

**VIEWS FROM THE FRONT SIDE FEMALE**



**NOTES:**

TEMPERATURE RANGE : SEE CABLE LIST

RATED VOLTAGE:  
3, 4 contacts : 250V  
5 contacts : 60V  
8 contacts : 30V

RATED CURRENT:  
3, 4, 5 contacts : 4A  
8 contacts : 2A

PROTECTION CLASS: IP 67

**CABLE LIST**

CABLE TYPE	NO. OF WIRES	CROSS SECTION	CABLE JACKET	UL	CSA	STATIC: TEMP. / BENDING RADIUS	DYNAMIC: TEMP. / BENDING RADIUS	DRAG CHAIN	OTHER
B30	3 / 4 / 5	0.34mm <sup>2</sup>	TPU Black	UL 21215	YES	-40°C to +90°C 5xO.D.	-25°C to +80°C 7.5xO.D.	up to 5 000 000 cycles at temp 20°C	WELD SLAG RESISTANCE
B41	8	0.25mm <sup>2</sup>	TPU Black						
B42	5	0.34mm <sup>2</sup>	TPU Black						
B33	4 / 5	0.34mm <sup>2</sup>	TPU Gray						
B55	4 / 5	0.34mm <sup>2</sup>	TPU Yellow						
B36	4 / 5	0.34mm <sup>2</sup>	TPU Orange						
B39	5	0.34mm <sup>2</sup>	TPU Yellow						

**BOM**

ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH/COLOR
8	0/2	I/D CARRIER	-	-
7	1	LABEL	VINYL	YELLOW
6	3/4/5/8	CONTACTS	BRASS	GOLD OVER Ni-PLATED
5	1	GASKET	FPM	RED
4	1	FEMALE INSERT	PUR	BLACK
3	1	COUPLING NUT	BRASS	Ni-PLATED
2	-	OVERMOULD	TPU	BLACK
1	-	CABLE	SEE CABLE LIST	SEE CABLE LIST

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

FUNCTIONAL SYMBOLS:  $\nabla/A = 0$ ,  $\nabla/E = 0$ ,  $\nabla/V = 0$

DIMENSION UNITS: mm | SCALE: 2:1

GENERAL TOLERANCES (UNLESS SPECIFIED):  
ANGULAR TOL ± 1.0°  
4 PLACES ±  
3 PLACES ±  
2 PLACES ± 0.05  
1 PLACE ± 0.3  
0 PLACES ± 0.5

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING: A3-SIZE | SERIES: 120065 | MATERIAL NUMBER: SEE PART LIST | CUSTOMER: GENERAL MARKET

EC NO: 730989 | DRWN: ARPITT | APPR: RSILLER | 2022/12/05 | 2022/12/06 | 2022/12/06

INITIAL REVISION: DRWN: SSM | APPR: RSILLER | 2021/12/16 | 2022/02/28

DOCUMENT NUMBER: 1200652251 | DOC TYPE: PSD | DOC PART: 000 | REVISION: A1

**molex**

CSE M12 XP AC FE STR WSOR XM SE UNSH BK

PRODUCT CUSTOMER DRAWING

SHEET NUMBER: 1 OF 2

# PART NO MATRIX

8 0 X 0 0 0 B X X X X X X X X

80 = M12x1  
SINGLE ENDED

POLES:  
3 = 3 POLES  
4 = 4 POLES  
5 = 5 POLES  
8 = 8 POLES

HEADER:  
000 = FEMALE STRAIGHT

CABLE:  
B30 = 0,34mm<sup>2</sup>, TPU BLACK  
B33 = 0,34mm<sup>2</sup>, TPU GREY  
B36 = 0,34mm<sup>2</sup>, TPU ORANGE  
B39 = 0,75mm<sup>2</sup>, TPU GREY  
B41 = 0,25mm<sup>2</sup>, TPU BLACK  
B42 = 0,34mm<sup>2</sup>, TPU BLACK  
B49 = 0,25mm<sup>2</sup>, TPU ORANGE  
B55 = 0,34mm<sup>2</sup>, TPU YELLOW

