



GENERAL SPECIFICATIONS

RoHS COMPLIANT



All parts are currently manufactured with recommended materials to meet RoHS standards. All contacts have 50u" of nickel underplate, and a large selection of plating options: Pure tin matte, overall gold, or selective gold plating. For operating/processing temperature parameters, visit the RoHS section of our website, or refer to page 7 of this catalog.

MATERIALS (Consult factory for materials not shown.)

Insulator

- PBT, Valox*, Thermoplastic Polyester
- PPS, Ryton*, Polyphenylene Sulfide
- PEEK, Polyetheretherketone
- PA9T, High Temperature Polyamide

Contacts

- Phosphor Bronze (Standard)
- Beryllium Copper
- Beryllium Nickel
- Spinodal**
- Brass



Plating

Plating is Lead Free with Nickel Underplate, offered in Gold (Selective or Overall) and Pure Tin Overall.

UL/CUL File Number: E64287

CAGE CODE: 54453

ECCN: EAR99

INTERNATIONAL HARMONIZED CODE: 8536.69.4040

In2Connect UK Ltd

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MECHANICAL

Board Insertion Force: 16 oz maximum per contact pair using .062" [1.57 mm] thick steel test blade.

Board Withdrawal Force: 1 oz minimum per contact pair using .062" [1.57 mm] thick steel test blade.

Special Insertion/Withdrawal forces available upon request.

ELECTRICAL

Insulation Resistance: 5,000 Megohms

Contact Centers: .039" [1 mm] .050" [1.27 mm] .100" [2.54 mm] .125" [3.18 mm] .150" [3.81 mm] .156" [3.96 mm]

Operating Voltage:	225 VAC	300 VAC	700 VAC	750 VAC	850 VAC	950 VAC
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DWV:	675 VAC	900 VAC	2100 VAC	2250 VAC	2550 VAC	2850 VAC
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Current Rating: 1 to 5 Amp per contact

Contact Resistance: 30 milli Ohms maximum at rated current (May vary per product series***)

ENVIRONMENTAL

Solvent resistance: Perchloroethylene, Freon 113, Freon 11, Trichloroethylene

Operating Temperature:	PBT	-65°C to +130°C	Phosphor Bronze	-65°C to +125°C
	PPS	-65°C to +200/220°C***	Beryllium Copper	-65°C to +150°C
	PA9T	-65°C to +150°C	Spinodal**	-65°C to +200°C
	PEEK	-65°C to +250°C***	Beryllium Nickel***	-65°C to +300°C

(Continuous temperatures, higher for short duration. Contact factory for details.)

* Or equivalent

** Consult factory for special soldering guidelines.

*** Consult factory for more details.



PART NUMBER OPTIONS

MATERIALS (Insulator/Contact)

E = PBT & Phosphor Bronze
Operating Temperature: -65°C To +125°C
Processing Temperature: Wave only

R = PPS & Phosphor Bronze
Operating Temperature: -65°C To +125°C
Processing Temperature: 260°C Max. For 20 Sec.

G = PA9T & Phosphor Bronze
Operating Temperature: -65°C To +125°C
Processing Temperature: 260°C Max. For 20 Sec.

H = PBT & Beryllium Copper
Operating Temperature: -65°C To +125°C
Processing Temperature: Wave only

A = PPS & Beryllium Copper
Operating Temperature: -65°C To +150°C
Processing Temperature: 260°C Max. For 20 Sec.

J = PA9T & Beryllium Copper
Operating Temperature: -65°C To +150°C
Processing Temperature: 260°C Max. For 20 Sec.

M = White PA9T & Beryllium Copper
Operating Temperature: -65°C To +150°C
Processing Temperature: 260°C Max. For 20 Sec.

T = PPS & Beryllium Copper (Special, Consult Factory)
Operating Temperature: -65°C To +175°C
Processing Temperature: 260°C Max. For 20 Sec.

*F = PPS & Spinodal** (Consult Factory)
Operating Temperature: -65°C To +200°C

*C = PPS & Beryllium Nickel (Consult Factory)
Operating Temperature: -65°C To +200°C
Processing Temperature: 260°C Max. For 20 Sec.

W = PEEK & Beryllium Nickel (Consult Factory)
Operating Temperature: -65°C To +250°C
Processing Temperature: 260°C Max. For 20 Sec.
(Available with 'M' plating only.)

