

VALUKUMPU CONNECTORS

DIN 41612 / IEC 60603-2 (2.54 mm grid)

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Supplementary products for DIN 41612 (IEC 603) connectors

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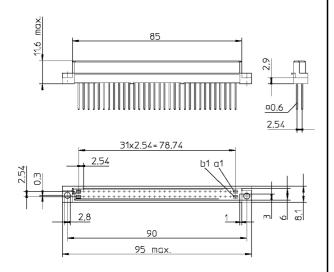
> Short circuit jumper (PL1U)4	45
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Distributors:

- Elgood (Finland)
- Cambridge Connectors (UK, USA)
 Encitech Connectors AB (Sweden)
 YE International Russia (Russia)



FEMALE



TYPE B IEC 603

DIN 41612

MATERIALS

Connector body Female contact Contact plating

Glass fiber filled polyester Phosphor bronze Gold over nickel

ELECTRIC DATA

Proof voltage

Insulation resistance

Current rating

1.5 A at 20 °C 1 A at 80 °C 0.75 A at 100 °C Contact/contact 1000 V (rms) Contact/test panel 1550 V (rms) ≥ 10⁶ MΩ ≤ 20 mΩ

PHYSICAL DATA

Contact resistance

Temperature range Flammability Insertion force Retention force

-55 °C...+125 °C UL 94 V-O 32 pole ≤ 30 N 64 pole ≤ 60 N ≥ 0.15 N/contact pair

Mechanical endurance, salt mist, industrial atmosphere and other requirements according to IEC 603.

QUALITY DATA

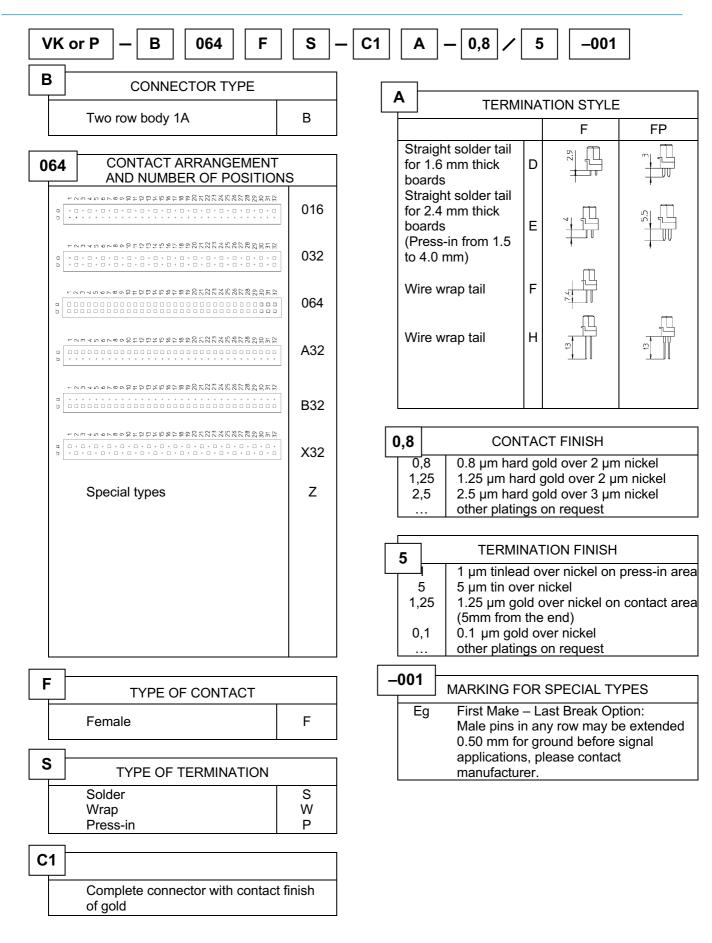
Contact surfaces mechanically polished. Dual-beam female contact profiled to trapezoidal form.











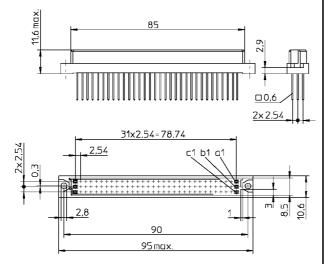




31x2,54=78,74 11,1max. 2×2.54 2,54 a1 b1 c1 85,2 94 max 88,9 <u>3x 2,54</u> 2,5 (3,7) 10,2 0'Z 6.4 0, 18 4.0 02,8 01 Availablewith 못 fixing clip.

FEMALE

MALE



TYPE C IEC 603

DIN 41612

MATERIALS

Connector body Female contact Male contact Contact plating Glass fiber filled polyester Phosphor bronze Copper alloy Gold over nickel

ELECTRIC DATA

Current rating	1.5 A at 20 °C 1 A at 80 °C
	0.75 A at 100 °C
Proof voltage	Contact/contact 1000 V (rms)
	Contact/test panel 1550 V (rms)
Insulation resistance	≥ 10 ⁶ MΩ
Contact resistance	≤ 20 mΩ

PHYSICAL DATA

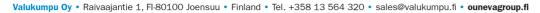
Temperature range	-55 °C…+125 °C
Flammability	UL 94 V-O
Insertion force	32 pole ≤ 30 N
	64 pole ≤ 60 N
	96 pole ≤ 90 N
Retention force	≥ 0.15 N/contact pair

Mechanical endurance, salt mist, industrial atmosphere and other requirements according to IEC 603.

QUALITY DATA

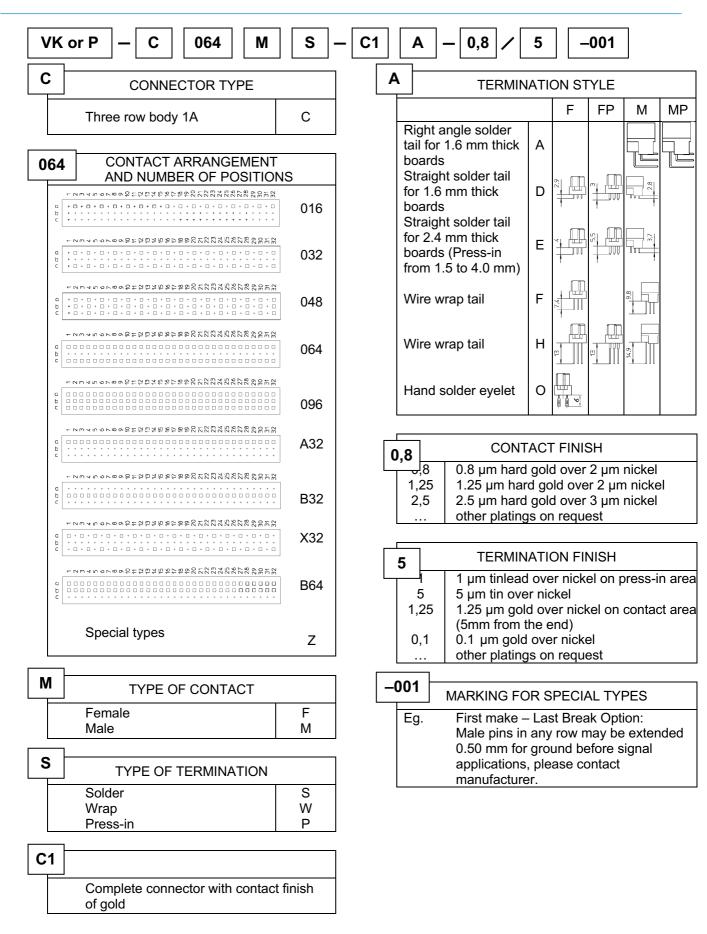
Contact surfaces mechanically polished. Dual-beam female contact profiled to trapezoidal form.

Frames, see C/1L or PC/1L.



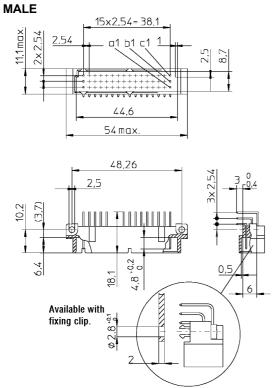




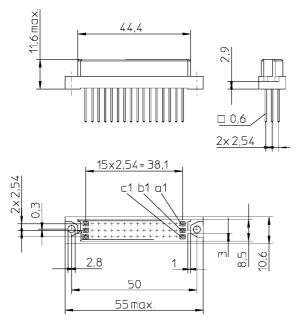








FEMALE



TYPE C/2

Half length of type C in IEC 603 and DIN 41612

MATERIALS

Connector body Female contact Male contact Contact plating Glass fiber filled PBT Phosphor bronze Copper alloy Gold over nickel

ELECTRIC DATA

Current rating	1.5 A at 20 °C 1 A at 80 °C 0.75 A at 100 °C
Proof voltage	Contact/contact 1000 V (rms)
	Contact/test panel 1550 V (rms)
Insulation resistance	≥ 10 ⁶ MΩ
Contact resistance	≤ 20 mΩ

PHYSICAL DATA

Temperature range	-55 °C…+125 °C
Flammability	UL 94 V-O
Insertion force	32 pole ≤ 30 N
	48 pole ≤ 50 N
Retention force	≥ 0.15 N/contact pair

