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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



cannon

CA Threaded Catalog



ITT

ENGINEERED FOR LIFE

Proven Quality, Reliability & Expertise

ITT Cannon is a leading global manufacturer of connector products serving international customers in the aerospace and defense, medical, energy, transportation and industrial end markets.

Whether delivering critical specs to aircraft pilots, streaming data through communications satellites or giving expectant parents a first look at their unborn children, Cannon connects the world's most important information to the people who need it.



In 2015, Cannon celebrated 100 years that helped make history. Cannon products were used in the first "talking" movies and helped transmit the first messages home from the moon. Today we proudly continue our legacy of innovating to connect the world and inspire the successes of the next century – **because amazing things happen when great things connect.**

About ITT

ITT is a diversified leading manufacturer of highly engineered critical components and customized technology solutions for the energy, transportation and industrial markets. Building on its heritage of innovation, ITT partners with its customers to deliver enduring solutions to the key industries that underpin our modern way of life.

Founded in 1920, ITT is headquartered in White Plains, N.Y., with employees in more than 35 countries and sales in a total of approximately 125 countries. For more information, visit www.itt.com.



Industrial / Instrumentation



Defense Vehicles



Medical



Heavy Equipment



Rail



Oil & Gas



Commercial & Military Aerospace

Our connector portfolio remains the most extensive in the industry.

Offering a reliable and cost effective range of interconnect solutions.

Introduction

ITT Cannon's circular metal connector series CA Threaded is one of the market standards for harsh environment applications in commercial as well as military applications. Derived from the military standard MIL-C-5015 the product portfolio expanded to meet the needs of industrial and heavy vehicle applications around the globe. As a result the commercial offering exceeds the military portfolio by more than 30%.

Features and benefits

CA Threaded offers a range of features and benefits to customers in all kind of industrial and heavy vehicle markets:

- Threaded coupling mechanism offering extraordinary vibration resistance
- A wide range of contacts for both solder and crimp applications allowing to connect the full wire range up to 50mm² cross section
- An extensive range of backshells offering connections of all typical cable solutions with individual wires or jacket cables in shielded or unshielded versions
- Materials that allow to meet the stringent requirements of industrial and especially heavy vehicle markets as
 - temperatures ranging from –55°C up to +200°C
 - media resistance* as brake liquids, gasoline, lubricants and others
 - RoHS compliant product versions

Contact us for detail or your request for a customized solution.

*short time wetting

How to use

This catalog is split in several sections to provide...

- A brief introduction to ITT Cannon and CA Threaded
- A general overview of the CA Threaded product lines
- Detailed product information including contact arrangements, performance and part number data
- Detailed supporting information including accessories and tooling

The fastest way to find your product of choice is to follow these steps

1 **Select your product** using the “ordering reference” option

3 **Add accessories and tooling options** on the related pages. A connector assembly instruction is available upon request or visit www.ittcannon.com

2 **Use the detail pages** to better understand the available options like connector styles, contact arrangements and contacts options

4 **Use the contact information** on the back cover to contact us for further questions or to get advise on where you can purchase our products

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Product overview

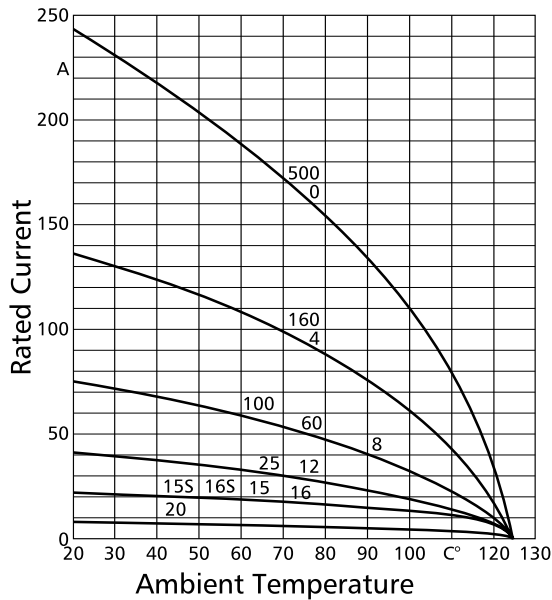
ELECTRICAL DATA

Contact Rating at 20°C (68°F), ambient temperature

Contact size (AWG/metric)	Rated Current (A _{max.}) ¹
20/10	8
16S/15S	22
16/15	22
12	41
8/60/100	74
4/160	135
0/500	245

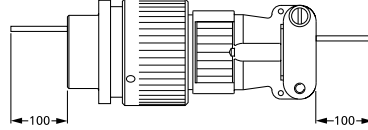
¹This applies only to the max. rated current for one contact. If several contacts in one contact arrangement are loaded with higher current the temperature may not exceed 125°C

Rated Current vs. Ambient Temperature



Contacts Resistance (Millivolt test)

Contact size (AWG/metric)	Contact resistance mΩ max.
20/10	12,0
16S/15S	6,0
16/15	6,0
12/25	3,0
8/100	1,0
4/160	0,3
0/500	0,2



Insulation Resistance

Standard insulator material > 1000 MΩ
FKM insulator material (upon request) > 5000 MΩ

Air and Creepage Path (min.)

Voltage class	Instr.	A	D	E
Air path, mm	0,7	1,1	2,8	4,8
Creepage path, mm	0,7	1,1	2,8	4,8

Operation Voltage

Operating voltage for CA Threaded connectors is limited to 50VAC / 75VDC according to the safety regulations defined in the European Low Voltage Directive (LVD) 2014/35/EU. For other uses or regions please see appropriate regional regulations.

