

**MTB****Functional Characteristics****Dimensional Class:**

Low

**Standard Colour:**

Green

**Height:**

8.5 mm (.335 in)

**Max Approved Wire sections:**Solid: 1.5 mm<sup>2</sup> (IMQ); 16 AWG (UL)Stranded: 1 mm<sup>2</sup> (IMQ); 16 AWG (UL)**Clamp Opening Size:**

1.65 x 1.7 mm (.065 x .067 in)

**Versions:**

Side Stackable



Modular

**Single Mould Poles:**

from 2 to 25

**Pitches:**

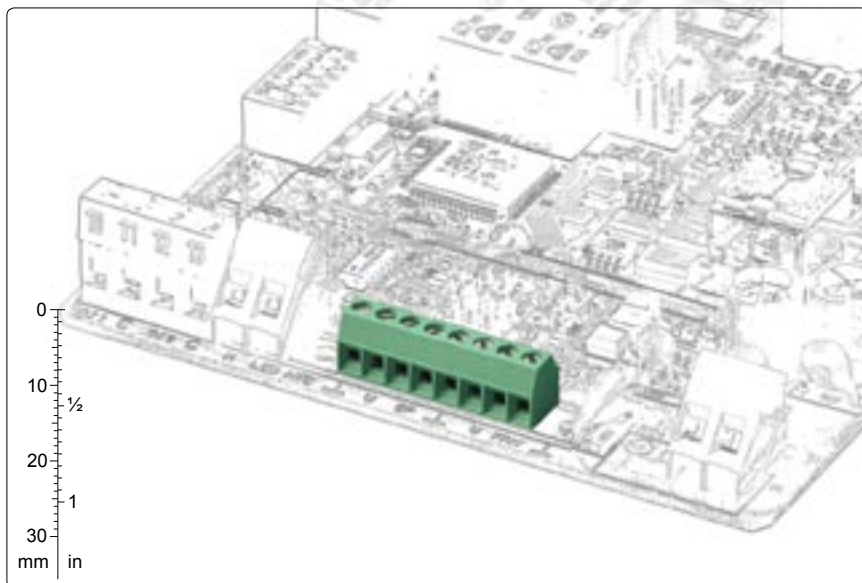
Metric 3.5 mm, 7 mm

(.138 in, .275 in)



Imperial 3.81 mm, 7.62 mm

(.150 in, .300 in)

pitch 3.5/3.81 mm  
from 2 to 25 poles  
side stackable, straightpitch 7/7.62 mm  
from 2 to 13  
side stackable, straightpitch 3.5/3.81 mm  
from 2 to 3 poles  
with VDE pegspitch 3.5/3.81 mm  
from 2 to 18 poles  
side stackable, 55°pitch 3.5/3.81 mm  
from 2 to 18 poles  
modular, 55°**Brief Description**

Although the **MTB** series of terminal blocks is small in size it offers a **high connection capacity**; in fact wires up to **1.5mm<sup>2</sup> (16 AWG)** can be used and consequently a certified current range of **17.5A can be reached**.

It is available in metric pitches from 3.5mm (.138 in) and from 7 mm (.275 in) and Imperial pitches from 3.81mm (.100 in) and from 7.62 mm (.300in), in monolithic blocks from 2 to 25 poles, in both the side-stackable and modular versions, with insertion of the wire parallel to the PCB or inclined at 55°.

The basic monolithic terminal boards can be side-stacked or mounted on the PCB in order to obtain any number of poles without losing the pitch; by taking advantage of this particular characteristic a minimum stock of basic terminal blocks 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.

**MTB with Pegs**

The **Straight 2 pole MTB** is also available with **clamping pegs moulded in the plastic housing to secure it to the PCB**.

**With this solution the nominal tightening torque can be applied and the most restrictive guidelines set by the international standards (VDE) are passed.**

## Characteristics of Components

M2 nickel plated Copper Alloy Screw.

PA 6.6.Polyamide Housing.