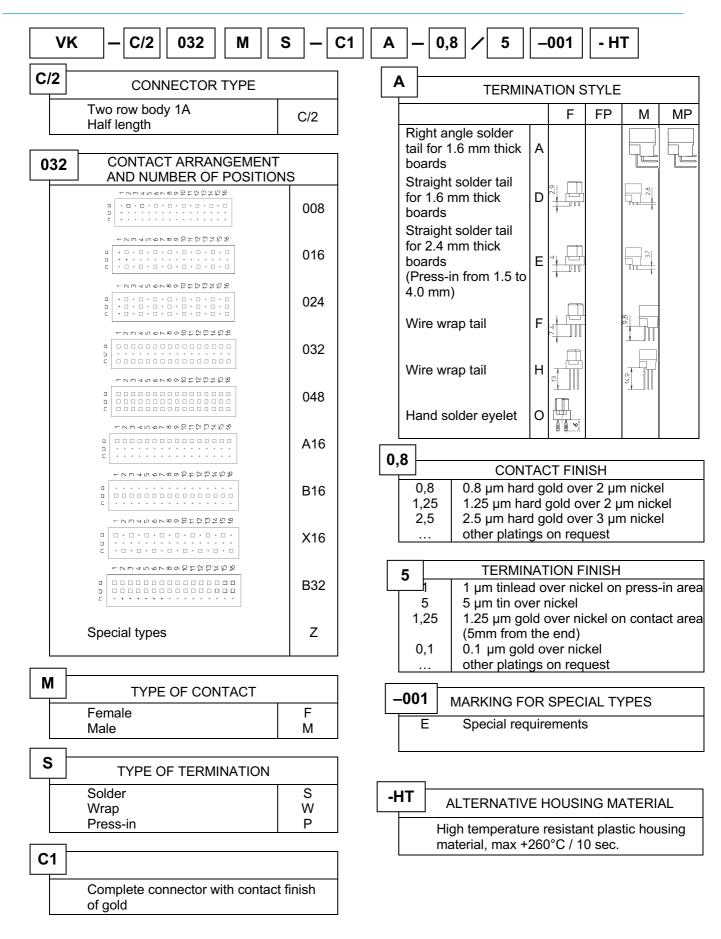
Mechanical endurance, salt mist, industrial atmosphere and other requirements according to IEC 603.

QUALITY DATA

Contact surfaces mechanically polished. Dual-beam female contact profiled to trapezoidal form.



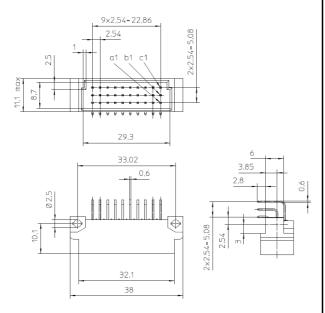






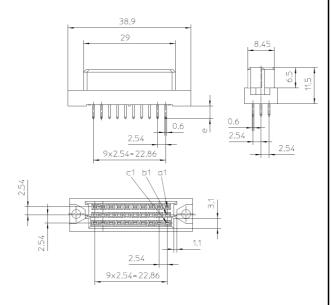


MALE



FEMALE

Subject to modifications without prior notice



TYPE C/3

IEC 603 DIN 41612 Complementary to type C

MATERIALS

Connector body Female contact Male contact Contact plating Glass fiber filled polyester Phosphor bronze Copper alloy Gold over nickel

ELECTRIC DATA

Current rating	1.5 A at 20 °C 1 A at 80 °C	
Proof voltage	0.75 A at 100 °C Contact/contact Contact/test par	1000 V (rms)
Insulation resistance	≥ 10 ⁶ MΩ	
Contact resistance Minimum distance	≤ 20 mΩ	
between	Creepage	Clearance
 adjacent contacts 	1.2 mm	1.2 mm
- contact and chassis	1.8 mm	1.6 mm

PHYSICAL DATA

Temperature range	-55 °C…+125 °C
Flammability	UL 94 V-O
Insertion force	21 pole ≤ 20 N
Retention force	≥ 0.15 N/contact pair

Mechanical endurance, salt mist, industrial atmosphere and other requirements according to IEC 603.

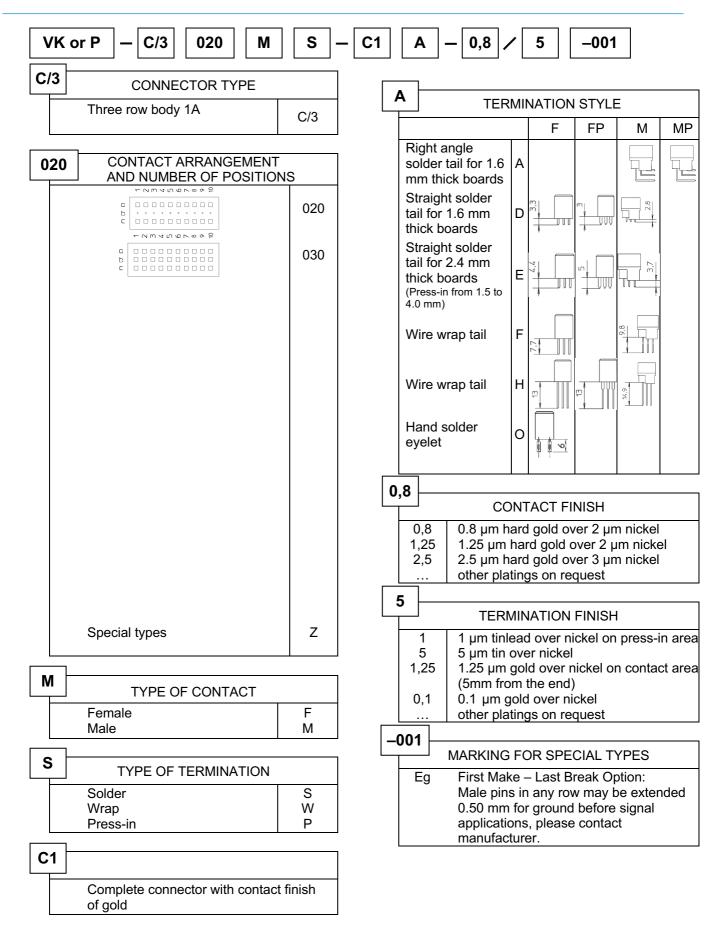
QUALITY DATA

Contact surfaces mechanically polished. Dual-beam female contact profiled to trapezoidal form.







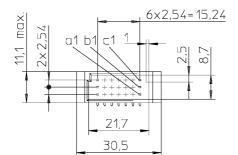


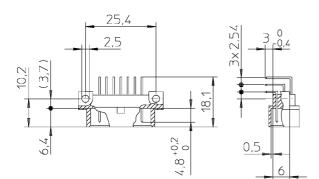




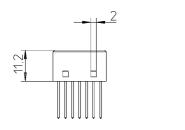


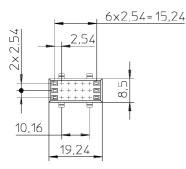
MALE





FEMALE





TYPE C/4

IEC 603 DIN 41612 Complementary to type C

MATERIALS

Connector body Female contact Male contact Contact plating Glass fiber filled polyester Phosphor bronze Copper alloy Gold over nickel

ELECTRIC DATA

Current rating	1.5 A at 20 °C 1 A at 80 °C	
Proof voltage	0.75 A at 100 °C Contact/contact 1000 V (rms) Contact/test panel 1550 V (rms)	
r toor voltage		
Insulation resistance	≥ 10 ⁶ MΩ	
Contact resistance	≤ 20 mΩ	
Minimum distance		
between	Creepage	Clearance
- adjacent contacts	1.2 mm	1.2 mm
- contact and chassis	1.8 mm	1.6 mm

PHYSICAL DATA

Temperature range	-55 °C…+125 °C
Flammability	UL 94 V-O
Insertion force	21 pole ≤ 20 N
Retention force	≥ 0.15 N/contact pair

Mechanical endurance, salt mist, industrial atmosphere and other requirements according to IEC 603.

QUALITY DATA

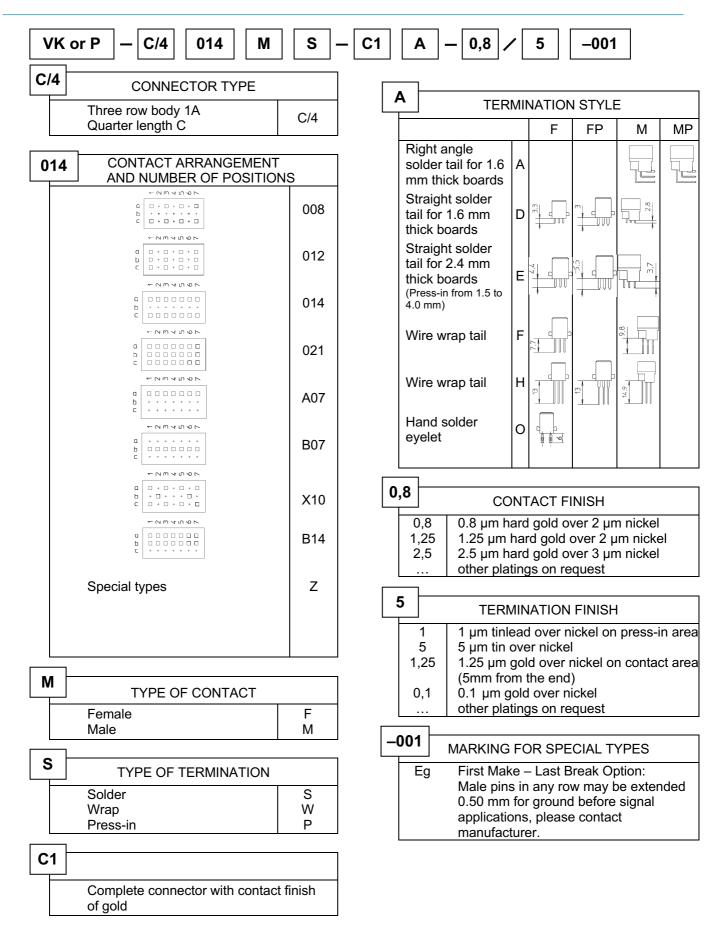
Contact surfaces mechanically polished. Dual-beam female contact profiled to trapezoidal form. Half length of female C/4 is also available (3x3 pos.)

