

CANADA



USA

CONEC designs and manufactures products in modern facilities. The products are made in accordance to the highest quality standards and industry specifications.

CONEC provides reliable and effective solutions to OEM, EMS and cable houses.



## OUR PHILOSOPHY – CUSTOMER SATISFACTION.



Quality is realized right from the beginning with Total Quality Management concept. Therefore our customers are included into all our processes, starting with design phase, first sampling, series production release and continuous sales support. The phases will be accompanied by drawings, samples and test reports. The entire quality process is documented and approved. CONEC is certified to ISO/TS16949:2002.

CONEC inhouse is equipped with modern test systems. We can verify the requirements and implement a continuous product improvement process to meet and exceed future requirements. To fulfill international and national requirements most of CONEC product series are registrated by UL, CSA or VDE.



## CONEC IS YOUR SPECIALIST FOR DESIGN AND PRODUCTION OF SPECIAL CUSTOMIZED PRODUCTS.

Flexibility, assurance and rapid response are required in today's market more than ever before. CONEC fulfills these demands with central order-processing and well implemented quality control systems. Statistical process control as well as just in time deliveries are a common practice. Numerous customers honored this performance by approving CONEC to a "Preferred Supplier" status.



Are you looking for application-specific solutions?  
Standard products do not meet your needs?  
The implementation deadline is tight?

CONEC experienced design team can create your solution for you:

- Special Interconnect solutions to customers specifications
- Prototypes and small series production batches
- Connectors with increased IP ratings for harsh environments.

Contact us to discuss your special requirements.



## PRODUCT LINES



### I/O Connectors

D-SUB Connectors, Standard, Combination and Water Resistant; D-SUB Hoods and D-SUB accessories; Filter D-SUB Connectors, Standard, Combination and Water Resistant; Filter Adapters; Filter Plates; RJ45-IP67 Industrial Ethernet Connector System; USB 2.0-IP67 Connector System; RJ45 Magnetic Modular Jacks



### PCB Connectors

DIN 41617 Connectors; DIN EN 60603-2 Connectors; DIN 41651 Insulation Displacement Connectors CompactPCI Connectors; AdvancedTCA Connectors; MicroTCA Connectors; PC104-, PC104plus Connectors; Pin Header and Socket Connectors



### Sensor Actor Line / Circular Connectors

M12x1 Connectors, Overmolded and Field Attachable, Sockets, Junction Boxes, M12x1 Connector Systems for High Temperature, Food+Beverage, Bus Systems; M8x1 Overmolded Connectors; 7/8" Connectors; Rund24 Connectors; Valve Connectors



