

COMMUNICATIONS, DATA, CONSUMER DIVISION

# DIN 41612 Selector Guide

PCB Connectors

# DIN 41612

## FCI: SETTING THE STANDARD FOR CONNECTORS

With operations in 30 countries, FCI is a leading manufacturer of connectors.

Our 13,500 employees are committed to providing customers with high-quality, innovative products for a wide range of consumer and industrial applications.

## FCI DIN Selector Guide

**All you want**

**Easy to find**

FCI new DIN selector brings together our proven standard connectors, such as signal solder to board, press-fit and power. In addition to the presented products, FCI can provide other options (Selective Loading of Contacts, First Make / Last Break contacts, Harpoons / Board Locks) and backpanel accessories (Latch Frames, Latches, Shrouds, Covers).

You can find them all right here and we make it easy for you to find the right ones to design in. Getting product and samples is easier and faster too.

**48 HOUR SAMPLES**

**Up-to-date Internet website :  
[www.fciconnect.com/din41612](http://www.fciconnect.com/din41612)**

- Drawings
- Data sheets
- Selection

**Select our preferred and standard solutions ! 😊**

**Check out the**



- Initial orders ex-stock
- Best offer
- Industry standard

# DIN 41612

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# DIN 41612

## Technical Characteristics

<b>Insulator Material</b>	:	Polyester Thermoplastic UL 94 V0
<b>Contact Material</b>	:	Copper Alloy
<b>Contact Plating</b>	<b>Active zone</b>	: Gold over Nickel
	<b>Termination zone</b>	: Matt Tin over Nickel (for RoHS compatible), or Tin-Lead over Nickel (for non RoHS)
<b>Current Rating at 20°C</b>	:	1.5 A
<b>Maximum current</b>	:	2 A
<b>Temperature Range</b>	:	-55° C to +125°C
<b>Contact Resistance</b>	:	≤ 20 mΩ
<b>Insulation Resistance</b>	:	≥ 10 <sup>6</sup> MΩ
<b>Test Voltage (rms)</b>	:	1000 V
<b>Mating insertion force per Contact</b>	:	≤ 0.94 N
<b>Mating extraction force per Contact</b>	:	≥ 0.15 N
<b>Press-fit mean insertion force per Contact</b>	:	60 N
<b>Press-fit mean push-out force per Contact</b>	:	50 N
<b>RoHS maximum temperature</b>	:	260°C during 3.5 s

For the right angle versions, like the present leaded versions, it is recommended to use high temperature adhesive or metallic device, to protect the nearest plastic part in contact with the solder wave, to avoid any visual plastic deterioration.

## Performance classes

Standard platings are those required by DIN 41612. All active contact areas are selectively plated with gold over nickel in order to fulfill the requirements of the DIN standard. Termination areas are plated according to applications.

<b>DIN 41612 class III</b>	<b>DIN 41612 class II</b>	<b>DIN 41612 class I</b>
50 operations, no industrial atmosphere	200 operations + 4 days industrial atmosphere SO <sub>2</sub> + 200 operations	250 operations + 21 days industrial atmosphere SO <sub>2</sub> + 250 operations
<b>Field of applications</b>		
consumer electronics, peritelephony, office supplies	industrial electronics, data, private switching	telecommunication, public switching, datacom

**Nota** : All dimensions in mm

# DIN 41612

## Other DIN product ranges at FCI

[Check FCI website at www.fciconnect.com/din41612](http://www.fciconnect.com/din41612)

### PCB connectors

- Signal solder to board – 8609 Series, style Q (headers only)
- Mix signal and power or coax solder to board – 8609 Series (headers only)
- Mix signal and power or coax press-fit – 8609 Series
- Medium power connectors – 5159 Series, style F
- High power connectors – 5159 Series, style H

### Cable connectors

- IDC - BPS8 Series
- Wire wrap - 8609 Series

### Accessories

- Shrouds
- Covers

*For more information about these ranges, please contact your local FCI representative.*