Frames, see C/4L. Housings, see C/4H.

0,6





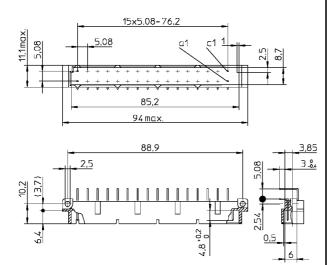


RoHS

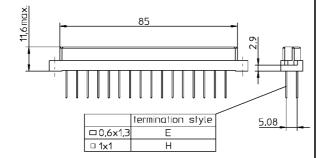


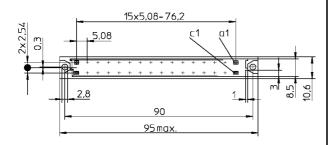


MALE



FEMALE





TYPE D

IEC 603 DIN 41612

MATERIALS

Connector body Female contact Male contact Contact plating

Glass fiber filled polyester Phosphor bronze Copper alloy Gold over nickel

ELECTRIC DATA

Current rating	5.5 A at 20 °C 4 A at 80 °C	
Proof voltage	2.5 A at 100 °C Contact/contact	1550 V (rms)
·	Contact/test panel 1550 V (rms)	
Insulation resistance	≥ 10 ⁶ MΩ	
Contact resistance Minimum distance	≤ 15 mΩ	
between	Creepage	Clearance
 adjacent contacts 	3.0 mm	3.0 mm
- contact and chassis	1.8 mm	1.6 mm

PHYSICAL DATA

Temperature range	-55 °C…+125 °C
Flammability	UL 94 V-O
Insertion force	32 pole ≤ 30 N
Retention force	≥ 0.15 N/contact pair

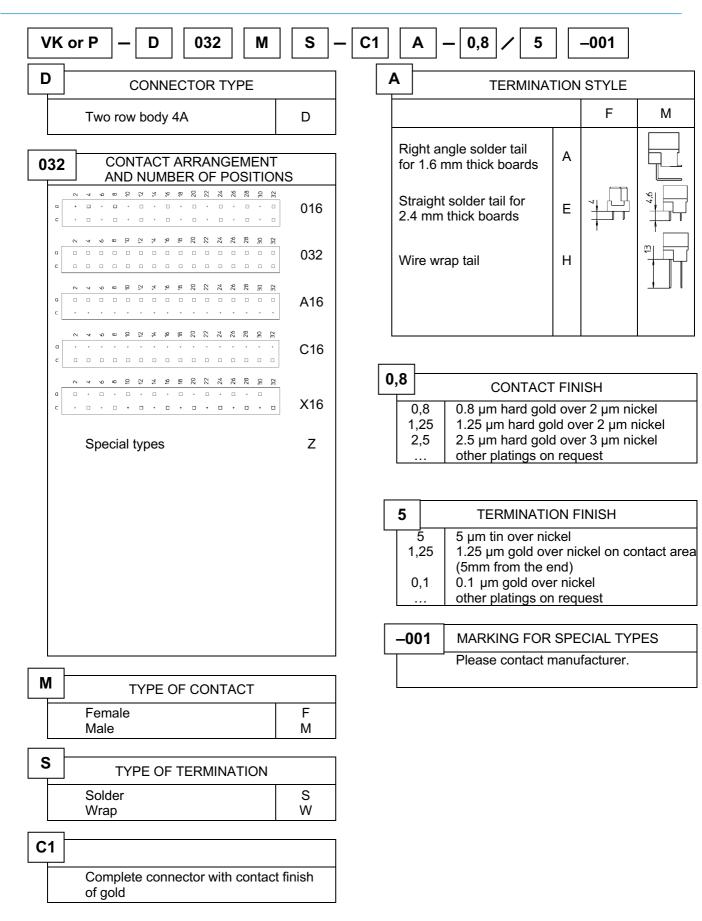
Mechanical endurance, salt mist, industrial atmosphere and other requirements according to IEC 603.

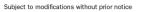
QUALITY DATA

Contact surfaces mechanically polished. Dual-beam female contact profiled to trapezoidal form.



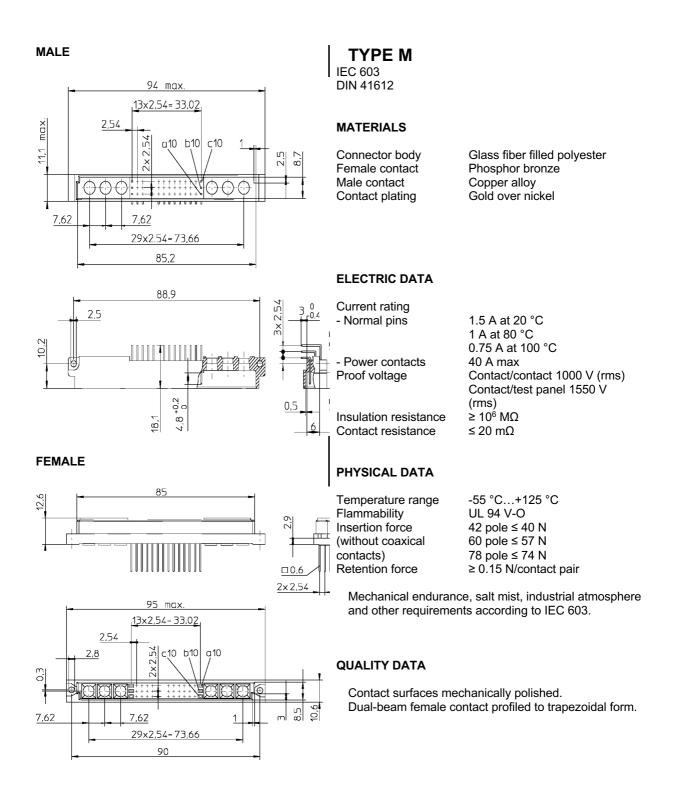






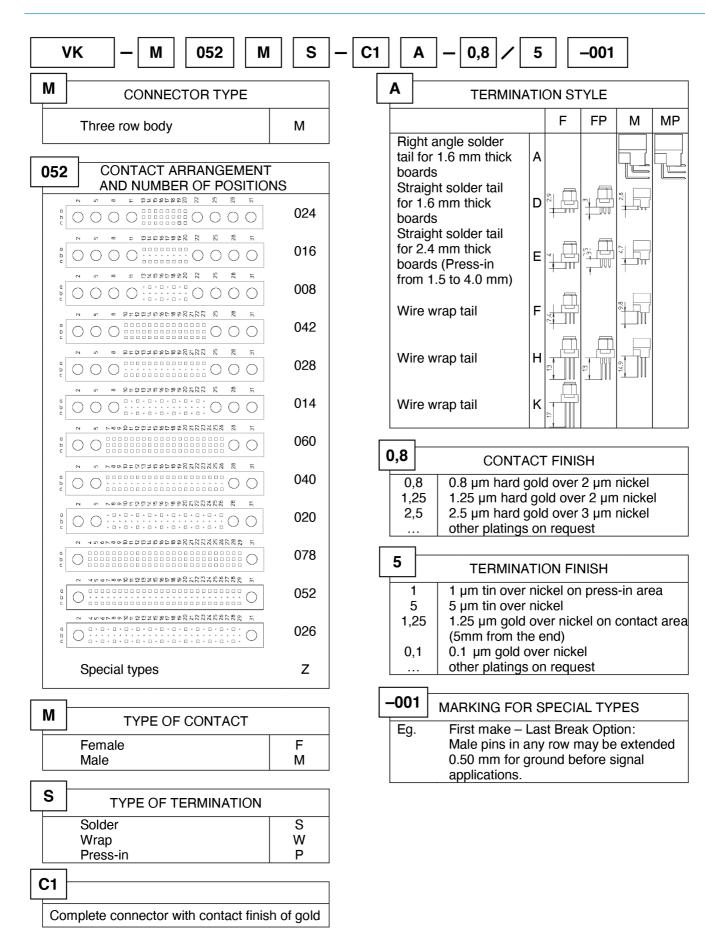






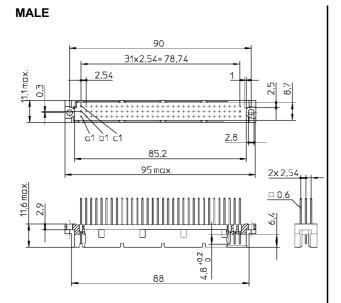












TYPE R

Reversed IEC 603 DIN 41612

MATERIALS

Connector body Female contact Male contact Contact plating Glass fiber filled polyester Phosphor bronze Copper alloy Gold over nickel

ELECTRIC DATA

Current rating	1.5 A at 20 °C 1 A at 80 °C	
Proof voltage	0.75 A at 100 °C Contact/contact 1000 V (rms) Contact/test panel 1550 V (rms)	
Insulation resistance Contact resistance Minimum distance	≥ 10 ⁶ MΩ ≤ 20 mΩ	
between - adjacent contacts - contact and chassis	Creepage 1.2 mm 1.8 mm	Clearance 1.2 mm 1.6 mm

PHYSICAL DATA

Temperature range	-55 °C…+125 °C
Flammability	UL 94 V-O
Insertion force	32 pole ≤ 30 N
	64 pole ≤ 60 N
	96 pole ≤ 90 N
Retention force	≥ 0.15 N/contact pair

Mechanical endurance, salt mist, industrial atmosphere and other requirements according to IEC 603.