### Fiber Optic Connectors











Adapter; Hybrid Adapter; Outdoor Connectors; Patch cords

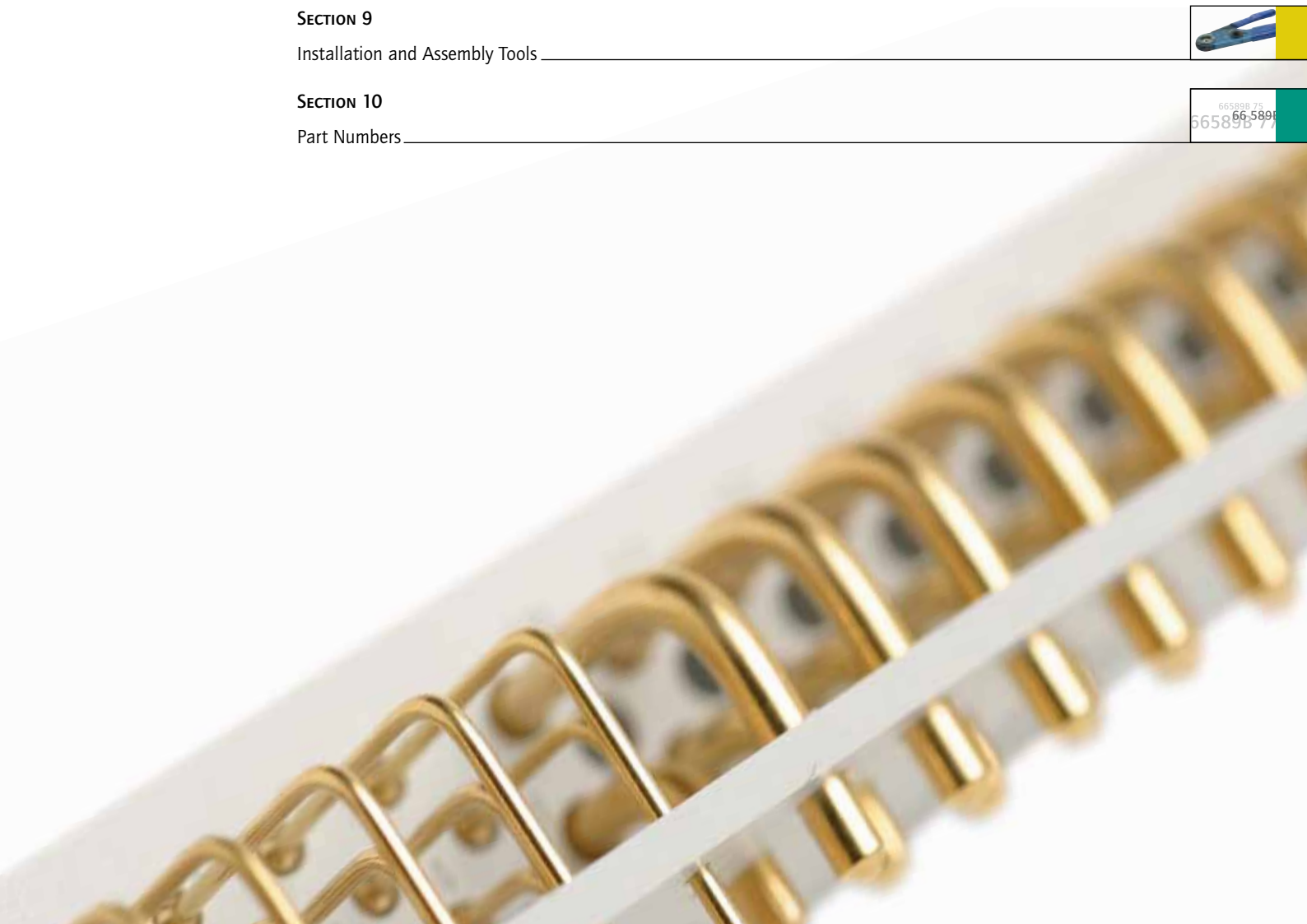


### Coaxial Connectors

SMA, SSMA, MMCX, TNC, N, MCX, Mixed Adapters and BNC Connectors; D-SUB and DIN Coaxial Contacts; D-SUB and DIN High-Current Contacts

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SECTION 1

# ADVANCEDTCA CONNECTORS

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This newly developed architecture and system layout allows manufacturers of telecom equipment a new standard for designing systems (PICMG 3.0). ATCA stands for: Advanced Telecommunications Computing Architecture

The basic structure is utilizing a modular concept. Application of this new structured approach allows various module designs that are compatible in layout and mechanical installation.

CONEC manufactured the power connectors for the ATCA-System which are used in Zone 1.

**Advanced TCA<sup>®</sup>**





The PICMG Group created the PICMG 3.0 Standard. This Standard specifies the mechanical details with regards to input/output, voltage, current and connection parameters. Control, backplane layout and system architecture are part of the standard.

CONEC has developed a new family of connector products that adhere to this new Standard. Products such as plugs and sockets, high power and signal contacts, have been developed.

This new connector series is available with press fit and through hole contact types.

**Product features:**

- Rugged construction
- Polarizing system
- Premating contacts
- Press fit contacts ("Eye of the needle")
- Selective loading of contact positions
- Screwdown hardware
- Special variations on request

CONEC is member of the PICMG Group.  
For more information please visit  
[www.picmg.com](http://www.picmg.com).



# TECHNICAL DATA

Materials	Precision machined contacts	Stamped contacts
Insulator	Glass filled plastic, UL 94V-0	
<b>Contacts</b>		
Materials	Copper alloy	
Plating	Gold flash over nickel / 0.8 µm gold over nickel (press fit design tin plated)	Gold flash over nickel / 0.8 µm gold over nickel gold over nickel (press fit design tin plated)

