

Customer- & Application-Specific Testing

The laboratory organization at LEONI is predestined for validation testing of cables and cable components according to common automotive standards (e.g. ISO, JASO or SAE) as well as dedicated customer and OEM specifications.

Several test laboratories at various LEONI locations are collaborating on behalf of a centralized data base and with harmonized equipment and standardized procedures. LEONI also maintains partnerships with reputable external and accredited laboratories for cable validation and complex mechanical and environmental simulations on product and component level.

Global Market Coverage

To meet the increasingly demanding requirements, LEONI Adascar® Sensor Cables imply special material and design know-how and complex production processes compared to the standard cable portfolio. LEONI Adascar® Sensor Cables are globally produced and available at our production locations in Europe, China and Mexico.

More about global production network:



Automotive & Commercial Vehicles

www.leoni-automotive-cables.com

www.leoni-cable.com

cable-info@leoni.com

[@leoni_cable](https://twitter.com/leoni_cable)

Business Group

Automotive Cable Solutions

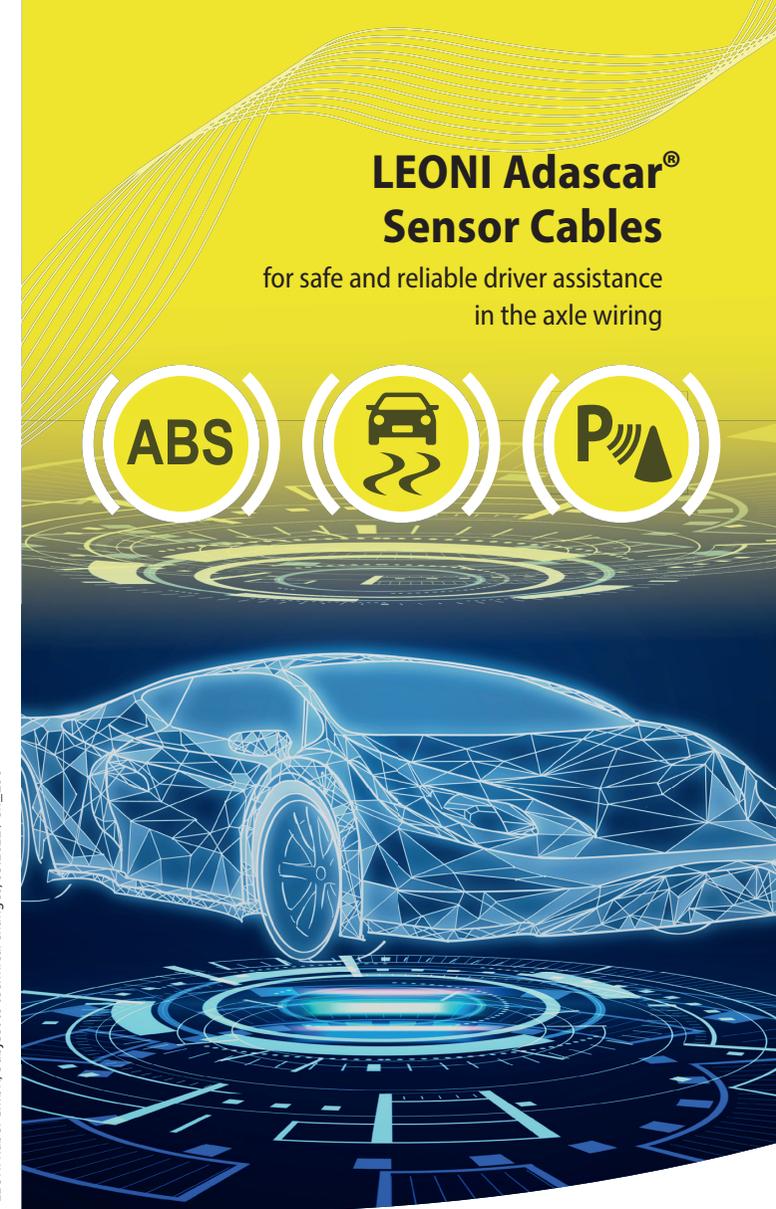
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LEONI Adascar® Sensor Cables