QUALITY DATA

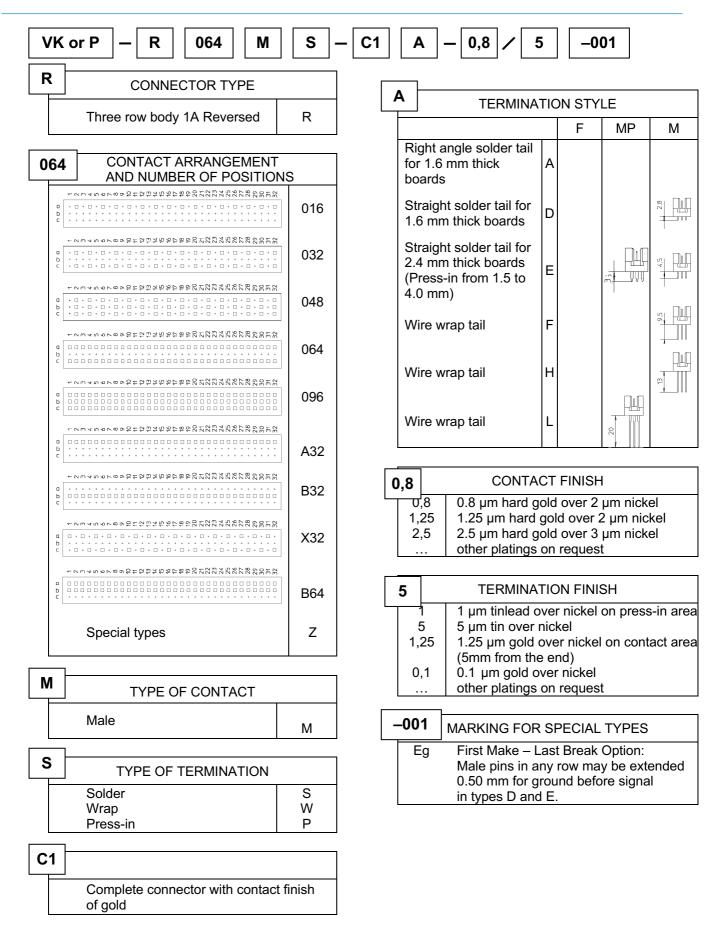
Contact surfaces mechanically polished. Dual-beam female contact profiled to trapezoidal form.

Frames, see sect. 8





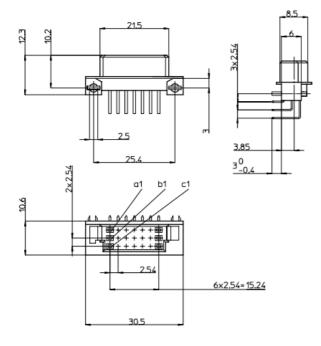








FEMALE



TYPE R/4

Reversed IEC 603 DIN 41612

MATERIALS

Connector body Female contact Male contact Contact plating Glass fiber filled polyester Phosphor bronze Copper alloy Gold over nickel

ELECTRIC DATA

Current rating	1.5 A at 20 °C 1 A at 80 °C	
Proof voltage	0.75 A at 100 °C Contact/contact Contact/test par	1000 V (rms)
Insulation resistance Contact resistance Minimum distance	≥ 10 ⁶ MΩ ≤ 20 mΩ	
between - adjacent contacts - contact and chassis	Creepage 1.2 mm 1.8 mm	Clearance 1.2 mm 1.6 mm

PHYSICAL DATA

Temperature range	-55 °C…+125 °C
Flammability	UL 94 V-O
Insertion force	32 pole ≤ 30 N
	64 pole ≤ 60 N
	96 pole ≤ 90 N
Retention force	≥ 0.15 N/contact pair

Mechanical endurance, salt mist, industrial atmosphere and other requirements according to IEC 603.

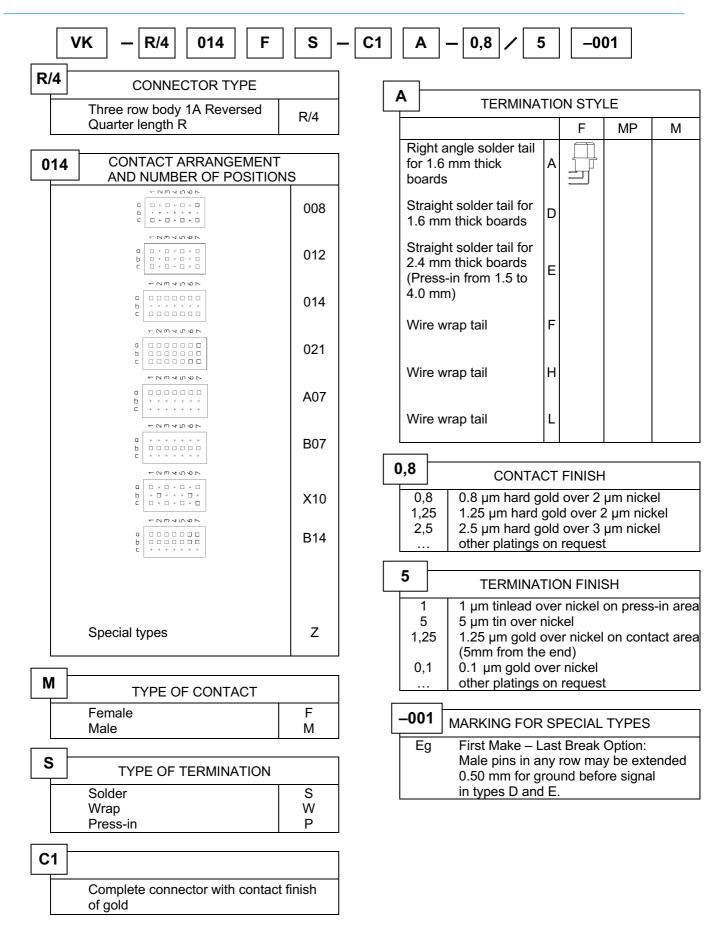
QUALITY DATA

Contact surfaces mechanically polished. Dual-beam female contact profiled to trapezoidal form.