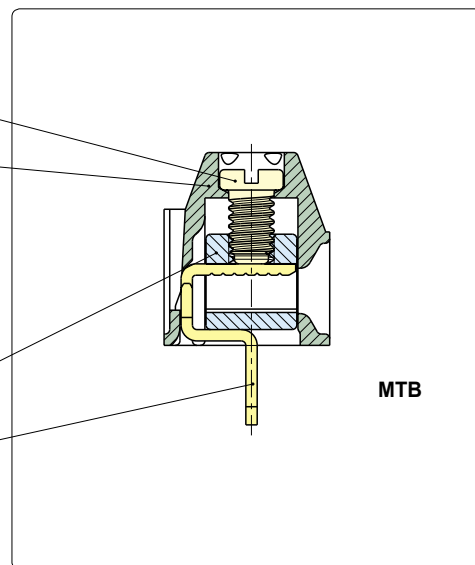
Standard Colour: GREEN.

V0 Self-extinguishing according to UL 94.

Chlorinated solvents resistant,  
with no Phosphor, Dioxin or  
dentrimental to health Halogens.

Nickel plated Copper Alloy Clamp

Easy to solder lead-free  
tin-plated Copper Alloy Pin.



### Mechanical characteristics

Recommended/Highest tightening torque	0.2/0.25 Nm (1.77/2.21 lbf in)
PCB Thickness:	max. 2.4 mm (.094 in)
PCB Hole Diameter:	min. 1.1 mm (.043 in)
Stripping length	5 mm (.197 in)
Operating temperature range	-40 °C ÷ +110 °C (-40 °F ÷ +230 °F)
Climatic category	40/110/21 According to EN 60068-1

### Electric characteristics\*

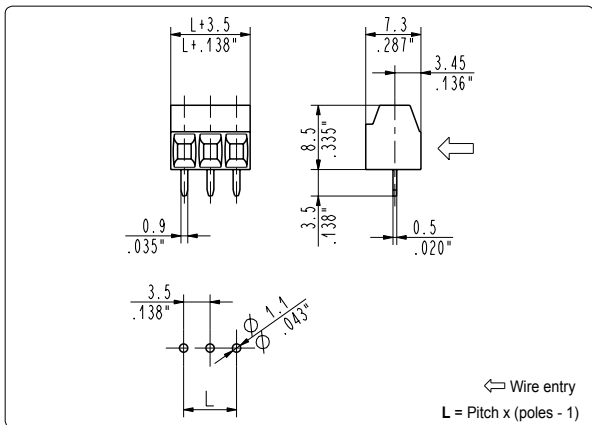
Solid wire section	30÷16 AWG (CSA)* 0.05 ÷ 1.5 mm <sup>2</sup> (IMQ)*
Stranded wire section	30÷16 AWG (CSA)* 0.05 ÷ 1 mm <sup>2</sup> (IMQ)*
Rated voltage for 3.5 mm (.100 in) and 3.81 mm (.150 in)	300 V (UL, CSA)*
Rated voltage for 7 mm (.275 in) and 7.62 mm (.300 in)	750 V (IMQ)*
Rated current	17.5 A (IMQ)*
Contact resistance	<15 mΩ
Insulation resistance	>10 <sup>9</sup> Ω (500V DC)

