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M8 and M12 cord sets

A-coded cord sets

CON

- A-coded single ended and double ended
- M12 and M8 version
- Straight or right angle plug
- 3 or 4 wires for M8 version, 3, 4 or 5 wires for M12 version
- Female or male plug
- PVC cable jacket
- Operating temperature: -25°C - +80°C (-13°F - +176°F)
- Standard lengths of 2 m or 5 m (customized cord sets to specific lengths are also available)
- IP67 protection degree
- UL approved
- Made in Europe



Description

M8 and M12 cord sets, with 3 wires, 4 wires or 5 wires. They come in straight or angled versions, single ended or double ended and in customized cable lengths. UL approved high-quality connection cable in PVC jacket.

Part selection key

CON	-	Family name	
□	1	M12	Side 1
	5	M8	
□	3	3 pin/wire (BN, BU, BK)	
	4	4 pin/wire (BN, BU, BK, WH)	
	5	5 pin/wire (BN, BU, BK, WH, GY)	Only for M12
N	-	Not shielded	
□	F	Female	Side 1
	M	Male	
□	A	Angled	
	S	Straight	
□	-	Open ended wires	Side 2
	1	M12	
	5	M8	
□	-	Open ended wires	
	F	Female	
	M	Male	
□	-	Open ended wires	
	A	Angled	
	S	Straight	
□	2	Cable length: 2 m	
	5	Cable length: 5 m	
	10	Cable length: 10 m	On request
	xx	Cable length: xx m	On request

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CON series cord sets

Part selection - M8 Female, 3 wires

Plug type	Cable length	Jacket	Part number
Angled	2 m	PVC	**CON53NFA2**
	5 m	PVC	**CON53NFA5**
Straight	2 m	PVC	**CON53NFS2**
	5 m	PVC	**CON53NFS5**

Part selection - M8 Female, 4 wires

Plug type	Cable length	Jacket	Part number
Angled	2 m	PVC	**CON54NFA2**
	5 m	PVC	**CON54NFA5**
Straight	2 m	PVC	**CON54NFS2**
	5 m	PVC	**CON54NFS5**

Part selection - M12 Female, 3 wires

Plug type	Cable length	Jacket	Part number
Angled	2 m	PVC	**CON13NFA2**
	5 m	PVC	**CON13NFA5**
Straight	2 m	PVC	**CON13NFS2**
	5 m	PVC	**CON13NFS5**

Part selection - M12 Female, 4 wires

Plug type	Cable length	Jacket	Part number
Angled	2 m	PVC	**CON14NFA2**
	5 m	PVC	**CON14NFA5**
Straight	2 m	PVC	**CON14NFS2**
	5 m	PVC	**CON14NFS5**

Part selection - M12 Female, 5 wires

Plug type	Cable length	Jacket	Part number
Angled	2 m	PVC	**CON15NFA2**
	5 m	PVC	**CON15NFA5**
Straight	2 m	PVC	**CON15NFS2**
	5 m	PVC	**CON15NFS5**

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Part selection - Double ended

Housing side 1	Plug type Side 1	Housing side 2	Plug type side 2	No of wires	Cable length	Jacket	Part number
M8 Female	Straight	M12 Male	Straight	3	2 m	PVC	**CON53NFS1MS2**
					5 m	PVC	**CON53NFS1MS5**
M8 Female	Straight	M12 Male	Straight	4	2 m	PVC	**CON54NFS1MS2**
					5 m	PVC	**CON54NFS1MS5**
M12 Female	Straight	M12 Male	Straight	4	2 m	PVC	**CON14NFS1MS2**
					5 m	PVC	**CON14NFS1MS5**
M12 Female	Angled	M12 Male	Straight	4	2 m	PVC	**CON14NFA1MS2**
					5 m	PVC	**CON14NFA1MS5**

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Features

M8 - Electrical data

	3 wires version	4 wires version
Rated operational voltage (U_b)	60 V AC / 60 V DC	60 V AC / 60 V DC
Rated current	≤ 3 A (UL: 2.5 A)	≤ 3 A (UL: 2.5 A)
Contact resistance	≤ 5 mΩ	≤ 5 mΩ
Rated impulse voltage	1.5 KV	1.5 KV
Insulation resistance	10^9 Ω	10^9 Ω

M12 - Electrical data

	3 or 4 wires version	5 wires version
Rated operational voltage (U_b)	250 V AC / DC (UL: 60 V AC / DC)	60 V AC / DC
Rated current	≤ 4 A	≤ 4 A
Contact resistance	≤ 5 mΩ	≤ 5 mΩ
Rated impulse voltage	2.5 KV	1.5 KV
Insulation resistance	10^9 Ω	10^9 Ω

Environmental data

Ambient temperatures	
Fixed installation	-25°C - +80°C (-13°F - +176°F) UL: 50°C (122 °F)
Flexible installation	-5°C - +80°C (+23°F - +176°F) UL: 50°C (122 °F)
Categorization	
Pollution degree	3
Degree of protection	IP67
Pins	EN IEC 61076-2-104 (M8 housing) EN IEC 61076-2-101 (M12 housing)

