


Date/Datum: 07/23/2014 File ARS4-B.Datasheet v4 (Entry).docx	<b>Data Sheet / Datenblatt</b>  <b>ARS4-B</b> Advanced Radar Sensor	 Advanced Driver Assistant Systems
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## General Description / Allgemeine Beschreibung:

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

ARS4-B is designed for Forward Collision Warning and Emergency Brake Assist applications.



## Technical Data / Technische Daten:

Signal / Signal	Value / Wert	Unit / Einheit	Remark / Bemerkung
<b>Radar Characteristics</b>			
Operation frequency	76-77	GHz	
Distance measurement (for a target with RCS=10dBsm, typ. values)	0.5 – 120 0.5 - 55	m m	one far range scan of $\pm 9^\circ$ (170m typ, 150m min @ $0^\circ$ ) one near range scan of $\pm 45^\circ$
Accuracy for distance measurement	$\pm 0.13$	m	For point target
Speed measurement	-400 ... +200	kph	
Accuracy of speed measurement	0.1	Kph	For point target
Emitted radar power (EIRP)	< 36	dBm	4W (peak)
Conducted power (antenna input )	< 10	dBm	10mW
Update rate	60	ms	
<b>Antenna</b>			
Antenna principle	Planar antenna combined with digital beam forming		6 channels
Field of view in azimuth	-9...+9 -45...+45	$^\circ$	Far range scan Near range scan
Field of view in elevation	18	$^\circ$	6 dB – two way
Angle measurement accuracy	$\pm 0.2$ $\pm 2$	$^\circ$ $^\circ$	$\pm 9^\circ$ $\pm 9 \dots \pm 45^\circ$
<b>Vehicle Interface</b>			
Vehicle interface	CAN		A host wake-up or unwakeble CAN transceiver module
Power consumption	4W	W	Power supply of 12 V on KL.15 (ignition)
Mechanical size	90 x 62 x 20	mm	Width x length x height
Weight	< 200	g	
Mounting area	Application specific		Vertically: between 295mm and 800 mm above road-surface level
Connector	Hirschmann 872-665-011		6 pins standard male connector
Vehicle integration	<ul style="list-style-type: none"> <li>Concealed in front of grill or behind bumper fascia.</li> <li>No manual alignment necessary</li> </ul>		
Temperature range	-40 ... +85 -40 ... +105	$^\circ$ C $^\circ$ C	Operating Storage

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