

CTF**Functional Characteristics****Dimensional Class:**

Low

**Standard Colour:**

Green

**Dimensions:**11.1 x 15.5 mm
(.437 x .610 in)**Max Approved Wire Size:**solid: 1.5 mm² (IMQ); 14 AWG (UL)stranded: 1 mm² (VDE); 14 AWG (UL)**Clamp Opening Size:**

2.6 x 1.7 mm (.102 x .067 in)

**Versions:**

Side Stackable,

Modular,

Locking Screw Flanges

**Single Mould Poles:**

from 2 to 25 (Modular and Side Stackable)

from 2 to 23 (Locking Screw Flanges)

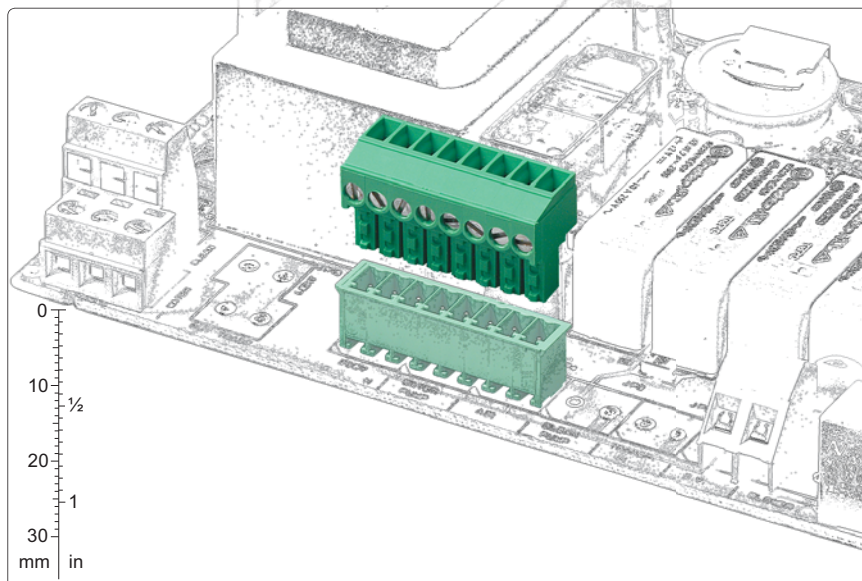
**Pitches:**

Metric 3.5 mm, 5 mm, 7 mm, 10 mm

(.138 in, .197 in, .275 in, .394 in)

Imperial 3.81 mm, 5.08 mm, 7.62 mm, 10.16 mm

(.150 in, .200 in, .300 in, .400 in)

pitch 3.5/3.81 mm
from 2 to 25 poles
side stackablepitch 5/5.08 mm
from 2 to 3 poles
modularpitch 3.5/3.81 mm
from 2 to 23
locking screw flangeavailable accessories:
feature clipping protectionCTF-SC1
coding splines**Brief Description**

Although the **CTF** female connector series is small in size it offers a high number of connection possibilities; in fact wires up to 1.5mm² (14 AWG) can be used and consequently a current range of 13.5A certified can be reached.

It is available in 3.5 mm (.138 in), 5 mm (.197 in) and 7 mm (.275 in) metric pitches and in 3.81 mm (.100 in), 5.08 mm (.200 in) and 7.62 mm (.300 in) Imperial pitches, in monolithic housings from 2 to 25 poles, in side-stackable or modular versions.

The **CTF** Connector Series for PCBs is characterized by an asymmetric profile, so mistakes are prevented when connections are made with the relative CTM male connector which is soldered to the board. Further

safety when connecting can be obtained by using the CTM-LC1 and CTF-SCI Coding Splines and Coding Clips (page 18 – 19)

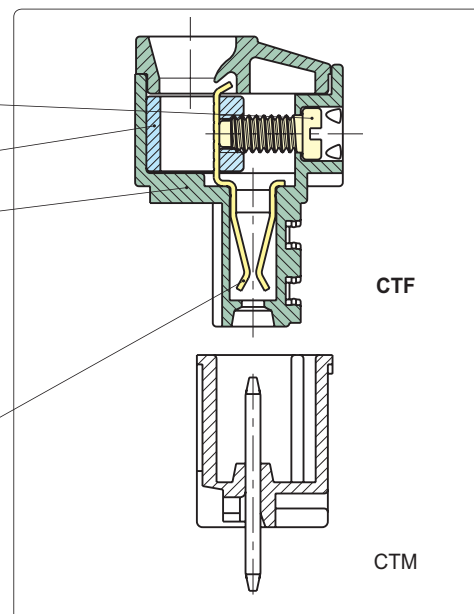
The basic modular connectors can be side-stacked or assembled in order to obtain any number of poles without losing the pitch. By taking advantage of this particular characteristic a minimum stock of basic connectors can be kept.