*Available with overall gold plating (S or M) only.
**Consult factory for special soldering guidelines.

CONTACT FINISH - RoHS Compliant
All platings are Lead Free and have .000050" Nickel underplate

Contact Surface	Termination
B = .000010" Gold	.000100" Pure Tin, Matte
C = .000030" Gold	.000100" Pure Tin, Matte
G = .000010" Gold	.000005" Gold
Y = .000030" Gold	.000005" Gold
Contact Surface	Overall Plating
S = .000010" Gold	.000010" Gold
M = .000030" Gold	.000010" Gold
E = .000100" Pure Tin, Matte	.000100" Pure Tin, Matte

Overall Tin only available in E, R & G material codes

CONTACT CENTERS

E = 1.00 mm [.039"]	C = .100" [2.54 mm]
B = .050" [1.27 mm]	A = .125" [3.18 mm]
K = .078" [1.98 mm]	J = .150" [3.81 mm]
*N = .079" [2.00 mm]	M = .156" [3.96 mm]

*Consult factory.

NUMBER OF CONTACT POSITIONS
See applicable specification page

READOUT

D = Dual
D = Dual Row/ Crimp to Center for Single Readout
F = Dual Edge
H = Half Loaded
M = Male Card Edge

Registered Trademarks

Sabic Innovative Plastics: Valox
Phillips 66: Ryton
Gardner-Denver Co.: Wire Wrap
RTP Compounder: PEEK

Sullins Electronics: Zero Lead Time
Sullins Electronics: Sullins
Underwriters Labs: UL
Ametek: Spinodal

MODIFICATION CODE (Consult Factory)
OMIT FOR STANDARD

MOUNTING STYLE

H = Clearance Holes, .125" [3.18 mm] Diameter
N = No Mounting
S = Side Mounting, .125" [3.18 mm] Diameter
I = #4-40 Threaded Insert
A = #4-40 Threaded Insert in Side Holes
F = Floating Bobbin
W = .430" Ears, Flush Mounting, .125" [3.18 mm] Diameter
D = .250" Ears, Flush Mounting, .125" [3.18 mm] Diameter
P = Clearance Holes, .142" [3.61 mm] Diameter
B = Open Card Slot
X = .430" Ears, Flush Mounting, #4-40 Threaded Insert
T = .250" Ears, Flush Mounting, #4-40 Threaded Insert
V = .250" Ears, Flush, Side Mounting, #4-40 Threaded Insert
Q = Straddle Mount
Z = .250" Ears, Flush, Side Mounting, .125" [3.18 mm] Diameter
R = Metal Board Lock

TERMINATION TYPE

Card Extender
HR = .050" & 1 mm Contact Centers
KR, KN, PN, PR = .025" [0.64 mm] Square Post

Dip Solder - High Profile
RS = .025" [0.64 mm] Square Tail, Loop Bellows
CS, PD, PF, PS, SC = .025" [0.64 mm] Square Tail, Hairpin Bellows
CK, TK = .025" [0.64 mm] Round Tail, Loop Bellows
CT, CW = .015" [0.38] X .025" [0.64] Tail, Hairpin Bellows
HH = .050" & 1 mm [.039"] Contact Centers
HL, HN = .050" Contact Centers
KS, KD = .025" [0.64 mm] Square Post, Cantilever

Dip Solder - Low Profile
SX, SU = Crimp to Center for Single Readout
RT, RK, RY = .140" [3.56 mm] Row Spacing
RX, RF, RU, RP = .200" [5.08 mm] Row Spacing
RJ = .250" [6.35 mm] Row Spacing

Eyelet
RE, TE, SE = Eyelet Tail

Press Fit

.200"[5.08 mm] Row Spacing	.100"[2.54 mm] Row Spacing
JB = .025" [0.64 mm] Sq. Post	JF = .025" [0.64 mm] Sq. Post
JC = .025" [0.64 mm] Sq. Post	JG = .025" [0.64 mm] Sq. Post
JW = .025" [0.64 mm] Sq. Post	JY = .025" [0.64 mm] Sq. Post
JX = .025" [0.64 mm] Sq. Post	JZ = .025" [0.64 mm] Sq. Post

Right Angle
TA, TB, TM = Loop Bellows
CA, CB, CC, PU = Hairpin
PB, PG, PE, PJ, PP = Hairpin
KA, KE, KU, KJ = Cantilever
HA, HB = .050" & 1 mm CC
RA, SA = Full Bellows