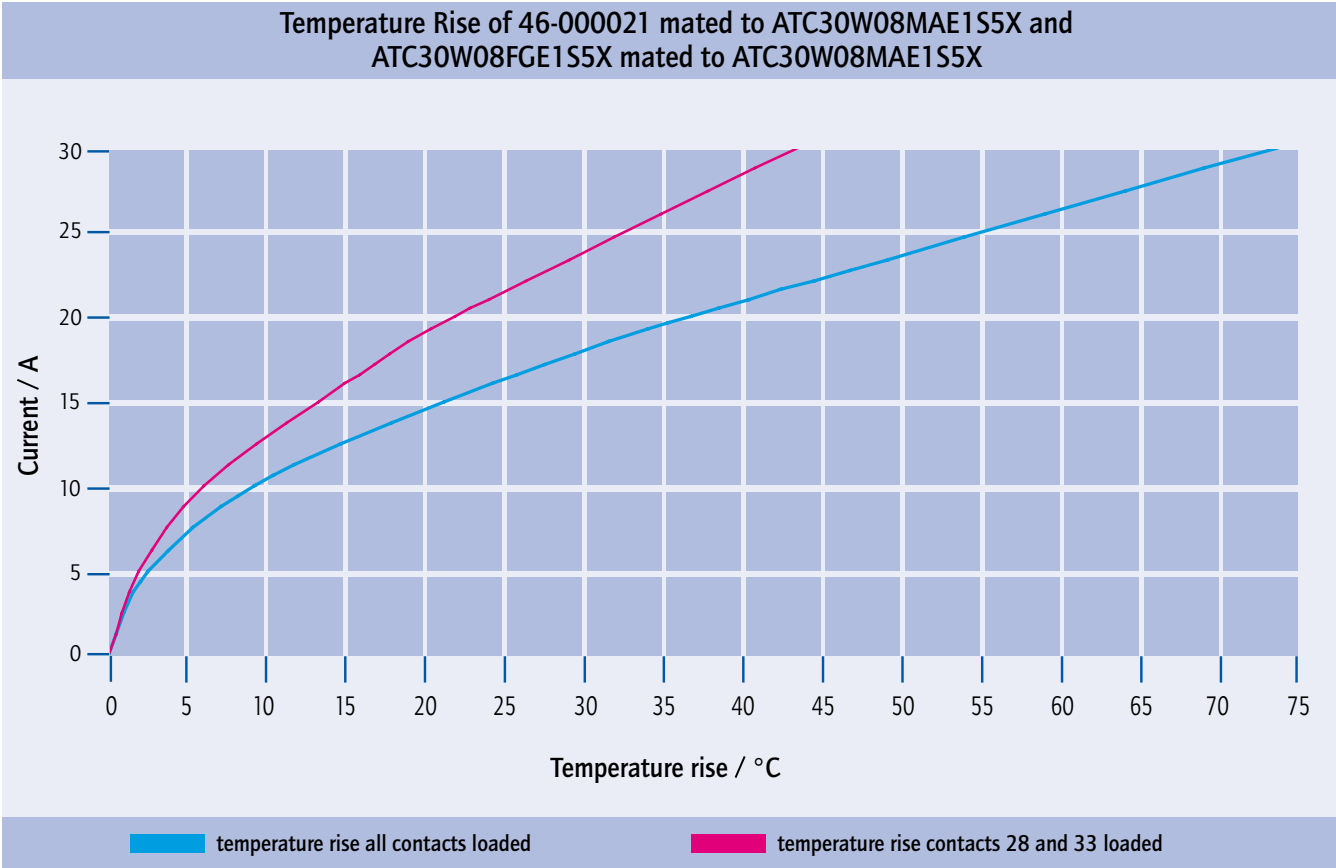
Electrical Characteristics	
<b>Max. current rating, per UL 1977, (see temperature rise curve for details)</b>	
Size 16 power contacts	30 A continuous all contacts under load
Size 22 signal contacts	2 A nominal rating
<b>Initial contact resistance (termination to termination)</b>	
Size 16 power contacts	0.0022 Ω max.
Size 22 signal contacts	0.0085 Ω max.   0.02 Ω max.
Insulation resistant	5 G Ω per IEC 512-2 Test 3a
<b>Voltage proof</b>	
Contacts 1 through 16	1000 V r.m.s.
Contacts 17 through 34	2000 V r.m.s.
<b>Creepage and clearance distance (minimum)</b>	
Contact positions 1 through 16 to any other contact within this group	0.7 mm
Contact positions 17 through 24 to any other contact within this group	2.5 mm
Contact positions 25 through 34 to any other contact within this group	1.4 mm
Contact positions 13 through 16 to 17 through 20	3.0 mm
Contact positions 21 through 24 to 25, 26	4.0 mm
Contact positions 25, 26 to 27 through 29	2.0 mm
Working voltage	100 V r.m.s.

Mechanical Characteristics	
Blind mating system	male and female connector bodies provide "lead-in" for 2.0 mm diametral misalignment
Polarization	provided by connector body design
Resistance to solder heat	260°C for 10 seconds duration per IEC 512-6, Test 12e 25-watt soldering iron (for other application contact factory)
Sequential contact mating system (succession)	<ol style="list-style-type: none"> <li>1. 25, 26, 28, 29, 30 and 31</li> <li>2. 33</li> <li>3. 34</li> <li>4. contacts 1 to 24 mate before 27 and 32 (last mate)</li> </ol>
Mechanical operations	250 cycles
Temperature range	-55°C to +125°C

Technical alterations are subjects to change without notice.

