# 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.

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#### Appliance Inlet DC Filter, ECO Design, Front- or Rear Side Mounting



Screw-on mounting, front or back side PCB snap-in version MOLEX HCS-125 connector



Screw-on mounting, front or back side Quick connect terminals 6.3 x 0.8 mm AMP Universal MATE-N-LOK or MOLEX MLX



Snap-in mounting with wires (stranded) AMP Universal MATE-N-LOK or MOLEX MLX

#### Description

#### - Panel Mount :

- Screw-on version from front or rear side, snap-in version from front side, PCB Version from rear side
- 2 Functions :
- Appliance Inlet, DC line filter in standard version
- Solder, quick connect or wires (stranded)

See below: Approvals and Compliances

#### Characteristics

- Compact high-performance DC-filter
- Optimal shielding due to completely closed filter case, unpotted
- Applications:
- Mission Critical Ethernet LAN Routers
- High uptime Ethernet LAN Switches
- Fiber Optic WAN Switches
- Fiber Optic WAN Multiplexer

#### Other versions on request

- Snap-in for panel thickness >2mm to 3mm
- flexible wire with various lenghts
- Quick connect terminals 4.8 x 0.8 mm
- Capacity CY 5.5 nF
- with long earth pin in connector

#### References

PCB Mounting Alternative: version 5120 for AC applications

#### Weblinks

pdf datasheet, html-datasheet, General Product Information, Distributor-Stock-Check, Accessories, Detailed request for product

#### **Technical Data**

Ratings IEC	15A / 125VDC
Ratings UL/CSA	3 - 15A @ Ta 40 °C / 125 VDC
Dielectric Strength	<ul> <li>&gt; 0.5kVDC between (VAC 1 min., DIN EN 50155)</li> <li>&gt; 1.1kVDC between protective conduc- tor and live parts</li> <li>Test voltage (2 sec)</li> </ul>
Allowable Operation Tempe- rature	-25 °C to 85 °C
Climatic Category	25/085/21 acc. to IEC 60068-1
Protection Class	Suitable for appliances with protection class I
Terminal	Quick connect terminals 6.3 x 0.8 mm Wire leads AWG 18 (10-15A AWG 16), 150 mm
Panel Thickness S	Screw: max 8mm Mounting screw torque max 0.5Nm Snap-in: 0.8mm to 2mm (all steps with one variant)
Material: Housing	Themoplast / steel tin-plated, black / metallic, UL 94V-0

Line Filter	DC Standard Version, UL 1283
	Technical Details
MTBF	> 3'900'000 h acc. to MIL-HB-217 F

#### **Approvals and Compliances**

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in Details about Approvals

#### Approvals

The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products. Approval Reference Type: 5003

Approval Logo	Certificates	Certification Body	Description
10	VDE Approvals	VDE	Certificate Number: 40020642
c <b>FN</b> ° us	UL Approvals	UL	UL File Number: E72928

#### **Product standards**

Product standards that are referenced

Organization	Design	Standard	Description
IEC	Designed according to	IEC 60320-1	Appliance couplers for household and similar general purposes
IEC,	Designed according to	IEC 61058-1	Switches for appliances. Part 1. General requirements
(U)	Designed according to	UL 498	Standard for Attachment Plugs and Receptacles
(h)	Designed according to	UL 1283	Electromagnetic interference filters
GE Group	Designed according to	CSA C22.2 no. 42	General Use Receptacles, Attachment Plugs, and Similar Wiring Devices

#### **Application standards**

Application standards where the product can be used

Organization	Design	Standard	Description
IEC	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technologyequipment.

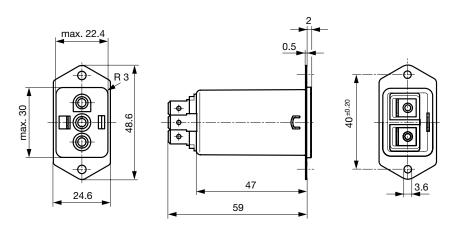
#### Compliances

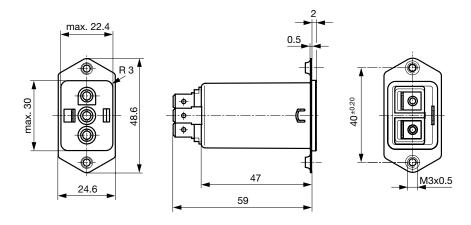
The product complies with following Guide Lines

Identification	Details	Initiator	Description				
C€	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.				
	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU				
<b>©</b>	China RoHS	SCHURTER AG	The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.				
REACH	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.				

