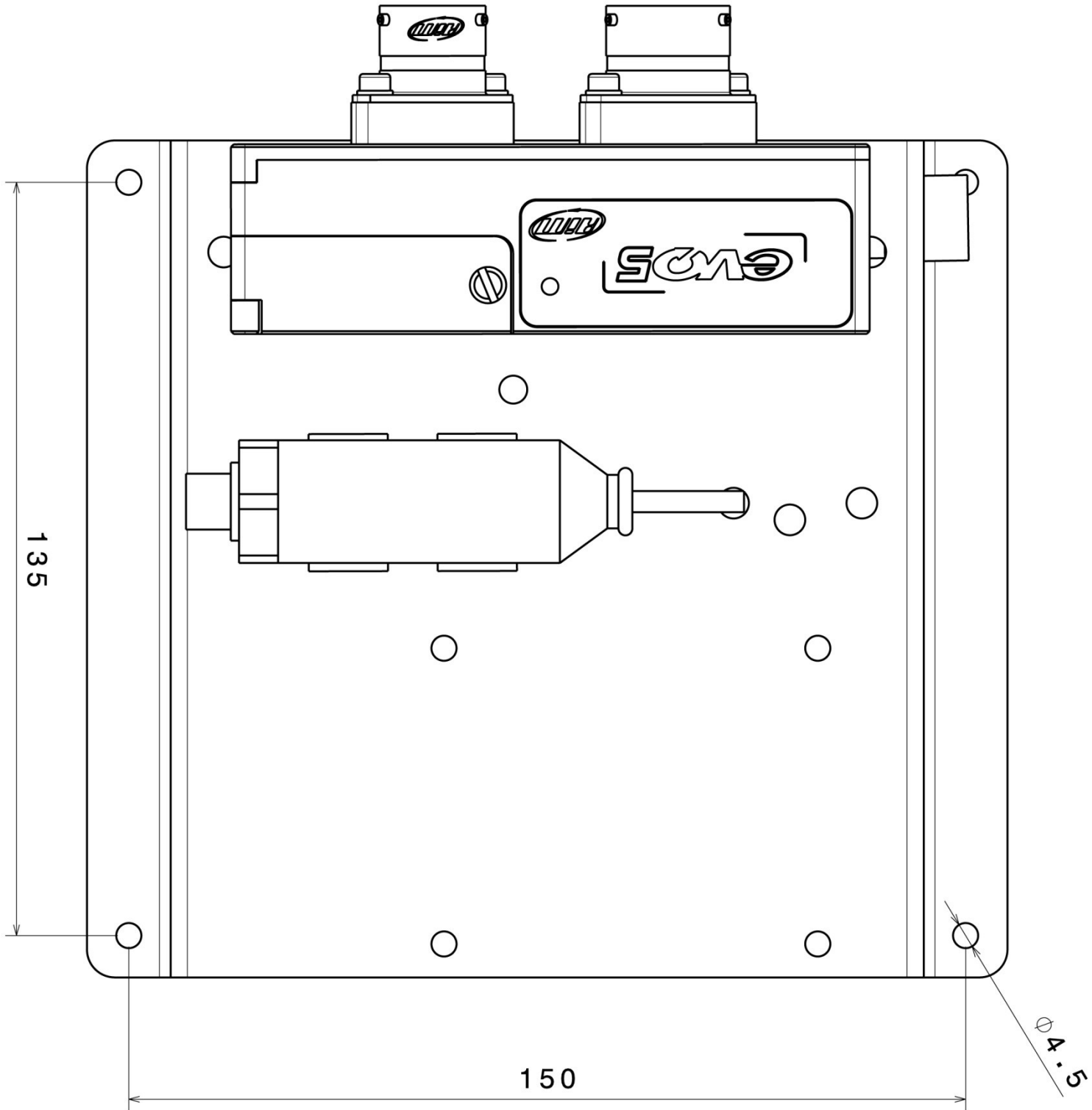
Mounting of the data logger AiM evo5

Mount the data logger AiM evo5 with the stainless steel bracket on the car's floor on the passenger side close to the gear lever. Evo5's connectors must look to the front. The connectors have to be easily accessible. The logger (and also the bracket) has to be rectangular to the centerline of the car. Mark the position of the 4 holes which have to be drilled into the floor plate and then fitted with rivet nuts. Drill 4 holes \varnothing 6.2 mm, install the rivet nuts and mount the silent blocs.