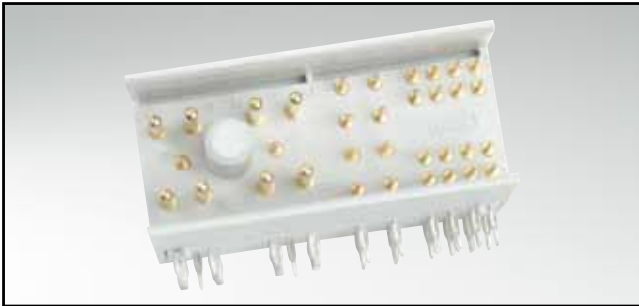


# DIAGRAM



# ADVANCEDTCA

## Male Connector – angled – press fit – precision machined contacts

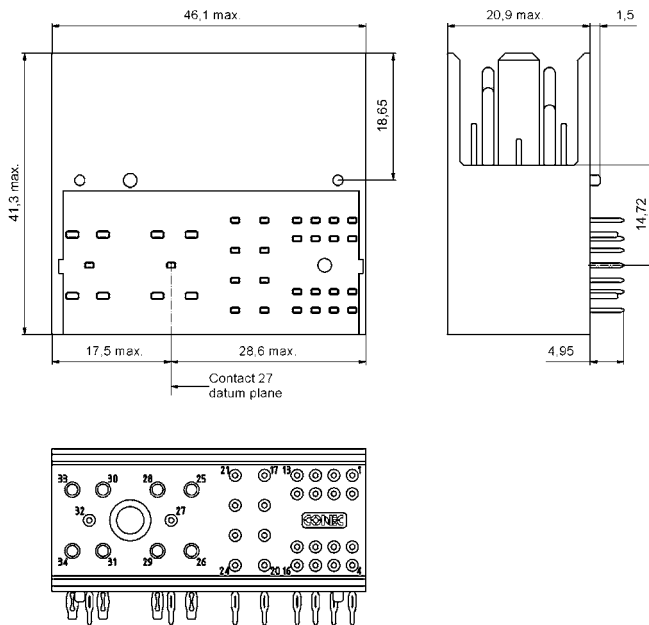


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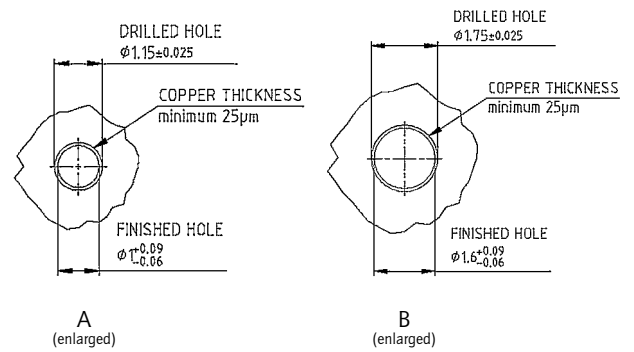
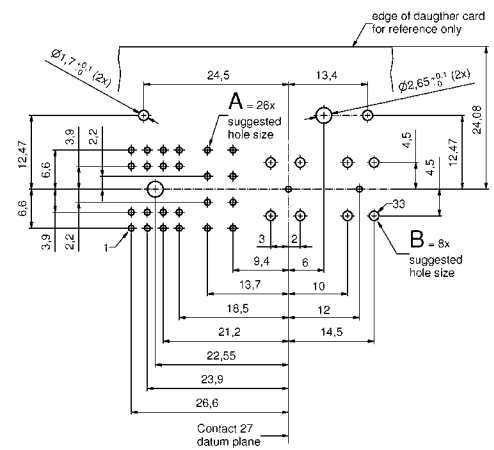
### DESCRIPTION

- Signal and power contacts
- Alternatively 22, 30 or 34 positions
- Eye of the needle press fit design, tin plated
- Precision machined contacts for mating area
- Mating area: gold plated quality class 1 or alternative quality class 3
- Special contact loadings possible on request

### PRODUCT DRAWING



### PCB-hole pattern (34 positions)



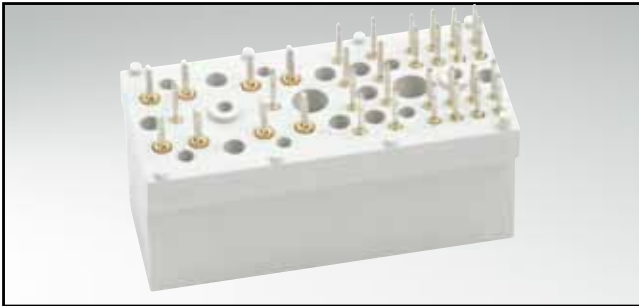
### ORDER DATA

(Dim. = mm)

Number of positions	Contacts	Part number Quality class 3 (gold flash)	Part number Quality class 1 (0,8µm Au mating area)
22	14x signal / 8x power	ATC22 W08 MAE3S5 X	ATC22 W08 MAE1S5 X
30	22x signal / 8x power	ATC30 W08 MAE3S5 X	ATC30 W08 MAE1S5 X
34	26x signal / 8x power	ATC34 W08 MAE3S5 X	ATC34 W08 MAE1S5 X

