CON E

M8 and M12 connector cables

Description

M8 and M12 connection cables, for 3 wires, 4 wires or 5 wires.
Come in straight or angled versions, also with LED and customized cable lengths.
UL approved high-quality connection cable either in PVC jacket or in the more durable PUR jacket.

Main features

- M12 or M8 version and optionally LED indicator
- Straight or right angle cordset connector end
- 3 or 4 wires for M8 version, 3, 4, or 5 wires for M12 version
- Female connector
- PVC or PUR cable jacket
- Push-on for M8 version available
- Operating temperature: -40°C to 105°C (-40°F to 221°F)
- Standard lengths of 2m or 5m (customized cordsets to specific lengths are also available)
- IP 67
- UL approved

References

Order code

CONE ☐ ☐ ☐ N F - ☐ ☐ ☐ ☐

Enter the code option instead of ☐

Code	Option	Description	Note
CONE	-	Family name	
☐	(null)	Threaded connection	
	P	Push-on connection	Only for M8 version
☐	1	M12	
	5	M8	
☐	3	3 wire (BN, BU, BK)	
	4	4 wire (BN, BU, BK, WH)	
	5	5 wire (BN, BU, BK, WH, GY)	Only for M12 version
N	-	Not shielded	
F	-	Female	
-			
☐	A	Angled	
	S	Straight	
☐	(null)	No LED	
	NT	NPN LED	Transparent housing
	PT	PNP LED	Transparent housing
☐	2	Cable length: 2 m	
	5	Cable length: 5 m	
	10	Cable length: 10 m	
	15	Cable length: 15 m	
☐	(null)	PVC	
	P	PUR	

Type selection

M8 - 3 wires

Plug type	Cable lenght	LED	Jacket	Code
Angled	2 m	-	PVC	CONE53NF-A2
		-	PUR	CONE53NF-A2P*
		NPN	PVC	CONE53NF-ANT2*
		PNP		CONE53NF-APT2*
	5 m	-	PVC	CONE53NF-A5
		-	PUR	CONE53NF-A5P*
		NPN	PVC	CONE53NF-ANT5*
		PNP		CONE53NF-APT5*
	10 m	-	PVC	CONE53NF-A10*
		-	PUR	CONE53NF-A10P*
	15 m	-	PVC	CONE53NF-A15*
		-	PUR	CONE53NF-A15P*
Push-on, angled (not UL approved)	2 m	-	PVC	CONEP53NF-A2*
Straight	2 m	-	PVC	CONE53NF-S2
		-	PUR	CONE53NF-S2P*
	5 m	-	PVC	CONE53NF-S5
		-	PUR	CONE53NF-S5P*
	10 m	-	PVC	CONE53NF-S10*
		-	PUR	CONE53NF-S10P*
	15 m	-	PVC	CONE53NF-S15*
		-	PUR	CONE53NF-S15P*
Push-on, straight (not UL approved)	2 m	-	PVC	CONEP53NF-S2*

M8 - 4 wires

Plug type	Cable lenght	LED	Jacket	Code
Angled	2 m	-	PVC	CONE54NF-A2
		-	PUR	CONE54NF-A2P*
	5 m	-	PVC	CONE54NF-A5
		-	PUR	CONE54NF-A5P*
	10 m	-	PVC	CONE54NF-A10*
		-	PUR	CONE54NF-A10P*
	15 m	-	PVC	CONE54NF-A15*
		-	PUR	CONE54NF-A15P*
Straight	2 m	-	PVC	CONE54NF-S2
		-	PUR	CONE54NF-S2P*
	5 m	-	PVC	CONE54NF-S5
		-	PUR	CONE54NF-S5P*
	10 m	-	PVC	CONE54NF-S10*
		-	PUR	CONE54NF-S10P*
	15 m	-	PVC	CONE54NF-S15*
		-	PUR	CONE54NF-S15P*