Frames, see sect. 8



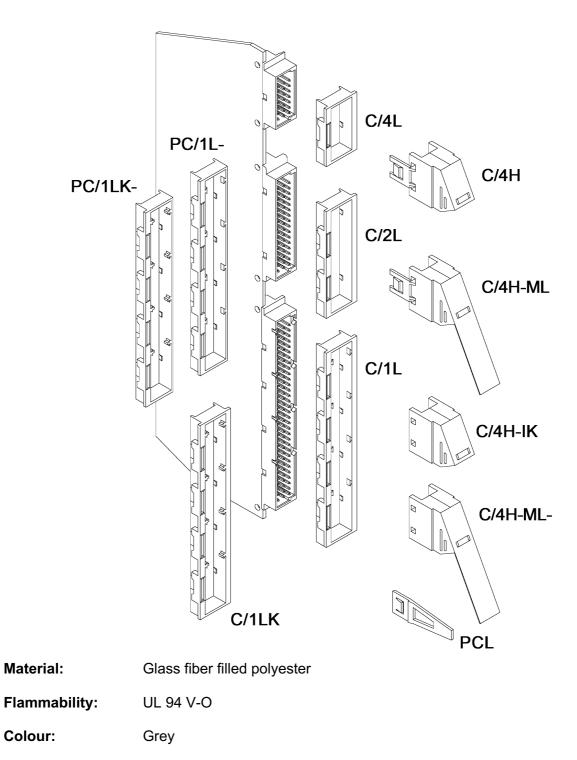








LOCKING FRAMES FOR BACKPANEL SHROUDS AND MALE CONNECTORS

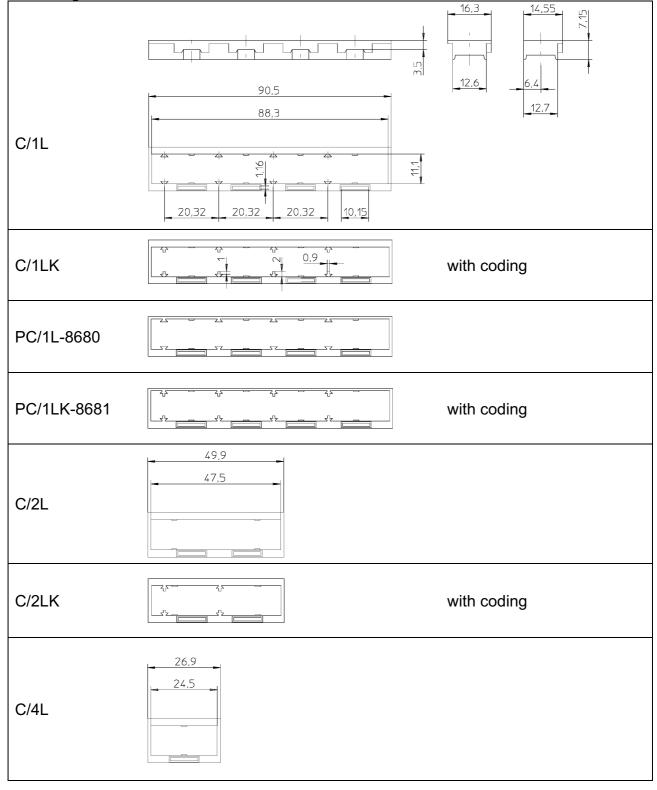






LOCKING FRAMES FOR BACKPANEL SHROUDS AND MALE CONNECTORS

Ordering Code

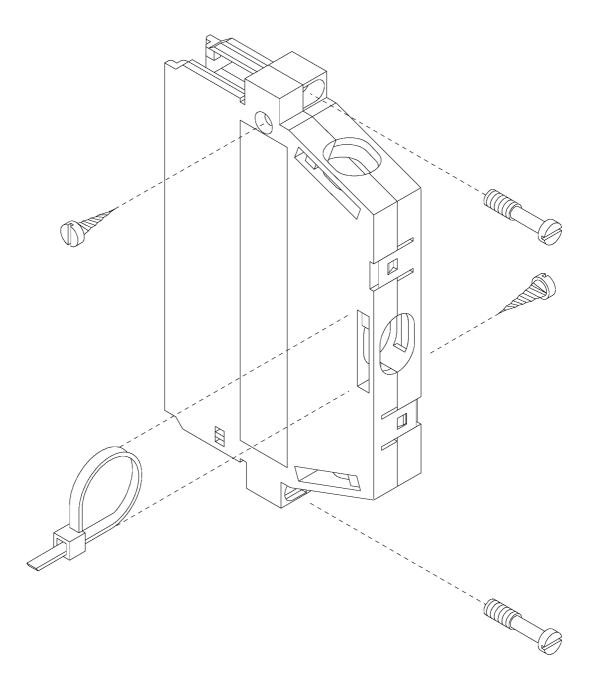








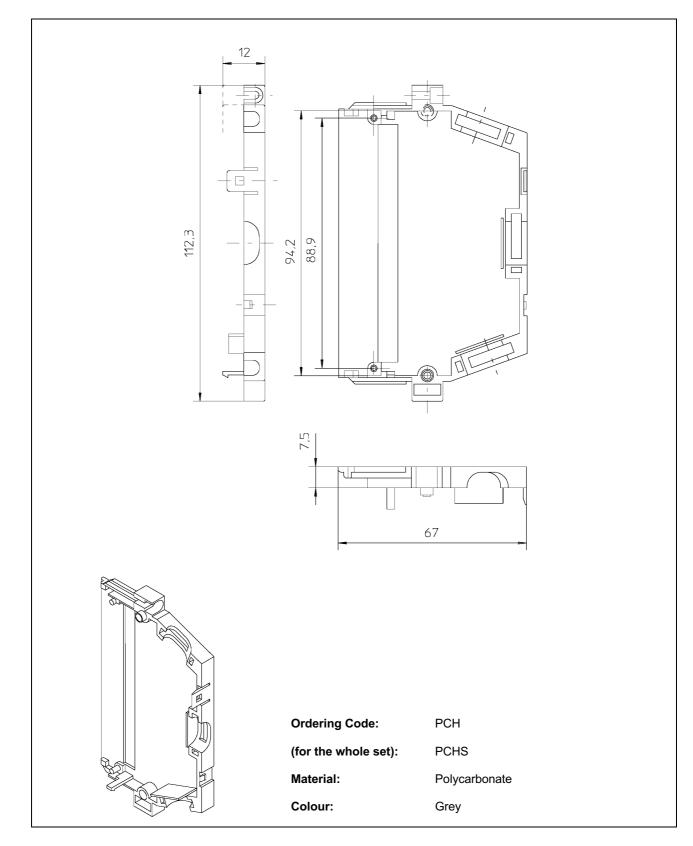
CONNECTOR HOUSING SYSTEM CABLE HOUSING FOR C-, D- AND R – TYPE CONNECTORS







CABLE HOUSING FOR C, D AND R CONNECTORS



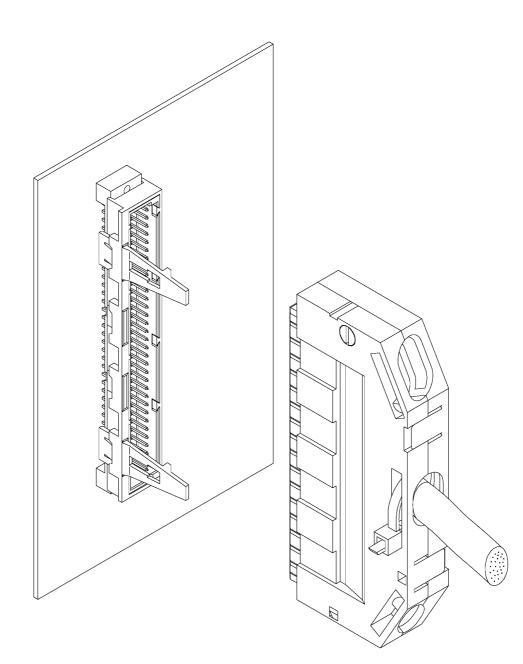
Subject to modifications without prior notice