\*All the above mentioned 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

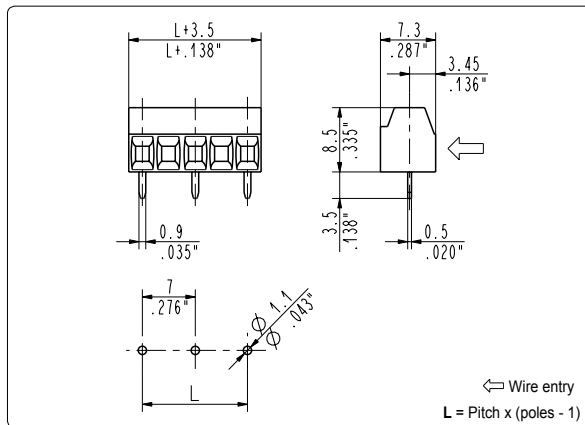
	CE:	130 V - T 110 - 17.5 A - 1.5 mm <sup>2</sup> solid (12 A - 1 mm <sup>2</sup> stranded) for 3.5 mm and 3.81 mm pitch 750 V - T 110 - 17.5 A - 1.5 mm <sup>2</sup> solid (12 A - 1 mm <sup>2</sup> stranded) for 7 mm and 7.62 mm pitch
	UL: File E 167473	300 V - 12 A - 28÷16 AWG for for 3.5 mm, 3.81 mm, 7 mm and 7.62 mm pitch Application values for end-use equipment have to be in accordance to UL norms and applicable to it.
	CSA: File LR 102896	300 V - 12 A - 30÷16 AWG for 3.5 mm and 3.81 mm pitch 450 V - 12 A - 30÷16 AWG for 7 mm and 7.62 mm pitch
	VDE: Reg. N. 40001737 ÜG	130 V - 12 A - T 110 - 1 mm <sup>2</sup> for 3.5 mm and 3.81 mm mm pitch 450 V - 12 A - T 110 - 1 mm <sup>2</sup> for 7 mm and 7.62 mm pitch
	IMQ: File: CA02.00900	130 V - T 110 - 17.5 A - 1.5 mm <sup>2</sup> solid (12 A - 1 mm <sup>2</sup> stranded) for 3.5 mm and 3.81 mm pitch 750 V - T 110 - 17.5 A - 1.5 mm <sup>2</sup> solid (12 A - 1 mm <sup>2</sup> stranded) for 7 mm and 7.62 mm pitch

See also "Certifications of Products", page 14



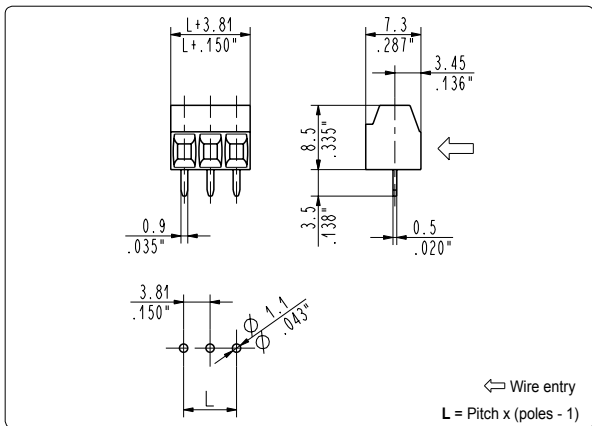
**MTB\_008** Straight, Side Entry  
3.5 mm / .138" Pitch Weight per pole: 0.73 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MTB02008	800	1,17	5000	7,30
03	MTB03008	500	1,01	3500	7,67
04	MTB04008	350	1,02	2500	7,30
05	MTB05008	275	1,00	2000	7,30
06	MTB06008	225	0,99	1500	6,57
07	MTB07008	175	0,89	1500	7,67
08	MTB08008	175	1,02	1250	7,30
09	MTB09008	150	0,99	1250	8,21
10	MTB10008	125	0,91	1000	7,30
11	MTB11008	125	1,00	1000	8,03
12	MTB12008	100	0,88	750	6,57
13	MTB13008	100	0,95	750	7,12
14	MTB14008	100	1,02	750	7,67
15	MTB15008	100	1,01	750	8,21
16	MTB16008	100	1,17	750	8,76
17	MTB17008	75	0,93	500	6,21
18	MTB18008	75	0,99	500	6,57
19	MTB19008	75	1,04	500	6,94
20	MTB20008	75	1,01	500	7,30
21	MTB21008	75	1,15	500	7,67
22	MTB22008	75	1,20	500	8,03
23	MTB23008	75	1,26	500	8,40
24	MTB24008	50	0,88	250	4,38
25	MTB25008	50	0,91	250	4,56



