Open-S V14 Electrical connector

Optimized for automatic couplers and tiltrotators with MiC 4.0 excavators, where a reliable electrical connection is crucial

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The Open-S V14 Connector is a durable, high-performance connector solution with 14 spring-loaded contact pins. It is designed for automatic coupler systems on excavators and construction machinery that follow the MiC 4.0 protocol. Built for earthmoving applications, it delivers reliable performance in demanding environments.

Product description

The large contact surfaces and the strong spring loaded pins ensure reliable electrical transmission and high current capabilities. With more than enough pins, the self cleaning principle ensures that your work tool, such as a tiltrotator, is securely connected to the carrier machine's controller.

The work tool part has a flat, easy to clean and maintain design, where the contact surfaces are sufficiently large to allow for lateral tolerances between the coupler and the work tool.

The contacts core is hardened Phosphor Bronze, which results in effective corrosion-resistant properties when exposed to harsh conditions, as well as a hardness similar to steel to ensure a long service life.

The highly flexible TPE/PUR cable is specifically designed for dynamic applications with a high abrasion resistance jacket that is oil resistant and flexible at low temperatures.

Open-S V14 electrical connector with 14 contact pins

Tiltrotator with automatic coupler system

Open-S V14 connector in automatic coupler system

Technical specifications

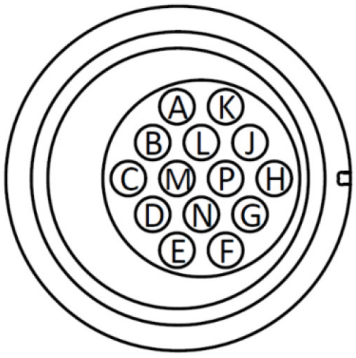
Connector

Number of positions	14
Connection mechanism	High force pogopin spring loaded plungers
Contacts vertical stroke	5 mm
Contacts	Gold plated Phosphor Bronze
Max continuous current per contact pin	5A
Max continuous current totally	20A
Housing	Glass fibre reinforced PA 66 and stainless steel
Potting	Epoxi fully back potted cables

Cable

Cross section	AWG 18, 0,75mm²
Jacket material	TPE/PUR
Min. bend radius	7,5 x diameter
Temperature	-40 to +80°C
Weather resistance	UV and temperature tolerant
Oil resistance	EN 50363-10-2 + VDE 0207-363-10-2
Absence of harmful substances	RoHS II - directive 2011/65/EU

Pinout



View from connector side

Pin	Description	
A	MiC4.0 +	
B	MiC4.0 +	
C	MiC4.0 CAN H	Twisted
D	MiC4.0 CAN L	Pair
E	MiC4.0 GND	
F	MiC4.0 GND	
G		
H		
J		
K	MiC4.0 Term.	
L		
M		
N		Twisted
P		Pair

MiC 4.0 - The open machine language

The Machines in Construction MiC 4.0 working group is a network organization and central committee in Europe that deals with a uniform digital language for construction machinery and an identical understanding of data content and its meaning.

The aim is to achieve manufacturer-independent, cross-machine interpretation and comprehensive communication of digital machine status and construction process data.

Manufacturers can have their construction machinery validated as "MiC 4.0-compliant", so that in future it will be possible for operators of these machines to have a globally standardized understanding of data.

MiC 4.0 - One digital language. A uniform, manufacturer-independent and machine-overarching digital language around the construction process, www.mic40.org.