Dimensions shown in mm | Specifications and dimensions subject to change

Test voltage

Service rating	Test voltage V _{rms}
Instruments	1050
A	2000
B	4500
D	2500
E	3500

MECHANICAL FEATURES

Ambient temperature

Neoprene: -55/125°C (-67/257°F), FKM: -30/200°C (-22/392°F)*

ENVIRONMENTAL SEALING

Up to IP 65 (in mated condition) Acc. to DIN EN 60068-1

Mating Cycles min. 500

Min. Separating Force per Contact

Contact size		Separating force
metric	AWG	N min
10	20	0,3
15S/15	16S/16	1,0
25	12	1,5
60/100	8	3,0
160	4	4,0
500	0	8,5

Contact Retention Apply test force in mating direction

Contact size		Test force
metric	AWG	N
10	20	30
15S/15	16S/16	35
25	12	55
60/100	8	80
160	4	90
500	0	95

Coupling Torque

The admissible coupling torque has to be tested under harnessed condition

Shell size	Admissible torque	
	Closing and opening (Nm _{max})	Opening (Nm _{min})
10SL	3,0	0,15
12S	2,8	0,23
14S	5,9	0,35
16S/16	7,0	0,46
18	8,0	0,58
20	9,0	0,70
22	10,6	0,80
24	12,9	0,80
28	16,7	0,92
32	18,1	1,02
36	23,9	1,05

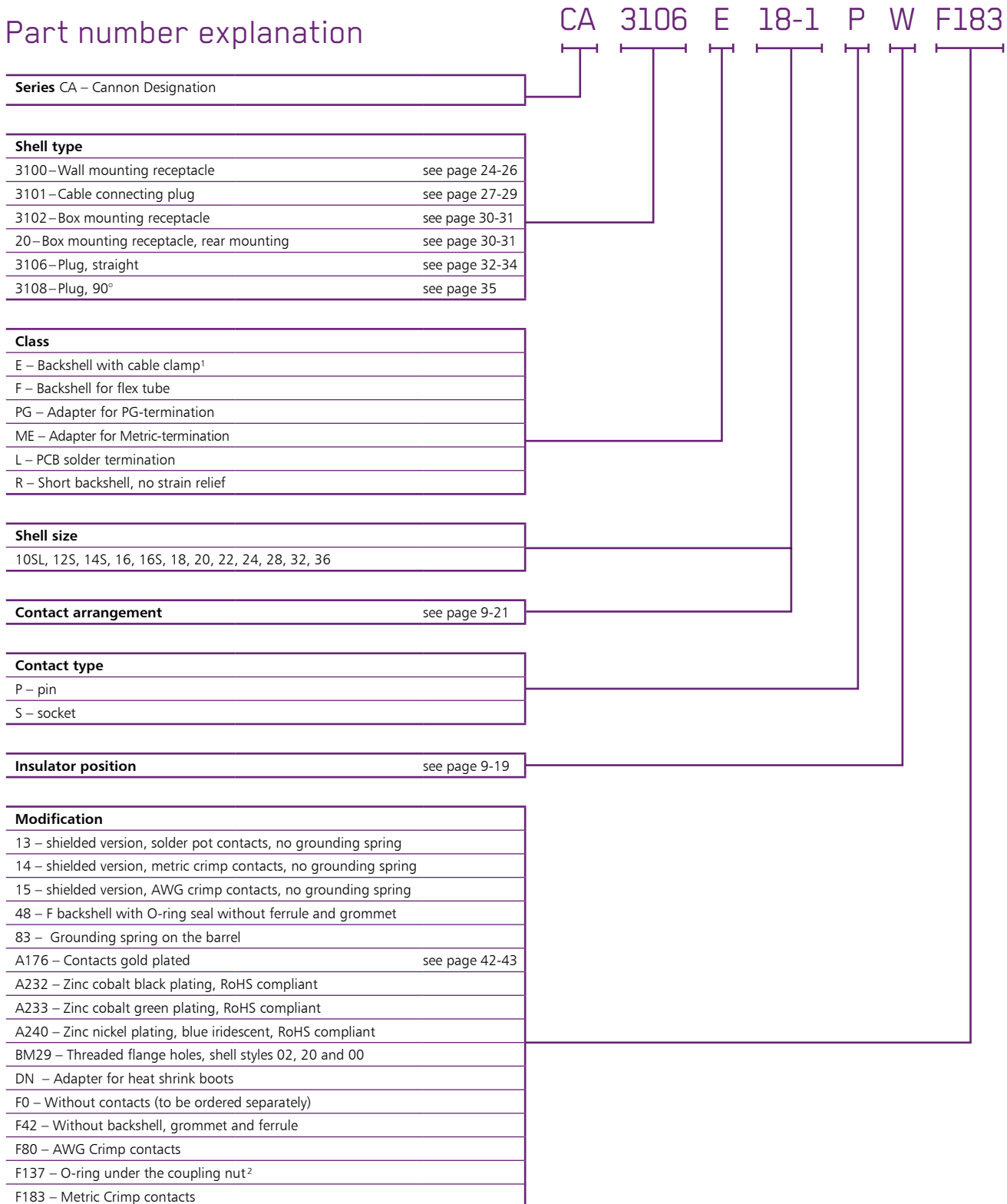
Materials

Shell	Aluminum alloy
Contacts	Copper alloy, silver plated or gold plated
Insulator/Grommet	Polychloroprene (Standard) FKM (High temperature)

* consult factory


















Ordering reference

Part number explanation



¹ except shell style 02/20 ² a number of plugs are already featured with this O-ring

CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	3	10SL-3 16S	A	–	–	–	–	–	–
	2	10SL-4 16S	A	–	–	–	–	–	–
◆ 	2	12S-3 16S	A	70	145	215	290	–	–
	1	12S-4 16S	D	–	–	–	–	–	–
	4	12SA10 16S	Instr.	–	–	–	–	3 8	110 250
	3	14S-1 16S	A	–	–	–	–	–	–
	4	14S-2 16S	Instr.	–	120	240	–	–	–
	1	14S-4 16S	D	–	–	–	–	–	–
	5	14S-5 16S	Instr.	–	110	–	–	–	–
	6	14S-6 16S	Instr.	–	–	–	–	–	–
◆ 	3	14S-7 16S	A	90	180	270	–	–	–
	2	14S-9 16S	Instr.	70	145	215	290	–	–
	7	14SA7 16S	Instr.	–	–	–	–	–	–
◆ 	7	16S-1 16S	A	80	–	–	280	–	–
	2	16S-4 16S	D	35	110	250	325	–	–
◆ 	3	16S-5 16S	A	70	145	215	290	–	–
	5	16S-8 16S	A	–	170	265	–	–	–

◆Attention: For all insert rotations, it is possible for miss-mating to occur. It is the responsibility of the customer to ensure they have selected correctly.


















CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	3 2 1	16-7 16 8	A	80	110	250	280	–	–
	4 2 2	16-9 12 16	A	35	110	250	325	–	–
♦	3	16-10 12	A	90	180	270	–	–	–
	2	16-11 12	A	35	110	250	325	–	–
	1	16-12 4	A	–	–	–	–	–	–
	2	16A11 12	A	35	110	250	325	–	–
♦	10	18-1 16	A (B, C, F, G) Instr. (all others)	70	145	215*	290	–	–
	2	18-3 12	D	35	110	250	325	–	–
	4	18-4 16	D	35	110	250	325	–	–
	3 2 1	18-5 12 16	D	80	110	250	280	–	–
	1	18-6 4	D	–	–	–	–	–	–
	1	18-7 8	D	–	–	–	–	–	–
	8 1 7	18-8 12 16	A	70	–	–	290	–	–
	7 2 5	18-9 12 16	Instr.	80	110	250	280	–	–
	4	18-10 12	A	–	120	240	–	–	–
	5	18-11 12	A	–	170	265	–	–	–
	6	18-12 16	A	80	–	–	280	–	–

*Caution: This insulator rotation is not recommended as it can mate with normal rotation connectors.

♦Attention: For all insert rotations, it is possible for miss-mating to occur. It is the responsibility of the customer to ensure they have selected correctly.

CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	4 1 3	18-13 8 12	A	80	110	250	280	–	–
	7 2 5	18-17 12 16	Instr.	–	–	–	–	12	100
	10	18-19 16	A	–	120	240	–	–	–
	5	18-20 16	A	90	180	270	–	–	–
	3	18-21 12	A	–	–	–	–	–	–
	3	18-22 16	D	70	145	215	290	–	–
	1	20-2 0	D	–	–	–	–	–	–
	3	20-3 12	D	70	145	215	290	–	–
	4	20-4 12	D	45	110	250	–	–	250 (20A37)
	3	20-6 16	D	–	–	–	–	–	–
	8	20-7 16	A (C, D, E, F) D (A, B, H, G)	80	110	250	280	–	–
	6 2 4	20-8 8 16	Instr.	80	110	250	280	–	–
	13	20-11 16	Instr.	–	–	–	–	–	–
	5 3 2	20-14 12 8	A	80	110	250	280	–	–
	7	20-15 12	A	80	–	–	280	–	–
	9 2 7	20-16 12 16	A	80	110	250	280	–	–
	6 5 1	20-17 12 16	A	90	180	270	–	–	–

◆Attention: For all insert rotations, it is possible for miss-mating to occur. It is the responsibility of the customer to ensure they have selected correctly.

CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	9 3 6	20-18 12 16	A	35	110	250	325	–	–
	3	20-19 8	A	90	180	270	–	–	–
	6 3 3	20-22 8 16	A	80	◆ 110	◆ 250	280	–	–
	2	20-23 8	A	35	110	250	325	–	–
	4 2 2	20-24 8 16	A	35	110	250	325	–	–
	14	20-27 16	A	35	110	250	325	–	–
	17	20-29 16	A	80	–	–	280	–	–
	11	20-33 16	A	–	–	–	2 3 17	260 110 130	–
	9	20A9 12	Instr. (all others)	–	110	250	–	–	–
	24	20A24 20	–	–	–	–	–	–	–
No solder pot contacts available for #10/20									
	19	20A48 16	Instr.	–	80	280	–	–	–
	2	22-1 8	D	35	110	250	325	–	–
	3	22-2 8	D	70	145	215	290	–	–
	4 2 2	22-4 8 12	A	5	110	250	325	–	–
	6 2 4	22-5 12 16	D	35	110	250	325	–	–
	1	22-7 0	E	–	–	–	–	–	–

◆Attention: For all insert rotations, it is possible for miss-mating to occur. It is the responsibility of the customer to ensure they have selected correctly.

*Reduced contact termination 0,3mm².

Dimensions shown in mm | Specifications and dimensions subject to change

CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	2	22-8 12	E	35	110	250	325	-	-
	3	22-9 12	E	70	145	215	290	-	-
	4	22-10 16	E	35	110	250	325	-	-
	5 2 3	22-12 8 16	D	80	110	250	280	-	-
◆	19	22-14 16	A	80	-	-	280	-	-
	6 5 1	22-15 12 16	A (A, B, C, E, F) E (D)	80	110	250	280	-	-
	9 3	22-16 12 16	A	80	110	250	280 -	-	-
	14	22-19 16	A	80	110	250	280	-	-
	9 3 6	22-20 16	A	35	110	250	325	-	-
	3 2 1	22-21 16 0	A	80	110	250	280 -	-	-
	4	22-22 8	A	-	110	250	-	-	-
	8	22-23 12	D (H) A (all others)	35	-	250	-	-	-
	9 1 8	22-27 8 16	A (A to H)	80	-	250	280	-	-
	7	22-28 12	A	80	-	-	280	-	-
	7	24-2 12	D	80	-	-	280	-	-

◆Attention: For all insert rotations, it is possible for miss-mating to occur. It is the responsibility of the customer to ensure they have selected correctly.

CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	4 1 3	24-4 0 16	D	80	110	250	280	–	–
	16	24-5 16	A	80	110	250	280	–	–
	16 2 14	24-7 12 16	A	80	110	250	280	–	–
	2	24-9 4	A	35	110	250	325	–	–
	7	24-10 8	A	80	–	–	280	–	–
	9 3 6	24-11 8 12	A	35	110	250	325	–	–
	5 2 3	24-12 4 12	A	80	110	250	280	–	–
	12	24-19 16	A	–	–	–	–	–	–
	11 2 9	24-20 12 16	D	80	110	250	280	–	–
	4	24-22 8	D	45	110	250	–	–	–
	7	24-27 16	E	80	–	–	280	–	–
	24	24-28 16	Instr.	80	110	250	280	–	–
	12	24A24 12	A	–	–	–	–	2 4 9 12	260 80 280 100
	28	24A28 16	Instr.	65	146	235	–	–	–
	19 13 5 1	24A51 16 12 8	A	–	–	–	–	14	30

Dimensions shown in mm | Specifications and dimensions subject to change

CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	14 12 2	28-2 16 12	D	35	110	250	325	-	-
	5 2 2 1	28-5 4 16 12	D	35	110	250	325	-	-
	12 6 6	28-9 16 12	D	80	110	250	280	-	-
	7 2 2 3	28-10 4 8 12	A (= A, B, C, D, E, F) D (= G)	80	110	250	280	-	-
	22 4 18	28-11 12 16	A	80	110	250	280	-	-
	26	28-12 16	A	90	180	270	-	-	-
	35	28-15 16	A	80	110	250	280	-	-
	20	28-16 16	A (A-L) D (M, N, P)	80	110	250	280	-	-
	10 6 4	28-19 16 12	A (= C, E, G, J, K, L) D = A, B B = H, M	80	110	250	280	-	-
	14 10 4	28-20 12 16	A	80	110	250	280	-	-
	37	28-21 16	A	80	110	250	280	-	-
	6 3 3	28-22 4 16	D	70	145	215	290	-	-

Dimensions shown in mm | Specifications and dimensions subject to change

CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	12	28-51 12	D	80	135	195	–	–	–
	9 4 5	28A16 4 16	A (e) Instr.	– – – –	– – – –	– – – –	– – – –	2 3 8 9	260 110 250 280
	43	28A51 16	A	– – – – –	– – – – –	– – – – –	– – – – –	3 4 8 9 12	110 80 250 280 100
	28 9 19	28A63 12 16	A	– – –	100 – –	260 – –	– – –	– – –	– – –
	5 2 3	32-1 0 12	E (A) D (all others)	80	110	250	280	–	–
	2	32-5 0	D	35	110	250	325	–	–
	23 2 3 2 16	32-6 4 8 12 16	A	80	110	250	280	–	–
	35 7 28	32-7 12 16	Instr. (A, B, U, I.) A (all others)	80	125	235	280	–	–
	30 6 24	32-8 12 16	A	80	125	235	280	–	–
	14 12 2	32-9 16 4	D	80	110	250	280	–	–

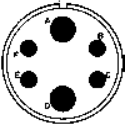
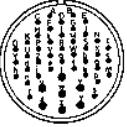
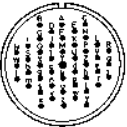
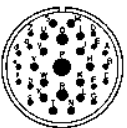
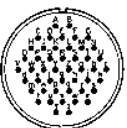
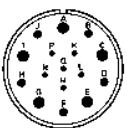
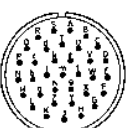
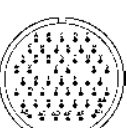
Dimensions shown in mm | Specifications and dimensions subject to change

CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	23 5 18	32-13 12 16	D	80	110	250	280	–	–
	8 2 6	32-15 0 12	D	35	110	250	325	–	–
	4	32-17 4	D	45	110	250	–	–	–
	54	32A10 16	A	– 80 – – –	– 110 – – –	– 250 – – –	– 280 – – –	3 4 8 9 12	110 80 250 280 100
	47	32A47 16	– A	– – – – – –	– – – – – –	– – – – – –	– – – – – –	2 3 4 8 9 12	260 110 80 250 280 100
	55	32A55 16	A	80	110	250	280	–	–
	61 20 41	32A69 16 20	Instr.	–	110	250	–	–	–
No solder pot contacts available for #10/20 contacts.									
	6 3 3	36-3 0 12	D	70	145	215	290	–	–
	4	36-5 0	A	–	120	240	–	–	–

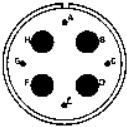
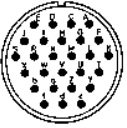

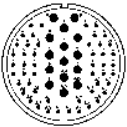
Dimensions shown in mm | Specifications and dimensions subject to change

CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	6 4 2	36-6 4 0	A	35	110	250	25	–	–
	47 7 40	36-7 12 16	A	80	110	250	280	–	–
	47 1 46	36-8 12 16	A	80	110	250	280	–	–
	31 14 14 2 1	36-9 16 12 8 4	A	80	125	235	280	–	–
	48	36-10 16	A	80	125	235	280	–	–
	16 5 5 6	36-14 8 12 16	D	–	–	–	–	–	–
	35	36-15 16	D (m) A (all others)	60	125	245	305	–	–
	52	36A34 16	A	–	–	–	–	2 3 4 8 9 12 20	260 110 80 250 280 100 220

Dimensions shown in mm | Specifications and dimensions subject to change

CONTACT ARRANGEMENTS

View on Mating face of Pin Insulator	No. of Contacts	Contact arrangement Contact size	Service rating	Insulator position				Position	Special polarization
				W	X	Y	Z		
	8	36A35	A	-	-	-	-	2	260
	4	16							
	4	0							
	27	36A46	A	-	-	-	-	2	260
		12						3	110
								4	80
								8	250
								9	280
								12	100
	39	36A98	A	-	110	-	-	-	-
	8	8							
	31	16							
	65	36A99	Instr.	30	135	-	-	-	-
	15	16							
	50	20*							

No solder pot contacts available for #10/20 contacts.

