Circular connectors

M16 – M58 for industrial applications

CONINVERS
A Company of the Phoenix Contact Group

Signal/power connectors plastic-molded

	Signal connectors			Power connectors
	M16 KPV series	**M23 KRC series**	**M27 high-pos. KHC series**	**M23 KSC series**
				
Description	• Standard cable assemblies and conductor lengths (5 m / 10 m) • Rugged PUR molding • M16 x 0.75 screw locking • The connectors are delivered with ready-to-use connecting cables, e.g. as a central plug-in connection for distributor systems	• Cable assemblies and conductor lengths as per customer specifications Cable Ø approx. 4.8 - 13.1 mm. • PUR molding on one or both ends • M23 x 1 screw locking • With or without EMC protection • The connectors are delivered with ready-to-use connecting cable	• Cable assemblies and conductor lengths as per customer specifications Cable Ø approx. 4.8 - 13.1 mm. • PUR molding on one or both ends • M27 x 1 screw locking • With or without EMC protection • The connectors are delivered with ready-to-use connecting cable	• Cable assemblies and conductor lengths as per customer specifications Cable Ø approx. 4.8 - 13.1 mm • PUR molding on one or both ends • M23 x 1 screw locking • The connectors are delivered with ready-to-use connecting cable
Housing types	• Cable socket (female) straight • Cable socket (female) angled • Cable connector (male) straight • Cable connector (male) angled • Suitable receptacles Solder/solder-in connection PV series	• Cable connectors/cable connecting receptacles • Cable connectors/cable connecting receptacles angled • Compatible with the RC series receptacles	• Cable connectors/cable connecting receptacles • Cable connectors angled • Compatible with the HC series receptacles	• Cable connectors/cable connecting receptacles • Cable connectors/cable connecting receptacles angled
Number of positions	8 / 10 / 12 / 14	6 / 7 / 9 (6+3) / 9 (8+1) / 12 / 12 (11+PE) / 16 / 17 / 19 (16+3) / 19 (16+2+PE), all housings can be equipped with male or female contacts	26 / 26 (25+PE) / 28 All housings can be equipped with male or female contacts	6 (5+PE) / 8 (4+3+PE)
Contact connection	0.34 mm² / 0.75 mm² in standard cable assembly	Solder or crimp	Solder or crimp	Crimp contacts 0.08-2.5 mm²
Insertion/withdrawal cycles mechanical	Standard: 50, more on request	Standard: 50, more on request	Standard: 50, more on request	Standard: 50, more on request
Temperature range [°C]	-5 to +70 (cable-dependent)	-20 to +125 (cable-dependent)	-20 to +125 (cable-dependent)	-20 to +125 (cable-dependent)
Nominal current per contact at 25 °C Number of positions [A]	8-/10-/12-/14-pos. 6	6-/7-pos. 6+3-/8+1-pos. 12 to 19-pos. 20 8 / 20 8	26-/25+PE-/28-pos. 8	5+PE 4+3+PE 26 9 / 26
Nominal/ Operating voltage Number of positions [V]	8-/10-/12-/14-pos. 100	6-/7-/8+1-pos. 6+3 to 19-pos. 300 150	26-/25+PE-/28-pos. 150	5+PE 4+3+PE 600 300 / 600
Contact resistance [mΩ]	≤ 3	≤ 3	≤ 3	≤ 3
Test/surge voltage Number of positions [kVAC]	8-/10-/12-/14-pos. 0,8	6-/7-/8+1-pos. 6+3 to 19-pos. 2,5 1,5	26-/25+PE-/28-pos. 1,5	5+PE 4+3+PE 4 2,5 / 4
Surge voltage category (Reference: DIN EN 61984:2001)	II	II	II	II
Class of protection	IP67 When locked	IP67 When locked	IP67 When locked	IP67 When locked
Pollution degree (Reference: DIN EN 61984:2001)	3[1)]	3[1)]	3[1)]	3[1)]

1) The values specified require a correctly locked pair of connectors that is disconnected only for testing and maintenance. If the unlocked connector is exposed to ambient conditions and if there is a danger of contamination, the connector should be sealed using a IP54 protective cap.