for safe and reliable driver assistance
in the axle wiring



The Quality Connection

LEONI

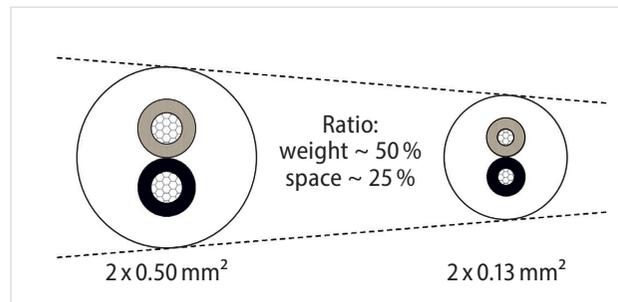
Field of Applications

With its brand LEONI Adascar® Sensor and its comprehensive cable portfolio, LEONI today is one of the leading automotive suppliers in Europe, Asia and the Americas for cables in the axle wiring of both cars and trucks.

- wheel speed sensor (WSS)
- anti-lock braking system (ABS)
- electronic stability program (ESP)
- active body control (ABC)
- brake wear indicator (BWI)
- extension systems for trucks and trailers
- redundant systems for autonomous driving

Requirements & New Challenges

Since the cables are mainly installed without a full-on protective system in the exterior area of the vehicle, they are directly exposed to external and environmental factors like oil, fuel, road and weather conditions. Additionally, the vibration of the wheels as well as the steering movement are mechanically stressing the cables.



Ratio potentials by reduction of cross section

Considering the steadily increasing number of driver assistance systems and the global trend towards new mobility concepts and autonomous driving, the complexity and number of cables within the installed systems is also growing. At the same time, weight, space and costs have to be reduced with equal or even improved performance to sustain global competitiveness.

Portfolio Overview & Design Features

The cable portfolio of LEONI Adascar® Sensor is equipped to meet the mentioned set of requirements to our customers satisfaction and is already targeting the upcoming challenges in the market. As usual in the axle wiring, our cable jackets are commonly made of different types of thermoplastic polyurethane to provide excellent mechanical properties in terms of bending, torsion

and abrasion. This highly effective material can also withstand the harsh ambient conditions in the application and is very well suited for automated processing at customer side (grommet application, stripping etc.). The enhanced usage of cross-linked materials (chemically or irradiated) as core insulation helps to further increase the thermal overload characteristics of the cables and, additionally, boosts the mechanical and chemical resistance. To secure the required electrical and flex life performance, the choice of the right conductor design is essential.

The designs assigned to the LEONI Adascar® Sensor portfolio typically follow dedicated customer/OEM specifications and common automotive standards (e.g. ISO, JASO, SAE).

Portfolio overview of LEONI Adascar® Sensor

Type	FLRY11Y	FL(R)4G11Y	FLR2X11Y	FLR31Y11Y	High Temp
Designs	round cables with ≥ 2 cores, unshielded or shielded (if required), flame retardant (if required)				
Cross Sections	$\geq 0,13 \text{ mm}^2$				
Conductor Materials	copper (bare, tin- or nickel-plated) & copper alloys (CuSn, CuAg, CuMg etc.) acc. to common automotive standards				
Core Insulations	PVC	EVA	PE-X / XLPE	TPE-S	PE-X / XLPE, ETFE, FEP, PTFE
Jacket Insulations	TPE-U				
Temperature Range	Class B (T2) -40 °C to +105 °C		Class C (T3) -40 °C to +125 °C		Class D (T4) -40 °C to +150 °C
Field of Application	extension systems for trucks and trailers		wheel sensor applications (ABS, WSS, ESP, ABC, BWI etc.) in standard or redundant systems specifically for autonomous driving, sensor applications in high temperature conditions		
Design Features	favorable priced		high bending strength, high abrasion resistance for jacket, very good media/hydrolysis resistance, well suited for automated processing and overmolding at high temperatures (cutting, stripping, grommet application, sensor head molding etc.)		

*customer-specific designs with differing configurations are also possible on request