# DIN 41612

## PCB Signal solder to board

### STYLE C CONNECTORS

#### Solder to board

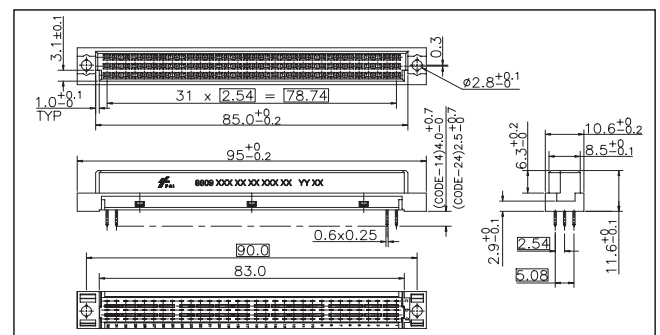
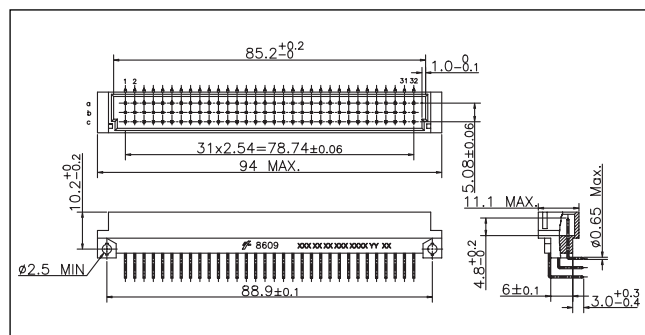
Header : Right angle  
 Receptacle : Straight spill



### Part number

Series	8609	396	71	13	7	55	ELF
<b>Rows fitted with contacts *</b>							
2 rows a & c		64 contacts					
3 rows a, b & c		96 contacts					
<b>Type of insulator</b>							
☺ 3 rows Header insulator			71				
☺ 3 rows Receptacle insulator			81				
<b>Termination *</b>							
☺ Right angle spill for Header		3 mm		13			
☺ Straight spill for Receptacle		4 mm		14			
☺ Straight spill for Receptacle		2.5 mm		24			
<b>Insulator (option)</b>							
☺ Harpoon					H		
☺ Without harpoon					7		
<b>Plating performance Class &amp; Pitch *</b>							
☺ DIN 41612 class III		2.54 mm				45	
☺ DIN 41612 class II		2.54 mm				55	
☺ DIN 41612 class I		2.54 mm				65	
<b>Gender</b>							
☺ Header (RoHS compatible)							ELF
☺ Header (non RoHS compatible)							000E
☺ Receptacle (RoHS compatible)							V1LF
☺ Receptacle (non RoHS compatible)							V1

\* For other options, please consult your local FCI representative.



86093967113755ELF	96 PIN Header right angle	86093968114755V1LF	96 PIN Receptacle straight
86094647113755ELF	64 PIN Header right angle	86094648114755V1LF	64 PIN Receptacle straight

# DIN 41612

## PCB Signal solder to board

### STYLE C/2 CONNECTORS

#### Solder to board

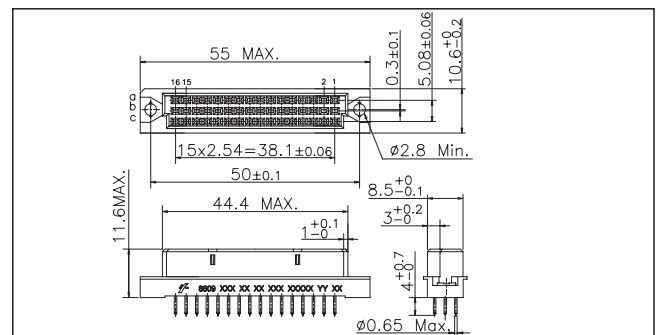
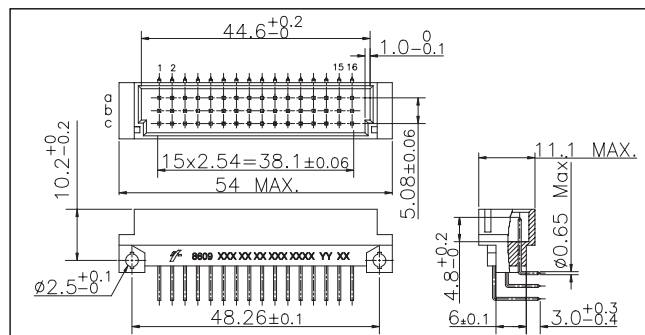
Header : Right angle  
 Receptacle : Straight spill