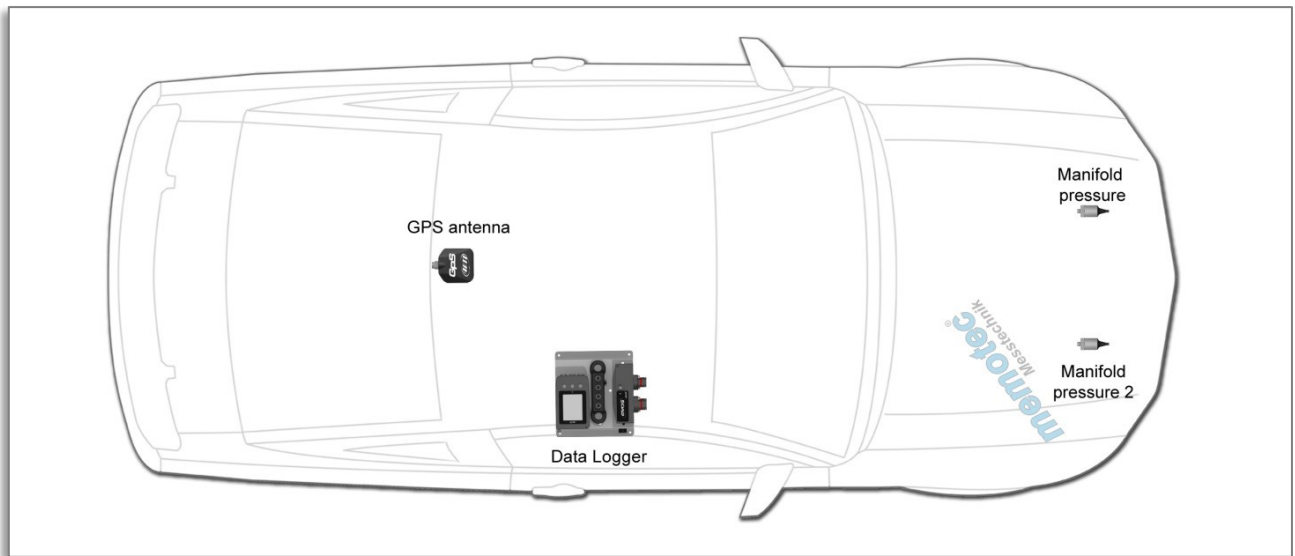


The picture shows the data logger AiM evo5 installed on its bracket with optional SmartyCam HD GP recorder unit and Data Hub.

Drilling template



Comment: The sketch can be used as a drilling template.



GPS Antenna

The GPS Antenna must be mounted in a position on the vehicle roof, so there is no other antenna within a 0.5m radius (GPS, radio).



Manifold pressure sensor

Pressure sensor: Measuring range 0-3 bar abs., resolution 0.7 mbar. It must **not** be mounted directly into the manifold but connected by a tube and fixed to the chassis (free of vibration and heat).

Use of own tubes

The tube has to be a braided brake line in D-03 with a Fitting that is put to the input manifold. With the pressure sensor comes a fitting with M10x1 inside thread to a D-03 connector to connect the tube to the sensor.



Tube kit pressure sensor



There are versions with straight connections to the intake manifold and 90° angled connection. Both versions are available in the lengths 0,5m, 1m and 1,5m.

The connection kit for pressure sensors includes:

1. 1/2 Fitting/s D 03 - M10x1, steel (connection for the pressure hose to the engine)
2. 1/2 D03 Steel mesh PTFE-tube/s (in various lengths).

Data storage

The data are stored on a normal SDHC Class 10 SD card.