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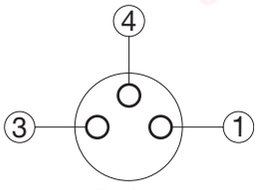
Structure

Housing

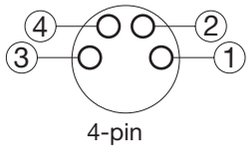
Dimensions	M8 versions	M12 versions
Cable outer diameter	PVC 4.4 mm ± 0.15 mm	PVC 5.2 mm ± 0.15 mm
Wire cross section	0.25 mm^2	0.34 mm^2
Materials		
Cable PVC	Gray	Gray
Contact material	CuSn	CuSn
Contact plating	Pre-nickelled and gold plated	Pre-nickelled and gold plated
Contact bearer material	PA black	PA black
Moulded body material	TPU	TPU
O-ring sealing	FKM	FKM
Coupling screw	Zinc alloy die casting, nickel plated	Zinc alloy die casting, nickel plated
Weight	2 m version approx. 100 g 5 m version approx. 200 g	2 m version approx. 100 g 5 m version approx. 200 g
Tightening torque	0.4 Nm	0.6 Nm

Connection and wiring

M8

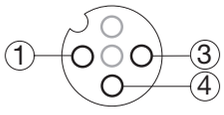


3-pin

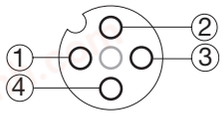


4-pin

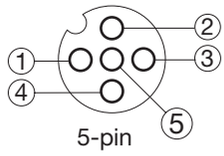
M12



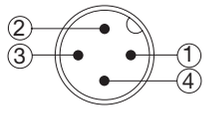
3-pin



4-pin



5-pin



4-pin, male

Color code

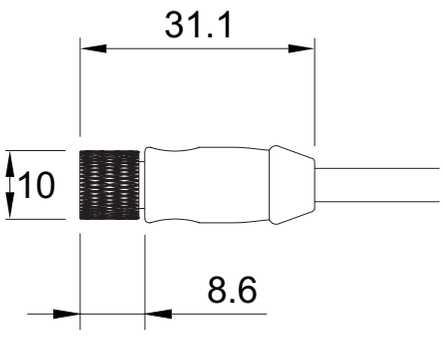
1	**BN:** Brown
2	**WH:** White
3	**BU:** Blue
4	**BK:** Black
5	**GY:** Grey

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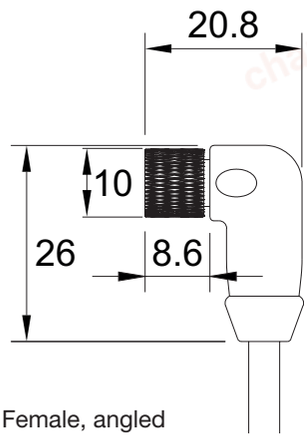
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Dimensions in mm