CONNECTOR HOUSING SYSTEM HOUSINGS FOR C-AND R-TYPE CONNECTORS

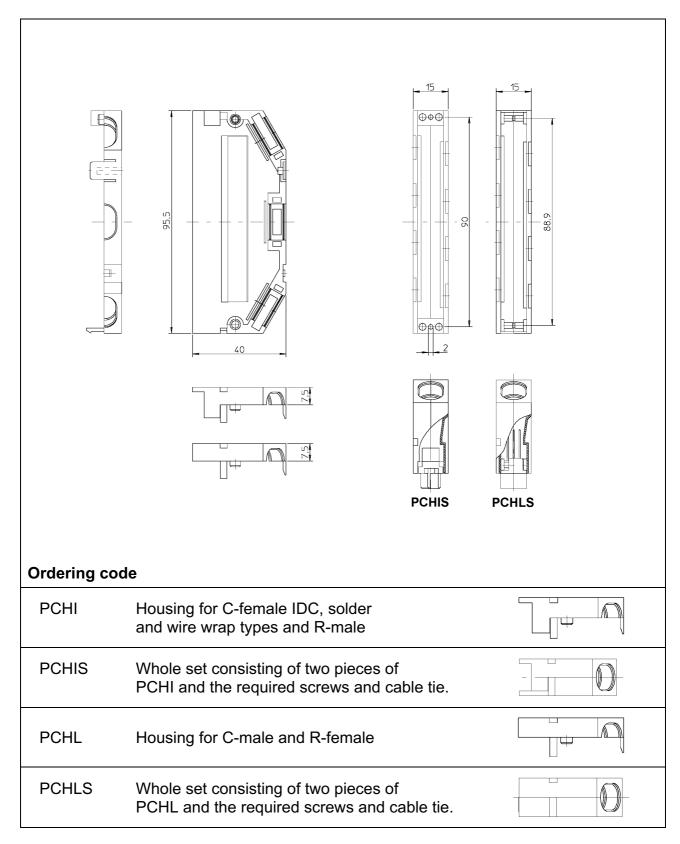


Material:	PC
Flammability:	UL 94 V-O
Colour:	Grey





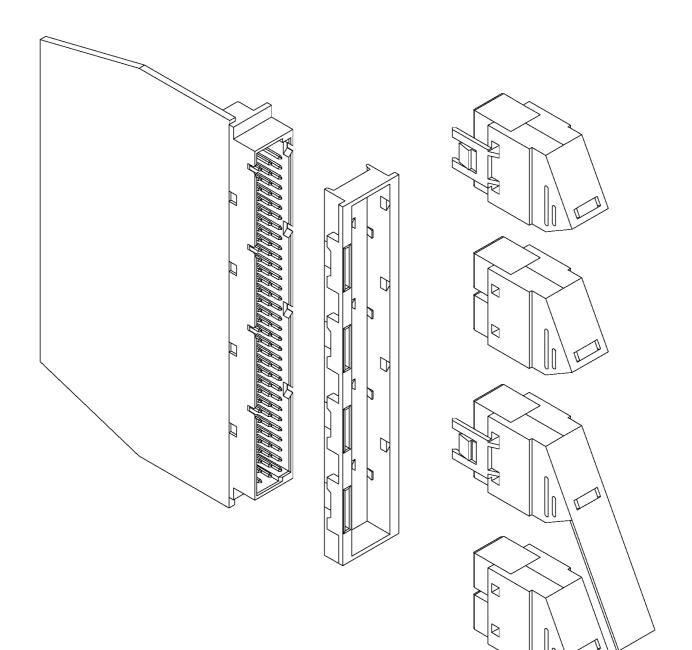
HOUSINGS FOR C AND R CONNECTORS







HOUSING FOR C/4 CONNECTOR



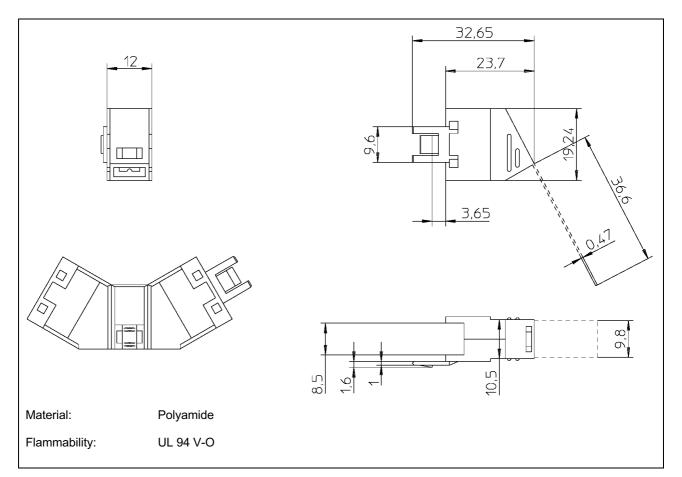




1



ONE MODULE HOUSING FOR C/4 AND C/8 FEMALE CONNECTORS

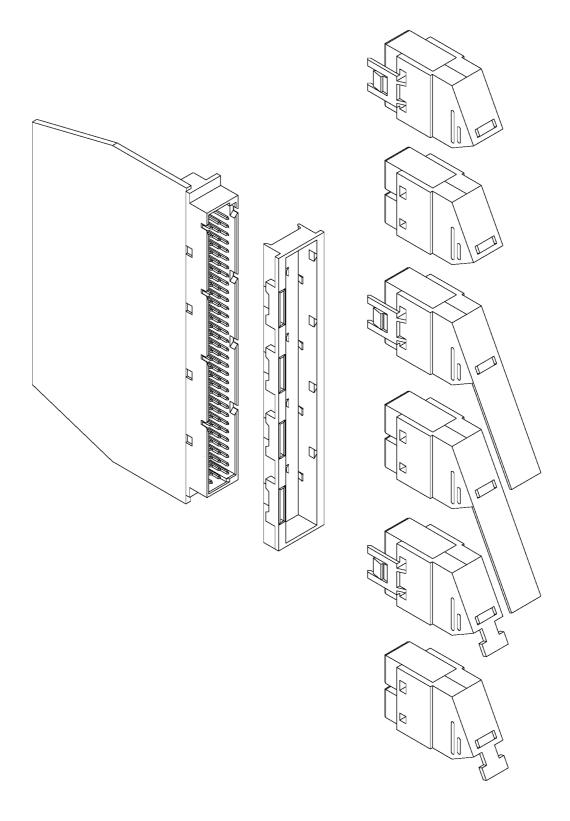


Ordering Code

Black/White	Black/White	
C/4H	C/4H*1	
C/4H-IK	C/4H-IK*1	
C/4H-ML	C/4H-ML*1	
C/4H-ML-IK	C/4H-ML-IK*1	
	C/4H-IML-IK 1	



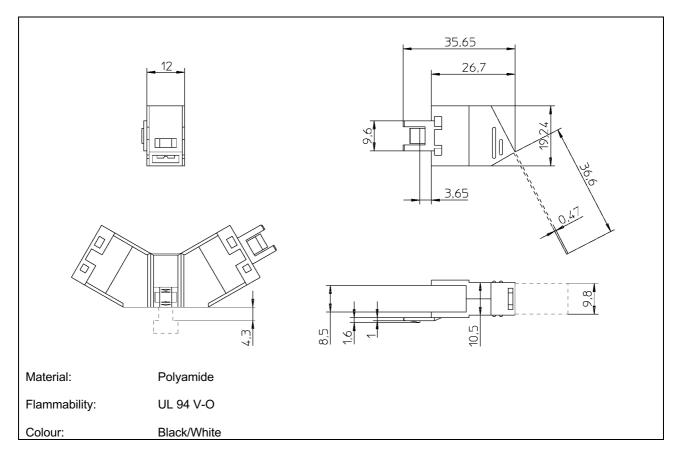
HOUSING FOR C/4 I.D.C CONNECTOR







ONE MODULE HOUSING FOR C/4-FI I.D.C CABLE CONNECTORS



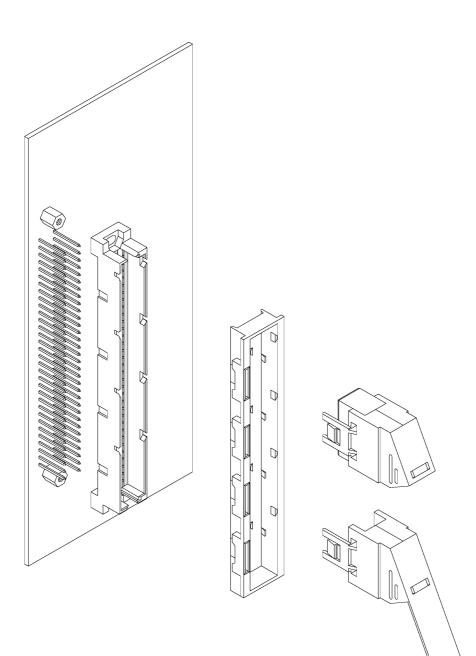
Ordering Code

C/4HI	
C/4HI-IK	
C/4HI-ML	
C/4HI-ML-IK	
C/4HI-LV	
C/4HI-LV-IK	





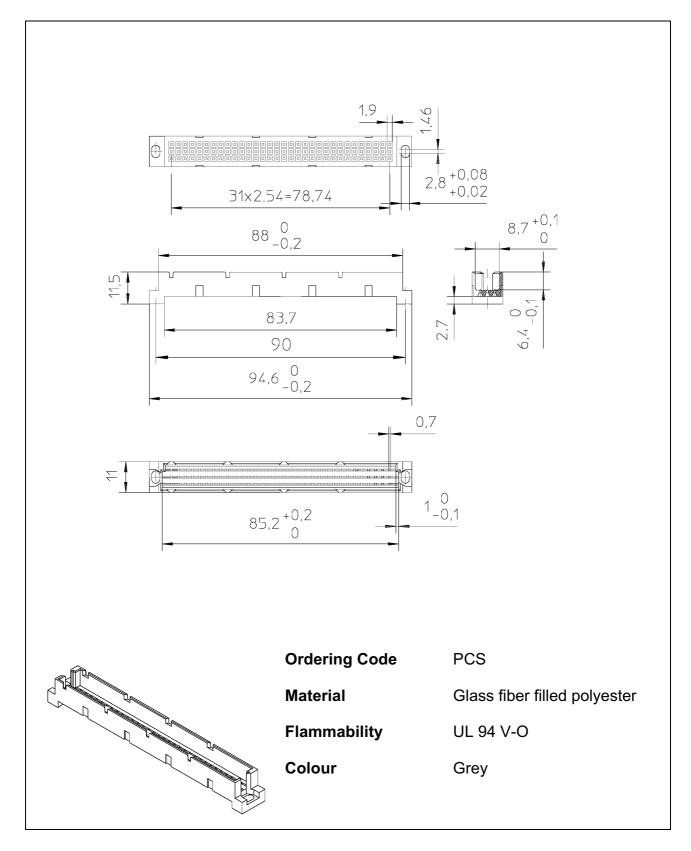
CONNECTOR HOUSING SYSTEM







SHROUD

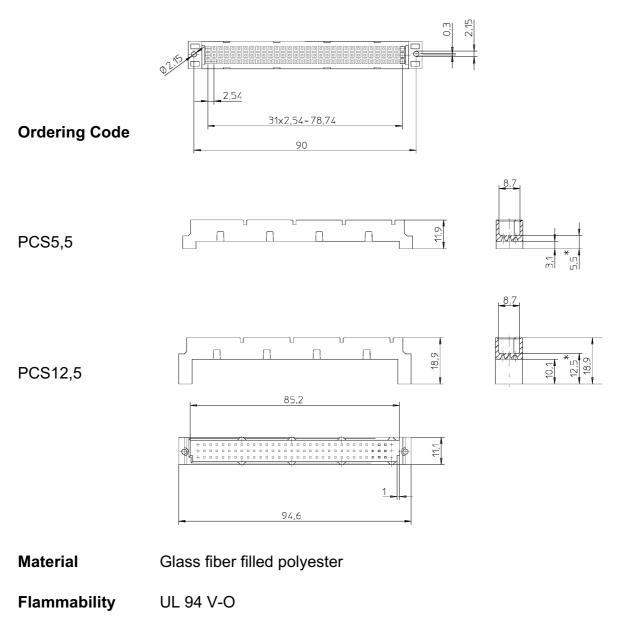








SHROUDS (PCS...)

