



Technical data sheet UDS-AT^{PRO}

Device Versions	Standard version Standard version with GNSS	
Internal Sensors	3D acceleration sensor 3D angular velocity sensor Real-time clock (battery-buffered)	
Connection	26 pin connector	
Interfaces	Power supply (U _{Batt}) Communications Digital inputs and outputs User interface (UDS button) Serial interface Service GNSS	12 V DC / 24 V DC CAN / CiA 447 See following list CAN RS232 (optional) USB 2.0 HS SMA connector (active antenna)
Power buffer	SuperCap for up to 20 seconds follow-up time in case of voltage loss	
Modes of operation	Active mode, power saving mode, service mode and transport mode	

Standard configuration discrete digital in- and outputs

Pin	Standard configuration	Optional	Function
IN_00	Input_A		Ignition (term. 15)
IN_01	Input_B		Speed pulse
IO_0	Input_0		Parameterisable (brake)
IO_1	Input_1		Parameterisable (left indicator)
IO_2	Input_2	Output_2 (U _{Batt})	Parameterisable (right indicator)
IO_3	Input_3	Output_3 (U _{Batt})	Parameterisable (low beam)
IO_4	Input_4	Output_4 (U _{Batt})	Parameterisable (high beam)
IO_5	Input_5	Output_5 (U _{Batt})	Parameterisable (parking light)
IO_6	Output_0		Configurable (trigger)
IO_7	Output_1		Configurable (serious event)



Technical data

Certification	E1 approval (acc. to ECE-R10) RoHS	E1*10R06/01*9221*00 Compliant
Power supply	Nominal Min. / max. Reverse polarity protection	12 V DC / 24 V DC 8,5 V DC / 30 V DC Yes
Current consumption	Active mode (typical) Power saving mode Protection (input)	75 mA @ 12 V / 50 mA @ 24 V Max. 350 µA Max. 2 A
CAN	Type Baud rate Terminating resistor	HS-CAN Max. 1 Mbaud No
Inputs (digital)	Max. continuous operating power Switch-on threshold Switch-off threshold Reverse polarity protection ESD protection	36 V 4,5 V ... 7,5 V 2,1 V ... 5,2 V Yes Yes
Outputs (digital)	Active to U _{Batt} , short-circuit proof	High Side 12 V / 24 V, max. 100 mA
Sensors (X, Y and Z axis)	Acceleration sensor 1	Measuring range: ±4 g Measuring frequency: max. 800 Hz Resolution: approx. 0,244 mg
	Acceleration sensor 2	Measuring range: ±200 g Measuring frequency: max. 800 Hz Resolution: approx. 49 mg
	Angular velocity sensor	Measuring range: ±500 °/s Measuring frequency: max. 800 Hz Resolution: 0.0175 °/s
Temperature range	Operation / storage	-40 °C ... +85 °C
Housing	Protection class	IP50
	Material	PC / ABS
Weight	Standard version	146 g ±5 g
	Standard version with GNSS	151 g ±5 g
Dimensions	Without clamping flanges	33 x 80 x 119 mm (H x W x L)
	With clamping flanges	33 x 111 x 119 mm (H x W x L)

Developer

Swoboda Embedded Engineering GmbH, Germany

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Manufacturer

Swoboda Embedded Solutions GmbH, Germany

Sales

Kienzle Argo GmbH
 Alboinstraße 56
 12103 Berlin
 GERMANY

Telephone +49 30 79 49 00 18

www.uds-at.pro