# ADVANCEDTCA

Female connector – straight – press fit – precision machined contacts



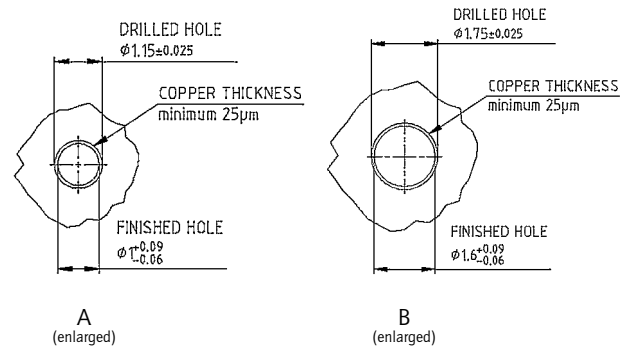
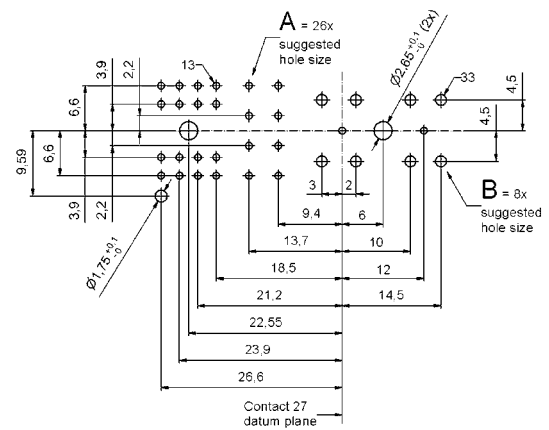
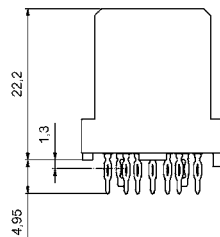
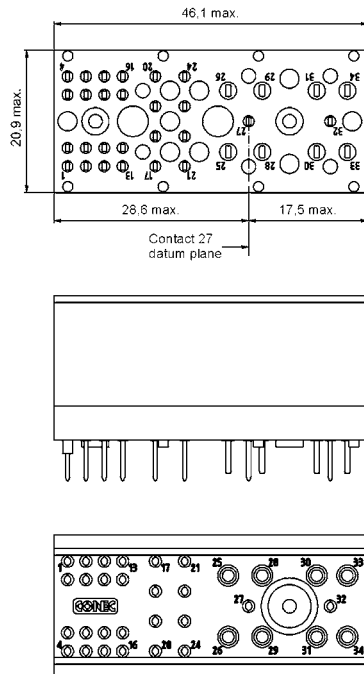
RoHS compliant – UL listed, File no.: E228329

## DESCRIPTION

- Signal and power contacts
- Alternatively 22, 30 or 34 positions
- Eye of the needle press fit design, tin plated
- Precision machined contacts for mating area
- Mating area: gold plated quality class 1 or alternative quality class 3
- Special contact loadings possible on request

## PRODUCT DRAWING

PCB-hole pattern (34 positions)



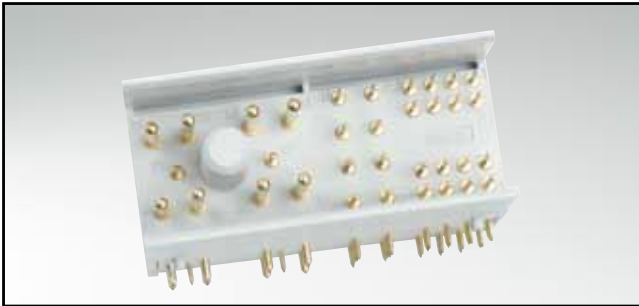
## ORDER DATA

(Dim. = mm)

Number of positions	Contacts	Part number Quality class 3 (gold flash)	Part number Quality class 1 (0,8µm Au mating area)
22	14x signal / 8x power	ATC22 W08 FGE3S5 X	ATC22 W08 FGE1S5 X
30	22x signal / 8x power	ATC30 W08 FGE3S5 X	ATC30 W08 FGE1S5 X
34	26x signal / 8x power	ATC34 W08 FGE3S5 X	ATC34 W08 FGE1S5 X