### Part number

Series	8609	348	73	13	7	55	ELF
<b>Rows fitted with contacts *</b>							
2 rows a & c : 32 contacts		432					
3 rows a, b & c : 48 contacts		348					
<b>Type of insulator</b>							
☺ 3 rows Header insulator			73				
☺ 3 rows Receptacle insulator			83				
<b>Termination *</b>							
☺ Right angle spill for Header : 3 mm				13			
☺ Straight spill for Receptacle : 4 mm				14			
Straight spill for Receptacle : 2.5 mm				24			
<b>Insulator (option)</b>							
☺ Harpoon					H		
☺ Without harpoon					7		
<b>Plating performance Class &amp; Pitch *</b>							
DIN 41612 class III : 2.54 mm						45	
☺ DIN 41612 class II : 2.54 mm						55	
DIN 41612 class I : 2.54 mm						65	
<b>Gender</b>							
☺ Header (RoHS compatible)							ELF
Header (non RoHS compatible)							000E
☺ Receptacle (RoHS compatible)							E1LF
Receptacle (non RoHS compatible)							000E1

\* For other options, please consult your local FCI representative.



86093487313755ELF	48 PIN Header right angle	86093488314755E1LF	48 PIN Receptacle straight
86094327313755ELF	32 PIN Header right angle	86094328314755E1LF	32 PIN Receptacle straight

# DIN 41612

## PCB Signal solder to board

### STYLE R CONNECTORS

#### Solder to board

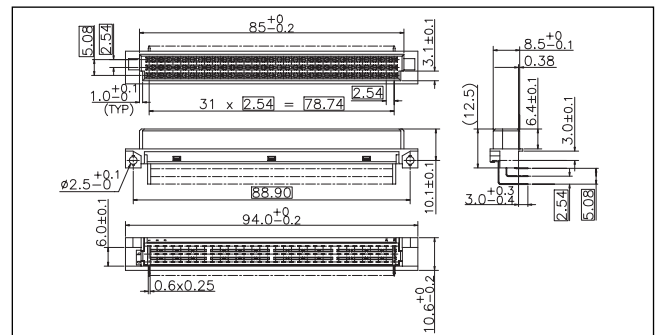
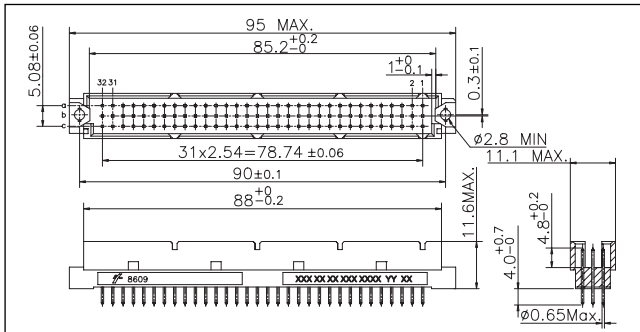
Header : Straight spill  
 Receptacle : Right angle



### Part number

Series	8609	396	88	13	7	55	V1LF
<b>Rows fitted with contacts *</b>							
2 rows a & c : 64 contacts		464					
3 rows a, b & c : 96 contacts		396					
<b>Type of insulator</b>							
3 rows Header insulator			78				
3 rows Receptacle insulator			88				
<b>Termination *</b>							
Right angle spill for Receptacle : 3 mm				13			
Straight spill for Header : 4 mm				14			
<b>Insulator (option)</b>							
☺ Harpoon					H		
☺ Without harpoon					7		
<b>Plating performance Class &amp; Pitch *</b>							
DIN 41612 class III : 2.54 mm						45	
☺ DIN 41612 class II : 2.54 mm						55	
DIN 41612 class I : 2.54 mm						65	
<b>Gender</b>							
☺ Header (RoHS compatible)							ELF
Header (non RoHS compatible)							000E
☺ Receptacle (RoHS compatible)							V1LF
Receptacle (non RoHS compatible)							V1

\* For other options, please consult your local FCI representative.