It is simple to manage the product, the warehouse and the assembly with the Kit packages because several versions can be received with only one code, the part-numbers are significantly reduced and the risk of making mistakes is also reduced.

The CTF family is now available in pitches 5 and 5.08mm, see page 125.

Characteristics of Components

- M2 nickel plated Copper Alloy Screw.
- Nickel-plated Copper Alloy Rising Clamp.
- PA 6.6.Polyamide Housing.
Standard Colour: GREEN.
V0 Self-extinguishing according to UL 94.
Chlorinated solvents resistant,
with no Phosphor, Dioxin or
detrimental to health Halogens.
- Leadfree tin-plated Copper Alloy Spring.



Mechanical Characteristics

Insertion force per pole	max 3 N (max .674 lbf)
Withdrawal force per pole	min 1,5 N (min .337 lbf)
Recommended/Highest tightening torque	0.2/0.25 Nm (1.77/2.21 lbf in)
Stripping length	5 ÷ 6 mm (.20 ÷ .24 in)
Operating temperature range	-40 °C ÷ +110 °C (-40 °F ÷ +230 °F)
Climatic category	40/110/21 According to EN 60068-1

Electric Characteristics*

Solid wire section	0.05 ÷ 1.5 mm ² (IMQ)* 30÷14 AWG (UL)*
Stranded wire section	0.05 ÷ 1 mm ² (IMQ)* 30÷14 AWG (UL)*
Rated voltage for 3.5 mm (.138 in) and 3.81 mm (.150 in) pitch	300 V (UL, CSA)*
Rated voltage for 5 mm (.197 in) and 5.08 mm (.200 in) pitch	300 V (UL, CSA)*
Rated voltage for 7 mm (.276 in) and 7.62 mm (.300 in) pitch	750 V (IMQ)*
Rated voltage for 10 mm (.394 in) and 10.16 mm (.400 in) pitch	750 V (CE)*
Rated current	13.5 A (IMQ)*
Contact resistance	<15 mΩ
Insulation resistance	>10 ⁹ Ω (500V DC)

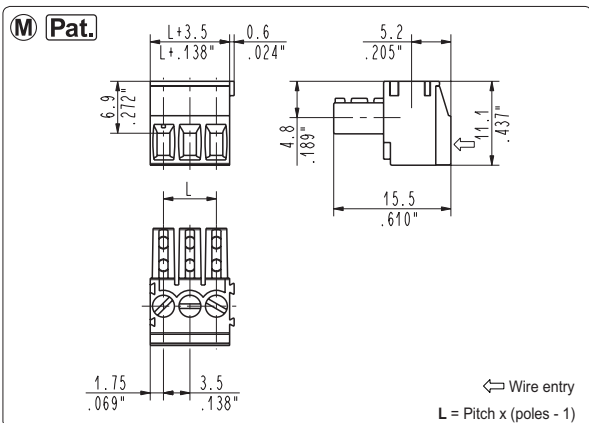
*All the a.m. data refer to the highest values amongst the certificated ones.

V voltage, I current values and tightening torque are related to the norms to be applied to the product and to its use.