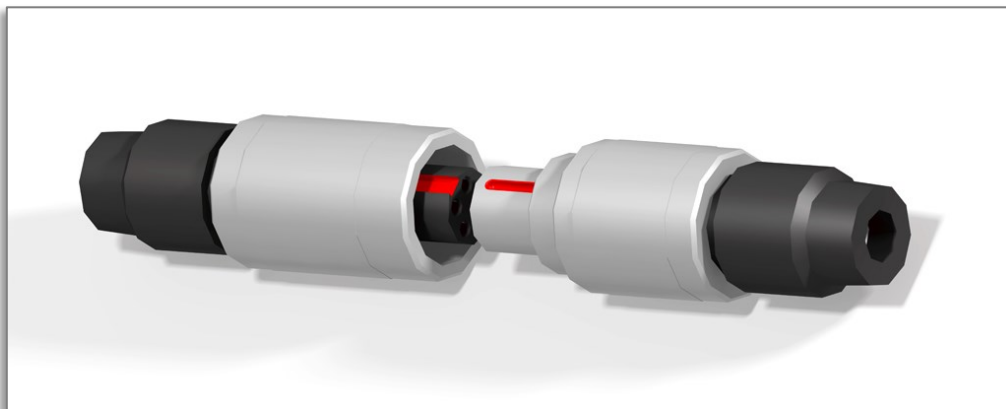


Important:
 Install the SDL kit as described in this manual. The position and alignment of all components must be in all vehicles, which take part at the P9 Challenge, identical.

Comments

* All prices without vat

Correct Position of Binder connector when plugging together



The red marked notches must be located in the same position.

Pinout Scrutineering Data Logger

SDL Logger	Description	<i>Connector memotec SDL Data Logger</i>			
	Label	ECU			
	Part Number	DTM04-6P			
	Notes	All memotec Series			
1 V Battery	red	3 CAN +	white	5 n.c.	n.c.
2 Ground	black	4 CAN -	blue	6 n.c.	n.c.

CAN Stream information

To enable the communication between the data logger and the vehicle CAN-Bus, we need the stored can stream. In the lower link, the respective channels of the individual race series as well as the communication structure are stored. Please fill in the corresponding form and send it to us.

<http://www.me-mo-tec.de/content/download.aspx?file=4639>

How to check the systems

The teams are responsible that the systems are switched on and record. How to check this, will be explained below.

evo5 Data Logger

evo5 features an RGB LED on top of it near to the SD Card slot.

As soon as the main switch is switched on, the logger will go on. This is visible on the green LED. When the engine is started, the logger starts recording, visible on the cyan LED.



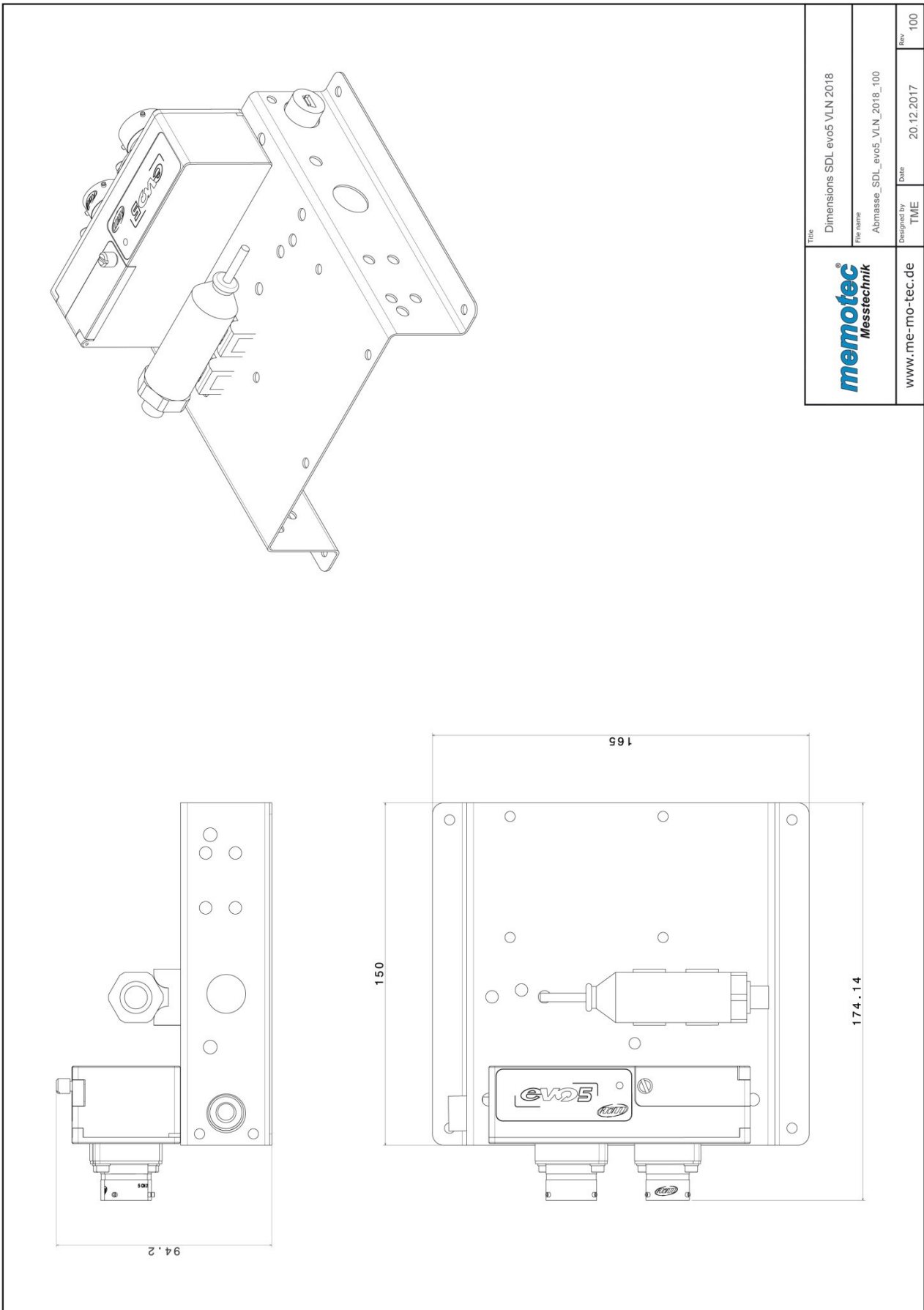
The LED shows the logger status as for the following table:

