
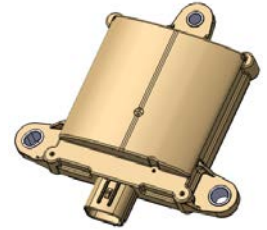


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General Description / Allgemeine Beschreibung:

The ARS400-Premium is a 77 GHz radar sensor with digital beam-forming scanning antenna which offers two independent scans for far and short range. The ARS400-Premium uses a pulse compression radar modulation scheme as basic principle for its measurements.


ARS4-A is designed for Forward Collision Warning, Emergency Brake Assist, Collision Mitigation System, Adaptive Cruise Control (ACC), Emergency Steering Assist, Traffic Jam Assist (working together with a camera)



Technical Data / Technische Daten:

Signal / Signal	Value / Wert	Unit / Einheit	Remark / Bemerkung
Radar Characteristics			
Operation frequency	77	GHz	
Distance measurement	0.25 – 250 0.25 - 70	m	one far range scan of $\pm 9^\circ$ one near range scan of $\pm 60^\circ$
Accuracy for distance measurement	± 0.2	m	For a single target
Speed measurement	-400 ... +200	kph	
Accuracy of speed measurement	0.1	Kph	For point target
Sensitivity	Corner with radar cross section of 3 dBm ² at distance < 80 m		For azimuth range $-10^\circ \dots +10^\circ$
Emitted radar power (EIRP)	< 38	dBm	
Conducted power (antenna input)	< 10	dBm	
Update rate	60	ms	
Antenna			
Antenna principle	Planar antenna combined with digital beam forming		2 Tx columns plus 6 Rx columns
Field of view in azimuth	-9...+9 -75...+75	°	Far range scan Near range scan
Field of view in elevation	14 20	°	6 dB – two way
Angle measurement accuracy	± 2 ± 4 ± 5	° ° °	$\pm 30^\circ$ $\pm 60^\circ$ $\pm 75^\circ$
Vehicle Interface			
Vehicle interface	CAN, Flexray, Ethernet		A host wake-up or un wakeble CAN transceiver module
Power consumption	6W	W	Power supply of 12 V on KL.15 (ignition)
Mechanical size	137.27 x 90.8 x 30.66	mm	Width x length x height
Weight	318	g	
Mounting area	Application specific		Vertically: between 295mm and 800 mm above road-surface level
Connector	Tyco C-114-18063-128		8 pins standard connector
Vehicle integration	<ul style="list-style-type: none"> Concealed in front of grill or behind bumper fascia. No manual alignment necessary 		
Temperature range	-40 ... +85 -40 ... +90	° C ° C	Operating Storage

Contact us to learn more about technical details or the availability of deliverables. Sales Contact / Kontaktadresse:

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Preliminary