# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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Power cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12 SPEEDCON, T-coded, on Socket straight M12 SPEEDCON, T-coded, Cable length: 0.5 m, for direct current up to 12 A/60 V

#### Why buy this product

- Easy and safe: 100% electrically tested plug-in components
- High-performance: DC connectors for up to 12 A and 60 V DC
- Protection against incorrect connection using special T-coding
- Save time, thanks to installation with SPEEDCON fast locking system
- Our standard: robust halogen-free PUR cable



#### Key Commercial Data

Packing unit	1 STK
Minimum order quantity	50 STK
Weight per Piece (excluding packing)	100.0 g
Custom tariff number	85444290
Country of origin	Germany

#### **Technical data**

#### Dimensions

Length of cable	0.5 m
Ambient conditions	
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
General	
Rated current at 40°C	12 A

Rated current at 40°C	12 A

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#### Technical data

#### General

Rated voltage	60 V
Number of positions	4
Insulation resistance	$\geq$ 10 G $\Omega$
Coding	T power
Status display	No
Protective circuit/component	Unwired
Overvoltage category	111
Degree of pollution	3
Insertion/withdrawal cycles	> 100
Material	

Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Au
Contact carrier material	РА
Material of grip body	TPU, hardly inflammable, self-extinguishing
Material, knurls	Zinc die-cast, nickel-plated

#### Standards and Regulations

Flammability rating according to UL 94	V0

#### Cable

Cable type	PUR halogen-free black	
Cable type (abbreviation)	PUR	
Cable abbreviation	Li9YV1-11Y	
UL AWM style	20233 / 10493 (80°C/300 V)	
Conductor cross section	4x 1.5 mm <sup>2</sup>	
AWG power supply	16	
Conductor structure, voltage supply	78x 0.15 mm	
Core diameter including insulation	2.35 mm ±0.05 mm	
Thickness, insulation	≥ 0.25 mm	
Wire colors	brown, white, blue, black	
Overall twist	4 wires, twisted	
Length of twist, overall twist	90 mm	
External sheath, color	black-gray RAL 7021	
Outer sheath thickness	approx. 1.3 mm	
External cable diameter D	8.4 mm ±0.25 mm	
Minimum bending radius, fixed installation	5 x D	
Minimum bending radius, flexible installation	10 x D	



#### Technical data

Cable

Number of bending cycles	400000
Minimum bending radius, drag chain applications	10 x D
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Cable weight	109 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq$ 1 GΩ*km (at 20 °C)
Conductor resistance	$\leq$ 13 $\Omega$ /km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage, cable	≥ 3000 V AC (Spark test)
Flame resistance	According to UL 758/1581 (Cable Flame)
	According to UL 758/1581 FT1
	According to DIN EN 60332-1-2
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Resistance to oil	According to DIN EN 60811-2-1, 168 h at 100°C
	According to UL 758, 168 h at 60°C
Other resistance	Hydrolysis and microbe resistant as per VDE 0282 section 10
	Low adhesion
	abrasion-resistant
	Resistant to salt water
Ambient temperature (operation)	-50 °C 80 °C (cable, fixed installation)
	-30 °C 80 °C (cable, flexible installation)

#### Drawings

#### Schematic diagram



Pin assignment for M12 plug, 4-pos., T-coded, view of plug side

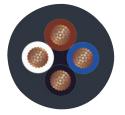
#### Schematic diagram



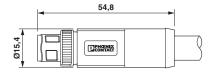
Pin assignment of M12 socket, 4-pos., T-coded, socket side view



#### Cable cross section



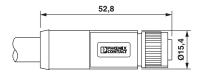
Dimensional drawing



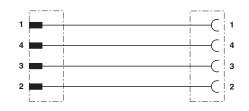
PUR halogen-free black [PUR]

M12 x 1 plug, straight

#### Dimensional drawing



Circuit diagram



M12 x 1 socket, straight

Contact assignment of the M12 connector and the M12 socket

#### Classifications

eCl@ss

eCl@ss 5.1	27143423
eCl@ss 6.0	27143423
eCl@ss 8.0	27279218
eCl@ss 9.0	27060311

ETIM

ETIM 4.0	EC001855
ETIM 5.0	EC001855

#### Approvals

Approvals

#### Approvals

UL Listed / cUL Listed / cULus Listed



#### Approvals

Ex Approvals

Approvals submitted

#### Approval details

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UL Listed	
mm²/AWG/kcmil	16
Nominal current IN	12 A
Nominal voltage UN	63 V

cUL Listed	
mm²/AWG/kcmil	16
Nominal current IN	12 A
Nominal voltage UN	63 V



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