* Available on request

M12 - 3 wires

Plug type	Cable lenght	LED	Jacket	Code
Angled	2 m	-	PVC	**CONE13NF-A2**
		-	PUR	**CONE13NF-A2P***
		NPN	PVC	**CONE13NF-ANT2***
		PNP		**CONE13NF-APT2***
	5 m	-	PVC	**CONE13NF-A5**
		-	PUR	**CONE13NF-A5P***
		NPN	PVC	**CONE13NF-ANT5***
		PNP		**CONE13NF-APT5***
		PNP	PUR	**CONE13NF-APT5P***
	10 m	-	PVC	**CONE13NF-A10***
		-	PUR	**CONE13NF-A10P***
	15 m	-	PVC	**CONE13NF-A15***
		-	PUR	**CONE13NF-A15P***
Straight	2 m	-	PVC	**CONE13NF-S2**
		-	PUR	**CONE13NF-S2P***
	5 m	-	PVC	**CONE13NF-S5**
		-	PUR	**CONE13NF-S5P***
	10 m	-	PVC	**CONE13NF-S10***
		-	PUR	**CONE13NF-S10P***
	15 m	-	PVC	**CONE13NF-S15***
		-	PUR	**CONE13NF-S15P***

* Available on request

M12 - 4 wires

Plug type	Cable lenght	LED	Jacket	Code
Angled	2 m	-	PVC	CONE14NF-A2
		-	PUR	CONE14NF-A2P*
		NPN	PVC	CONE14NF-ANT2*
		PNP		CONE14NF-APT2*
	5 m	-	PVC	CONE14NF-A5
		-	PUR	CONE14NF-A5P*
		NPN	PVC	CONE14NF-ANT5*
		PNP		CONE14NF-APT5*
	10 m	-	PVC	CONE14NF-A10*
		-	PUR	CONE14NF-A10P*
	15 m	-	PVC	CONE14NF-A15*
		-	PUR	CONE14NF-A15P*
Straight	2 m	-	PVC	CONE14NF-S2
		-	PUR	CONE14NF-S2P*
		NPN	PVC	CONE14NF-SNT2*
		PNP		CONE14NF-SPT2*
	5 m	-	PVC	CONE14NF-S5
		-	PUR	CONE14NF-S5P*
		NPN	PVC	CONE14NF-SNT5*
		PNP		CONE14NF-SPT5*
	10 m	-	PVC	CONE14NF-S10*
		-	PUR	CONE14NF-S10P*
	15 m	-	PVC	CONE14NF-S15*
		-	PUR	CONE14NF-S15P*

M12 - 5 wires

Plug type	Cable lenght	LED	Jacket	Code
Angled	2 m	-	PVC	CONE15NF-A2*
		-	PUR	CONE15NF-A2P*
	5 m	-	PVC	CONE15NF-A5*
		-	PUR	CONE15NF-A5P*
	10 m	-	PVC	CONE15NF-A10*
		-	PUR	CONE15NF-A10P*
	15 m	-	PVC	CONE15NF-A15*
		-	PUR	CONE15NF-A15P*
Straight	2 m	-	PVC	CONE15NF-S2
		-	PUR	CONE15NF-S2P*
	5 m	-	PVC	CONE15NF-S5
		-	PUR	CONE15NF-S5P*
	10 m	-	PVC	CONE15NF-S10*
		-	PUR	CONE15NF-S10P*
	15 m	-	PVC	CONE15NF-S15*
		-	PUR	CONE15NF-S15P*

* Available on request

Accessories

	Description	Code
	M12 connector plug terminal - 4 wires, angled (not UL approved)	**CONE14NF-A**
	M12 connector plug terminal - 4 wires, straight (not UL approved)	**CONE14NF-S**