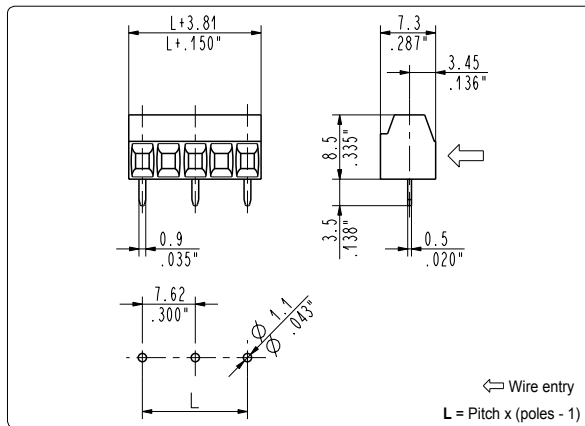
**MTB\_009** Straight, Side Entry  
7 mm / .276" Pitch Weight per pole: 0.83 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MTB02009	500	0,83	5000	8,30
03	MTB03009	275	0,68	3500	8,72
04	MTB04009	200	0,66	1500	4,98
05	MTB05009	150	0,62	1250	5,19
06	MTB06009	125	0,62	1250	6,23
07	MTB07009	100	0,58	1000	5,81
08	MTB08009	100	0,66	1000	6,64
09	MTB09009	75	0,56	750	5,60
10	MTB10009	75	0,62	750	6,23
11	MTB11009	75	0,68	750	6,85
12	MTB12009	50	0,50	500	4,98
13	MTB13009	50	0,54	500	5,40



**MTB\_00T** Straight, Side Entry  
3.81 mm / .150" Pitch Weight per pole: 0.73 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MTB0200T	800	1,17	5000	7,30
03	MTB0300T	500	1,01	3500	7,67
04	MTB0400T	350	1,02	2500	7,30
05	MTB0500T	275	1,00	2000	7,30
06	MTB0600T	225	0,99	1500	6,57
07	MTB0700T	175	0,89	1500	7,67
08	MTB0800T	175	1,02	1250	7,30
09	MTB0900T	150	0,99	1250	8,21
10	MTB1000T	125	0,91	1000	7,30
11	MTB1100T	125	1,00	1000	8,03
12	MTB1200T	100	0,88	750	6,57
13	MTB1300T	100	0,95	750	7,12
14	MTB1400T	100	1,02	750	7,67
15	MTB1500T	100	1,01	750	8,21
16	MTB1600T	100	1,17	750	8,76
17	MTB1700T	75	0,93	500	6,21
18	MTB1800T	75	0,99	500	6,57
19	MTB1900T	75	1,04	500	6,94
20	MTB2000T	75	1,01	500	7,30
21	MTB2100T	75	1,15	500	7,67
22	MTB2200T	75	1,20	500	8,03
23	MTB2300T	75	1,26	500	8,40
24	MTB2400T	50	0,88	250	4,38
25	MTB2500T	50	0,91	250	4,56



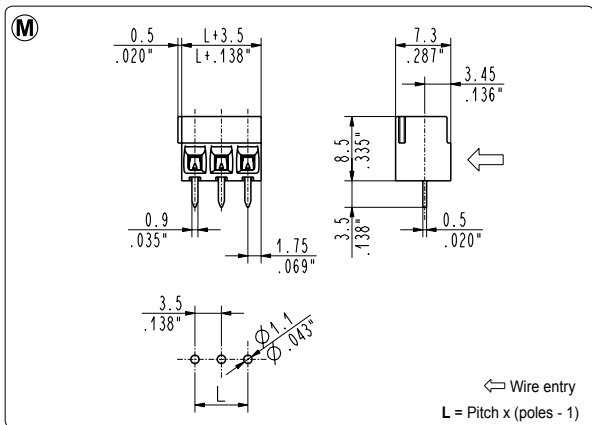
**MTB\_007** Straight, Side Entry  
7.62 mm / .300" Pitch Weight per pole: 0.83 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MTB02007	500	0,83	5000	8,30
03	MTB03007	275	0,68	3500	8,72
04	MTB04007	200	0,66	1500	4,98
05	MTB05007	150	0,62	1250	5,19
06	MTB06007	125	0,62	1250	6,23
07	MTB07007	100	0,58	1000	5,81
08	MTB08007	100	0,66	1000	6,64
09	MTB09007	75	0,56	750	5,60
10	MTB10007	75	0,62	750	6,23
11	MTB11007	75	0,68	750	6,85
12	MTB12007	50	0,50	500	4,98
13	MTB13007	50	0,54	500	5,40