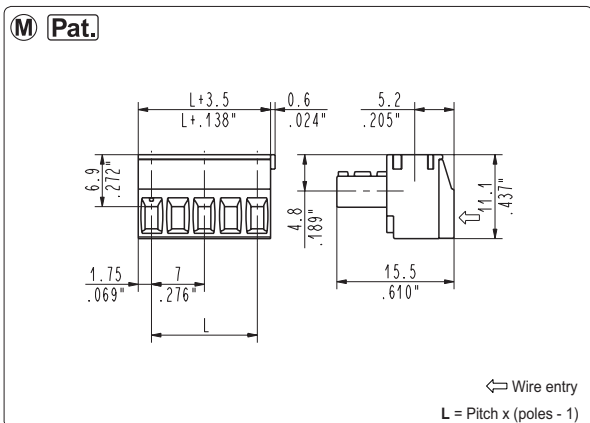
Approvals

CE	CE:	130 V - T 110 - 13.5 A - 1.5 mm ² solid (11 A - 1 mm ² stranded) for 3.5 mm and 3.81 mm pitch
		250 V - T 110 - 13.5 A - 1.5 mm ² solid (11 A - 1 mm ² stranded) for 5 mm and 5.08 mm pitch
		750 V - T 110 - 13.5 A - 1.5 mm ² solid (11 A - 1 mm ² stranded) for 7 mm, 7.62 mm, 10 mm and 10.16 mm pitch
UL	UL:	300 V - 11 A - 30÷14 AWG for 3.5 mm, 3.81 mm, 5 mm, 5.08 mm, 7 mm, 7.62 mm, 10 mm and 10.16 mm pitch
	File E 167473	Application values for end-use equipment have to be in accordance to UL norms and applicable to it.
CSA	CSA:	300 V - 11 A - 30÷16 AWG for 3.5 mm, 3.81 mm, 5 mm and 5.08 mm pitch
	File LR 102896	450 V - 11 A - 30÷16 AWG for 7 mm and 7.62 mm pitch
VDE	VDE:	130 V - 11 A - T 95 - 1 mm ² for 3.5 mm and 3.81 mm pitch
	Reg. N. 134066 ÜG	250 V - 11 A - T 95 - 1 mm ² for 5 mm and 5.08 mm pitch
		450 V - 11 A - T 95 - 1 mm ² for 7 mm and 7.62 mm pitch
IMQ	IMQ:	130 V - T 110 - 13.5 A - 1.5 mm ² solid (11 A - 1 mm ² stranded) for 3.5 mm and 3.81 mm pitch
	CA02.00901	250 V - T 110 - 13.5 A - 1.5 mm ² solid (11 A - 1 mm ² stranded) for 5 mm and 5.08 mm pitch
		750 V - T 110 - 13.5 A - 1.5 mm ² solid (11 A - 1 mm ² stranded) for 7 mm and 7.62 mm pitch

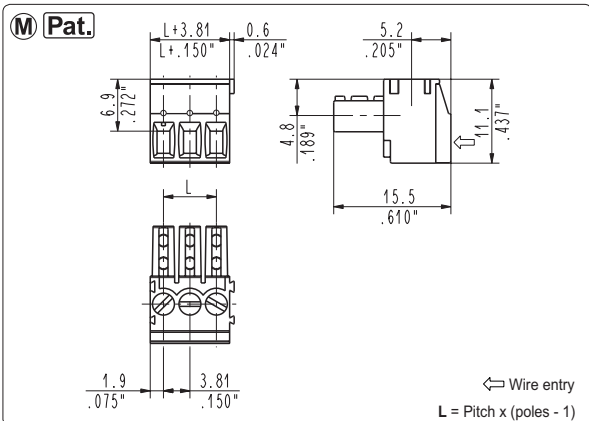
See also "Certifications of Products", page 14