Cantilever
ET, EY = .100" CC Low Profile
YH = .050" CC Thru Hole
YR = .050" CC Card Extender
YF = .050" CC SMT
YY = .050" CC Right Angle
YS = .050" CC Thru Hole

Surface Mount
HF = Surface Mount, .050" & 1mm Contact Centers

Wire Wrap
RM = .025" [0.64 mm] Square Post, Loop Bellows
CM, MC, PM = .025" [0.64 mm] Square Post, Hairpin Bellows
KK = .031" [0.79 mm] X .062" [1.58 mm] Post
KL = .031" [0.79 mm] X .062" [1.58 mm] Post Twisted 90°
KM = .025" [0.64 mm] Square Post, Cantilever
WW = .045" [1.14 mm] Square Post

Bi-Level
LR = Card Extender
LT = Dip Solder
KB = Right Angle

Dual Edge
SL = Dual Edge

Male Card Edge
MW, MS = Dip Solder
MR, MN = Card Extender
MM = Wire Wrap
MA, MD, MJ, MK, MV, & MB = Right Angle

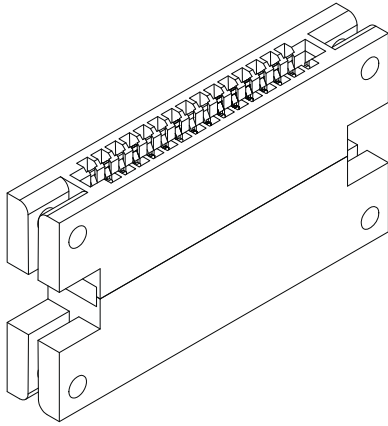
See page 139 for Micro Plastics brand part number options. Specifications are subject to change without notice.



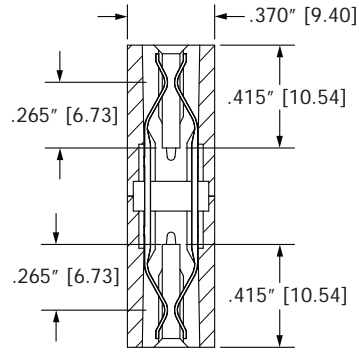
.100" [2.54 mm] Contact Centers, Dual Edge

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board, both sides
- PBT or PPS
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

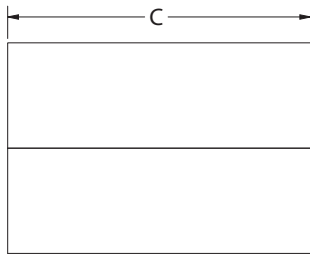


READOUT

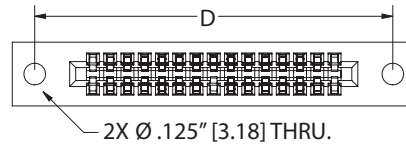


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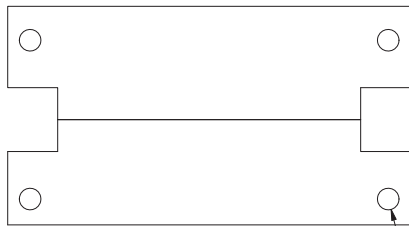
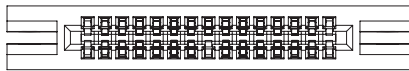
MOUNTING STYLE



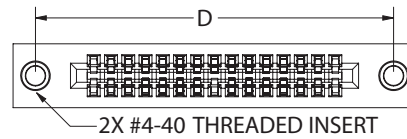
NO MOUNTING EARS (N)



FLUSH MOUNTING (D)



STRADDLE MOUNT (Q)



THREADED INSERT (I)



.100" [2.54 mm] Contact Centers, Dual Edge

PART NUMBER OPTIONS

E A C 50 F SL Q - Sxxx

MATERIALS (INSULATOR/CONTACT)
 E = PBT/Phosphor Bronze (Standard)
 R = PPS/Phosphor Bronze
 H = PBT/Beryllium Copper
 A = PPS/Beryllium Copper
 Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
 All platings are Lead Free and have .000050" Nickel underplate
Contact Surface
 A = .000030" Gold, both ends

CONTACT CENTERS
 C = .100" [2.54 mm]

