Cables, Plugs and Mating Connectors

Non Pre-Wired Connectors in M8, M12, M18 and Rd24 x 1/8:

Design	Order Code	Design	Connection type	Number of Pins	Core Cross-Section (mm^2)	Fig.
M8	V3-G	Socket, straight	Insulation piercing	3-pin	0.25 ... 0.34	1
	V3-W	Socket, angled	Insulation piercing	3-pin	0.25 ... 0.34	2
M12	V1-G	Socket, straight	Screw terminal, PG7 cable gland	4-pin	max. 2.5	3
	V1-W	Socket, angled		4-pin	max. 2.5	4
	V1S-G	Connector, straight		4-pin	max. 2.5	-
	V1S-W	Connector, angled		4-pin	max. 2.5	-
	V1-E-LED	LED board (npn)	suitable for mounting in V1-G and V1-W	-	-	-
	V1-E2 LED	LED board (pnp)		-	-	-
	V1-G-Q2	Socket, straight	Insulation piercing	4-pin	0,34 ... 0,75	5
	V1S-G-Q2	Connector, straight	Insulation piercing	4-pin	0,34 ... 0,75	-
	V15-W-PG9	Socket, straight	Screw terminal	5-pin	max. 0.75	-
Rd24 x 1/8	V16-G	Socket Rd24 x 1/8, straight	Screw terminal	6-pin + PE	max. 0.75	6
	V16S-G	Connector Rd24 x 1/8, straight	Screw terminal	6-pin + PE	max. 0.75	-
M18	V18-G	Socket, straight	Screw terminal	4-pin	max. 1.5	7
	V18-W	Socket, angled	Screw terminal	4-pin	max. 1.5	8
with central screw	V-W	Socket with central screw, angled	Screw terminal	5-pin	max. 2.5	-
	V-W-E2	Socket with central screw, angled	Screw terminal, with integrated LED	5-pin	max. 2.5	-
	V-W-N	Socket with central screw, angled	Screw terminal	5-pin	max. 2.5	-

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8

For pin assignment, see page 29 und 30

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Technical Data for Plug Connectors with Moulded Cable

Plug Connectors and Sockets

Number of Pins	2, 3, 4 or 5
Locking	screw lock
Self-locking	via O-ring in cap nut
Colour of handle	green
Material of handle	PUR
Material of contacts	CuSn/Au
Material of contact surface	Au
Material of cap nut	CuSn/Ni
Material of sealing ring	NBR
Degree of protection acc. to DIN 40050	IP68 in screwed state
Max. operating voltage	60 V DC or 250 V AC (for V13-...types)
Max. operating current	4 A
Volume resistance	< 5 mΩ
Insulation resistance	acc. to VDE 0295
Test voltage	1500 $V_{eff.}$ AC, 50 Hz

Cable

Cable structure	finely stranded, flexible
Core cross-sections	Cables for M12 connections: 0.34 mm^2 but NAMUR mating connectors: 0.50 mm^2 Cables for M8 connections: 0.25 mm^2
Colour of sheath	black for M12 and grey for M8
Temperature range for PVC conductors	moving: -5 °C to +70 °C non-moving: -30 °C to +80 °C
Temperature range for PUR conductors [1)]	moving: -5 °C to +70 °C non-moving: -30 °C to +100 °C
Minimum permissible bending radius	> 10 x conductor diameter
Sheath diameter	∅4.6 mm for M8 and ∅4.8 mm for M12, but ∅5.2 mm for 5-pin version
Core insulation material	PVC
Core colours according to VDE 293	2-pin: BN, BU 3-pin: BN, BU, BK 4-pin: BN, BU, BK, WH 5-pin: BN, BU, BK, WH, GY

[1)] Please note reduced mechanical values for PUR cables at temperatures over +80 °C.

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