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	0.25mm²	0.34mm²
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**
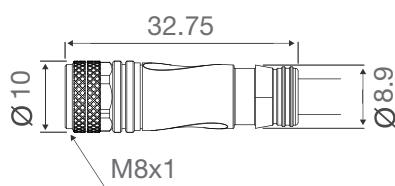
Fig. 1 *Straight*
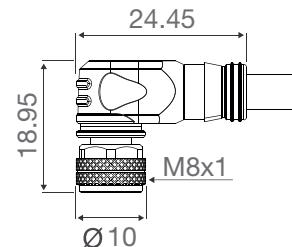
Fig. 2 *Angled*
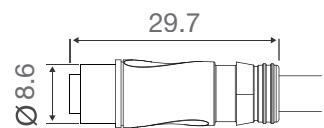
Fig. 3 *Push-on, straight*
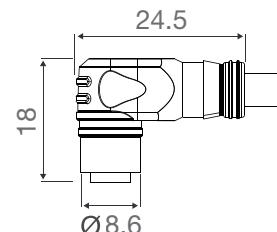
Fig. 4 *Push-on, angled*

▶ **M12**
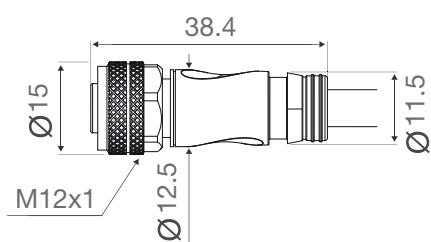
Fig. 5 *Straight*
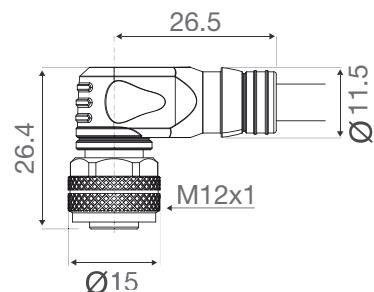
Fig. 6 *Angled*

Contact layout

M8
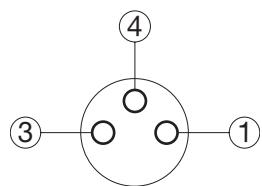
Fig. 7 *3-wire*
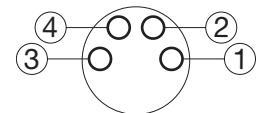
Fig. 8 *4-wire*

M12
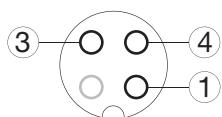
Fig. 9 *3-wire*
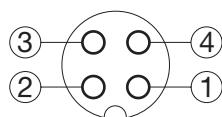
Fig. 10 *4-wire*
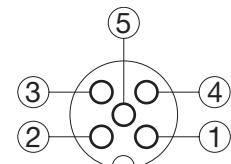
Fig. 11 *5-wire*

Colour code

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

LED connection
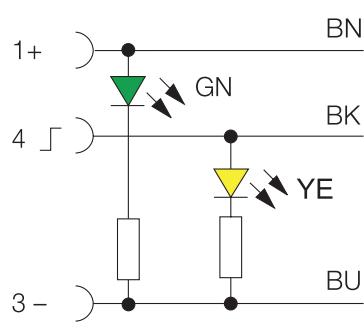
Fig. 12 *3-wire, PNP*
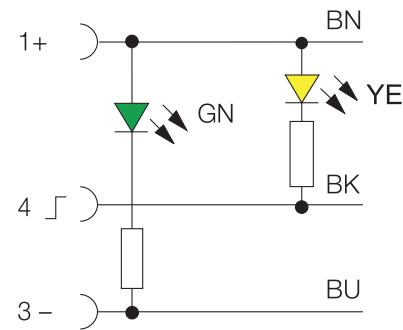
Fig. 13 *3-wire, NPN*
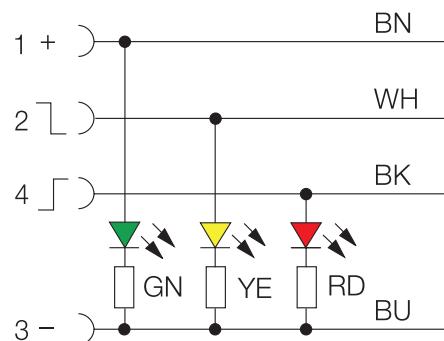
Fig. 14 *4-wire, PNP*
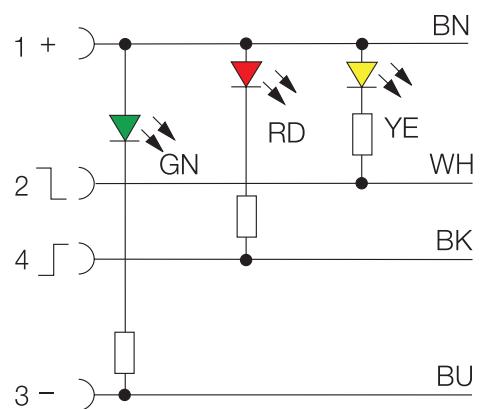
Fig. 15 *4-wire, NPN*

Derating curve (DIN EN 60512-5-2)