**CTF_0M8 Modular-Side Stackable Female**

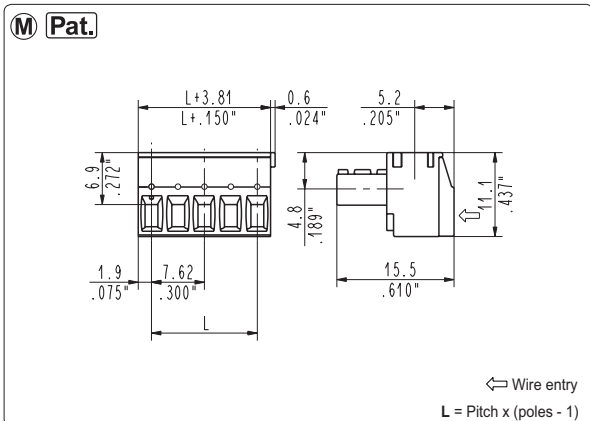
3.5 mm / .138" Pitch				Weight per pole: 0.78 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*	
02	CTF020M8	500	0,78	2000	3,12	
03	CTF030M8	400	0,94	1750	4,01	
04	CTF040M8	300	0,94	1500	4,68	
05	CTF050M8	250	0,98	1500	5,85	
06	CTF060M8	200	0,94	1250	5,85	
07	CTF070M8	175	0,96	1250	6,83	
08	CTF080M8	125	0,78	1000	6,24	
09	CTF090M8	125	0,88	750	5,27	
10	CTF100M8	100	0,78	750	5,85	
11	CTF110M8	100	0,86	750	6,44	
12	CTF120M8	75	0,70	750	7,02	
13	CTF130M8	75	0,76	750	7,61	
14	CTF140M8	100	1,09	750	8,19	
15	CTF150M8	100	1,17	750	8,78	
16	CTF160M8	100	1,25	750	9,36	
17	CTF170M8	50	0,66	500	6,63	
18	CTF180M8	50	0,70	500	7,02	
19	CTF190M8	50	0,74	500	7,41	
20	CTF200M8	50	0,78	500	7,80	
21	CTF210M8	50	0,82	500	8,19	
22	CTF220M8	50	0,86	500	8,58	
23	CTF230M8	50	0,90	500	8,97	
24	CTF240M8	50	0,94	250	4,68	
25	CTF250M8	50	0,98	250	4,88	

**CTF_0M9 Modular-Side Stackable Female**

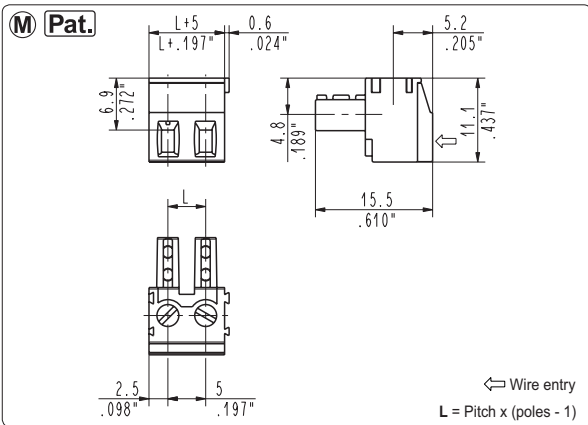
7 mm / .276" Pitch				Weight per pole: 0.94 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*	
01	CTF010M9	500	0,47	2000	1,88	
02	CTF020M9	400	0,75	1750	3,29	
03	CTF030M9	250	0,71	1500	4,23	
04	CTF040M9	175	0,66	1250	4,70	
05	CTF050M9	125	0,59	1000	4,70	
06	CTF060M9	100	0,56	750	4,23	
07	CTF070M9	100	0,66	750	4,94	
08	CTF080M9	100	0,75	750	5,64	
09	CTF090M9	50	0,42	500	4,23	
10	CTF100M9	50	0,47	500	4,70	
11	CTF110M9	50	0,52	500	5,17	
12	CTF120M9	50	0,56	250	2,82	
13	CTF130M9	50	0,61	250	3,06	

**CTF_0MT Modular-Side Stackable Female**

3.81 mm / .150" Pitch				Weight per pole: 0.78 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*	
02	CTF020MT	500	0,78	2000	3,12	
03	CTF030MT	400	0,94	1750	4,01	
04	CTF040MT	300	0,94	1500	4,68	
05	CTF050MT	250	0,98	1500	5,85	
06	CTF060MT	200	0,94	1250	5,85	
07	CTF070MT	175	0,96	1250	6,83	
08	CTF080MT	125	0,78	1000	6,24	
09	CTF090MT	125	0,88	750	5,27	
10	CTF100MT	100	0,78	750	5,85	
11	CTF110MT	100	0,86	750	6,44	
12	CTF120MT	75	0,70	750	7,02	
13	CTF130MT	75	0,76	750	7,61	
14	CTF140MT	100	1,09	750	8,19	
15	CTF150MT	100	1,17	750	8,78	
16	CTF160MT	100	1,25	750	9,36	
17	CTF170MT	50	0,66	500	6,63	
18	CTF180MT	50	0,70	500	7,02	
19	CTF190MT	50	0,74	500	7,41	
20	CTF200MT	50	0,78	500	7,80	
21	CTF210MT	50	0,82	500	8,19	
22	CTF220MT	50	0,86	500	8,58	
23	CTF230MT	50	0,90	500	8,97	
24	CTF240MT	50	0,94	250	4,68	
25	CTF250MT	50	0,98	250	4,88	