NUMBER OF CONTACT POSITIONS
 See Chart Below (Contacts per Row)

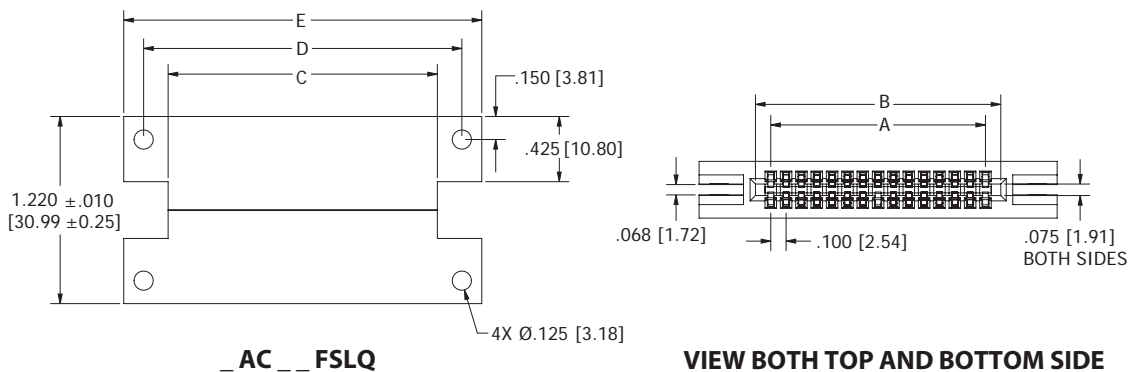
READOUT (Opposite Page)
 F = Dual Edge

MODIFICATION CODE (Consult Factory)
 OMIT FOR STANDARD

MOUNTING STYLE (Opposite Page)
 Q = Straddle Mount
 D = Flush Mounting
 I = Threaded Insert
 N = No Mounting

TERMINATION TYPE (Opposite Page)
 SL = Single Level

DIMENSIONS Dimensions in [] are in millimeters, all others are in inches.



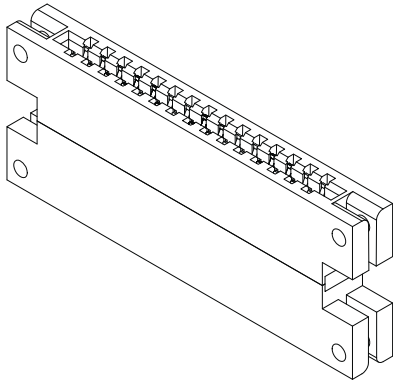
POSITIONS/ CONTACTS	A±.008[0.20]		B±.008[0.20]		C±.015[0.38]		D±.010[0.25]		E±.020[0.25]	
	in	mm	in	mm	in	mm	in	mm	in	mm
05/10	0.400	10.16	0.600	15.24	0.756	19.20	1.075	27.31	1.335	33.91
06/12	0.500	12.70	0.700	17.78	0.856	21.74	1.175	29.85	1.435	36.45
07/14	0.600	15.24	0.800	20.32	0.956	24.28	1.275	32.39	1.535	38.99
10/20	0.900	22.86	1.100	27.94	1.256	31.90	1.575	40.01	1.835	46.61
12/24	1.100	27.94	1.300	33.02	1.456	36.98	1.775	45.09	2.035	51.69
13/26	1.200	30.48	1.400	35.56	1.556	39.52	1.875	47.63	2.135	54.23
15/30	1.400	35.56	1.600	40.64	1.756	44.60	2.075	52.71	2.335	59.31
16/32	1.500	38.10	1.700	43.18	1.856	47.14	2.175	55.25	2.435	61.85
17/34	1.600	40.64	1.800	45.72	1.956	49.68	2.275	57.79	2.535	64.39
18/36	1.700	43.18	1.900	48.26	2.056	52.22	2.375	60.33	2.635	66.93
20/40	1.900	48.26	2.100	53.34	2.256	57.30	2.575	65.41	2.835	72.01
22/44	2.100	53.34	2.300	58.42	2.456	62.38	2.775	70.49	3.035	77.09
23/46	2.200	55.88	2.400	60.96	2.556	64.92	2.875	73.03	3.135	79.63
24/48	2.300	58.42	2.500	63.50	2.656	67.46	2.975	75.57	3.235	82.17
25/50	2.400	60.96	2.600	66.04	2.756	70.00	3.075	78.11	3.335	84.71
26/52	2.500	63.50	2.700	68.58	2.856	72.54	3.175	80.65	3.435	87.25
28/56	2.700	68.58	2.900	73.66	3.056	77.62	3.375	85.73	3.635	92.33
30/60	2.900	73.66	3.100	78.74	3.256	82.70	3.575	90.81	3.835	97.41
31/62	3.000	76.20	3.200	81.28	3.356	85.24	3.675	93.35	3.935	99.95
34/68	3.300	83.82	3.500	88.90	3.656	92.86	3.975	100.97	4.235	107.57
35/70	3.400	86.36	3.600	91.44	3.756	95.40	4.075	103.51	4.335	110.11
36/72	3.500	88.90	3.700	93.98	3.856	97.94	4.175	106.05	4.435	112.65
40/80	3.900	99.06	4.100	104.14	4.256	108.10	4.575	116.21	4.835	122.81
43/86	4.200	106.68	4.400	111.76	4.556	115.72	4.875	123.83	5.135	130.43
44/88	4.300	109.22	4.500	114.30	4.656	118.26	4.975	126.37	5.235	132.97
50/100	4.900	124.46	5.100	129.54	5.256	133.50	5.575	141.61	5.835	148.21
60/120	5.900	149.86	6.100	154.94	6.256	158.90	'N' MOUNTING ONLY			