Features

M8 - Electrical data

	3 wires version	4 wires version	LED version
Rated operating voltage (U_B)	60V AC/DC	30V AC/DC	30V AC/DC
Rated current	≤ 4A	≤ 4A	≤ 4A
Contact resistance	≤ 5mΩ	≤ 5mΩ	≤ 5mΩ
Rated impulse voltage	1.5KV	1.5KV	1.5KV
Insulation resistance	10^9Ω	10^9Ω	10^9Ω
LED colour	-	-	Power: green Output: yellow

M12 - Electrical data

	3 or 4 wires version	5 wires version	LED version
Rated operating voltage (U_B)	250V AC/DC	60V AC/DC	30V AC/DC
Rated current	≤ 4A	≤ 4A	≤ 4A
Contact resistance	≤ 5mΩ	≤ 5mΩ	≤ 5mΩ
Rated impulse voltage	2KV	1.5KV	2KV / 1.5KV / 0.8KV
Insulation resistance	10^9Ω	10^9Ω	10^9Ω
LED colour	-	-	Power: green Output 3-wire: yellow Output 4, 5-wire: yellow / red

Mechanical data

	M8	M12
Cable outer diameter	PUR 4.4mm ±0.15mm PVC 4.4mm ±0.15mm	PUR 5.2mm ±0.15mm PVC 5.2mm ±0.15mm
Wire cross section	0.25mm^2	0.34mm^2
Cable PVC or PUR	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
Tightening torque	0.4 Nm	0.6 Nm
Weight*	2m version approx 100g 5m version approx 200g 10m version approx 300g 15m version approx 500g	2m version approx 100g 5m version approx 200g 10m version approx 300g 15m version approx 500g

*varies depending on model

Environmental

Degree of protection	IP67
Pollution degree	3
Pin IEC standard	IEC61076-2-104
Temperature	PVC: -40°C to 105°C (-40°F to 221°F). UL: -20°C to +80°C (-4°F to 176°F) PUR: -40°C to 80°C (-40°F to 176°F). UL: -40°C to +80°C (-40°F to 176°F)

Compatibility and conformity

Approvals	CE c UL us LISTED
CONEP53NF-A2; CONEP53NF-S2 CONE14NF-A; CONE14NF-S	CE

Dimensions [mm]

M8

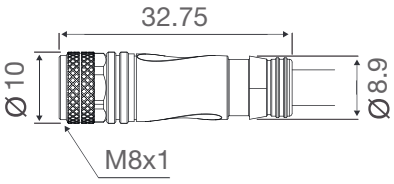

Fig. 1 *Straight*

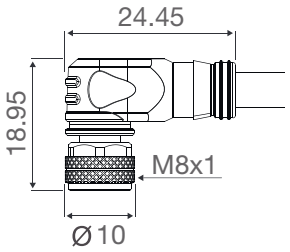

Fig. 2 *Angled*

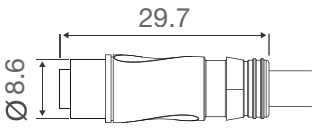

Fig. 3 *Push-on, straight*

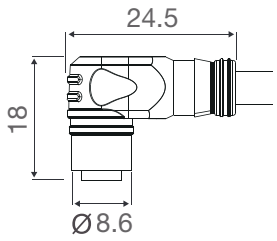

Fig. 4 *Push-on, angled*

M12

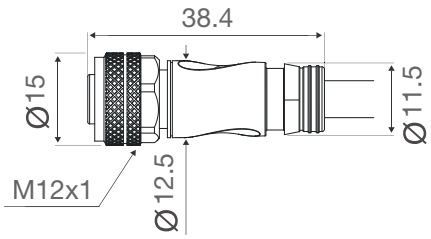

Fig. 5 *Straight*

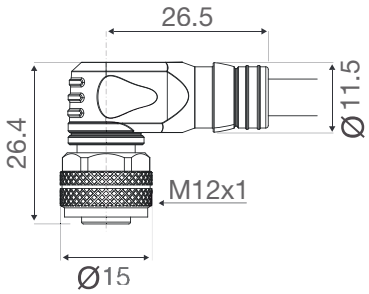

Fig. 6 *Angled*

Contact layout

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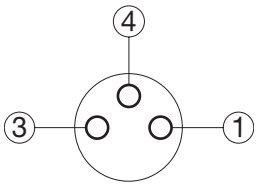

