SCHAFFNER

Compact power entry module

FN 321

This module family provides IEC 950-compliant power entry in a compact form. The use of two X capacitor stages provides better than average filtering performance, and a good degree of protection against external interference.

- up to 10A current ratings
- IEC 950-compliant
- compact size
- · reduces interference susceptibility
- general-purpose application
- two X capacitor stages
- optional medical version (B type)



See Mechanical Data (page 41) for details of housings and output connections.

Filter selection table

Choose the family FN xxx with the required body style and features, and add -?? to determine current rating, and /?? for output connections. Example: FN 321-1/05 is a horizontal screw-mounting filter, rated for 1A, with fast-on outputs.

Approvals









Family		Current A at 40°		
	1 (1.2)	3 (3.6)	6 (7.3)	10 (10)
FN 321 -?? /??	-1	-3	-6	-10
= preferred type		Inductano	eL mH	
	10	3.1	1.2	0.36

Output c	onnection	Housing
9	ם"	0
/01	/05	1

Additional specifications

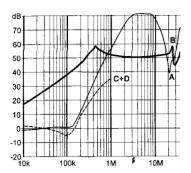
Filter type	Capa Cx nF	citance Cy nF	Maximum leakage µA/phase	Res. R MΩ	Weight g	Maximum operating voltage VAC Hz	Operating frequency Hz	Hipot tes PN→E VAC	st voltage P→N VDC
All standard types	47	3.3	290	_	65	250 50/60	DC to 400	2000	1700
B types (medical)	47	-	3	1	65	250 50/60	DC to 400	2000	1700
R types (safety)	47	3.3	290	1	65	250 50/60	DC to 400	2000	1700

MTBF at 40°C, 230V, per Mil-HB-217F: 800,000 hours.

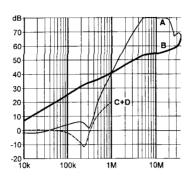
Insertion loss

Per CISPR 17; A = $50\Omega/50\Omega$ sym, B = $50\Omega/50\Omega$ asym, C = $0.1\Omega/100\Omega$ sym, D = $100\Omega/0.1\Omega$ sym

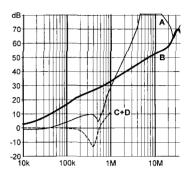
1 amp types



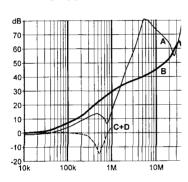
3 amp types



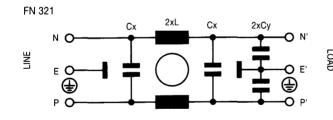
6 amp types



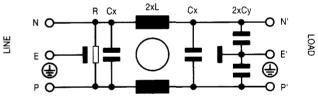
10 amp types



Electrical schematics



FN 321R



See tables for component values.

Mechanical Data

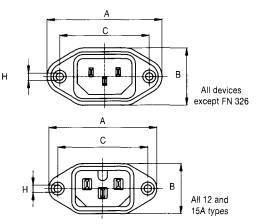
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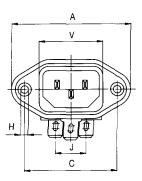
	FN 321	FN 329	FN 326 /01/02/06 types	FN 326 /07 type	Tol. mm
Α			51.5		± 0.5
В			26		± 0.3
С			40		± 0.1
D	46.	6		34.9	± 0.3
E			38.2		± 0.4
F	5.	5		5.5	± 0.3
G			2.2		_
		Q	33.3		_
J	10	.9	12.3		± 0.5
K			14.25		_ ± 0.5
]		6.8		± 0.3
M		R≤3		R≤6	_
N	21.	5	20.5	22.9	± 0.2
Ρ.	4()	28	30.4	± 0.2
R	M:	3	Ø3.5	М3	_
S			90°] -
V			27.	5	± 0.25
W			20		± 0.3
Υ				100	± 5
Z				AWG 18] -

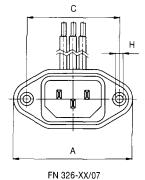
	FN 9222 up to 10A	FN 9222 12-15A	FN 9223	Tol. mm
Α		18	51.5	± 0.5
В	2:	2.5	26	± 0.3
C		40		± 0.1
D	37.7	46.5	34.4	± 0.3
E				± 0.4
F		5.5		± 0.3
G				_
Н		Ø3.3] -
J	1(0.9	12.5	± 0.3
K				± 0.5
				± 0.3
М		R≤3		_
N		21.5		± 0.2
P		28.5		± 0.2
R		М3		_
S		90°		-
V				± 0.25
W				± 0.3
Υ			160	± 5
Z			AWG 18	_