\*W [kg]: Approximate Weight per box in kg

\*\*Industrial packaging: add "-00000E" at standard code



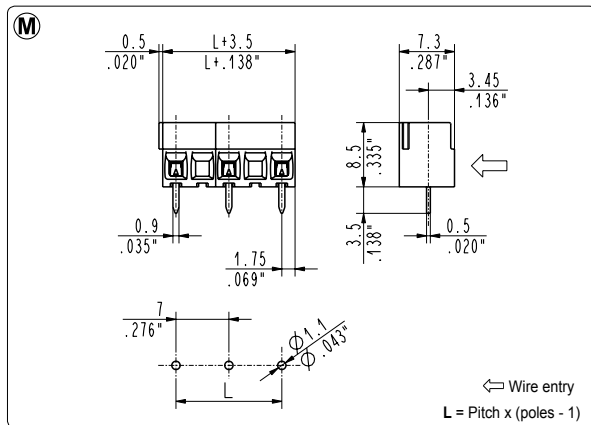


**MTB\_0M8** Straight, Modular-Side Entry

3.5 mm / .138" Pitch Weight per pole: 0.73 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MTB020M8	800	1,17	5000	7,30
03	MTB030M8	500	1,01	3500	7,67
04	MTB040M8	350	1,02	2500	7,30
05	MTB050M8	275	1,00	2000	7,30
06	MTB060M8	225	0,99	1500	6,57
07	MTB070M8	175	0,89	1500	7,67
08	MTB080M8	175	1,02	1250	7,30
09	MTB090M8	150	0,99	1250	8,21
10	MTB100M8	125	0,91	1000	7,30
11	MTB110M8	125	1,00	1000	8,03
12	MTB120M8	100	0,88	750	6,57

max 12 poles can be combined

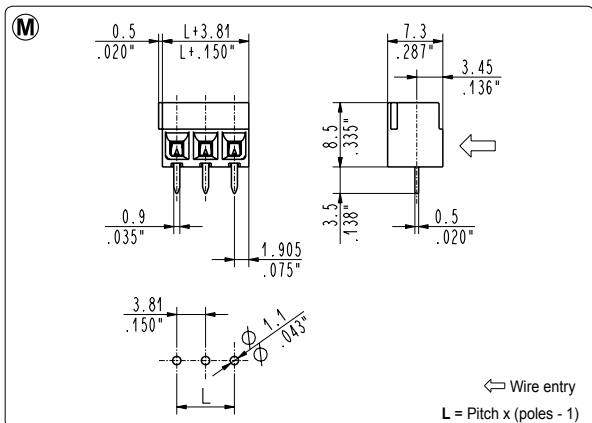


**MTB\_0M9** Straight, Modular-Side Entry

7 mm / .276" Pitch Weight per pole: 0.83 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MTB010M9	800	0,66	4000	3,32
02	MTB020M9	500	0,83	2500	4,15
03	MTB030M9	275	0,68	1500	3,74
04	MTB040M9	175	0,58	1250	4,15
05	MTB050M9	150	0,62	1250	5,19
06	MTB060M9	125	0,62	1000	4,98