Logger status	LED colour	Blinking
Logger in error	Red	Slowly
Recording	Cyan	Still
Idle status	Green	Still

Release History

Release	Date	Author	Note
100	20.02.2024	TME	First release

Dimensions



Title		Dimensions SDL evo5 VLN 2018	
File name		Abmasse_SDL_evo5_VLN_2018_100	
Designed by	Date	20.12.2017	Rev
TME			100
www.me-mo-tec.de			




GPS Module

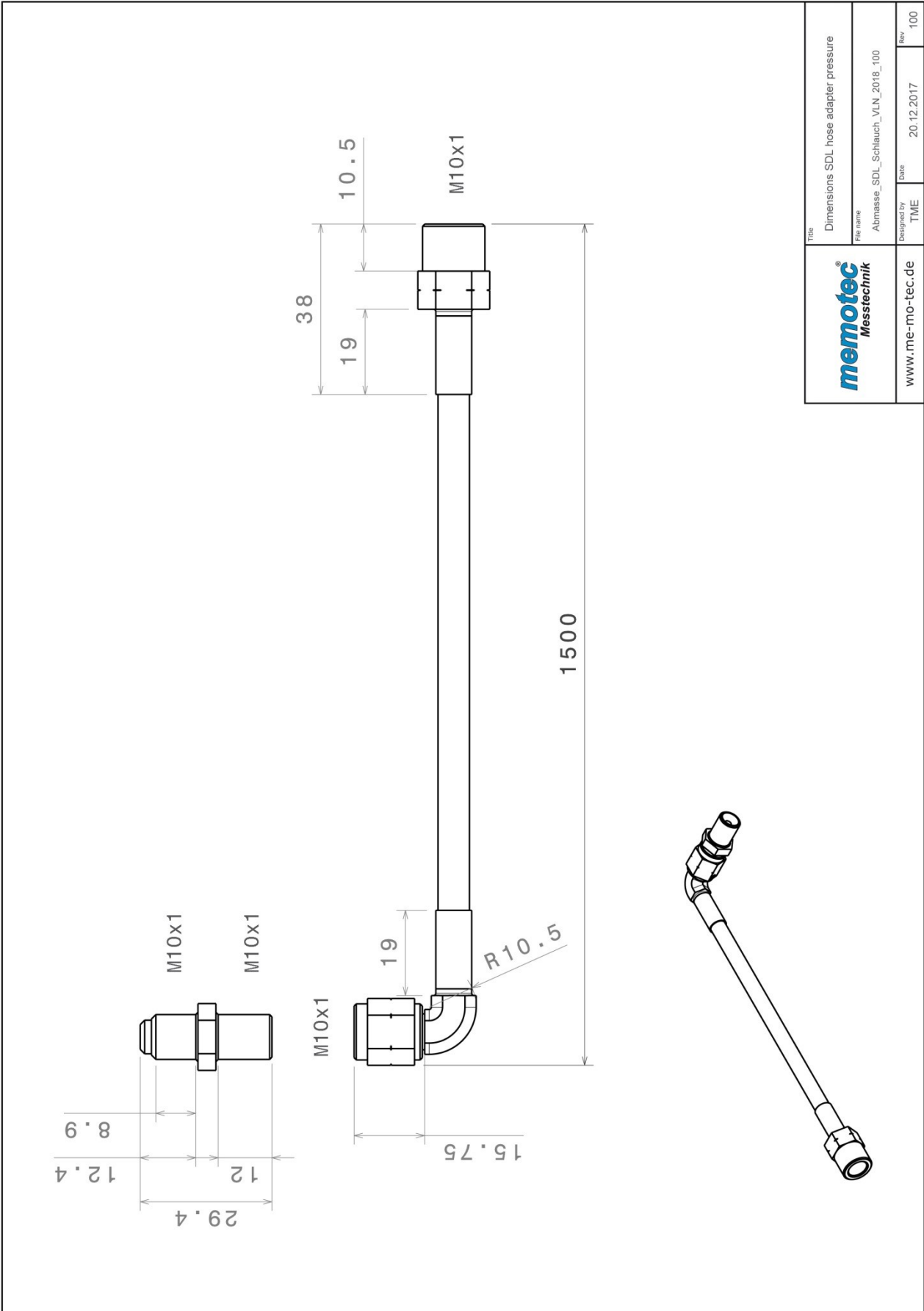
<small>Title</small>	Dimensions SDL GPS Module
<small>File name</small>	Abmaesse_SDL_GPS_VLN_2018_100
<small>Designed by</small>	TME
<small>Date</small>	20.12.2017
<small>Rev</small>	100