86094648813755V1LF	64 PIN Receptacle right angle	86093968813755V1LF	96 PIN Receptacle right angle
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# DIN 41612

## PCB Signal solder to board

### STYLE R/2 CONNECTORS

#### Solder to board

Header : Straight spill

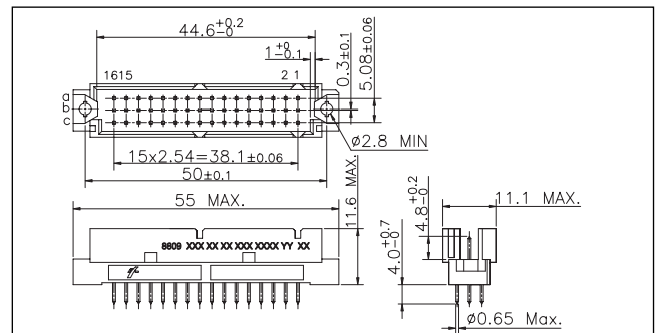
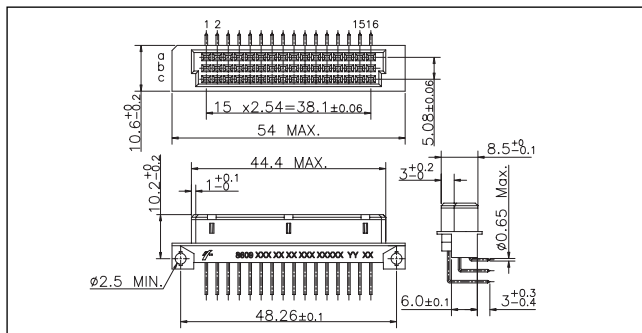
Receptacle : Right angle



### Part number

Series	8609	348	76	14	7	55	ELF
<b>Rows fitted with contacts *</b>							
2 rows a & c : 32 contacts		432					
3 rows a, b & c : 48 contacts		348					
<b>Type of insulator</b>							
3 rows Header insulator			76				
3 rows Receptacle insulator			86				
<b>Termination *</b>							
Right angle spill for Receptacle : 3 mm					13		
Straight spill for Header : 4 mm					14		
<b>Insulator (option)</b>							
☺ Harpoon						H	
☺ Without harpoon						7	
<b>Plating performance Class &amp; Pitch *</b>							
DIN 41612 class III : 2.54 mm							45
☺ DIN 41612 class II : 2.54 mm							55
DIN 41612 class I : 2.54 mm							65
<b>Gender</b>							
☺ Header (RoHS compatible)							ELF
Header (non RoHS compatible)							000E
☺ Receptacle (RoHS compatible)							E1LF
Receptacle (non RoHS compatible)							000E1

\* For other options, please consult your local FCI representative.