M16 to M58 circular connectors for industrial applications

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I would like more information about the following circular connectors:

o Signal connectors for free assembly

o Power connectors for free assembly

o Plastic-molded connectors

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CONINVERS
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M16 to M58 circular connectors for industrial applications

CONINVERS, an independent company, is the specialist for M16-M58 circular connectors within the PHOENIX CONTACT group. The product range comprises signal and power connectors for cabling industrial systems, electrical drives, motor connections, manufacturing machines and machine tools.

Signal connectors – CONINVERS signal

"CONINVERS signal" provides a wide range of connector solutions in types M16, M17, M23 and M27 for signal transmission. Versions with bayonet or SPEEDCON locking are available for faster connections.

Power connectors – CONINVERS power

"CONINVERS power" provides M17, M23, M40 and M58 type power connectors. The range provides ideal combinations for connecting electrical drive components with transmission capacities of up to 150 A at 630 V in a short period of time.

SPEEDCON Quick locking

Plug and turn – Done!
Just half a turn of the knurled nut and the SPEEDCON connectors can be securely and easily locked.
The system provides high protection against vibration and is backward compatible with the existing metrical locking threads.

	Modular signal connectors – CONINVERS signal			Signal connectors – CONINVERS signal			Power connectors – CONINVERS power			
	M23 shielded / unshielded RC series	M23 universally shielded UC series	Bayonet universally shielded, TU series	M17 shielded ST series	M23 shielded RF series	M27 universally shielded HC series	M17 P20 series	M23 P30 series	M40 P70 series	M58 P150 series
										