*Reduced contact termination 0,3 mm².

◆ Attention: For all insert rotations, it is possible for miss-mating to occur. It is the responsibility of the customer to ensure they have selected correctly.

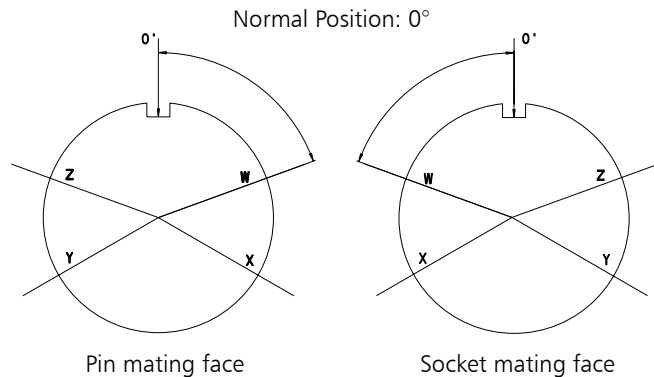
ALTERNATE INSERT POSITION

Indicates location of centerline of key or keyway of shells in fixed normal position. Insert is rotated as shown by arrow and letters.

Tolerances:

Pin insulator 10SL-20: $\pm 2,0^\circ$

Pin insulator 22-36: $\pm 1,5^\circ$



CONTACT ARRANGEMENTS

Contact arrangement	No. of Contacts	Contact size					
		0	4	8	12	16	20
		500	160	100	25	15	10
12S4	1					1	
14S4	1					1	
16-12	1		1				
18-6	1		1				
18-7	1			1			
20-2	1	1					
22-7	1	1					
10SL4	2					2	
14S9	2					2	
16S4	2					2	
16-11	2				2		
16A11	2				2		
18-3	2				2		
20-23	2			2			
22-1	2			2			
22-8	2				2		
24-9	2		2				
32-5	2	2					
10SL3	3					3	
14S1	3					3	
14S7	3					3	
16S5	3					3	
16-7	3			1		2	
16-10	3				3		
18-5	3				2	1	
18-21	3				3		
18-22	3					3	
20-3	3				3		
20-6	3					3	
20-19	3					3	
22-2	3			3			
22-9	3				3		
22-21	3	1				2	
12SA10	4					4	
14S2	4					4	
16-9	4				2	2	
18-4	4					4	
18-10	4				4		
18-13	4			1	3		
20-4	4				4		
20-24	4			2		2	
22-4	4			2	2		
22-10	4					4	
22-22	4			4			
24-4	4	1				3	
24-22	4			4			
32-17	4		4				
36-5	4	4					

Contact arrangement	No. of Contacts	Contact size					
		0	4	8	12	16	20
		500	160	100	25	15	10
14S5	5					5	
16S8	5					5	
18-11	5				5		
18-20	5					5	
20-14	5			2	3		
22-12	5			2		3	
24-12	5		2		3		
28-5	5		2		1	2	
32-1	5	2			3		
14S6	6					6	
18-12	6					6	
20-8	6			2		4	
20-17	6				5	1	
20-22	6			3		3	
22-5	6				2	4	
22-15	6				5	1	
28-22	6		3			3	
36-3	6	3			3		
36-6	6	2	4				
14SA7	7					7	
16S1	7					7	
18-9	7				2	5	
18-17	7				2	5	
20-15	7				7		
22-28	7				7		
24-2	7				7		
24-10	7			7			
24-27	7					7	
28-10	7		2	2	3		
18-8	8				1	7	
20-7	8					8	
22-23	8				8		
32-15	8	2			6		
36A35	8	4				4	
24-6	8				8		
20-16	9				2	7	
20-18	9				3	6	
20A9	9				9		
22-16	9				3	6	
22-20	9					9	
22-27	9			1		8	
24-11	9			3	6		
28A16	9		4			5	
18-1	10					10	
18-19	10					10	
28-19	10				4	6	

Dimensions shown in mm | Specifications and dimensions subject to change

Contact arrangement	No. of Contacts	Contact size					
		0	4	8	12	16	20
		500	160	100	25	15	10
20-33	11					11	
24-20	11				2	9	
24-19	12					12	
24A24	12				12		
28-9	12				6	6	
28-51	12				12		
20-11	13					13	
20-27	14					14	
22-19	14					14	
28-2	14				2	12	
28-20	14				10	4	
32-9	14		2			12	
24-5	16					16	
24-7	16				2	14	
36-14	16			5	5	6	
20-29	17					17	
20A48	19					19	
22-14	19					19	
28-16	20					20	
28-11	22				4	18	
32-6	23		2	3	2	16	
32-13	23				5	18	
24-28	24					24	
20A24	24						24
28-12	26					26	
36A46	27				27		
24A28	28					28	
28A63	28				9	19	
32-8	30				6	24	
36-9	31		1	2	14	14	
28-15	35					35	
32-7	35				7	28	
36-15	35					35	
28-21	37					37	
36A98	39			8		31	
28A51	43					43	

Contact arrangement	No. of Contacts	Contact size					
		0	4	8	12	16	20
		500	160	100	25	15	10
28A51	43					43	
32A47	47					47	
36-7	47				7	40	
36-8	47				1	46	
36-10	48					48	
36A34	52					52	
32A10	54					54	
32A55	55					55	
32A69	61					20	41
36A99	65					15	50