UNIT:  
M = METER  
C = CENTIMETER  
T = 10 x METER

LENGTH:  
EXAMPLE:  
010 = 1 m  
050 = 5 m  
100 = 10 m

OVERMOLD COLOR:  
BLANK (STANDARD) = BK  
A = GY, G = BK, Y = YE, R = RD  
COUPLING NUT:  
BLANK (STANDARD)  
= KNURLED/HEX BRASS, Ni PLATED  
5 = KNURLED DERLIN  
7 = KNURLED BRASS Ni PLATED,  
TEFLON COATED  
H = 2x ID CARRIERS  
ALWAYS FOR CABLES B36)

# OPTIONS

# PART LIST

Lp.	MOLEX PN	ENGINEERING No	L [mm]
1	1200652247	803000B30M010	1000
2	1200652248	803000B30M020	2000
3	1200652249	803000B30M050	5000
4	1200652250	803000B30M100	10000
5	1200659784	803000B30M200	20000
6	1200652251	804000B30M010	1000
7	1200652252	804000B30M020	2000
8	1200659466	804000B30M030	3000
9	1200652253	804000B30M050	5000
10	1200659805	804000B30M075	7500
11	1200659788	804000B30M085	8500
12	1200659806	804000B30M098	9800
13	1200652254	804000B30M100	10000
14	1200659400	804000B30M150	15000
15	1200659467	804000B30M200	20000
16	1200659468	804000B30M250	25000
17	1200659469	804000B30M300	30000
18	1200659966	804000B33M005	500
19	1200659967	804000B33M010	1000
20	1200659456	804000B33M020	2000
21	1200659968	804000B33M030	3000
22	1200659969	804000B33M040	4000
23	1200659970	804000B33M050	5000
24	1200659461	804000B33M100	1000
25	1200659429	804000B36M0207Y	2000
26	1200659430	804000B36M0507Y	5000
27	1200659431	804000B36M1007Y	10000
28	1200659963	805000B30M006	600
29	1200659518	805000B30M010	1000
30	1200659519	805000B30M020	2000

Lp.	MOLEX PN	ENGINEERING No	L [mm]
31	1200659984	805000B30M0207	2000
32	1200659520	805000B30M050	5000
33	1200659521	805000B30M100	10000
34	1200656214	805000B30M150	15000
35	1200659457	805000B33M020	2000
36	1200659462	805000B33M100	10000
37	1200656042	805000B39M050	5000
38	1200652255	805000B42M010	1000
39	1200652256	805000B42M020	2000
40	1200652257	805000B42M050	5000
41	1200652258	805000B42M100	10000
42	1200659543	805000B42M200	20000
43	1200659544	805000B42M300	30000
44	1200656062	805000B42M005	500
45	1200652306	808000B41M010	1000
46	1200659458	808000B41M020	2000
47	1200659777	808000B41M030	3000
48	1200652308	808000B41M050	5000
49	1200659463	808000B41M100	10000
50	1200656044	808000B41M150	15000
51	1200659734	808000B41M200	20000
52	1200656388	804000B36M0207H	2000
53	1200656389	804000B36M0507H	5000
54	1200656390	804000B36M1007H	10000

Lp.	MOLEX PN	ENGINEERING No	L [mm]
55	1200656550	804000B36M1507Y	15000
56	1200656551	804000B36M2007Y	20000
57	1200656485	808000B41M250	25000
58	1200656519	804000B33M050A	5000
59	1200656515	804000B33M005A	500
60	1200656516	804000B33M010A	1000
61	1200656517	804000B33M020A	2000
62	1200656518	804000B33M030A	3000
63	1200656520	804000B33M100A	10000
64	1200656605	804000B33M150A	15000
65	1200656606	804000B33M200A	20000
66	1200656643	805000B33M010A	1000
67	1200656644	805000B33M020A	2000
68	1200656645	805000B33M030A	3000
69	1200656646	805000B33M050A	5000
70	1200656647	805000B33M100A	10000
71	1200656648	805000B33M150A	15000
72	1200656649	805000B33M200A	20000
73	1200652393	808000B41M010R	1000
74	1200656620	804000B55M010Y	1000
75	1200656621	804000B55M020Y	2000
76	1200656622	804000B55M030Y	3000
77	1200656623	804000B55M050Y	5000
78	1200656624	804000B55M100Y	10000