#### **Dimensions** [mm]

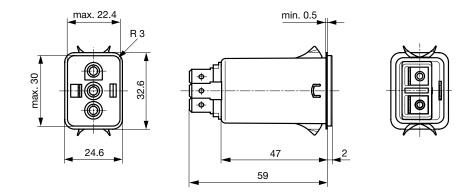
Front- or rear side mounting for screws with nuts or blind rivets, mating connector Molex HCS-125



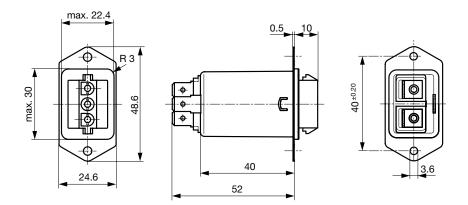


Rear side mounting with pre-formed, threaded holes for M3 screws, mating connector Molex HCS-125

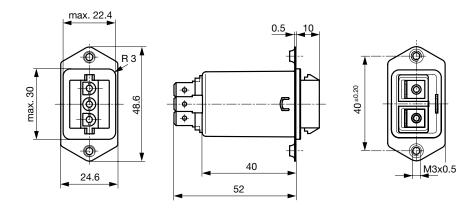
Snap-in mounting from front side, mating connector Molex HCS-125



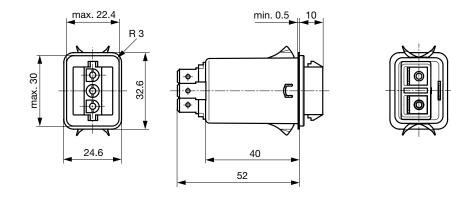
Front or rear side mounting for screws with nuts or blind rivets, mating connector AMP Universal MATE-N-LOK oder Molex MLX

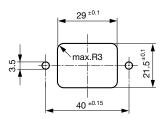


Rear side mounting with pre-formed, threaded holes for M3 screws, mating connector AMP Universal MATE-N-LOK or Molex MLX

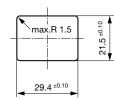


Snap-in mounting from front side, mating connector AMP Universal MATE-N-LOK or Molex MLX

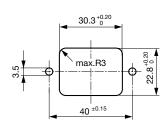




Panel cutout for front side mounting



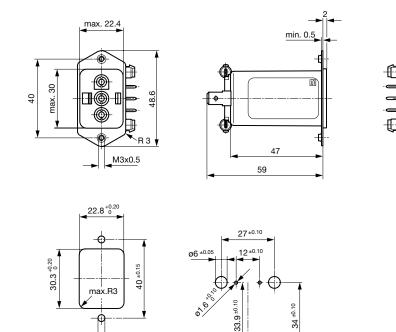
Panel cutout for snap-in mounting



Panel cutout for rear side mounting

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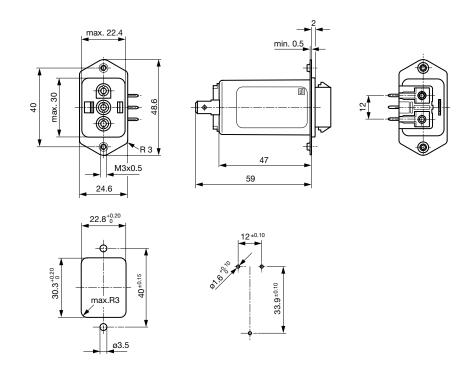
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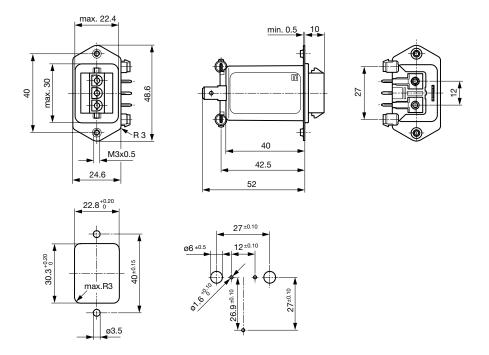
PCB snap-in rear-side mounting with pre-formed threaded holes for M3 screws, mating connector Molex HCS-125

PCB rear-side mounting with pre-formed threaded holes for M3 screws, mating connector Molex HCS-125

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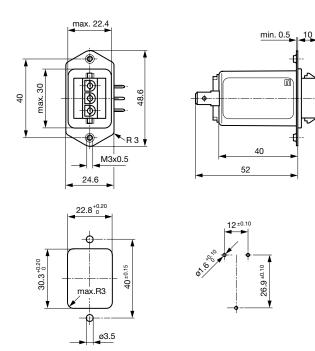


