

Innovation transfer in the automotive sector

by Silvia Mati - Italian and European Patent Attorney

The growth of e-mobility sector is raising several issues and, consequently, the necessity to find solutions to overcome them. Many companies are opening new business units taking advantage of the expertise gained by operating for decades in other industries and transferring the technology developed to be applied to different use.

THINX is assisting Pneumax, an Italian company leader in the pneumatic automation components' field, to successfully transfer, protect and implement its technology into new and challenging industries such as the automotive one. This transfer path has been characterized by the innovation of a vast range of product aspects amongst others focused on the objective of improving safety ("Safety Automation"), so as to safeguard productivity and eliminate any downtime.

With particular reference to Pneumax "clamping" product range, which already integrates the original mechanism for the continuous adjustment of the opening position, in addition to the innovative position sensor particularly resistant to contamination by residues from machining or welding processes, a release system has recently been implemented, which allows the operator to unlock the unit in emergency situations e.g., in the event of a lack of pneumatic power. Still within the "clamping" product range, Pneumax has newly integrated a self-locking system for pneumatic clamps that can hold the load applied to the actuating arm in place in the event of a lack of air supply.

Pneumax "pivoting" family has also recently been innovated by the introduction of a component of great importance from the point of view of Safety Automation: the rotating units are equipped with a pioneering braking system that intervenes in emergency situations, blocking the load in whatever position it may be. The original Pneumax position sensor is used here to monitor the operating condition of the brake. Not least, an integrated brake release system, with automatic reset, allows the operator to intervene and move the device in the event of a lack of air.

All the above aspects and many others more have been analyzed and studied in depth as part of a close collaboration between Thinx and Pneumax for identifying, on a case-by-case basis, the most appropriate protection strategy tailored to each of the particular technological features that characterized the specific invention.