Lp.	MOLEX PN	ENGINEERING No	L [mm]
79	1200656625	804000B55M150Y	15000
80	1200656626	804000B55M200Y	20000
81	1200656650	805000B30M030	3000
82	1200656483	805000B30M200	20000
83	1200656651	805000B55M010Y	1000
84	1200656652	805000B55M020Y	2000
85	1200656653	805000B55M030Y	3000
86	1200656654	805000B55M050Y	5000
87	1200656655	805000B55M100Y	10000
88	1200656656	805000B55M150Y	15000
89	1200656657	805000B55M200Y	20000
90	1200656851	804000B36M0107Y	1000
91	1200656835	805000B36M1007Y	10000
92	1200657125	804000B33M300A	30000
93	1200657126	804000B33M400A	40000
94	1200657127	804000B33M500A	50000
95	1200657128	804000B33M700A	70000
96	1200657176	805000B33M005A	500
97	1200657177	805000B33M300A	30000
98	1200657178	805000B33M400A	40000
99	1200657179	805000B33M500A	50000
100	1200659639	804000B30M030R	3000
101	1200652388	804000B30M010R	1000

OVER	UP TO AND INCLUDING	TOLERANCE(+)
0	1000	+40 0
1000	5000	+60 0
5000	10000	+80 0
10000	20000	+140 0
20000	30000	+160 0
30000	>	+1% OF LENGTH

FUNCTIONAL SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	CURRENT REV DESC: UPDATED OVM DIMENSION.	
	$\nabla_A = 0$ $\nabla_E = 0$ $\nabla_F = 0$	DIMENSION UNITS: <b>mm</b> SCALE: <b>1:1</b> GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL $\pm 1.0^\circ$ 4 PLACES $\pm$ 3 PLACES $\pm$ 2 PLACES $\pm 0.05$ 1 PLACE $\pm 0.3$ 0 PLACES $\pm 0.5$	EC NO: 730989 DRWN: ARPITT 2022/12/05 CHK'D: RSILLER 2022/12/06 APPR: RSILLER 2022/12/06
DIVISIONAL SYMBOLS	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS THIRD ANGLE PROJECTION DRAWING: <b>A3-SIZE</b> SERIES: <b>120065</b>	INITIAL REVISION: DRWN: SSM 2021/12/16 APPR: RSILLER 2022/02/28	PRODUCT CUSTOMER DRAWING DOCUMENT NUMBER: <b>1200652251</b> DOC TYPE: PSD DOC PART: 000 REVISION: <b>A1</b>
			MATERIAL NUMBER: SEE PART LIST CUSTOMER: GENERAL MARKET SHEET NUMBER: 2 OF 2

NOTES:  
 RATED VOLTAGE:  
 3, 4 contacts 250V  
 5 contacts 60V  
 8 contacts 30V  
 RATED CURRENT:  
 3, 4, 5 contacts 4A  
 8 contacts 2A  
 PROTECTION CLASS: IP 67



CONTACTS POSITION FRONT VIEW:

