

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 earth-moving applications, it delivers reliable performance in demanding environments.



Standardized MiC 4.0-compliant electrical connector for use between automatic couplers and work tools, including tiltrotators with electrical connections.

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.

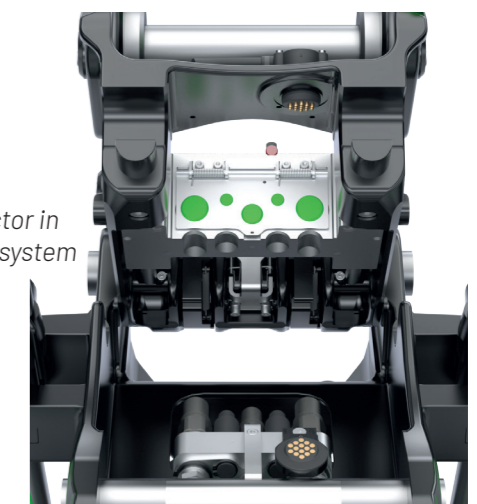
The highly flexible TPE/PUR cable is specifically designed for dynamic applications with a high abrasion resistance jacket that is oil resistant and flexible at low temperatures.



Open-S V14 electrical connector with 14 contact pins



Tiltrotator with automatic coupler system



Open-S V14 connector in automatic coupler system

Technical specifications

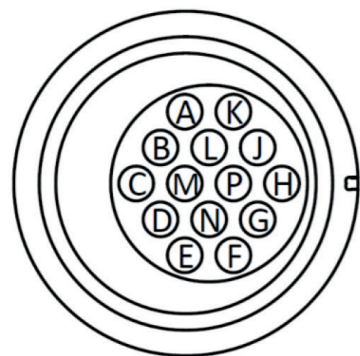
Connector

Number of positions	14
Connection mechanism	High force pogo pin 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, 0,75mm ²
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 Pair
D	MiC4.0 CAN L	
E	MiC4.0 GND	
F	MiC4.0 GND	
G		
H		
J		
K	MiC4.0 Term.	
L		
M		
N		Twisted Pair
P		




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

Sourcing guidelines for Open-S V14 Connectors

With the purpose of standardizing the electrical connection in Open-S type quick couplers, the Open-S technical committee has decided to use the V14 connector with standardized pinout in all Open-S products utilizing the MiC4.0 Bus.

The technical properties of the V14 assemblies consisting of the V14 connector and corresponding cable have been specified by the technical committee to safeguard a robust function and a competitive price.

Every full member and associate member of Open-S can order the standardized V14 assemblies at a price negotiated by Open-S.

It is only permitted to source the V14 connector as part of any of the standardized part numbers of Table 1, and these assemblies must be ordered exclusively from the supplier negotiated by Open-S.

It is not permitted to modify the specifications of the V14 connector or the cable, but the open end of the cables in the Open-S assemblies can be adjusted in length and integrated in further wiring harnesses as per the wish of the member.

Table 1

Description	Open-S part number
V14 Machine Coupler Assembly	803383
V14 Work Tool Assembly	803384
V14 Machine Coupler Assembly (with resistor)	803385

See appendix for further information. 3D models are available on request.

Source: Sourcing guidelines for Open-S V14 Connectors, Standardization by the Open-S Alliance Revision A, December 8, 2025