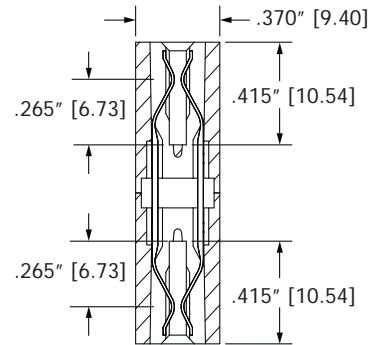
.156" [3.96 mm] Contact Centers, Dual Edge

SPECIFICATIONS

- Accommodates .062" ± .008" [1.57 mm ± 0.20 mm] PC board, both sides
- PBT or PPS
- 3 Amps current rating for one contact energized
- 30 milli Ohms maximum at rated current
- UL Flammability Rating: 94V-0

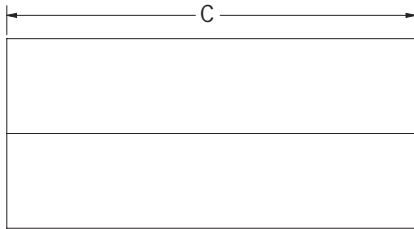


READOUT

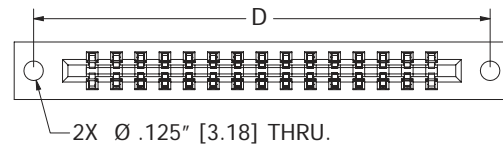


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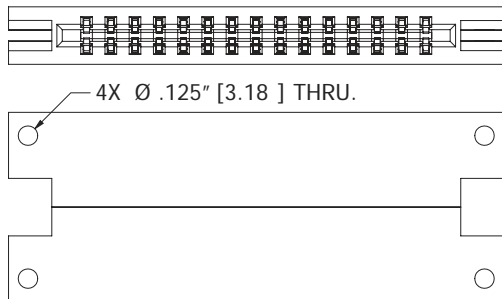
MOUNTING STYLE



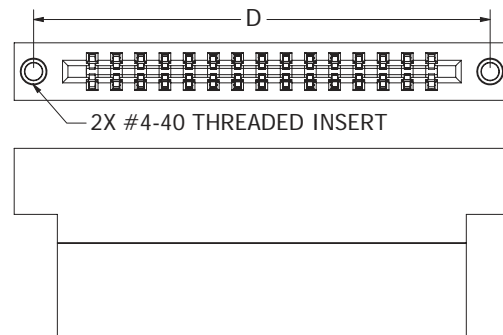
NO MOUNTING EARS (N)



FLUSH MOUNTING (D)



STRADDLE MOUNT (Q)



THREADED INSERT (I)



.156" [3.96 mm] Contact Centers, Dual Edge

PART NUMBER OPTIONS

E A M 25 F SL Q - Sxxx

MATERIALS (INSULATOR/CONTACT)
 E = PBT/Phosphor Bronze (Standard)
 R = PPS/Phosphor Bronze
 H = PBT/Beryllium Copper
 A = PPS/Beryllium Copper
 Refer to Page 7 for Operating/Processing Temperatures

CONTACT FINISH - RoHS Compliant
 All platings are Lead Free and have .000050" Nickel underplate
Contact Surface
 A = .000030" Gold, both ends.