FRONT

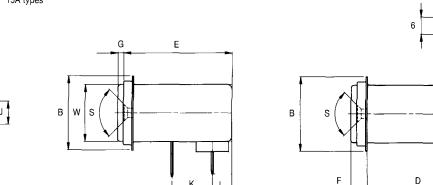
SIDE



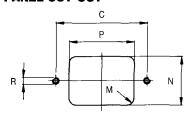




FN 326-XX/01/02/06



PANEL CUT-OUT



Mechanical Data

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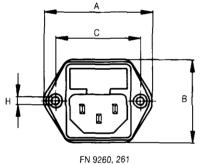
	FN 9260 FN 261	Tol. mm
Α	46	± 0.3
В	36	± 0.3
С	36	± 0.2
D	41	± 0.3
F	5.5	± 0.3
E	Ø3.3	± 0.1
J	12.5	± 0.3
M	R≤3.5	-
N	33.2	± 0.1
Р	29.2	± 0.1
R	M3	-
S	90°	-

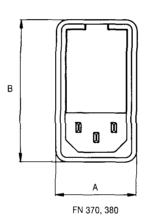
FN 370/72 FN 380/82	FN 375 FN 385	FN 376/78 FN 386/88	FN 379 FN 389
32		5	0
		58	
		4	0
56.5	66.5	56.5	66.5
		5.5	
	Q	Ø 3.3	
		R≤2	
56 ⁽¹⁾ - 5	6.3 (2)		
		28.6	
		M	3
		90)°

(1) Wall thickness 0.8 mm to 2.0 mm (2) Wall thickness 2.1 mm to 3.2 mm

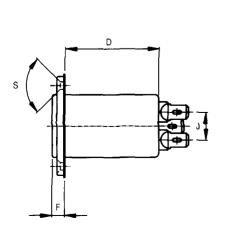
FRONT

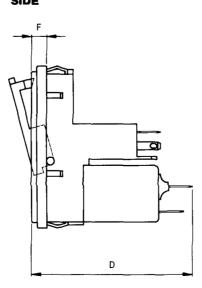
TOP

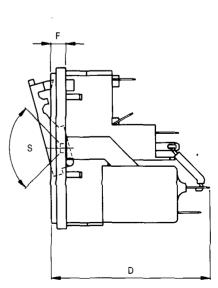




SIDE







В

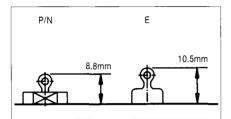
* Wire mounted on fully assembled FN370s only

Filter output connections

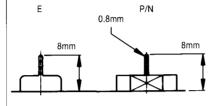


These are the standard types of output connections available for Schaffner's range of IEC inlet filter families. All terminals are made from 'German silver', an alloy of copper, nickel and zinc. Type /06 is, in general, Schaffner's preferred option.

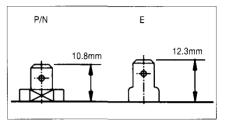
Schaffner can also produce filters with other popular output connectors, or user-specific interfaces, to custom order. In most cases, these options do not affect safety approvals. Please call your local sales office to discuss any custom requirements.



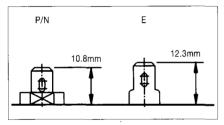
Type /01 Solder lug with a hole capable of accommodating several small wires.



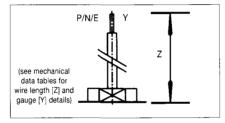
Type /02Pin suitable for direct assembly onto through-hole printed-circuit boards.



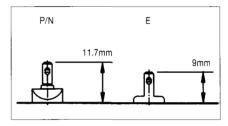
Type /05
Industry-standard size fast-on terminal.



▼ Type /06
Industry-standard size fast-on which may also be used as a solder lug.



Type /07
Insulated wire, stripped ready for soldering. Wire gauge varies according to filter.



FN 370 and FN 380 only These two IEC filter families are supplied fitted with this industry-standard size mini fast-on.

Cross reference list AWG to copper area in mm²

AWG number	Cu mm² (approx)
22	0.33
20	0.54
18	0.83
16	1.34
14	2.15
12	3.44

¹ inch = 25.4mm