Dimensions shown in mm | Specifications and dimensions subject to change

MOUNTING HOLES

Shell size	CA Threaded				Mounting holes for connectors styles, complete receptacle range
	d1 H12		d2 H13	e	
	CA3100..., CA20...	CA3102..., CA02...			
10SL	16,0	16,4	3,4	18,2	
12S	19,1	16,4	3,4	20,6	
14S	22,3	19,7	3,4	23,0	
16S/16	25,5	22,9	3,4	24,6	
18	28,7	26,1	3,4	27,0	
20	31,8	29,5	3,4	29,4	
22	35,0	32,7	3,4	31,8	
24	38,2	36,0	3,9	34,9	
28	44,5	42,0	3,9	39,7	
32	50,9	48,3	4,5	44,5	
36	57,2	53,1	4,5	49,2	

HARNESSING

CA Threaded connectors are designed for single wire harnessing, if an individual wire sealing grommet is used. Wires have to conform to wire and insulation diameters with the data given in the following table:

Contact size		Crimp/solder contacts		Insulation Ø	
AWG	metric mm	AWG	metric mm ²	AWG	metric mm
–	10	–	0,75-1,0	–	1,45-2,5
16S/15S	16/15	16	0,75-1,5	1,6-2,8	1,60-2,8
12	25	12	2,5	2,9-3,5	2,9-3,5
–	60	–	6,0	–	3,5-4,9
8	100	8	10,0	4,2-5,8	5,5-6,5
4	160	4	16,0	6,2-9,0	7,1-9,0
0	500	0	50,0	10,5-13,0	10,5-13,0

WIRE STRIPPING

Either mechanical or hot stripping can be used. Prevent conductors or insulators damage. For solder contacts, conductors have to be pretinned.

Note: Do not twist conductors used with crimp contacts. Do not touch uninsulated conductors before crimping, twisting of conductors and grease or lubricants on the wires cause poor crimp quality.

Contact size		Stripping length mm
AWG	metric	
–	10	4,0 + 0,4
16S/15S	16/15	6,0 + 0,5
12	25	6,0 + 0,5
8	60/100	11,0 + 0,8 – 0,4
4	160	11,0 + 0,8 – 0,4
0	500	13,0 + 0,8 – 0,4

WIRING HINTS

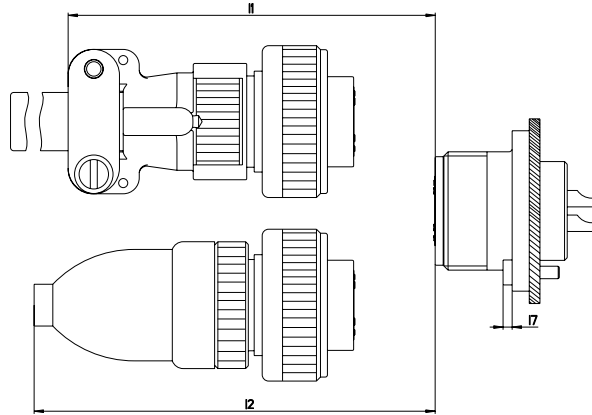
Strip wires carefully. Do not damage conductors and insulation. For solder connections, wires have to be pretinned. Do not twist conductors used in crimp contacts, otherwise no perfect crimp connection will be achieved. Do not touch conductors before crimping. Film of grease or lubricants on the strands will cause poor crimp quality.

For detailed assembly instructions please visit www.ittcannon.com and search for the keyword "CA Bayonet Assembly Instruction".

SEPARATING AND COUPLING DIMENSIONS

PLUG

CA3106E



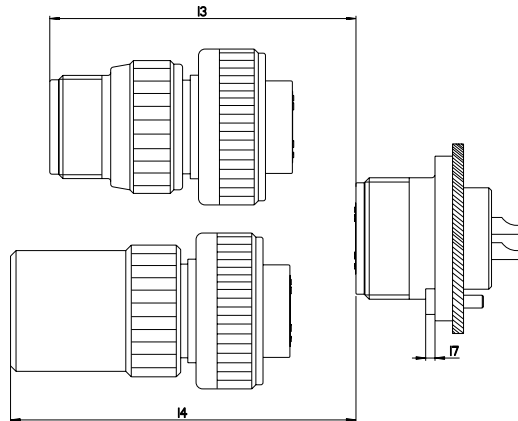
CA3106E-DN

RECEPTACLE

CA3102E

PLUG

CA3106F



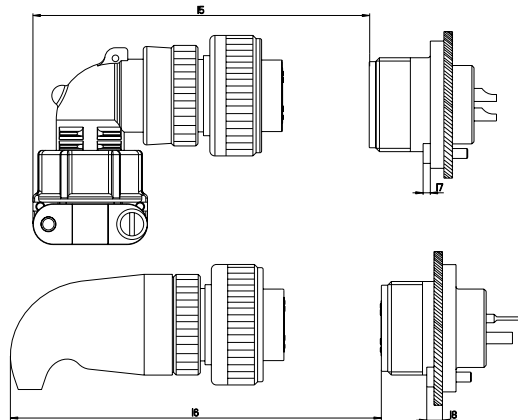
CA06PG/ME

RECEPTACLE

CA3102E

PLUG

CA3108E



CA3106E-DN

RECEPTACLE

CA3102E

CA20L
CA20E

Shell size	I1 min.	I2 min.	I3 min.	I4 min.	I5 min.	I6 min.	I7 max.	I8 max.
10SL	70	70	65	80	70	65	3,5	8,0
12S	70	75	65	80	75	70	3,5	8,0
14S	70	75	65	80	75	80	3,5	8,0
16S	70	90	65	80	80	80	3,5	8,0
16	80	100	70	100	90	100	3,5	8,0
18	90	100	70	110	95	110	3,5	8,0
20	90	100	70	110	95	110	3,5	8,0
22	90	100	70	110	95	110	3,5	8,0
24	110	120	90	120	105	120	5,0	8,0
28	110	120	90	120	105	120	5,0	9,0
32	110	180	90	120	115	120	6,0	9,0
36	110	190	100	130	120	130	6,0	9,0