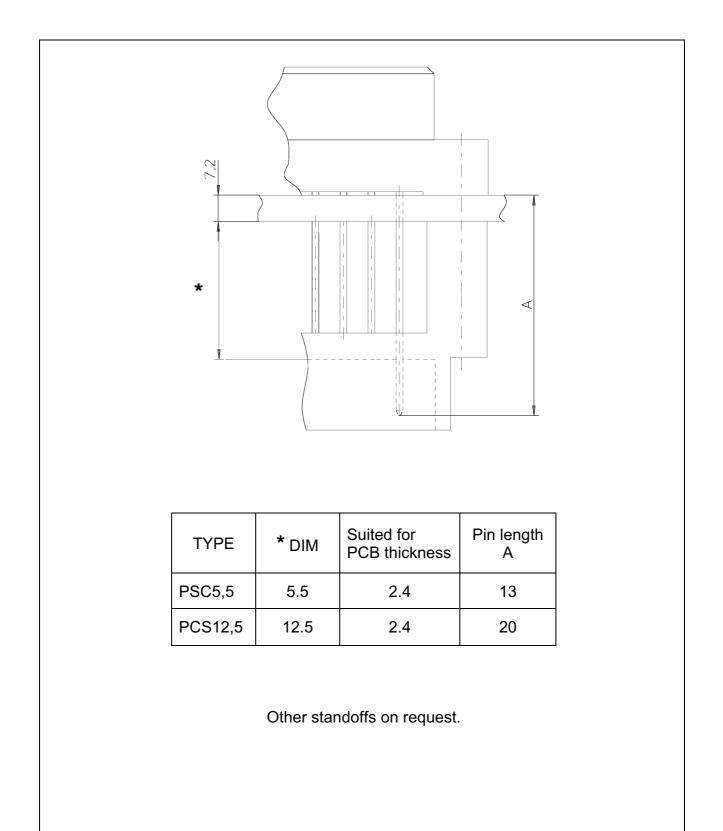


- Colour Grey
- Fixing With M 2.5 plastite screws

Locking frames, see PC/1L and C/1L.



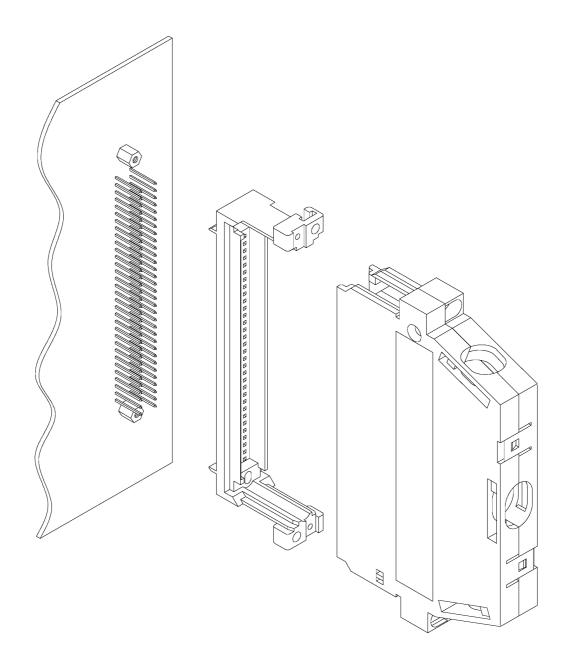








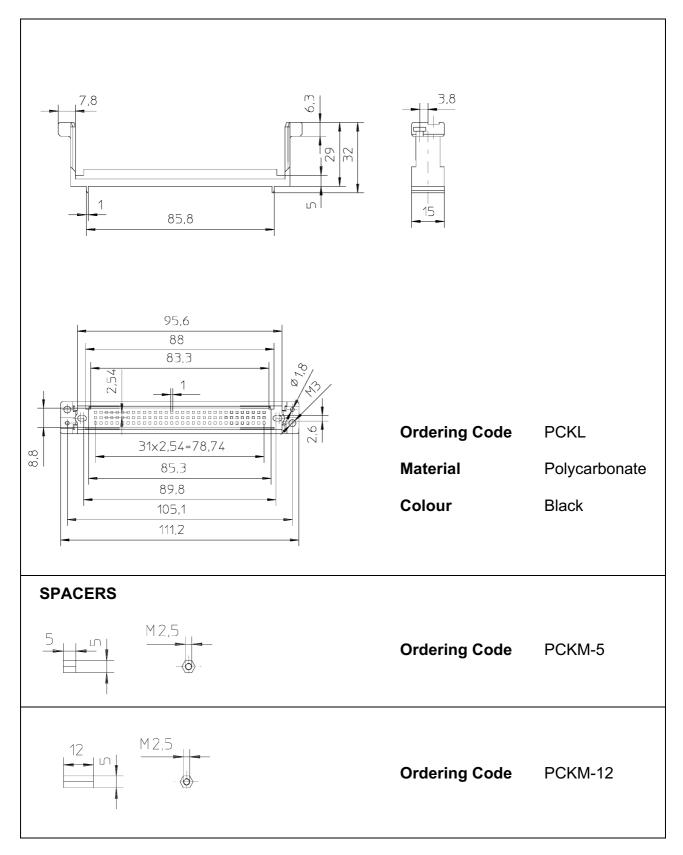
CONNECTOR HOUSING SYSTEM GUIDE FRAME FOR CABLE HOUSING PCH







GUIDE FRAME FOR CABLE HOUSING PCH

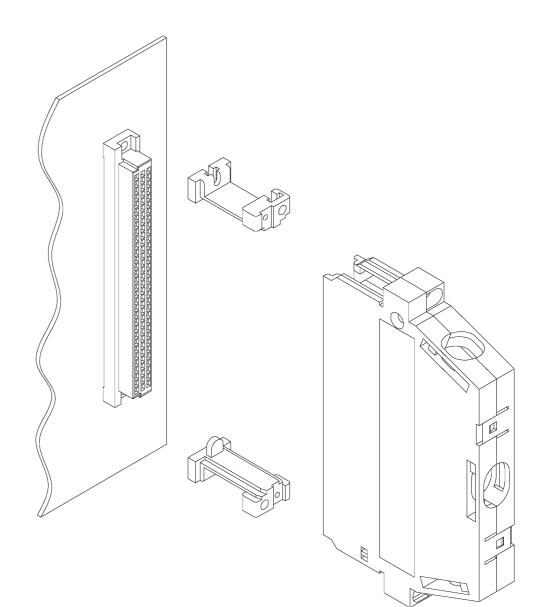








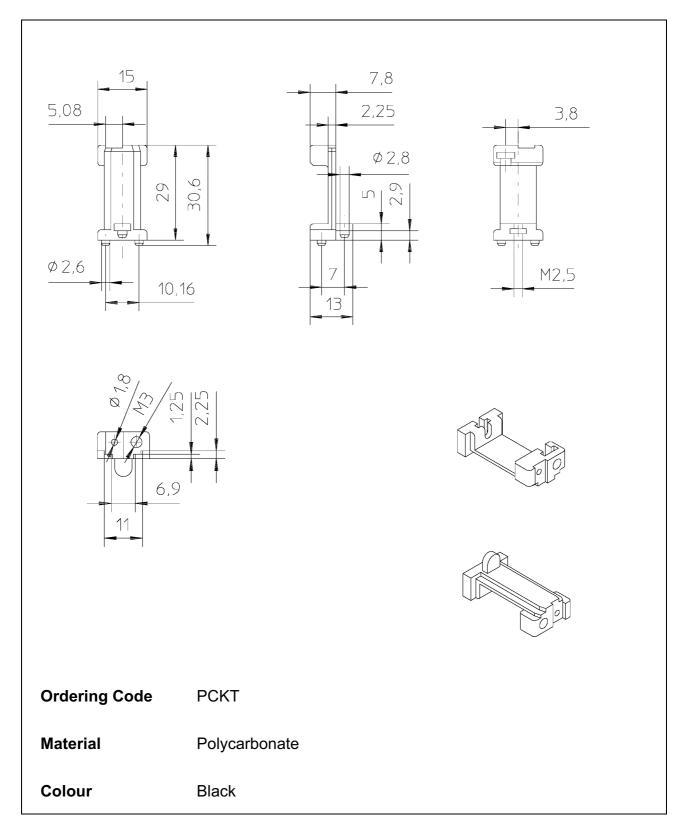
CONNECTOR HOUSING SYSTEM GUIDE PARTS FOR CABLE HOUSING PCH







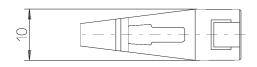
GUIDE PARTS FOR CABLE HOUSING PCH

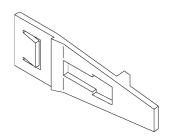


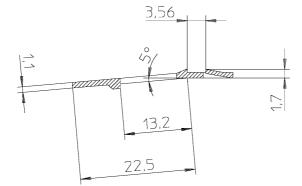


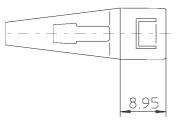


LATCH







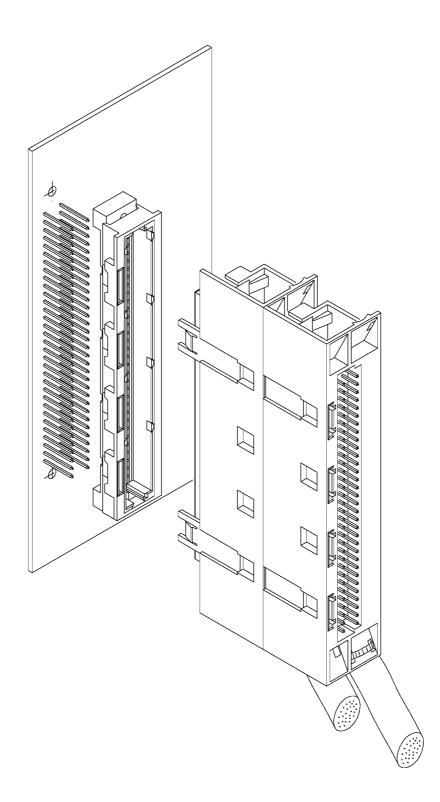


Ordering code	PCL
Material	Glass fiber filled polyester
Flammability	UL 94 V-O
Colour	Grey