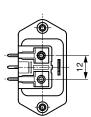
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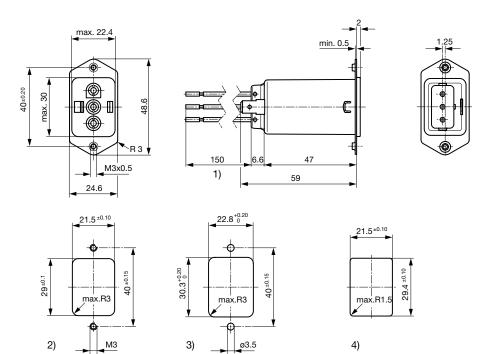
PCB snap-in rear-side mounting with pre-formed threaded holes for M3 screws, mating connector AMP Universal MATE-N-LOK or MOLEX MLX

PCB rear-side mounting with pre-formed threaded holes for M3 screws, mating connector AMP Universal MATE-N-LOK or Molex MLX





#### Screw and snap-in mounting with flexible wire, mating connector Molex HCS-125 or AMP Universal MATE-N-LOK



1) Flexible wire, standard length 150 mm or special length on request

2) Panel cut-out screw-on version, front-side mounting

3) Panel cut-out, screw-on version, back-side mounting

4) Panel cut-out snap-in version, front-side mounting

Mating Connector



Molex HCS-125 Housing: Molex no. 03-12-1036 Female terminal (3 needed per housing): Molex no. 18-12-1222

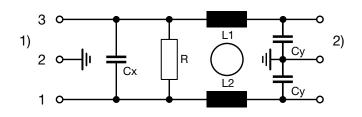


AMP Universal MATE-N-LOK Housing: AMP no. 1-480700-0 Female terminal (3 needed per housing): AMP no. 926901-1 Molex MLX Housing: Molex no. 50-84-1030 Female terminal (3 needed per housing): Molex no. 02-08-1002

#### **Technical Data of Filter-Components**

Filter-Type	Inductances L [mH]	Capacitance CX [nF]	Capacitance CY [nF]	<b>R [M</b> Ω]
DC Standard Version	2 x 4	100	4.7	1
DC Standard Version	2 x 0.8	100	4.7	1
DC Standard Version	2 x 0.4	100	4.7	1
DC Standard Version	2 x 0.1	100	4.7	1
	DC Standard Version DC Standard Version DC Standard Version	L [mH]DC Standard Version2 x 4DC Standard Version2 x 0.8DC Standard Version2 x 0.4	L [mH]CX [nF]DC Standard Version2 x 4100DC Standard Version2 x 0.8100DC Standard Version2 x 0.4100	L [mH]         CX [nF]         CY [nF]           DC Standard Version         2 x 4         100         4.7           DC Standard Version         2 x 0.8         100         4.7           DC Standard Version         2 x 0.4         100         4.7