CONTACT CENTERS
 M = .156" [3.96 mm]

NUMBER OF CONTACT POSITIONS
 See Chart Below (Contacts per Row)

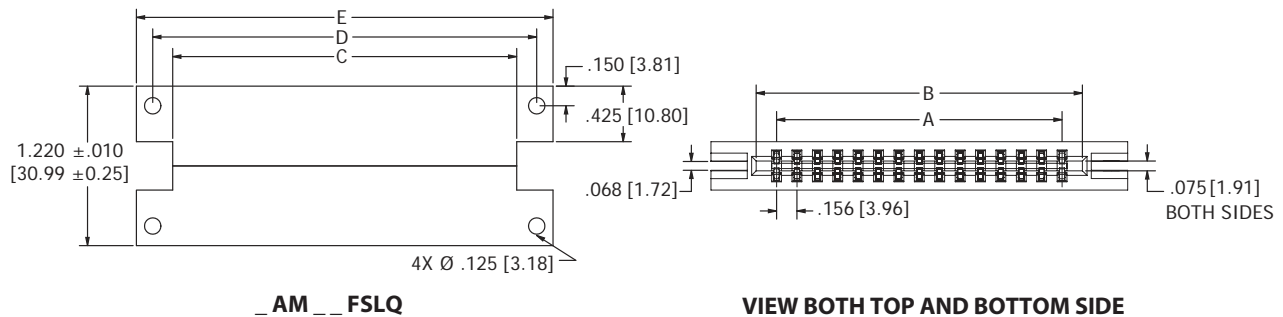
READOUT (Opposite Page)
 F = Dual Edge

MODIFICATION CODE (Consult Factory)
 OMIT FOR STANDARD

MOUNTING STYLE (Opposite Page)
 Q = Straddle Mount
 D = Flush Mounting
 I = Threaded Insert
 N = No Mounting

TERMINATION TYPE (Opposite Page)
 SL = Single Level

DIMENSIONS Dimensions in [] are in millimeters, all others are in inches.



POSITIONS/ CONTACTS	A±.008 [0.20]		B±.008 [0.20]		C±.015 [0.38]		D±.010 [0.25]		E±.020 [0.25]	
	in	mm	in	mm	in	mm	in	mm	in	mm
05/10*	0.624	15.85	0.944	23.98	1.072	27.23	1.378	35.00	1.628	41.35
06/12*	0.780	19.81	1.100	27.94	1.228	31.19	1.534	38.96	1.784	45.31
10/20	1.404	35.66	1.724	43.79	1.852	47.04	2.158	54.81	2.408	61.16
12/24*	1.716	43.59	2.036	51.71	2.164	54.97	2.470	62.74	2.720	69.09
15/30*	2.184	55.47	2.504	63.60	2.632	66.85	2.938	74.63	3.188	80.98
17/34*	2.496	63.40	2.816	71.53	2.944	74.78	3.250	82.55	3.500	88.90
18/36*	2.652	67.36	2.972	75.49	3.100	78.74	3.406	86.51	3.656	92.86
20/40*	2.964	75.29	3.284	83.41	3.412	86.66	3.718	94.44	3.968	100.79
22/44	3.276	83.21	3.596	91.34	3.724	94.59	4.030	102.36	4.280	108.71
25/50*	3.744	95.10	4.064	103.23	4.192	106.48	4.498	114.25	4.748	120.60
28/56*	4.212	106.98	4.532	115.11	4.660	118.36	4.966	126.14	5.216	132.49
30/60*	4.524	114.91	4.844	123.04	4.972	126.29	5.278	134.06	5.528	140.41
35/70*	5.304	134.72	5.624	142.85	5.752	146.10	6.058	153.87	6.308	160.22
36/72*	5.460	138.68	5.780	146.81	5.908	150.06	'N' MOUNTING ONLY			
37/74*	5.616	142.65	5.936	150.77	6.064	154.03				
38/76*	5.772	146.61	6.092	154.74	6.220	157.99				
39/78*	5.928	150.57	6.248	158.70	6.376	161.95				

* Consult factory for availability.