Description	• Modular design • A wide range or housing types and connector pin assignments with various contact connection methods • The connectors are delivered as individual components – housing, EMC screw connection or cable gland, contact insert. • Cable Ø 2 - 10.5 mm shielded • Cable Ø 4 - 14 mm unshielded	• Modular design • More cabling space for larger cable diameters • Universal shield and cable clamping • The connectors are delivered as individual components – housing, contact insert. • Cable Ø 2 - 14.5 mm shielded	• Modular design • Easily accessible as well as rugged bayonet locking • The TU series is based on UC connectors with more cabling space and a universal shield • The connectors are delivered as individual components – housing, contact insert. • Cable Ø 2 - 14.5 mm shielded	• Extremely compact connectors for industrial applications • M17 quick locking SPEEDCON, optionally M17 x 1 control thread • Time-saving lateral contact clip-in • Special tools not required • Extremely quick shield connection without splicing • Cable Ø 3.5 - 10 mm	• Universal industrial connectors • M23 x 1 control thread (quick locking SPEEDCON in preparation) • Time-saving lateral contact clip-in • Special tools not required • Extremely quick shield connection without splicing • Cable Ø 3 - 13.2 mm	• High-pos.. signal connectors • M27 x 1 screw locking • Connectors are delivered with solder, solder-in and crimp connection • Universal shield and cable clamping • Cable Ø 2 - 14.5 mm	• Electrical capacities of up to 630 V at 20 A can be transmitted • Extremely compact connectors for industrial applications • M17 quick locking SPEEDCON, optionally M17 x 1 control thread • Time-saving lateral contact clip-in • Special tools not required • Extremely quick shield connection without splicing • Cable Ø 3.5 - 10 mm	• Electrical capacities of up to 250/630 V at 9/30 A can be transmitted • Complete range of flexible machine and system cabling • M23 x 1 control thread (quick locking SPEEDCON in preparation) • Time-saving lateral contact clip-in • Cable Ø 7.5 - 18 mm shielded	• Electrical capacities of up to 250/630 V at 30/70 A that can be transmitted • Complete range of flexible machine and system cabling • M40 x 1.5 control thread, M40 fast locking SPEEDCON • Time-saving lateral contact clip-in • Cable Ø 9 - 26.5 mm shielded	• Transmission of high electrical capacities of up to 250/630 V at 12/150 A • M58 x 2 control thread • Time-saving lateral contact clip-in • Extremely fast shield connection • Cable Ø 17 - 36 mm shielded
Housing types	• Cable connectors/cable connecting receptacles • Cable connectors angled • Coupling connectors for mounting on the wall • Receptacles front mounting: Straight, angled rotatable • Receptacles rear mounting: Straight	• Cable connectors/cable connecting receptacles • Cable connectors angled • Coupling connectors for mounting on the wall • Fully compatible with the RC receptacles	• Cable connectors/cable connecting receptacles • Coupling connectors angled • Receptacles front mounting: Straight • Receptacles rear mounting: Straight	• Cable connectors/cable connecting receptacles • Receptacles Front mounting: Straight, angled fixed, angled rotatable • Compact flange dimensions 21 mm x 21 mm / 25 mm x 25 mm • Connector Ø 21 mm	• Cable connectors/cable connecting receptacles • Receptacles Front mounting: Straight, angled fixed, angled rotatable • Connector Ø 26 mm • Cable and coupling connectors as well as straight receptacles also with stainless steel housings (1.4305)	• Cable connectors/cable connecting receptacles • Receptacles Front and rear mounting:	• Cable connectors/cable connecting receptacles • Receptacles Front mounting: Straight, angled fixed, angled rotatable • Compact flange dimensions 21 mm x 21 mm / 25 mm x 25 mm • Connector Ø 21 mm	• Cable connectors/cable connecting receptacles • Coupling connectors for mounting on the wall • Panel-feed throughs • Receptacles Front mounting: Straight, angled fixed, angled rotatable	• Cable connectors/cable connecting receptacles • Coupling connectors for mounting on the wall • Panel-feed throughs • Receptacles Front mounting: Straight, angled fixed, angled rotatable	• Cable connectors • Coupling connectors • Receptacles Front mounting: Straight (in preparation)