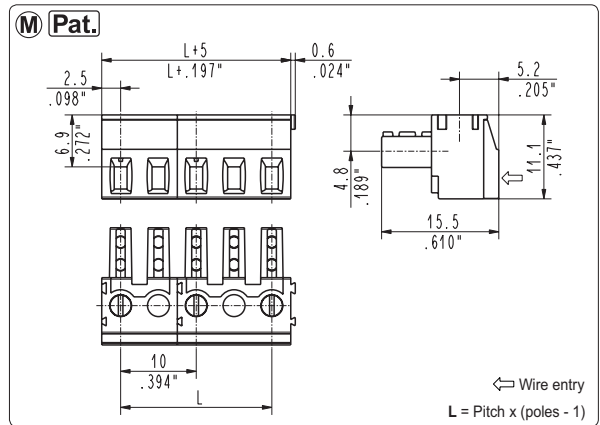
**CTF_0M7 Modular-Side Stackable Female**

7.62 mm / .300" Pitch				Weight per pole: 0.94 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*	
01	CTF010M7	500	0,47	2000	1,88	
02	CTF020M7	400	0,75	1750	3,29	
03	CTF030M7	250	0,71	1500	4,23	
04	CTF040M7	175	0,66	1250	4,70	
05	CTF050M7	125	0,59	1000	4,70	
06	CTF060M7	100	0,56	750	4,23	
07	CTF070M7	100	0,66	750	4,94	
08	CTF080M7	100	0,75	750	5,64	
09	CTF090M7	50	0,42	500	4,23	
10	CTF100M7	50	0,47	500	4,70	
11	CTF110M7	50	0,52	500	5,17	
12	CTF120M7	50	0,56	250	2,82	
13	CTF130M7	50	0,61	250	3,06	

**CTF_0M1** Modular-Side Stackable Female

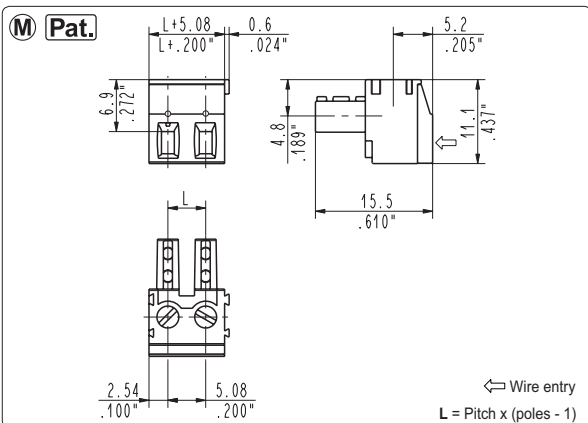
5.00 mm / .197" Pitch Weight per pole: 0.85 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CTF020M1	400	0,68	2000	3,40
03	CTF030M1	250	0,64	1750	4,46

**CTF_0M2** Modular-Side Stackable Female

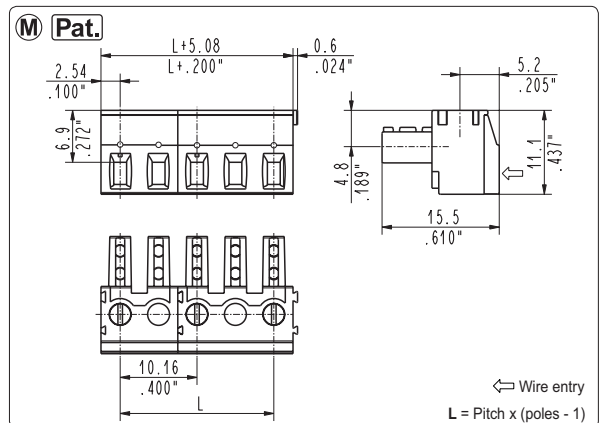
10 mm / .394" Pitch Weight per pole: 0.92 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	CTF010M2	400	0,37	2000	1,84
02	CTF020M2	250	0,46	1750	3,22