# ADVANCEDTCA

Male connector – angled – solder pin – precision machined contacts



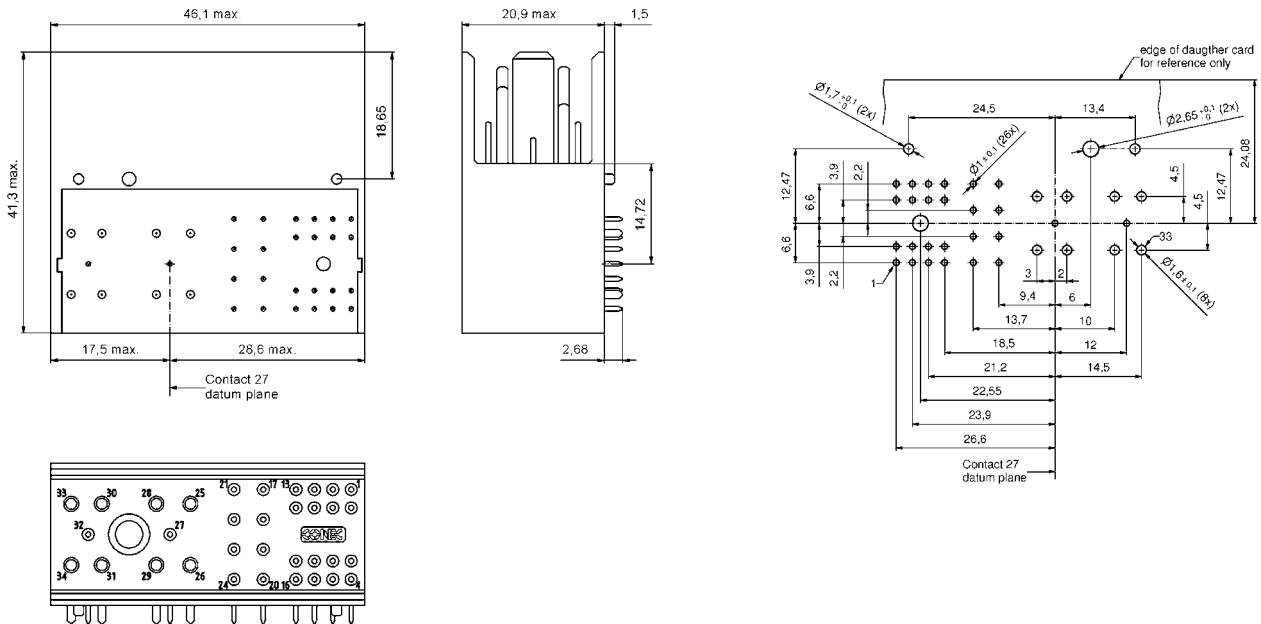
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## DESCRIPTION

- Signal and power contacts
- Alternatively 22, 30 or 34 positions
- Mating area: gold plated quality class 1 or alternative quality class 3
- Special contact loadings possible on request

## PRODUCT DRAWING

PCB-hole pattern (34 positions)



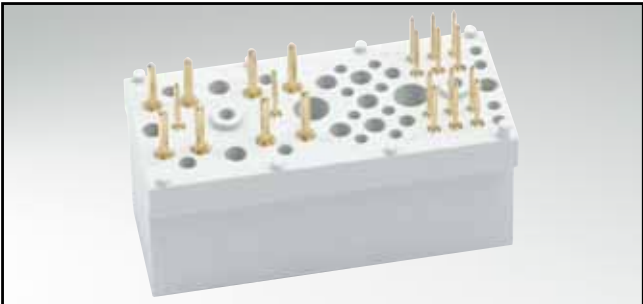
## ORDER DATA

(Dim. = mm)

Number of positions	Contacts	Part number Quality class 3 (gold flash)	Part number Quality class 1 (0,8µm Au mating area)
22	14x signal / 8x power	ATC22 W08 MARAS5 X	ATC22 W08 MARCS5 X
30	22x signal / 8x power	ATC30 W08 MARAS5 X	ATC30 W08 MARCS5 X
34	26x signal / 8x power	ATC34 W08 MARAS5 X	ATC34 W08 MARCS5 X