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Pressure sensor

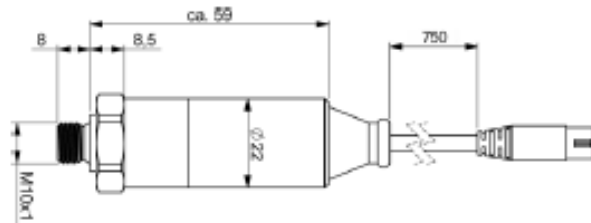
	Title Dimensions SDL Pressure Sensor		Designed by TME	Date 20.12.2017	Rev. 100
	File name Abmaesse_SDL_Pressure_VLN_2018_100				
www.me-mo-tec.de					

Tube kit pressure sensor



		Title Dimensions SDL hose adapter pressure	
www.me-mo-tec.de		File name Abmasse_SDL_Schlauch_VLN_2018_100	
Designed by TME	Date 20.12.2017	Rev 100	Rev 100

Technical Documentation pressure sensor



Informations

Mechanical	
Housing	304 Stainless steel
Medium	All fluids and gases
Pressure port	M10 x 1
Shock	1000g, 11ms, ½ sinus
Vibration	25g (peak), 20...2000 Hz
Protection class	IP66
Overload pressure	Up to 2x rated press.
Burst pressure	Up to 5x rated press
Cable length (ca.)	75 cm
Weight (ca.)	80 gr.
Temperature	
Medium temp.	-40 °C – 125 °C
Ambient temp.	-40 °C – 105 °C
Storage temp.	-40 °C – 125 °C
Compensated range	-20 °C – 85 °C
Electric	
Power supply	10 – 32 VDC
Output voltage	0 – 5 V, linear
Output impedance	< 100 Ohm
Current consumption	< 10 mA
Reverse volt. protection	Yes
Performance	
Accuracy @RT	< 1,0 %
Linearity error	< 0,15 % F.S.
Repeatability	< 0,10 % F.S.
Stability (1 year)	< 0,10 %
Response time	< 1 ms
Pressure cycles	> 10 Million

Pinout

Pin1	Signal
Pin2	Ground
Pin3	Power supply
Pin4	n.c.

Binder 711 / 719 4-p solder view

Typ of connectors



Part number

V20Z943	Pressure sensor 0 - 3 bar abs., 719
V26Z943	Pressure sensor 0 - 3 bar abs., 711



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