**CTF_0M5** Modular-Side Stackable Female

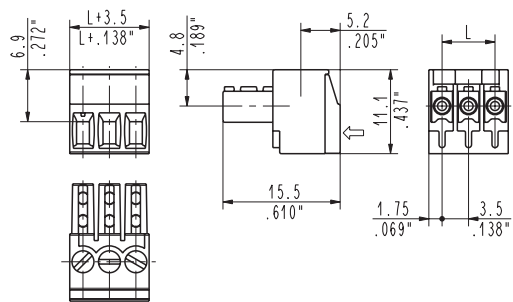
5.08 mm / .200" Pitch Weight per pole: 0.85 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CTF020M5	400	0,68	2000	3,40
03	CTF030M5	250	0,64	1750	4,46

**CTF_0M6** Modular-Side Stackable Female

10.16 mm / .400" Pitch Weight per pole: 0.92 g

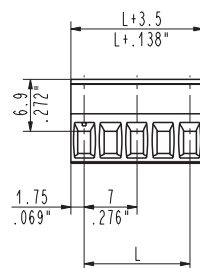
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	CTF010M6	400	0,37	2000	1,84
02	CTF020M6	250	0,46	1750	3,22



⇐ Wire entry
L = Pitch x (poles - 1)

CTF_008 Side Stackable Female

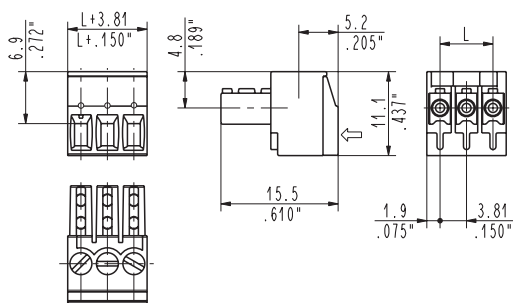
3.5 mm / .138" Pitch				Weight per pole: 0.78 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*	
02	CTF02008	500	0,78	2000	3,12	
03	CTF03008	400	0,94	1750	4,01	
04	CTF04008	300	0,94	1500	4,68	
05	CTF05008	250	0,98	1500	5,85	
06	CTF06008	200	0,94	1250	5,85	
07	CTF07008	175	0,96	1250	6,83	
08	CTF08008	125	0,78	1000	6,24	
09	CTF09008	125	0,88	750	5,27	
10	CTF10008	100	0,78	750	5,85	
11	CTF11008	100	0,86	750	6,44	
12	CTF12008	75	0,70	750	7,02	
13	CTF13008	75	0,76	750	7,61	
14	CTF14008	100	1,09	750	8,19	
15	CTF15008	100	1,17	750	8,78	
16	CTF16008	100	1,25	750	9,36	
17	CTF17008	50	0,66	500	6,63	
18	CTF18008	50	0,70	500	7,02	
19	CTF19008	50	0,74	500	7,41	
20	CTF20008	50	0,78	500	7,80	
21	CTF21008	50	0,82	500	8,19	
22	CTF22008	50	0,86	500	8,58	
23	CTF23008	50	0,90	500	8,97	
24	CTF24008	50	0,94	250	4,68	
25	CTF25008	50	0,98	250	4,88	



⇐ Wire entry
L = Pitch x (poles - 1)

CTF_009 Side Stackable Female

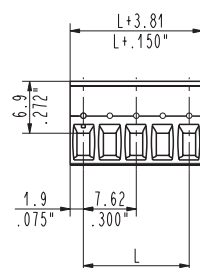
7 mm / .276" Pitch				Weight per pole: 0.94 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*	
02	CTF02009	400	0,75	1750	3,29	
03	CTF03009	250	0,71	1500	4,23	
04	CTF04009	175	0,66	1250	4,70	
05	CTF05009	125	0,59	1000	4,70	
06	CTF06009	100	0,56	750	4,23	
07	CTF07009	100	0,66	750	4,94	
08	CTF08009	100	0,75	750	5,64	
09	CTF09009	50	0,42	500	4,23	
10	CTF10009	50	0,47	500	4,70	
11	CTF11009	50	0,52	500	5,17	
12	CTF12009	50	0,56	250	2,82	
13	CTF13009	50	0,61	250	3,06	



⇐ Wire entry
L = Pitch x (poles - 1)