# ADVANCEDTCA

Female connector – straight – solder pin – precision machined contacts

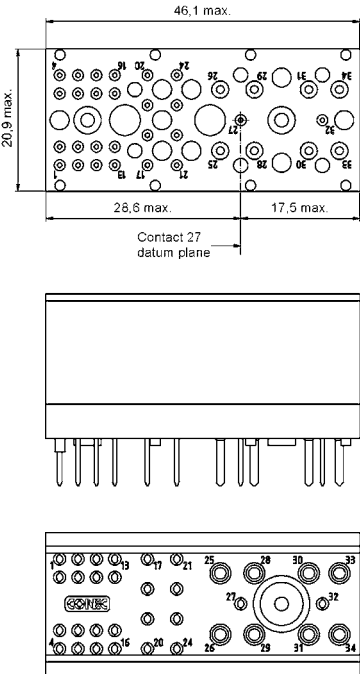


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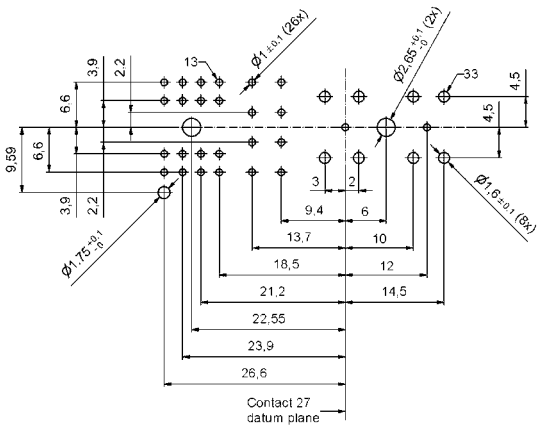
**DESCRIPTION**

- Signal and power contacts
- Alternatively 22, 30 or 34 positions
- Mating area: gold plated quality class 1 or alternative quality class 3
- Special contact loadings possible on request

**PRODUCT DRAWING**



PCB-hole pattern (34 positions)



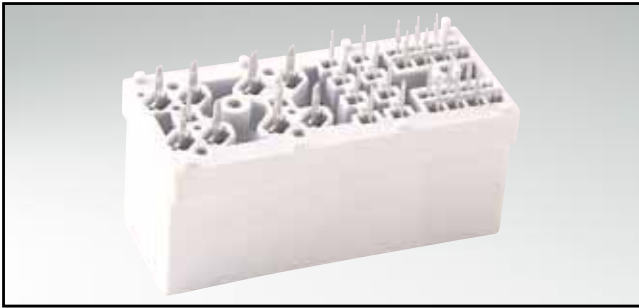
**ORDER DATA**

(Dim. = mm)

Number of positions	Contacts	Part number Quality class 3 (gold flash)	Part number Quality class 1 (0,8µm Au mating area)
22	14x signal / 8x power	ATC22 W08 FGRAS5 X	ATC22 W08 FGRCSS5 X
30	22x signal / 8x power	ATC30 W08 FGRAS5 X	ATC30 W08 FGRCSS5 X
34	26x signal / 8x power	ATC34 W08 FGRAS5 X	ATC34 W08 FGRCSS5 X

# ADVANCEDTCA

Female connector – straight – press fit – stamped contacts

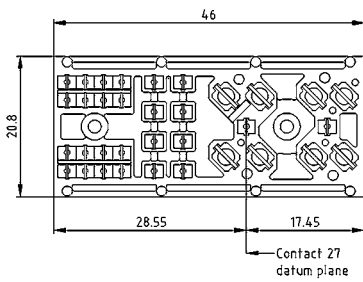


RoHS compliant

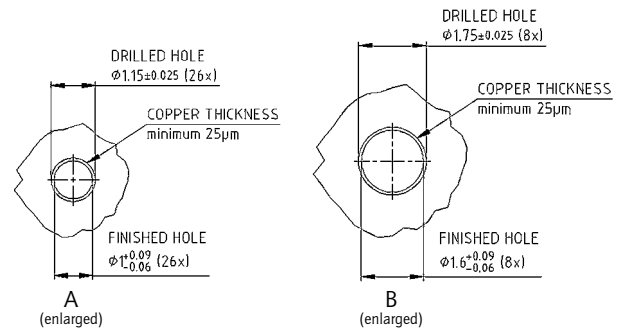
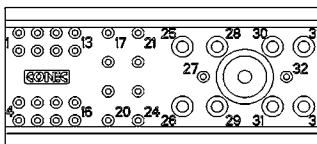
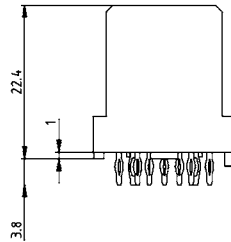
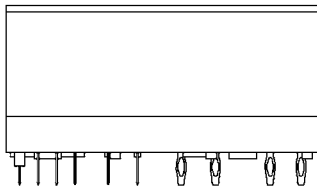
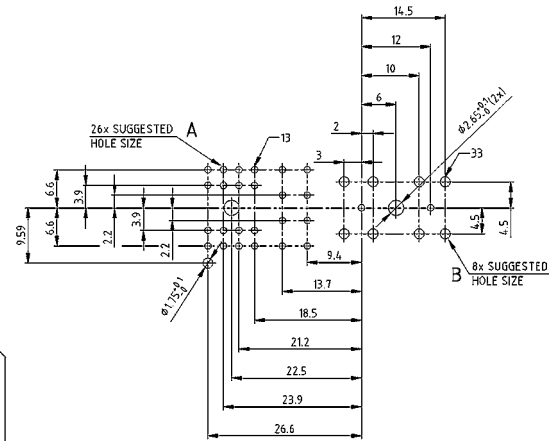
## DESCRIPTION