M8

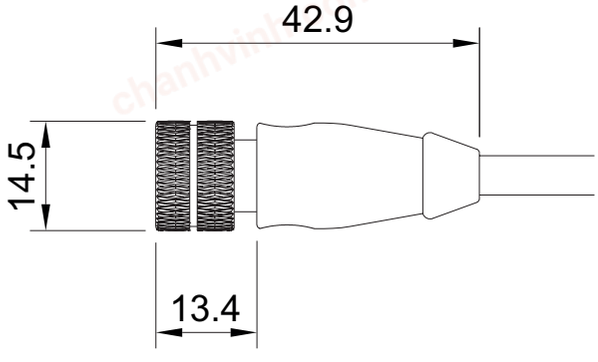


Female, straight

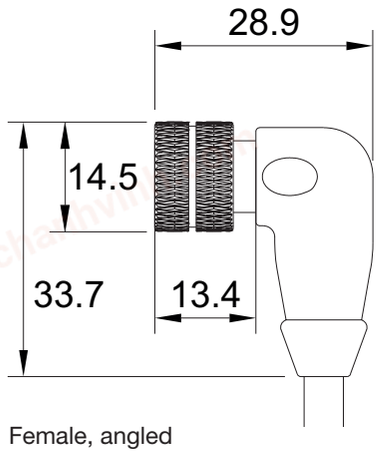


Female, angled

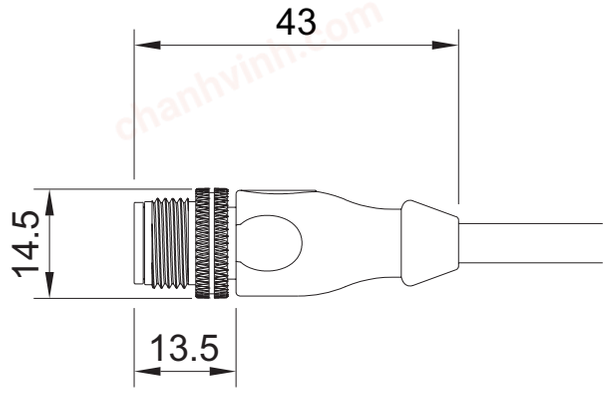
M12



Female, straight



Female, angled



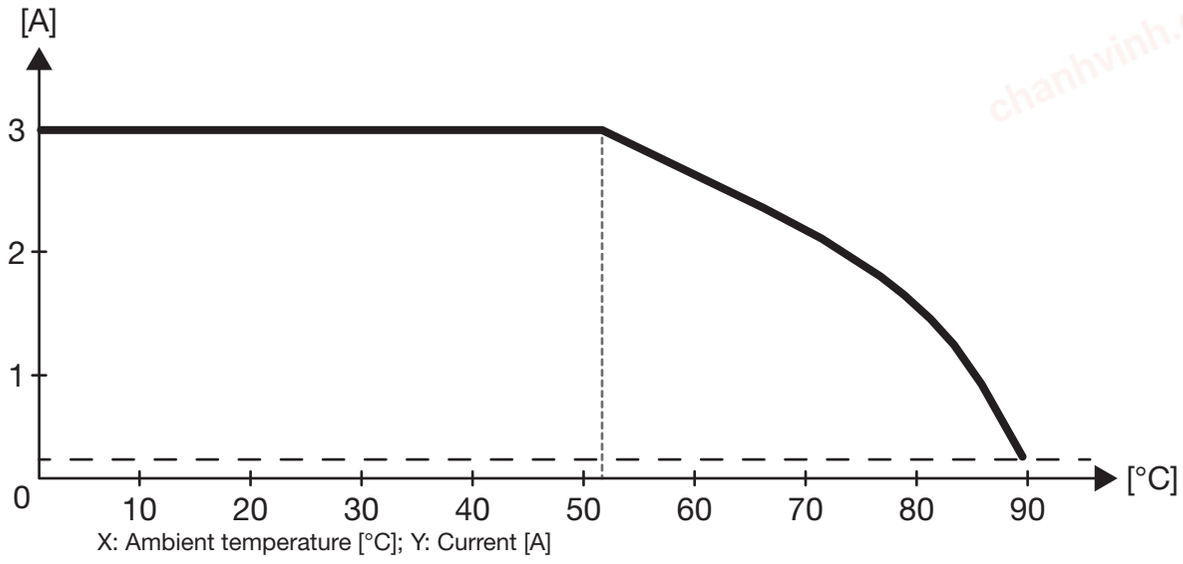
Male, straight

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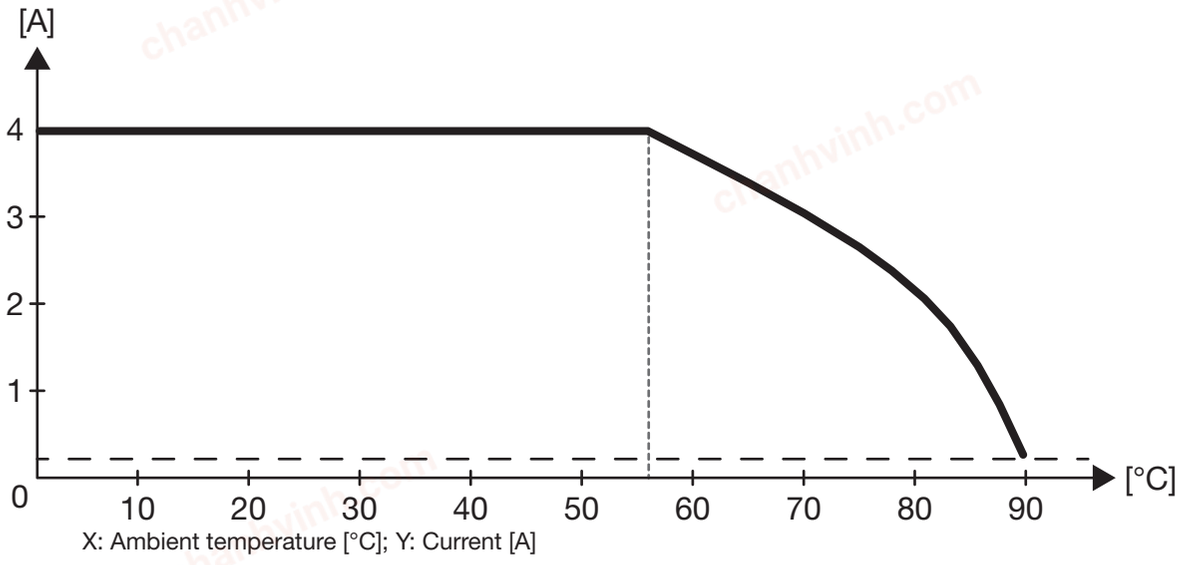
Derating curve (DIN EN 60512-5-2)

M8



X: Ambient temperature [°C]; Y: Current [A]

M12



X: Ambient temperature [°C]; Y: Current [A]

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Compatibility and conformity

Approvals and markings

General reference	
CE-marking	CE
Approvals	c UL us LISTED

Delivery contents and accessories

Delivery contents

- Connection cable: CON...
- 2 label holders
- Packaging: Plastic bag

Further information

Carlo Gavazzi website	www.gavazziautomation.com	

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