CTF_00T Side Stackable Female

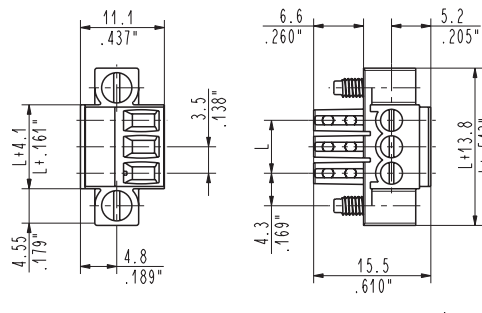
3.81 mm / .150" Pitch				Weight per pole: 0.78 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*	
02	CTF0200T	500	0,78	2000	3,12	
03	CTF0300T	400	0,94	1750	4,01	
04	CTF0400T	300	0,94	1500	4,68	
05	CTF0500T	250	0,98	1500	5,85	
06	CTF0600T	200	0,94	1250	5,85	
07	CTF0700T	175	0,96	1250	6,83	
08	CTF0800T	125	0,78	1000	6,24	
09	CTF0900T	125	0,88	750	5,27	
10	CTF1000T	100	0,78	750	5,85	
11	CTF1100T	100	0,86	750	6,44	
12	CTF1200T	75	0,70	750	7,02	
13	CTF1300T	75	0,76	750	7,61	
14	CTF1400T	100	1,09	750	8,19	
15	CTF1500T	100	1,17	750	8,78	
16	CTF1600T	100	1,25	750	9,36	
17	CTF1700T	50	0,66	500	6,63	
18	CTF1800T	50	0,70	500	7,02	
19	CTF1900T	50	0,74	500	7,41	
20	CTF2000T	50	0,78	500	7,80	
21	CTF2100T	50	0,82	500	8,19	
22	CTF2200T	50	0,86	500	8,58	
23	CTF2300T	50	0,90	500	8,97	
24	CTF2400T	50	0,94	250	4,68	
25	CTF2500T	50	0,98	250	4,88	



⇐ Wire entry
L = Pitch x (poles - 1)

CTF_007 Side Stackable Female

7.62 mm / .300" Pitch				Weight per pole: 0.94 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*	
02	CTF02007	400	0,75	1750	3,29	
03	CTF03007	250	0,71	1500	4,23	
04	CTF04007	175	0,66	1250	4,70	
05	CTF05007	125	0,59	1000	4,70	
06	CTF06007	100	0,56	750	4,23	
07	CTF07007	100	0,66	750	4,94	
08	CTF08007	100	0,75	750	5,64	
09	CTF09007	50	0,42	500	4,23	
10	CTF10007	50	0,47	500	4,70	
11	CTF11007	50	0,52	500	5,17	
12	CTF12007	50	0,56	250	2,82	
13	CTF13007	50	0,61	250	3,06	

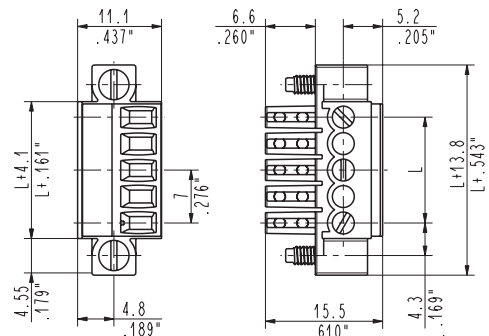


Wire entry

L = Pitch x (poles - 1)

CTF_0V8 Locking Screw Flanges Female

3.5 mm / .138" Pitch			Weight per pole: 1.14 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CTF020V8	250	0,57	1250	2,85
03	CTF030V8	200	0,68	1000	3,42
04	CTF040V8	175	0,80	1000	4,56
05	CTF050V8	150	0,86	750	4,28
06	CTF060V8	125	0,86	750	5,13
07	CTF070V8	100	0,80	500	3,99
08	CTF080V8	100	0,91	500	4,56
09	CTF090V8	75	0,77	500	5,13
10	CTF100V8	75	0,86	500	5,70
11	CTF110V8	75	0,94	500	6,27
12	CTF120V8	75	1,03	500	6,84
13	CTF130V8	75	1,11	250	3,71
14	CTF140V8	50	0,80	250	3,99
15	CTF150V8	50	0,86	250	4,28
16	CTF160V8	50	0,91	250	4,56
17	CTF170V8	50	0,97	250	4,85
18	CTF180V8	50	1,03	250	5,13
19	CTF190V8	50	1,08	250	5,42
20	CTF200V8	50	1,14	250	5,70
21	CTF210V8	50	1,20	250	5,99
22	CTF220V8	50	1,25	250	6,27
23	CTF230V8	50	1,31	250	6,56

