

M12^{Nm} WITH DEFINED TORQUE

The Era of the Torque Wrench is coming to an End

ESCHA presents the first connector which is tight when it rotates freely

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ESCHA is revolutionising the market for connection technology with the new M12^{Nm} round connector. At the SPS/IPC/DRIVES 2008 the company presented the first connector in the world which, without using a tool, gives a signal when it is tight. The integrated torque control system ensures that the connection is sealed in accordance with the IP67 protection class.

The principal problem with connection technology used to be that during work it was not possible to say for certain whether a connector was really mounted to the prescribed torque without using a torque wrench, and consequently there was no assurance that the required pressure on the O-ring had been achieved. The result was a connection which was either too tight or not tight enough. As the O-ring can be ruined if the connector is over tightened, both scenarios mean connections which do not form perfect seals.

There are, therefore, approaches where the O-ring cannot be damaged through excessive tightening. But this still does not solve the fundamental problem. Even here and where similar attempts to resolve the problem have been made, it cannot be ascertained whether the connection creates a perfect seal without using a torque wrench.

The connector specialist ESCHA identified this problem and developed the first M12x1 circular connector, which gives a message when it is sufficiently tight. The special feature of the new M12^{Nm} with defined torque is that it can be tightened by hand and the result is

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a perfect seal. The integrated torque control system ensures that even without a tool the connection is sealed in accordance with the IP67 protection class and can, therefore, also be used industrially. By using the M12^{Nm} the safety level in the application is increased.

How does the M12^{Nm} work?

The way that the M12^{Nm} works is as simple as it is brilliant. First the connector is positioned with an axial movement inside the coupling. Then the plastic union nut is tightened by hand. As soon as the pre-defined torque has been achieved, the union nut rotates freely. The user receives a clear haptic and acoustic signal and knows that the connection is sealed and no further compression should be applied.

The M12^{Nm} will be available from the second quarter of 2009 as three, four and five pin versions and as connector and coupling in straight and angled variants. The entire product range will conform to the requirements of the IP67 protection class.



ESCHA_0708: The new M12^{Nm} with integrated torque system is revolutionising the connector world

ESCHA - About us

ESCHA is a leading supplier in the field of connectivity and enclosure technology. The family enterprise has been developing and manufacturing in Halver, Sauerland for more than 25 years. More than 400 employees help create innovative products, and thus continue to extend the product portfolio. ESCHA fulfils customers' specific requirements through highly in-depth development and production.

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