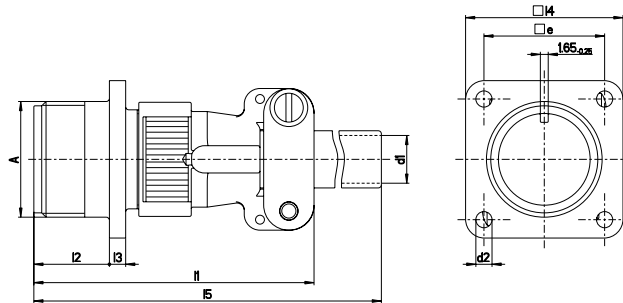
Dimensions shown in mm | Specifications and dimensions subject to change

CANNON CA THREADED

WALL MOUNTING RECEPTACLE CLASS F, E

CA3100E

CA3100E designates a wall mounting receptacle. It mates with plugs CA3106 and CA3108. If crimp version is required please order CA3100E...F80 or CA3100E...F183.

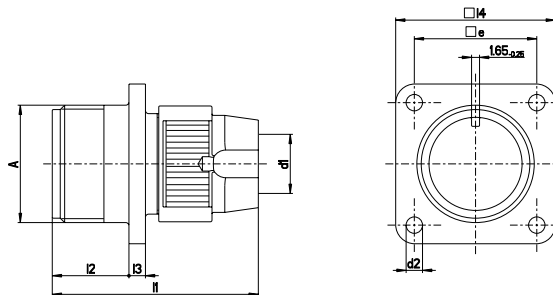


Part No. CA (pin insert*)	A Thread	I1 max.	I2 ±0,3	I3 max.	I4 +0,2/-0,1	I5 max.	d1 ¹	d2 +0,2	e ±0,3
CA3100E10SL-**p***	5/8-24UNEF-2A	53	14,2	2,8	25,4	120	6,5	3,1	18,2
CA3100E12S-**p***	3/4-20UNEF-2A	53	14,2	3,2	28,0	120	6,5	3,1	20,6
CA3100E14S-**p***	7/8-20UNEF-2A	55	14,2	3,2	30,0	120	9,0	3,1	23,0
CA3100E16S-**p***	1-20UNEF-2A	56	14,2	3,2	32,5	125	11,0	3,1	24,6
CA3100E16-**p***	1-20UNEF-2A	66	19,0	3,2	32,5	125	11,0	3,1	24,6
CA3100E18-**p***	1-1/8-18UNEF-2A	68	19,0	4,0	35,0	125	14,2	3,1	27,0
CA3100E20-**p***	1-1/4-18UNEF-2A	68	19,0	4,0	38,0	125	15,8	3,1	29,4
CA3100E22-**p***	1-3/8-18UNEF-2A	68	19,0	4,0	41,0	125	15,8	3,1	31,8
CA3100E24-**p***	1-1/2-18UNEF-2A	76	20,6	4,0	44,5	125	21,4	3,7	34,9
CA3100E28-**p***	1-3/4-18UNS-2A	76	20,6	4,0	50,8	125	21,4	3,7	39,7
CA3100E32-**p***	2-18UNS-2A	76	22,2	4,0	57,0	125	26,7	4,4	44,5
CA3100E36-**p***	2-1/4-16UN-2A	76	22,2	4,0	63,5	135	31,7	4,4	49,2

¹ max. cable dia

CA3100R

CA3100R designates a receptacle with a shorter and lightweight backshell. It mates with plugs CA3106 and CA3108. If crimp version is required please order CA3100R...F80 or CA3100R...F183.



Part No. CA (pin insert*)	A Thread	I1 max.	I2 ±0,3	I3 max.	I4 ±0,2	d1 ¹	d2 ±0,2	e ±0,3
CA3100R10SL-**p***	5/8-24UNEF-2A	53	14,2	2,8	25,4	9,6	3,1	18,2
CA3100R12S-**p***	3/4-20UNEF-2A	53	14,2	3,2	28,0	10,3	3,1	20,6
CA3100R14S-**p***	7/8-20UNEF-2A	55	14,2	3,2	30,0	12,4	3,1	23,0
CA3100R16S-**p***	1-20UNEF-2A	56	14,2	3,2	32,5	15,4	3,1	24,6
CA3100R16-**p***	1-20UNEF-2A	66	19,0	3,2	32,5	15,4	3,1	24,6
CA3100R18-**p***	1-1/8-18UNEF-2A	68	19,0	4,0	35,0	18,4	3,1	27,0
CA3100R20-**p***	1-1/4-18UNEF-2A	68	19,0	4,0	38,0	22,0	3,1	29,4
CA3100R22-**p***	1-3/8-18UNEF-2A	68	19,0	4,0	41,0	24,7	3,1	31,8
CA3100R24-**p***	1-1/2-18UNEF-2A	76	20,6	4,0	44,5	27,6	3,7	34,9
CA3100R28-**p***	1-3/4-18UNS-2A	76	20,6	4,0	50,8	31,6	3,7	39,7
CA3100R32-**p***	2-18UNS-2A	76	22,2	4,0	57,0	38,5	4,4	44,5
CA3100R36-**p***	2-1/4-16UN-2A	76	22,2	4,0	63,5	44,5	4,4	49,2

*For socket inserts substitute "P" with "S" **Add contact arrangement number; see pages 9-21 *** Add modification code; see page 8

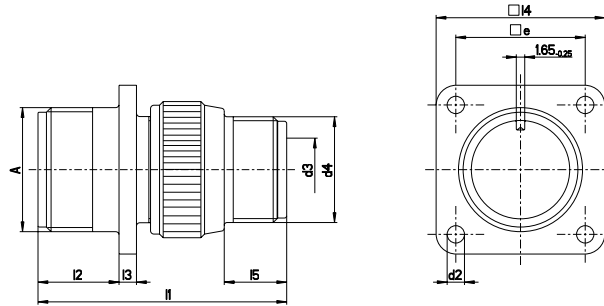
¹ max. cable dia

Dimensions shown in mm | Specifications and dimensions subject to change

WALL MOUNTING RECEPTACLE CLASS F, DN

CA3100F

CA3100F designates a wall mounting receptacle with backshell for flex tubes or to be combined with a cable clamp. It mates with plugs CA3106 and CA3108.