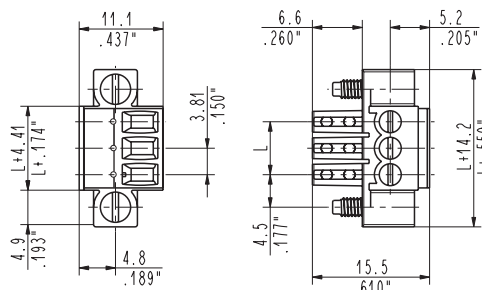


Wire entry

L = Pitch x (poles - 1)

CTF_0V9 Locking Screw Flanges Female

7 mm / .276" Pitch			Weight per pole: 1.25 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CTF020V9	200	0,50	1000	2,50
03	CTF030V9	150	0,56	750	2,81
04	CTF040V9	100	0,50	500	2,50
05	CTF050V9	75	0,47	500	3,13
06	CTF060V9	75	0,56	500	3,75
07	CTF070V9	75	0,66	250	2,19
08	CTF080V9	50	0,50	250	2,50
09	CTF090V9	50	0,56	250	2,81
10	CTF100V9	50	0,62	250	3,13
11	CTF110V9	50	0,69	250	3,44
12	CTF120V9	50	0,75	250	3,75

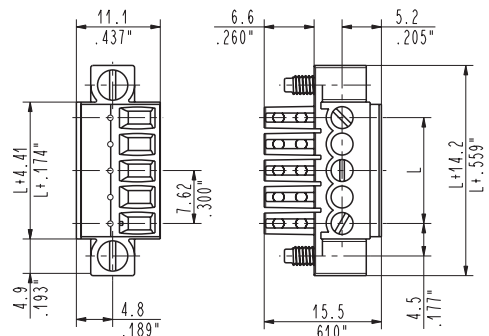


Wire entry

L = Pitch x (poles - 1)

CTF_0VT Locking Screw Flanges Female

3.81 mm / .150" Pitch			Weight per pole: 1.14 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CTF020VT	250	0,57	1250	2,85
03	CTF030VT	200	0,68	1000	3,42
04	CTF040VT	175	0,80	1000	4,56
05	CTF050VT	150	0,86	750	4,28
06	CTF060VT	125	0,86	750	5,13
07	CTF070VT	100	0,80	500	3,99
08	CTF080VT	100	0,91	500	4,56
09	CTF090VT	75	0,77	500	5,13
10	CTF100VT	75	0,86	500	5,70
11	CTF110VT	75	0,94	500	6,27
12	CTF120VT	75	1,03	500	6,84
13	CTF130VT	75	1,11	250	3,71
14	CTF140VT	50	0,80	250	3,99
15	CTF150VT	50	0,86	250	4,28
16	CTF160VT	50	0,91	250	4,56
17	CTF170VT	50	0,97	250	4,85
18	CTF180VT	50	1,03	250	5,13
19	CTF190VT	50	1,08	250	5,42
20	CTF200VT	50	1,14	250	5,70
21	CTF210VT	50	1,20	250	5,99
22	CTF220VT	50	1,25	250	6,27
23	CTF230VT	50	1,31	250	6,56



Wire entry

L = Pitch x (poles - 1)

CTF_0V7 Locking Screw Flanges Female

7.62 mm / .300" Pitch			Weight per pole: 1.25 g		
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	CTF020V7	200	0,50	1000	2,50
03	CTF030V7	150	0,56	750	2,81
04	CTF040V7	100	0,50	500	2,50
05	CTF050V7	75	0,47	500	3,13
06	CTF060V7	75	0,56	500	3,75
07	CTF070V7	75	0,66	250	2,19
08	CTF080V7	50	0,50	250	2,50
09	CTF090V7	50	0,56	250	2,81
10	CTF100V7	50	0,62	250	3,13
11	CTF110V7	50	0,69	250	3,44
12	CTF120V7	50	0,75	250	3,75