Number of positions	6 / 7 / 9 (6+3) / 9 (8+1) / 12 / 16 / 17 / 19 (16+3) / 19 (16+2+PE) All housings can be equipped with male or female contacts	6 / 7 / 9 (6+3) / 9 (8+1) / 12 / 16 / 17 / 19 (16+3) / 19 (16+2+PE) All housings can be equipped with male or female contacts	6 / 7 / 9 (6+3) / 9 (8+1) / 12 / 16 / 17 / 19 (16+3) / 19 (16+2+PE) All housings can be equipped with male or female contacts	17 All housings can be equipped with male or female contacts	12 / 16 / 17 All housings can be equipped with male or female contacts	26 / 26 (25+PE) / 28 All housings can be equipped with male or female contacts	4 (3+PE) / 6 (5+PE) 7 (6+PE) / 8 (7+PE) / 9 (5+3+PE) All housings can be equipped with male or female contacts	6 (5+PE) / 8 (4+3+PE)	6 (2+3+PE) / 8 (4+3+PE)	6 (2+3+PE) / 8 (4+3+PE)
Contact connection	Solder contacts: ≤ 2.5 mm² Crimp contacts: 0.14-2.5 mm² Screw contacts: ≤ 1.0 mm² Dip solder contacts for receptacles	Solder contacts: ≤ 2.5 mm² Crimp contacts: 0.14-2.5 mm² Screw contacts: ≤ 1.0 mm²	Solder contacts: ≤ 2.5 mm² Crimp contacts: 0.14-2.5 mm² Screw contacts: ≤ 1.0 mm² Dip solder contacts for receptacles	Crimp contacts machined: 0.08-0.5 mm²	Crimp contacts machined: 0.08-1.0 mm² Crimp contacts stamped (taped): 0.08-0.56 mm²	Solder contact: 1.0 mm² Crimp contacts: 0.08-1.0 mm²	Crimp contacts machined: 0.08-2.5 mm² Crimp contacts stamped (taped): 0.08-0.56 mm²	Crimp contacts machined: 0.08-4.0 mm² Crimp contacts stamped (taped): 0.08-2.5 mm²	Crimp contacts machined: 0.14-16.0 mm²	Crimp contacts machined: 0.75-50 mm²
Insertion/withdrawal cycles mechanical	Standard: 50, more on request	Standard: 50, more on request	Standard: 50, more on request	Standard: 50, more on request	Standard: 50, Stamped crimp contacts: 10.000	Standard: 50, more on request	Standard: 50, Stamped crimp contacts: 10.000	Standard: 50, Stamped crimp contacts: 10.000	Standard: 50, more on request	Standard: 50, more on request
Temperature range [°C]	-20 to +125	-20 to +125	-20 to +125	-20 to +125	-20 to +125	-20 to +125	-20 to +125	-20 to +125	-20 to +125	-20 to +120
Nominal current per contact at 25 °C Number of positions [A]	6-/7-pos. 20 / 6+3-/8+1-pos. 8 / 20 / 12 to 19-pos. 8	6-/7-pos. 20 / 6+3-/8+1-pos. 8 / 20 / 12 to 19-pos. 8	6-/7-pos. 20 / 6+3-/8+1-pos. 8 / 20 / 12 to 19-pos. 8	17-pos. 3,6	12- / 16- / 17-pos. 8	26/25+PE/28 8	4 20 / 6/7/8 14 / 9 3,6/14	5+PE 4+3+PE 30 / 9 / 30	2+3+PE 30 / 70 / 4+3+PE 30 / 70	2+3+PE 12 / 150 / 4+3+PE 12 / 150
Nominal/ Operating voltage Number of positions [V]	6-/7-/8+1-pos. 300 / 6+3 to 19-pos. 150	6-/7-/8+1-pos. 300 / 6+3 to 19-pos. 150	6-/7-/8+1-pos. 300 / 6+3- to 19-pos. 150	17-pos. - / 60	12- / 16- / 17-pos. 150 / 100 / 100	26/25+PE/28 150	4 630 / 6/7/8 630 / 9 60/630	5+PE 4+3+PE 630 / 250 / 630	2+3+PE 250 / 630 / 4+3+PE 250 / 630	2+3+PE 250 / 630 / 4+3+PE 250 / 630
Contact resistance [mΩ]	≤ 3	≤ 3	≤ 3	≤ 5	≤ 5	≤ 3	≤ 5	≤ 3	≤ 3	≤ 0,2
Test/surge voltage Number of positions [kVAC]	6-/7-/8+1-pos. 2,5 / 6+3 to 19-pos. 1,5	6-/7-/8+1-pos. 2,5 / 6+3 to 19-pos. 1,5	6-/7-/8+1-pos. 2,5 / 6+3 to 19-pos. 1,5	17-pos. 1,5	12- / 16- / 17-pos. 2,5 / 1,5 / 1,5	26/25+PE/28 1,5	4 4 / 6/7/8 6 / 9 1,5/6	5+PE 4+3+PE 6 / 4 / 6	2+3+PE 4 / 6 / 4+3+PE 4 / 6	2+3+PE 4 / 6 / 4+3+PE 4 / 6
Surge voltage category (Reference: DIN EN 61984:2001)	II	II	II	III	III	II	III	III	III	III
Class of protection	Shielded: IP67, unshielded: IP65 to IP68 when locked	IP67 When locked	IP67 When locked	IP67 When locked	IP67 When locked	IP67 When locked	IP67 When locked	IP67 When locked	IP67 When locked	IP67 When locked
Pollution degree (Reference: DIN EN 61984:2001)	3[1]	3[1]	3[1]	3[1]	3[1]	3[1]	3[1]	3[1]	3	3

1) The values specified require a correctly locked pair of connectors that is disconnected only for testing and maintenance. If the unlocked connector is exposed to ambient conditions and if there is a danger of contamination, the connector should be sealed using a IP54 protective cap.