



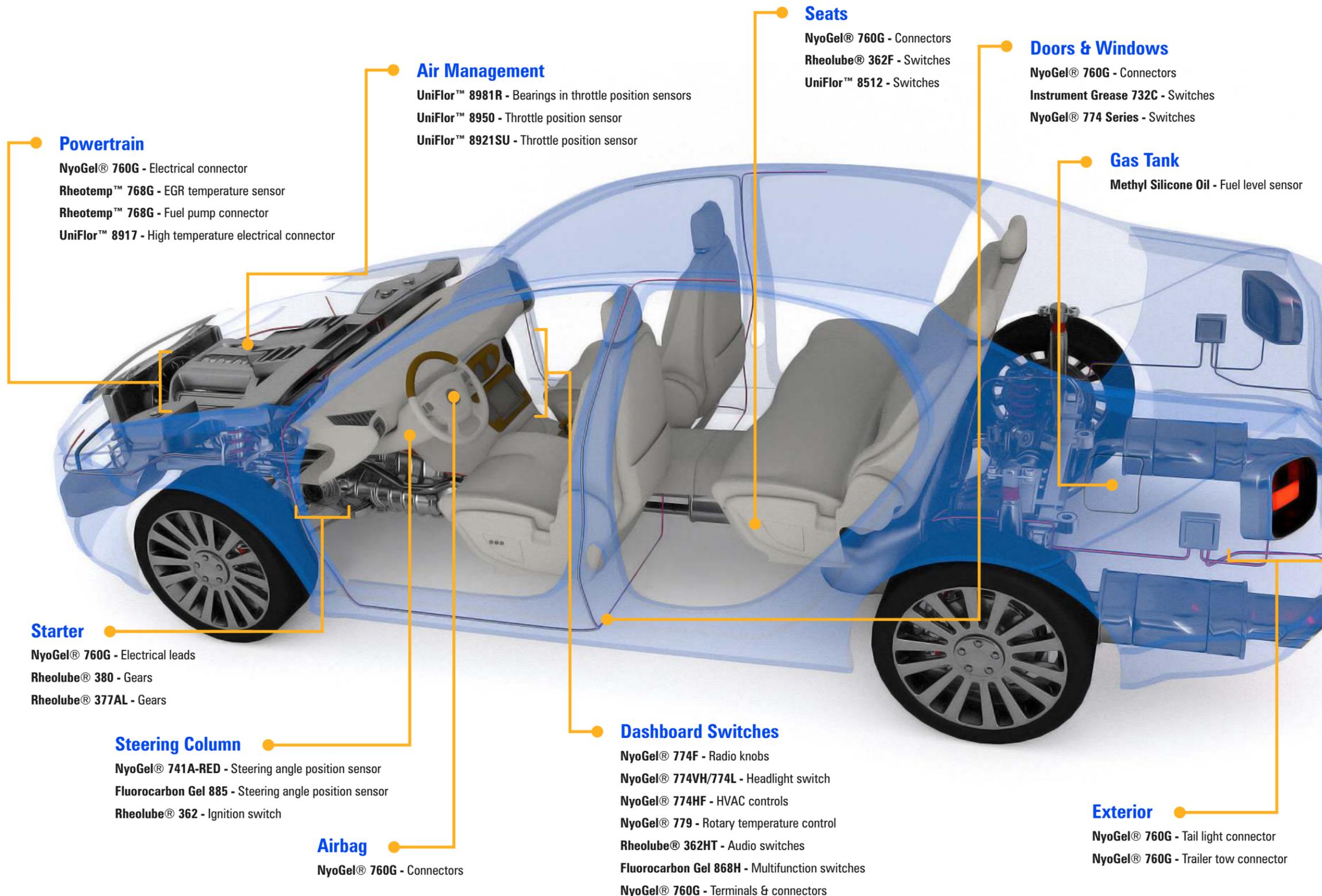
# ELECTRICAL COMPONENTS

LUBRICANTS FOR CONNECTORS, SENSORS, & SWITCHES

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## CONNECTORS



### Protecting Contacts

Contact lubricants are used to prevent wear, environmental corrosion, and fretting corrosion, micro-motion caused by vibration and thermal changes within the connector housing. By reducing the formation of metal oxide at the mated interface, synthetic lubricants extend contact life and keep resistance low.

### Insertion Force

Insertion force reduction has also become a major OEM challenge. Mating multi-pin connectors, sometimes in hard to reach locations, often requires significant force – creating the potential for incomplete mating, as well as repetitive-motion injuries for assembly workers. Synthetic based lubricants have been proven to reduce high insertion forces – without unacceptable increases in resistance.

## SENSORS



When electromechanical sensors or potentiometers break contact, signal is lost. To ensure continuous contact, choose a low-viscosity fluorinated lubricant. A more viscous lubricant may cause the contact to hydroplane, instead of remaining in contact with the resistor. Sensor lubricants should exhibit low viscosity at -40°C and pour points should approach -90°C to guard against lubricant thickening at low temperatures.

## SWITCHES



Contemporary climate control systems rely upon a series of motorized vents to re-route airflow for operator comfort. A synthetic lubricant for this application should be engineered specifically to work with plastic gears. It should also offer stability at low temperatures.

Volume controls, tone controls, and even the thumb wheel used to dim dashboard intensity benefit from damping greases. They extend life and convey a quality feel to hand-operated devices.