▶ **M8**
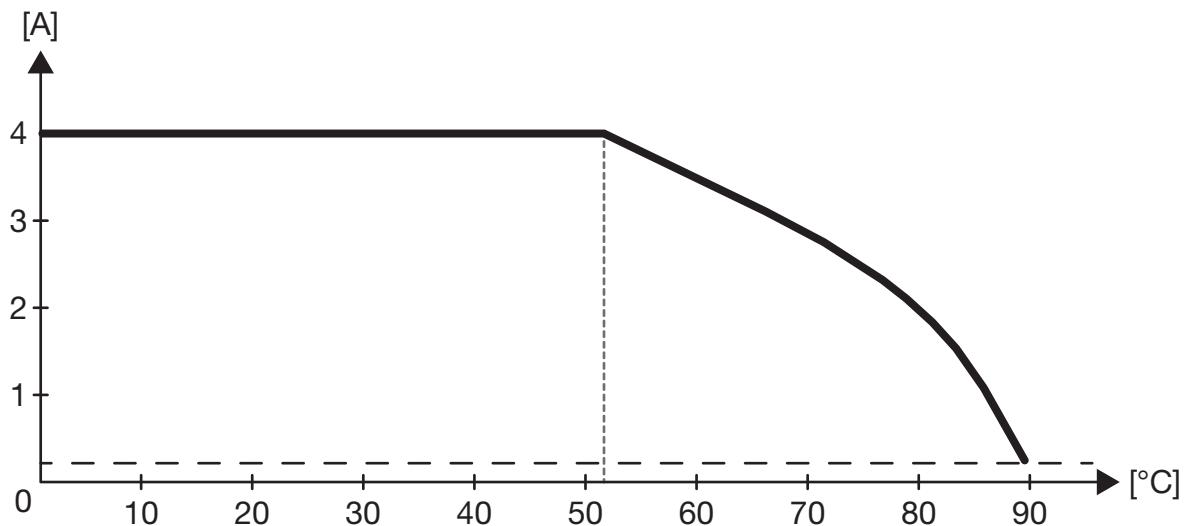
Fig. 16 *X: ambient temperature [°C]; Y: current [A]*

▶ **M12**
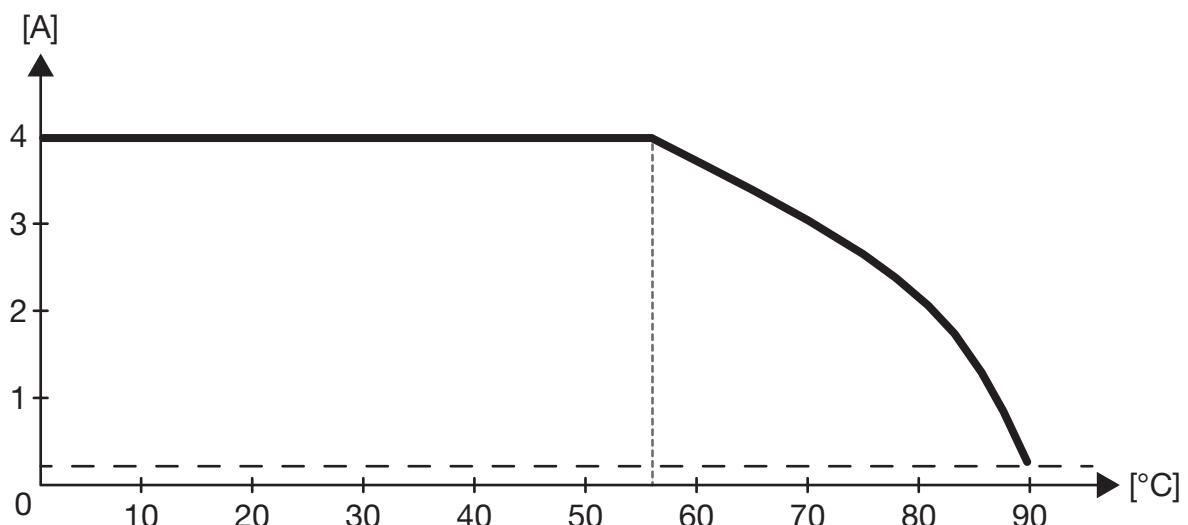
Fig. 17 *X: ambient temperature [°C]; Y: current [A]*

Mouser Electronics

Authorized Distributor

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[Carlo Gavazzi](#):

CONE14NF-S2P CONE13NF-A10 CONE13NF-A15 CONE13NF-A2 CONE13NF-A5 CONE13NF-APT5P
CONE13NF-S10 CONE13NF-S15 CONE13NF-S2 CONE13NF-S5 CONE14NF-A CONE14NF-A10 CONE14NF-A10P CONE14NF-A15 CONE14NF-A2 CONE14NF-A2P CONE14NF-A5 CONE14NF-A5P CONE14NF-ANT2
CONE14NF-ANT5 CONE14NF-APT2 CONE14NF-APT5 CONE14NF-S CONE14NF-S10 CONE14NF-S10P
CONE14NF-S15 CONE14NF-S2 CONE14NF-S25 CONE14NF-S5 CONE14NF-S5P CONE14NF-SNT2
CONE14NF-SNT5 CONE14NF-SPT2 CONE14NF-SPT5 CONE15NF-A10 CONE15NF-A15 CONE15NF-A2
CONE15NF-A5 CONE15NF-S10 CONE15NF-S15 CONE15NF-S2 CONE15NF-S5 CONE15NF-S5P CONE53NF-A10 CONE53NF-A10P CONE53NF-A15 CONE53NF-A2 CONE53NF-A2P CONE53NF-A5 CONE53NF-A5P
CONE53NF-APT5 CONE53NF-S10 CONE53NF-S10P CONE53NF-S15 CONE53NF-S2 CONE53NF-S2P
CONE53NF-S5 CONE53NF-S5P CONE54NF-A10 CONE54NF-A10P CONE54NF-A15 CONE54NF-A2
CONE54NF-A5 CONE54NF-A5P CONE54NF-S10 CONE54NF-S15 CONE54NF-S2 CONE54NF-S5 CONE54NF-S5P CONEP53NF-S2 CONE15NF-A10P