Fig. 7 *3-wire*

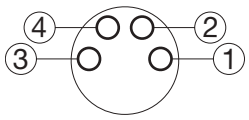

Fig. 8 *4-wire*

M12

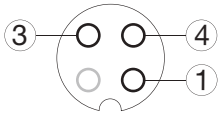

Fig. 9 *3-wire*

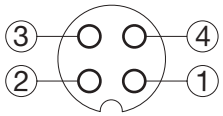

Fig. 10 *4-wire*

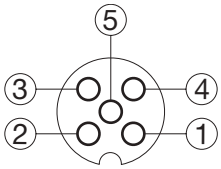

Fig. 11 *5-wire*

Colour code

1	2	3	4	5
BN: brown	**WH:** white	**BU:** blue	**BK:** black	**GY:** grey

LED connection

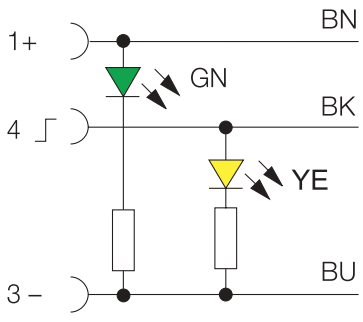

Fig. 12 *3-wire, PNP*

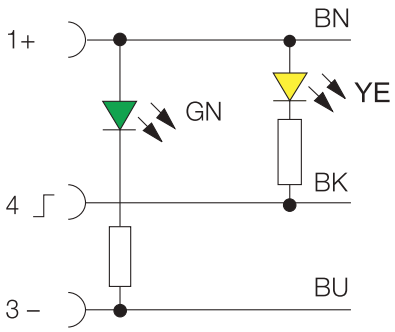

Fig. 13 *3-wire, NPN*

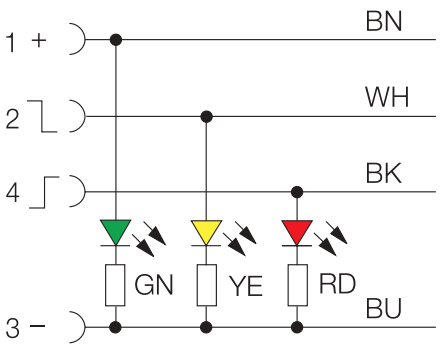

Fig. 14 *4-wire, PNP*

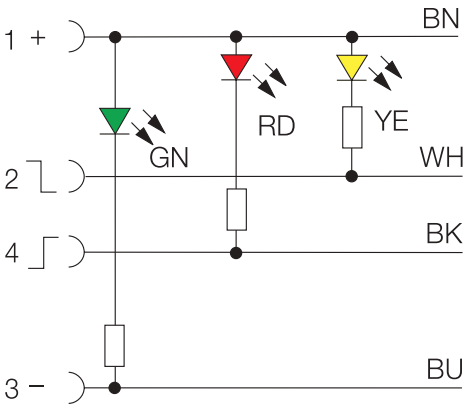

Fig. 15 *4-wire, NPN*

Derating curve (DIN EN 60512-5-2)