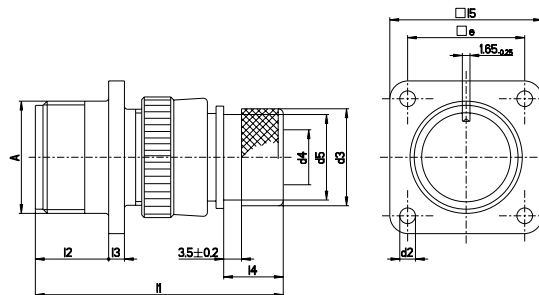


Part No. CA (pin insert*)	A Thread	d2 +0,2/-0,1	d3 ¹	d4 Thread	l1 max.	l2 +0,4	l3 ±0,3	l4 ±0,3	l5 min.	e ±0,1
CA3100F10SL-**P-***	5/8-24UNEF-2A	3,1	8,2	5/8-24UNEF-2A	45,0	14,2	2,8	25,4	9,5	18,2
CA3100F12S-**P-***	3/4-20UNEF-2A	3,1	8,2	5/8-20UNEF-2A	45,0	14,2	3,2	28,0	9,5	20,6
CA3100F14S-**P-***	7/8-20UNEF-2A	3,1	11,1	3/4-20UNEF-2A	45,0	14,2	3,2	30,0	9,5	23,0
CA3100F16S-**P-***	1-20UNEF-2A	3,1	14,3	7/8-20UNEF-2A	45,0	14,2	3,2	32,5	9,5	24,6
CA3100F16-**P-***	1-20UNEF-2A	3,1	14,3	7/8-20UNEF-2A	54,0	19,0	3,2	32,5	9,5	24,6
CA3100F18-**P-***	1-1/8-18UNEF-2A	3,1	16,7	1-20UNEF-2A	54,0	19,0	4,0	35,0	9,5	27,0
CA3100F20-**P-***	1-1/4-18UNEF-2A	3,1	19,8	1-3/16-18UNEF-2A	55,0	19,0	4,0	38,0	9,5	29,4
CA3100F22-**P-***	1-3/8-18UNEF-2A	3,1	19,8	1-3/16-18UNEF-2A	58,0	19,0	4,0	41,0	9,5	31,8
CA3100F24-**P-***	1-1/2-18UNEF-2A	3,7	25,4	1-7/16-18UNEF-2A	59,0	20,6	4,0	44,5	9,5	34,9
CA3100F28-**P-***	1-3/4-18UNS-2A	3,7	27,0	1-7/16-18UNEF-2A	60,0	20,6	4,0	50,8	9,5	39,7
CA3100F32-**P-***	2-18UNS-2A	4,4	32,5	1-3/4-18UNS-2A	62,0	22,2	4,0	57,0	11,0	44,5
CA3100F36-**P-***	2-1/4-16UN-2A	4,4	35,7	2-18UNS-2A	64,0	22,2	4,0	63,5	11,8	49,2

¹ max. cable dia

CA3100E-DN

CA3100E-DN designates a wall mounting receptacle with backshell for heat-shrinkable boots. It mates with plugs CA3106 and CA3108.



Part No. CA (pin insert*)	A Thread	d2 +0,2/-0,1	d3 ±0,2	d4 ¹	d5 max.	l1 max.	l2 +0,4	l3 ±0,3	l4 ±0,5	l5 ±0,3	e ±0,1
CA3100E10SL-**P-DN	5/8-24UNEF-2A	3,1	15,5	7,7	13,3	49,0	14,2	2,8	11,7	25,4	18,2
CA3100E12S-**P-DN	3/4-20UNEF-2A	3,1	15,5	7,9	13,3	49,0	14,2	3,2	11,7	28,0	20,6
CA3100E14S-**P-DN	7/8-20UNEF-2A	3,1	19,1	10,6	17,0	49,0	14,2	3,2	11,7	30,0	23,0
CA3100E16S-**P-DN	1-20UNEF-2A	3,1	23,9	13,5	21,9	49,0	14,2	3,2	11,7	32,5	24,6
CA3100E16-**P-DN	1-20UNEF-2A	3,1	23,9	13,5	21,9	58,0	19,0	3,2	11,5	32,5	24,6
CA3100E18-**P-DN	1-1/8-18UNEF-2A	3,1	23,9	14,6	21,9	58,0	19,0	4,0	11,5	35,0	27,0
CA3100E20-**P-DN	1-1/4-18UNEF-2A	3,1	29,6	18,7	26,2	60,0	19,0	4,0	12,7	35,0	27,0
CA3100E22-**P-DN	1-3/8-18UNEF-2A	3,1	29,6	20,8	26,2	60,0	19,0	4,0	12,7	41,0	31,8
CA3100E24-**P-DN	1-1/2-18UNEF-2A	3,7	37,8	24,6	34,5	63,0	20,6	4,0	12,7	44,5	34,9
CA3100E28-**P-DN	1-3/4-18UNS-2A	3,7	37,8	27,0	34,5	63,0	20,6	4,0	12,7	50,8	39,7
CA3100E32-**P-DN	2-18UNS-2A	4,4	47,8	33,3	43,6	67,0	22,2	4,0	15,2	57,0	44,5
CA3100E36-**P-DN	2-1/4-16UN-2A	4,4	47,8	38,5	43,6	68,0	22,2	4,0	15,2	63,5	49,2

*For socket inserts substitute "P" with "S" **Add contact arrangement number; see pages 9-21 *** Add modification code; see page 8

¹ max. cable dia

Dimensions shown in mm | Specifications and dimensions subject to change