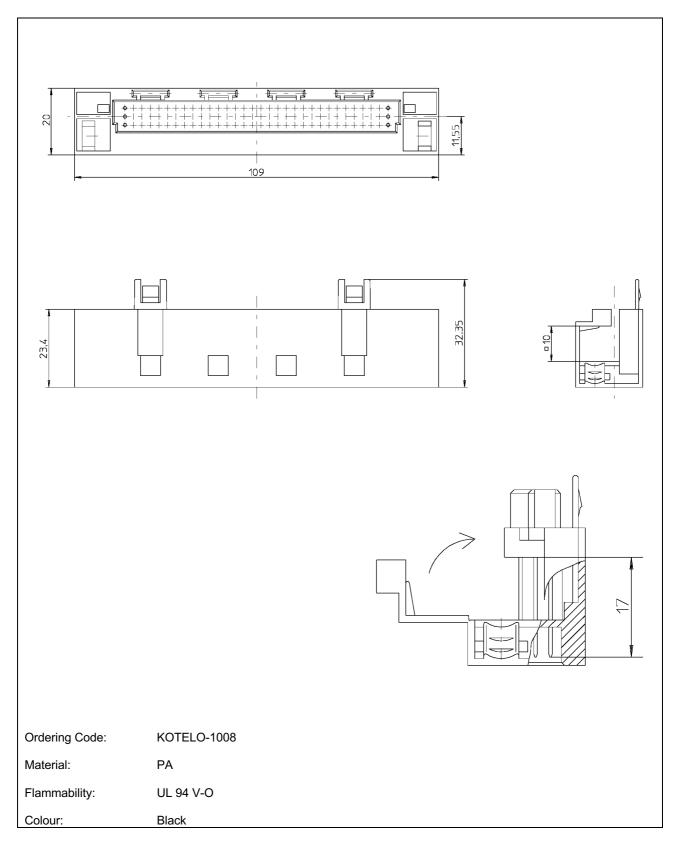
STACKABLE HOUSING FOR C CONNECTOR







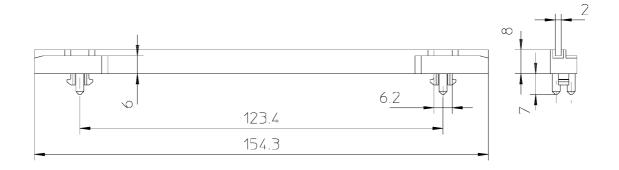
STACKABLE HOUSING FOR C FEMALE CONNECTOR



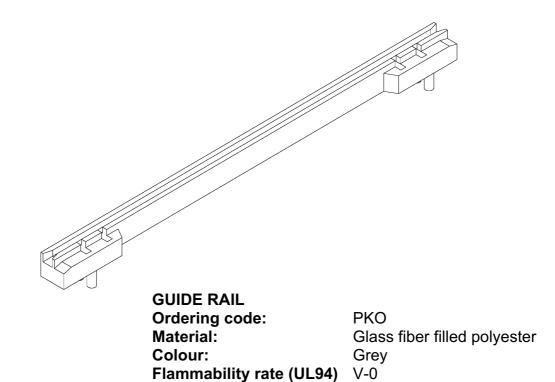




SUPPLEMENTARY PRODUCTS Guide Rail





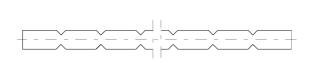


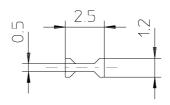


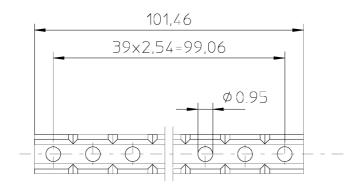


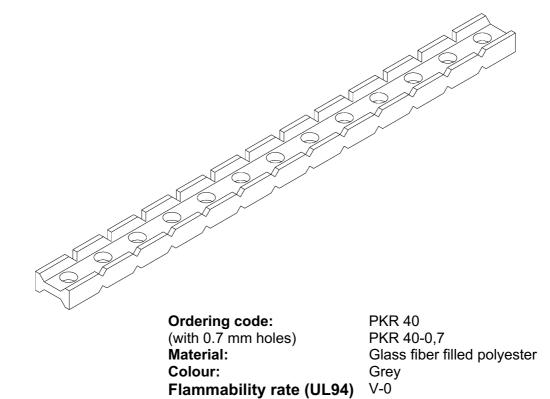


COMPONENT SUPPORT PKR40





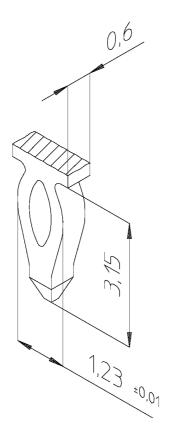








PRESS-FIT CONNECTIONS



IEC 352-5

Material

Phosphor bronze Plating on press-in area Gold plated version 0.1 µm gold over 1-2 µm nickel Tinlead plated version 1-3 µm tinlead over 1-2 µm nickel

Press-in force One pin

64 pins

96 pins

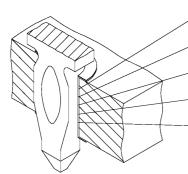
65-120 N (hole diameter 0.94-1.09 mm) 17 kN (hole diameter 1.04 mm) 20 kN (hole diameter 1.04 mm)

Push-out force One pin

Press-fit version available in following types: Male B, C, C/2, C/4, M (right angle tail)

30-60 N

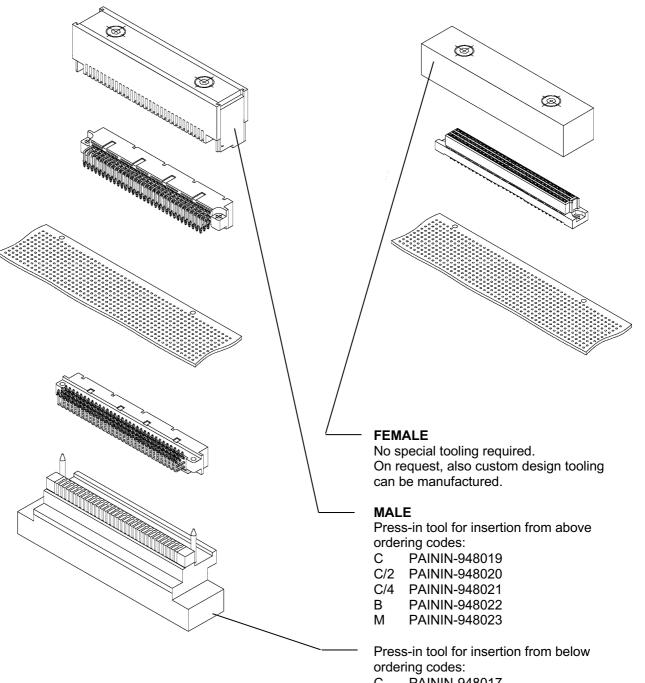
Female (straight tail) B, C, C/2, C/4, M



Nominal hole diameter Ø1,0 mm Diameter of the hole prior to plating Ø1,15±0,025 mm Cu plating 0,025-0,075 mm SnPb plating 0,005-0,015 mm Diameter of the finished hole Ø0,94-1,09 mm



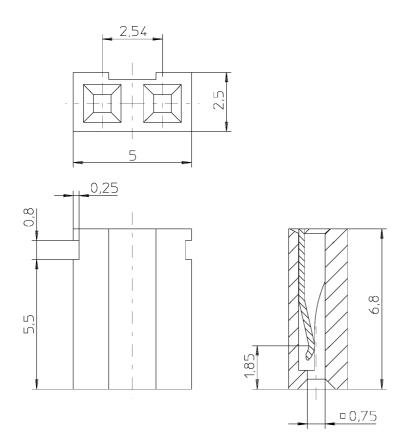
PRESS-FIT TECHNIQUES / PRESSING TOOLS

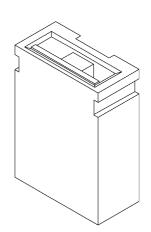


- C PAININ-948017
- C/2 PAININ-948024
- C/4 PAININ-948025
- B PAININ-948026
- M PAININ-948027



JUMPERS TYPE PL1U





- Female connector mating with 0.6 ± 0.04 mm, square or round pins
- Used in most male headers and connectors
- Open top enables stacking of two or more Jumpers on the same pin and allows inspection of contacts and testing with a probe
- Available in different colours

Applications

- Bridging during testing
- Programming or choosing alternative operating modes
- Identification coding of apparatus
- Can be used as switches instead of DIL switches





TECHNICAL SPECIFICATIONS

MATERIALS	Connector body Contact Contact plating	Glass fiber filled polyester Phosphor bronze Gold over nickel
ELECTRIC DATA	Current rating Proof voltage Insulation resistance Contact resistance	2 A at 80 °C 750 V (rms) 50 Hz ≥ 10 ⁶ MΩ ≤ 15 mΩ
PHYSICAL DATA	Temperature range Insertion force Withdrawal force Mechanical endurance Recommended mating pin - size - length Flammability	-55 °C+125 °C ≤ 4 N ≥ 1 N 200 insertions (min) 0.6 ± 0.04 mm, square or round 6 mm UL 94 V-O

ORDERING CODE