86093488613755E1LF

48 PIN Receptacle right angle

86093488613H55E1LF

48 PIN Receptacle right angle harpoon



# DIN 41612

## PCB Signal solder to board

### STYLE B/2 CONNECTORS

#### Solder to board 2 rows

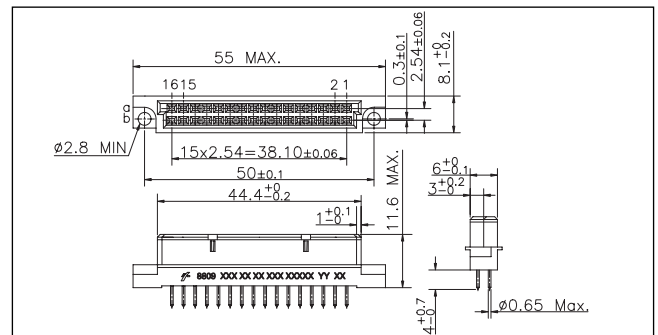
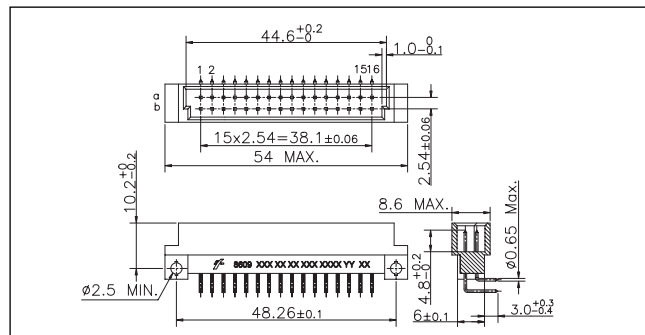
Header : Right angle  
 Receptacle : Straight spill



### Part number

Series	8609	232	53	13	7	55	ELF
<b>Rows fitted with contacts *</b>							
2 rows a & b		32					
1 row a		16					
<b>Type of insulator</b>							
2 rows Header insulator			53				
2 rows Receptacle insulator			63				
<b>Termination *</b>							
☺ Right angle spill for Header				13			
☺ Straight spill for Receptacle				14			
Straight spill for Receptacle				24			
<b>Insulator (option)</b>							
☺ Harpoon					H		
☺ Without harpoon					7		
<b>Plating performance Class &amp; Pitch *</b>							
☺ DIN 41612 class III						45	
☺ DIN 41612 class II						55	
DIN 41612 class I						65	
<b>Gender</b>							
☺ Header (RoHS compatible)							ELF
Header (non RoHS compatible)							000E
☺ Receptacle (RoHS compatible)							E1LF
Receptacle (non RoHS compatible)							000E1

\* For other options, please consult your local FCI representative.



# DIN 41612 PCB Signal Press-fit

## STYLE C CONNECTORS Press-fit

Header : Right angle  
Receptacle : Straight spill



## Part number

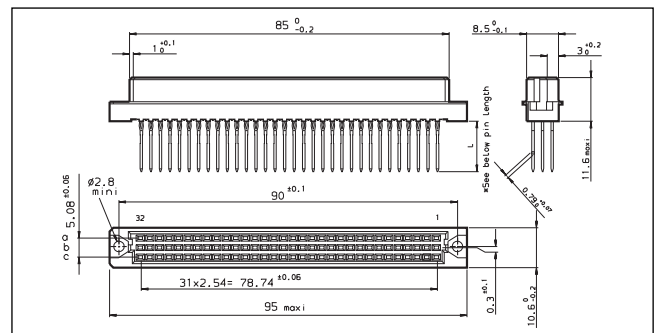
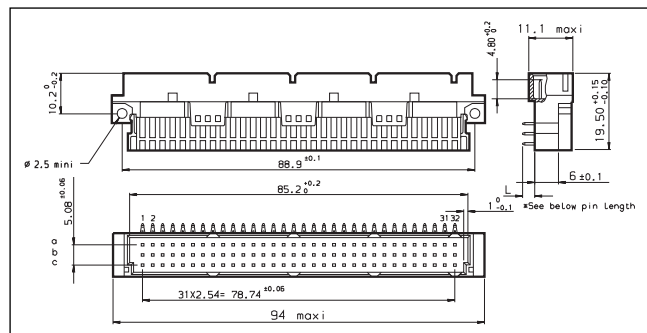
Series	8609	464	81	94	755	E3LF
<b>Rows fitted with contacts *</b>						
2 rows a & c : 64 contacts		464				
3 rows a, b & c : 96 contacts		396				
<b>Type of insulator</b>						
3 rows Right angle Header insulator			71			
3 rows Straight spill Receptacle insulator			81			
<b>Termination *</b>						
☺ Short post for Header and Receptacle : L = 5.25 mm				94		
☺ Wire wrap 1 wrap for Receptacle : L = 13.25 mm				91		
<b>Plating performance Class &amp; Pitch *</b>						
☺ DIN 41612 class III : 2.54 mm					745	
☺ DIN 41612 class II : 2.54 mm					755	
☺ DIN 41612 class I : 2.54 mm					765	
<b>Gender</b>						
☺ Header (RoHS compatible)						E1LF
☺ Header (non RoHS compatible)						000E1
☺ Receptacle (RoHS compatible)						E3LF
☺ Receptacle (non RoHS compatible)						000E3