M8

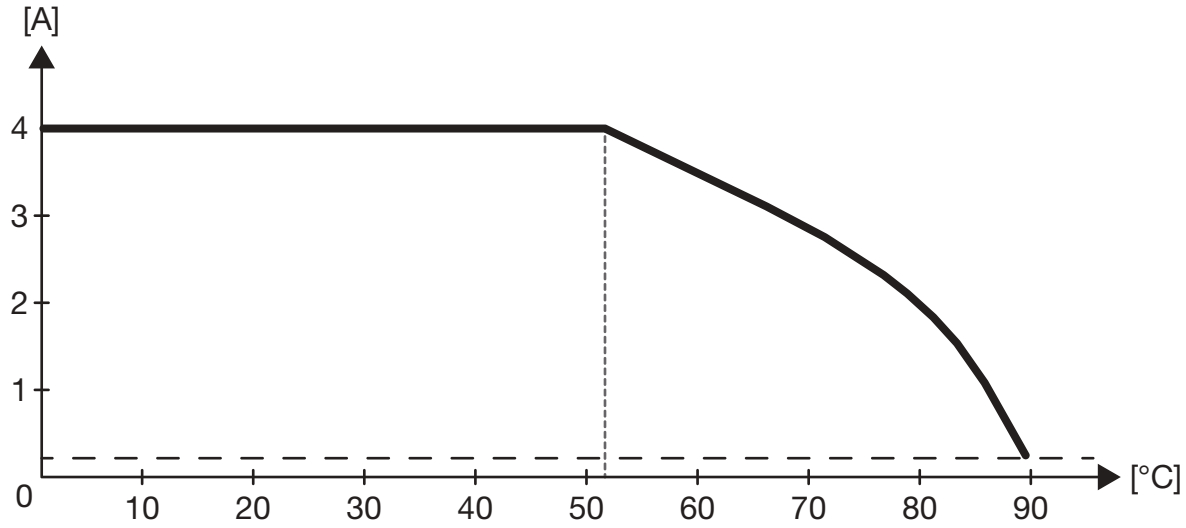

Fig. 16 *X: ambient temperature [°C]; Y: current [A]*

M12

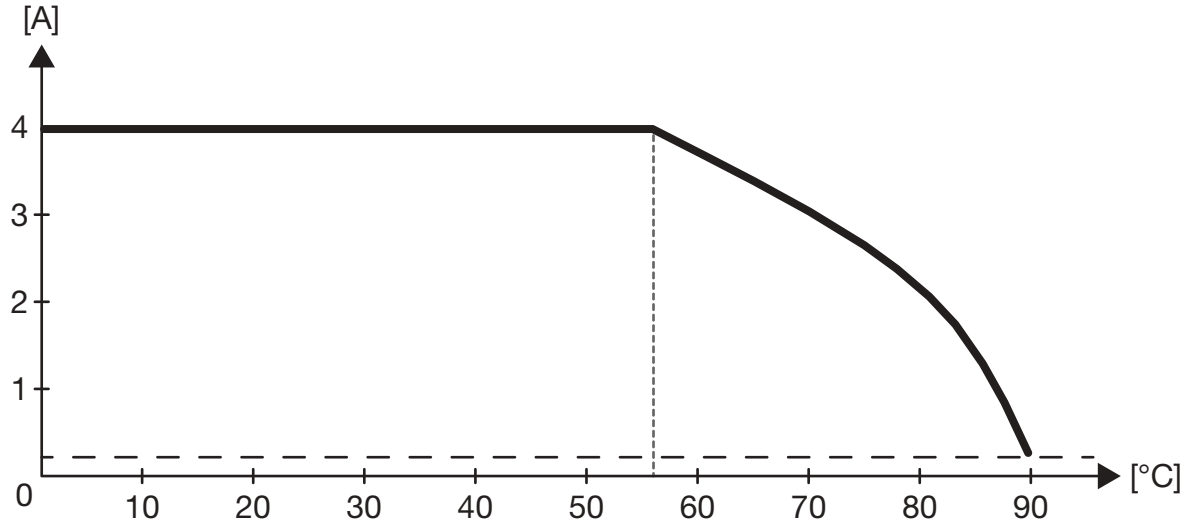

Fig. 17 *X: ambient temperature [°C]; Y: current [A]*

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