max 6 poles can be combined

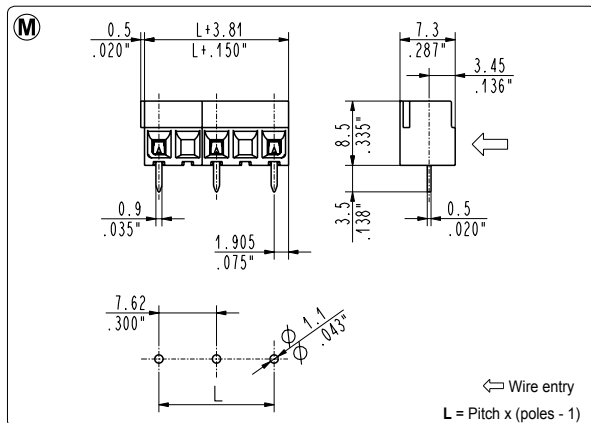


**MTB\_0MT** Straight, Modular-Side Entry

3.81 mm / .150" Pitch Weight per pole: 0.73 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MTB020MT	800	1,17	5000	7,30
03	MTB030MT	500	1,01	3500	7,67
04	MTB040MT	350	1,02	2500	7,30
05	MTB050MT	275	1,00	2000	7,30
06	MTB060MT	225	0,99	1500	6,57
07	MTB070MT	175	0,89	1500	7,67
08	MTB080MT	175	1,02	1250	7,30
09	MTB090MT	150	0,99	1250	8,21
10	MTB100MT	125	0,91	1000	7,30
11	MTB110MT	125	1,00	1000	8,03
12	MTB120MT	100	0,88	750	6,57

max 12 poles can be combined

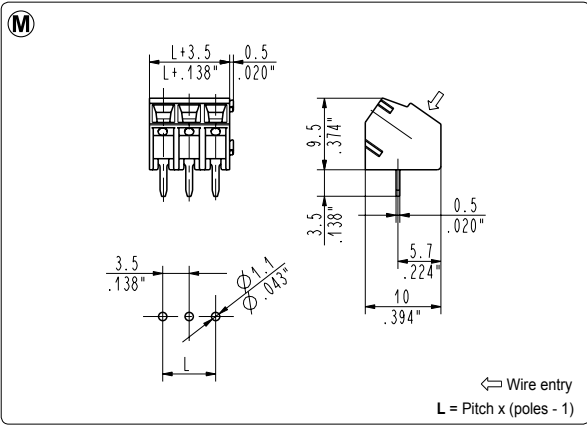


**MTB\_0M7** Straight, Modular-Side Entry

7.62 mm / .300" Pitch Weight per pole: 0.83 g

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MTB010M7	800	0,66	4000	3,32
02	MTB020M7	500	0,83	2500	4,15
03	MTB030M7	275	0,68	1500	3,74
04	MTB040M7	175	0,58	1250	4,15
05	MTB050M7	150	0,62	1250	5,19
06	MTB060M7	125	0,62	1000	4,98