\* For other options, please consult your local FCI representative.

Rear plug up solution availability  
or  
DIN C/2 half size availability



Check FCI website at  
[www.fciconnect.com/din41612](http://www.fciconnect.com/din41612)



Short post L : 5.25 mm  
Wire wrap L : 13.25 mm

# DIN 41612 PCB Signal Press-fit

## STYLE R CONNECTORS Press-fit

Header : Straight spill  
Receptacle : Right angle



### Part number

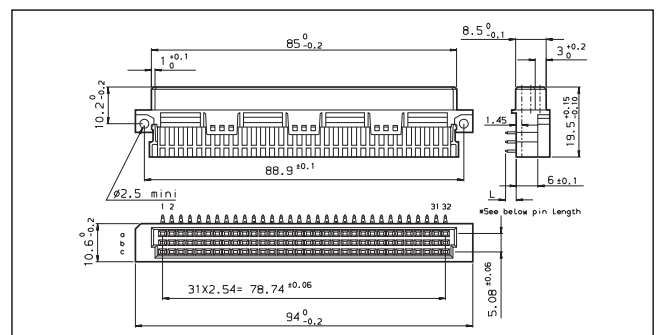
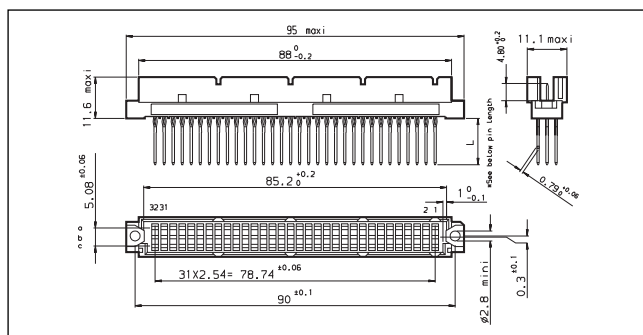
Series	8609	396	78	91	755	E1LF
<b>Rows fitted with contacts *</b>						
2 rows a & c : 64 contacts		464				
3 rows a, b & c : 96 contacts		396				
<b>Type of insulator</b>						
3 rows Straight spill Header insulator			78			
3 rows Right angle Receptacle insulator			88			
<b>Termination *</b>						
☺ Short post for Header and Receptacle : L = 5.25 mm				94		
☺ Wire wrap 1 wrap for Receptacle : L = 13.25 mm				91		
<b>Plating performance Class &amp; Pitch *</b>						
☺ DIN 41612 class III : 2.54 mm					745	
☺ DIN 41612 class II : 2.54 mm					755	
☺ DIN 41612 class I : 2.54 mm					765	
<b>Gender</b>						
☺ Header (RoHS compatible)						E1LF
☺ Header (non RoHS compatible)						000E1
☺ Receptacle (RoHS compatible)						E3LF
☺ Receptacle (non RoHS compatible)						000E3

\* For other options, please consult your local FCI representative.

Rear plug up solution availability  
or  
DIN R/2 half size availability



Check FCI website at  
[www.fciconnect.com/din41612](http://www.fciconnect.com/din41612)



Short post L : 5.25 mm  
Wire wrap L : 13.25 mm

# DIN 41612

## NOTES

# DIN 41612

## NOTES

**For more information on FCI sales offices,  
headquarters, agents and local distributors,  
visit [www.fciconnect.com](http://www.fciconnect.com)**



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