- Signal and power contacts
- Alternatively 22, 30 or 34 positions
- Eye of the needle press fit design, tin plated
- Mating area: gold plated quality class 1 or alternative quality class 3
- Special contact loadings possible on request

## PRODUCT DRAWING



PCB-hole pattern (34 positions)

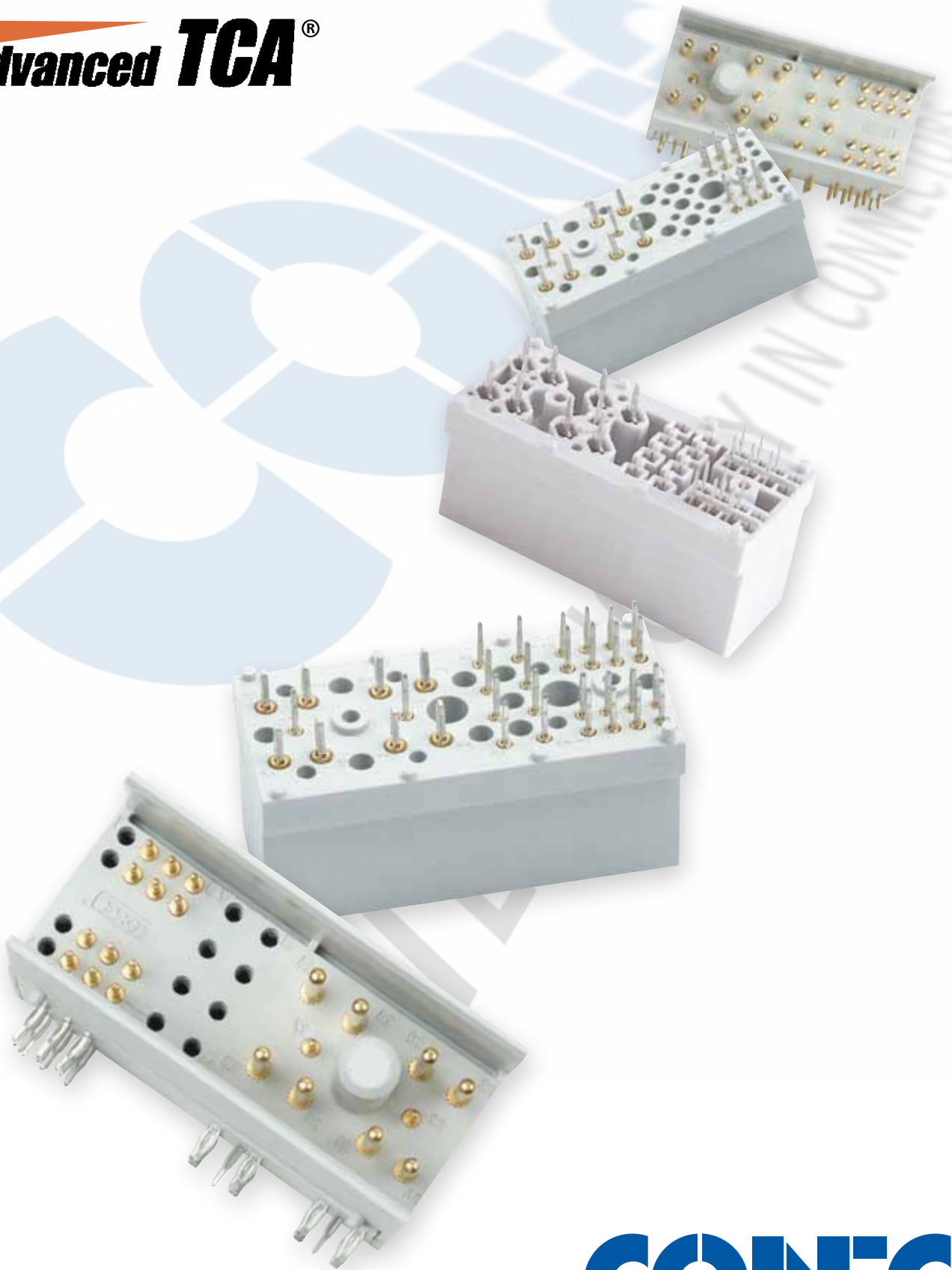


## ORDER DATA

(Dim. = mm)

Number of positions	Contacts	Part number Quality class 3 (gold flash)	Part number Quality class 1 (0,8µm Au mating area)
22	14x signal / 8x power	46-000013	46-000011
30	22x signal / 8x power	46-000023	46-000021
34	26x signal / 8x power	46-000033	46-000031

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