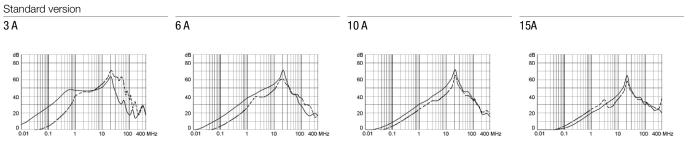
#### Diagrams



1) Line 2) Load

#### Attenuation Loss

- - - - 50 $\Omega$  differential mode \_\_\_\_\_ 50 $\Omega$  common mode



#### All Variants

Rated Current [A]	Mounting	Mounting side	Terminal	Mating Connector	Order Number
3	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	Molex HCS-125	5003.0121.1
3	Screw/PCB	Rear Side	PCB pin and earth pin 6.3 x 0.8	Molex HCS-125	5003.015B.1
3	Screw/PCB snap-in	Rear Side	PCB pin and earth pin 6.3 x 0.8	Molex HCS-125	5003.016B.1
3	Screw-on/Rivet	Front-/Rear-Side	Quick connect terminals 6.3 x 0.8 mm	Molex HCS-125	5003.0111.1
6	Snap-in	Front Side	Quick connect terminals 6.3 x 0.8 mm	Molex HCS-125	5003.0231.1
6	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	Molex HCS-125	5003.0221.1
6	Screw/PCB	Rear Side	PCB pin and earth pin 6.3 x 0.8	Molex HCS-125	5003.025B.1
6	Screw/PCB snap-in	Rear Side	PCB pin and earth pin 6.3 x 0.8	Molex HCS-125	5003.026B.1
6	Screw-on/Rivet	Front-/Rear-Side	Quick connect terminals 6.3 x 0.8 mm	Molex HCS-125	5003.0211.1
6	Screw-on/Rivet	Front-/Rear-Side	Solder terminal	Molex HCS-125	5003.0213.1
10	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	Molex HCS-125	5003.0321.1
10	Screw/PCB	Rear Side	PCB pin and earth pin 6.3 x 0.8	Molex HCS-125	5003.035B.1
10	Screw/PCB snap-in	Rear Side	PCB pin and earth pin 6.3 x 0.8	Molex HCS-125	5003.036B.1
10	Screw-on/Rivet	Front-/Rear-Side	Quick connect terminals 6.3 x 0.8 mm	Molex HCS-125	5003.0311.1
10	Screw-on/Rivet	Front-/Rear-Side	Flexible wire and Earth pin 6.3 x 0.8	Molex HCS-125	5003.0316.1
15	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	Molex HCS-125	5003.0421.1
15	Screw/PCB	Rear Side	PCB pin and earth pin 6.3 x 0.8	Molex HCS-125	5003.045B.1
15	Screw/PCB snap-in	Rear Side	PCB pin and earth pin 6.3 x 0.8	Molex HCS-125	5003.046B.1
15	Screw-on/Rivet	Front-/Rear-Side	Quick connect terminals 6.3 x 0.8 mm	Molex HCS-125	5003.0411.1
3	Snap-in	Front Side	Quick connect terminals 6.3 x 0.8 mm	AMP / Molex MLX	5003.1131.1
3	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	AMP / Molex MLX	5003.1121.1
3	Screw/PCB	Rear Side	PCB pin and earth pin 6.3 x 0.8	AMP / Molex MLX	5003.115B.1
3	Screw/PCB snap-in	Rear Side	PCB pin and earth pin 6.3 x 0.8	AMP / Molex MLX	5003.116B.1
3	Screw-on/Rivet	Front-/Rear-Side	Quick connect terminals 6.3 x 0.8 mm	AMP / Molex MLX	5003.1111.1
6	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	AMP / Molex MLX	5003.1221.1
6	Screw/PCB	Rear Side	PCB pin and earth pin 6.3 x 0.8	AMP / Molex MLX	5003.125B.1
6	Screw/PCB snap-in	Rear Side	PCB pin and earth pin 6.3 x 0.8	AMP / Molex MLX	5003.126B.1
6	Screw-on/Rivet	Front-/Rear-Side	Quick connect terminals 6.3 x 0.8 mm	AMP / Molex MLX	5003.1211.1

### 5003

Rated Current [A]	Mounting	Mounting side	Terminal	Mating Connector	Order Number
10	Snap-in	Front Side	Flexible wire and Earth pin 6.3 x 0.8	AMP / Molex MLX	5003.1336.1
10	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	AMP / Molex MLX	5003.1321.1
10	Screw	Rear Side	Solder terminal	AMP / Molex MLX	5003.1323.1
10	Screw/PCB	Rear Side	PCB pin and earth pin 6.3 x 0.8	AMP / Molex MLX	5003.135B.1
10	Screw/PCB snap-in	Rear Side	PCB pin and earth pin 6.3 x 0.8	AMP / Molex MLX	5003.136B.1
10	Screw-on/Rivet	Front-/Rear-Side	Quick connect terminals 6.3 x 0.8 mm	AMP / Molex MLX	5003.1311.1
15	Snap-in	Front Side	Quick connect terminals 6.3 x 0.8 mm	AMP / Molex MLX	5003.1431.1
15	Snap-in 2 - 3 mm	Front Side	Flexible wire and Earth solder terminal	AMP / Molex MLX	5003.1448.1
15	Screw	Rear Side	Quick connect terminals 6.3 x 0.8 mm	AMP / Molex MLX	5003.1421.1
15	Screw/PCB	Rear Side	PCB pin and earth pin 6.3 x 0.8	AMP / Molex MLX	5003.145B.1
15	Screw/PCB snap-in	Rear Side	PCB pin and earth pin 6.3 x 0.8	AMP / Molex MLX	5003.146B.1
15	Screw-on/Rivet	Front-/Rear-Side	Quick connect terminals 6.3 x 0.8 mm	AMP / Molex MLX	5003.1411.1

Availability for all products can be searched real-time:https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER

Type for screw on mounting from rear side has pre-threaded holes for M3 screws

#### **Accessories**

	Description	
	Assorted Covers Rear Cover	
		0859.0048
•		
	Cord retaining kits Cord retaining strain relief	
	Flat head, E	4700.0005
	Flat head, G	4700.0007