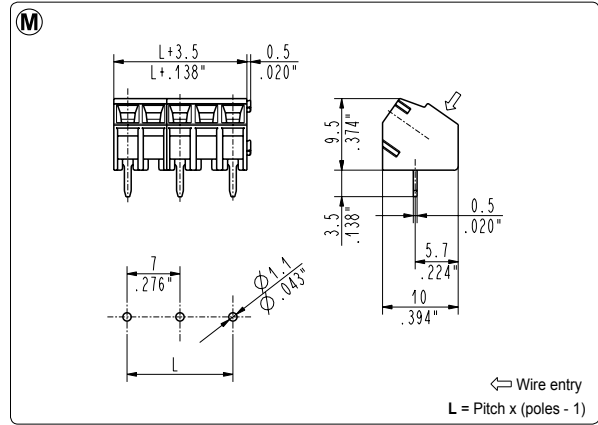
max 6 poles can be combined



**MTB\_048 55° Modular, Angled Entry**

**3.5 mm / .138" Pitch** **Weight per pole: 0.94 g**

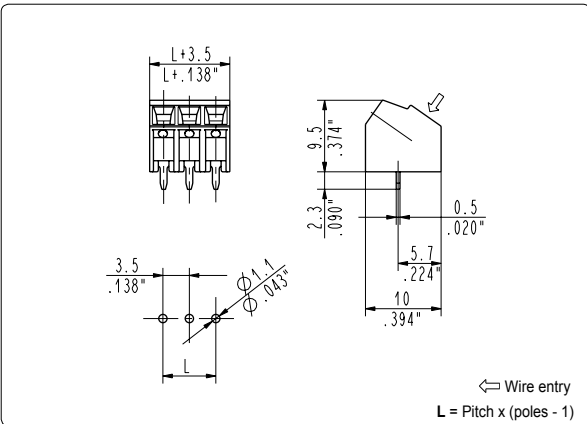
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MTB02048	500	0,94	4000	7,52
03	MTB03048	350	0,99	3000	8,46
04	MTB04048	250	0,94	2000	7,52
05	MTB05048	175	0,82	1750	8,23
06	MTB06048	125	0,71	1500	8,46
07	MTB07048	100	0,66	1250	8,23
08	MTB08048	100	0,75	1000	7,52
09	MTB09048	75	0,63	1000	8,46
10	MTB10048	75	0,71	750	7,05
11	MTB11048	75	0,78	750	7,76
12	MTB12048	100	1,13	750	8,46
13	MTB13048	50	0,61	500	6,11
14	MTB14048	50	0,66	500	6,58
15	MTB15048	50	0,71	500	7,05
16	MTB16048	50	0,75	500	7,52
17	MTB17048	25	0,40	250	4,00
18	MTB18048	25	0,42	250	4,23



**MTB\_049 55° Modular, Angled Entry**

**7 mm / .276" Pitch** **Weight per pole: 1.04 g**

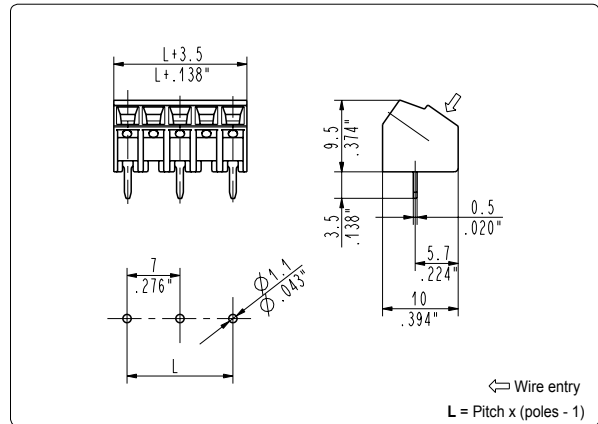
Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MTB01049	500	0,52	4000	4,16
02	MTB02049	350	0,73	3000	6,24
03	MTB03049	175	0,55	1750	5,46
04	MTB04049	100	0,42	1250	5,20
05	MTB05049	75	0,39	1000	5,20
06	MTB06049	75	0,47	750	4,68
07	MTB07049	50	0,36	500	3,64
08	MTB08049	50	0,42	500	4,16
09	MTB09049	25	0,23	250	2,34



**MTB\_068 55°, Angled Entry**

**3.5 mm / .138" Pitch** **Weight per pole: 0.94 g**

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
02	MTB02068	500	0,94	4000	7,52
03	MTB03068	350	0,99	3000	8,46
04	MTB04068	250	0,94	2000	7,52
05	MTB05068	175	0,82	1750	8,23
06	MTB06068	125	0,71	1500	8,46
07	MTB07068	100	0,66	1250	8,23
08	MTB08068	100	0,75	1000	7,52
09	MTB09068	75	0,63	1000	8,46
10	MTB10068	75	0,71	750	7,05
11	MTB11068	75	0,78	750	7,76
12	MTB12068	100	1,13	750	8,46
13	MTB13068	50	0,61	500	6,11
14	MTB14068	50	0,66	500	6,58
15	MTB15068	50	0,71	500	7,05
16	MTB16068	50	0,75	500	7,52
17	MTB17068	25	0,40	250	4,00
18	MTB18068	25	0,42	250	4,23



**MTB\_069 55°, Angled Entry**

**7 mm / .276" Pitch** **Weight per pole: 1.04 g**

Poles	STD Code	Pcs/pack.	W [kg]*	Pcs/Ind.**	W [kg]*
01	MTB01069	500	0,52	4000	4,16
02	MTB02069	350	0,73	3000	6,24
03	MTB03069	175	0,55	1750	5,46
04	MTB04069	100	0,42	1250	5,20
05	MTB05069	75	0,39	1000	5,20
06	MTB06069	75	0,47	750	4,68
07	MTB07069	50	0,36	500	3,64
08	MTB08069	50	0,42	500	4,16
09	MTB09069	25	0,23	250	2,34