	3 CONTACTS	4 CONTACTS	5 CONTACTS	8 CONTACTS																																																
FEMALE																																																				
CONNECTIONS	<table border="1"> <tr><th>PIN</th><th>WIRE</th></tr> <tr><td>1</td><td>BROWN</td></tr> <tr><td>3</td><td>BLUE</td></tr> <tr><td>4</td><td>BLACK</td></tr> </table>	PIN	WIRE	1	BROWN	3	BLUE	4	BLACK	<table border="1"> <tr><th>PIN</th><th>WIRE</th></tr> <tr><td>1</td><td>BROWN</td></tr> <tr><td>2</td><td>WHITE</td></tr> <tr><td>3</td><td>BLUE</td></tr> <tr><td>4</td><td>BLACK</td></tr> </table>	PIN	WIRE	1	BROWN	2	WHITE	3	BLUE	4	BLACK	<table border="1"> <tr><th>PIN</th><th>WIRE</th></tr> <tr><td>1</td><td>BROWN</td></tr> <tr><td>2</td><td>WHITE</td></tr> <tr><td>3</td><td>BLUE</td></tr> <tr><td>4</td><td>BLACK</td></tr> <tr><td>5</td><td>GREY OR GREEN/YELLOW</td></tr> </table>	PIN	WIRE	1	BROWN	2	WHITE	3	BLUE	4	BLACK	5	GREY OR GREEN/YELLOW	<table border="1"> <tr><th>PIN</th><th>WIRE</th></tr> <tr><td>1</td><td>WHITE</td></tr> <tr><td>2</td><td>BROWN</td></tr> <tr><td>3</td><td>GREEN</td></tr> <tr><td>4</td><td>YELLOW</td></tr> <tr><td>5</td><td>GREY</td></tr> <tr><td>6</td><td>PINK</td></tr> <tr><td>7</td><td>BLUE</td></tr> <tr><td>8</td><td>RED</td></tr> </table>	PIN	WIRE	1	WHITE	2	BROWN	3	GREEN	4	YELLOW	5	GREY	6	PINK	7	BLUE	8	RED
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7	BLUE																																																			
8	RED																																																			

FOR OPTION SEE - NUMERICAL CODE - ON SHEET 2

ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH
7	1	LABEL YE	VINYL	-
6	3/4/5/8	CONTACT FE	BRASS	GOLD OVER Ni-PLATED
5	1	GASKET RD	FPM	-
4	1	INSERT M12 FE XP BK	PUR	-
3	1	COUPLING NUT M12 FE	SEE SHEET 2	SEE SHEET 2
2	-	OVERMOULDING	SEE SHEET 2	SEE SHEET 2
1	-	CABLE	SEE SHEET 2	-

FUNCTIONAL SYMBOLS $\nabla_A = 0$ $\nabla_E = 0$ $\nabla_V = 0$	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	CURRENT REV DESC: STANDARDIZATION					
	DIMENSION UNITS: mm	SCALE: 1:1	CSE M12 XP AC FE STR WSOR XM SE UNSH				
	GENERAL TOLERANCES (UNLESS SPECIFIED)		ANGULAR TOL ± °		EC NO: 681756		
	4 PLACES ±		3 PLACES ±		DRWN: MKOWALCZYK01 2021/10/18		2021/10/18
2 PLACES ±		1 PLACE ±		APP: KMARCINIAK01 2021/10/18		2021/10/18	
0 PLACES ±		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		INITIAL REVISION:		DOCUMENT NUMBER	
THIRD ANGLE PROJECTION		DRAWING		DRWN: AKONDRACIUK 2016/11/26		1200652251	
SERIES		MATERIAL NUMBER		CUSTOMER		DOC TYPE	
A3-SIZE		120065		SEE PART LIST		PSD	
SHEET NUMBER		1 OF 2		REVISION		B2	

# ENGINEERING NO - NUMERICAL CODE (Available parts see PART LIST table. Other parts available upon request).

8 0 X 0 0 0 B X X M X X X X

88 = M12x1  
SINGLE ENDED

POLES:  
3 = 3 POLES  
4 = 4 POLES  
5 = 5 POLES  
8 = 8 POLES

HEADER:  
000 = PLUG FEMALE STRAIRIGHT

CABLE TYPE:  
SEE TABLE

UNIT:  
M = METER

LENGTH:  
EXAMPLE:  
010 = 1 m  
050 = 5 m  
100 = 10 m

OPTIONS

Overmold color:  
Blank (Standard)=Black  
A=Grey / G=Black / Y=Yellow / R=Red

Coupling Nut:  
Blank (Standard)=Knurled/Hex Brass, Ni Plated  
5=Knurled Derlin  
7=Knurled Brass Ni Plated, Teflon Coated

H= 2 pcs. of I/D Carrier PVC Transparent  
(Cables B36 always with  
2 pcs. I/D Carrier)



## CABLE INFORMATION (for more information see Cable Data Sheet).

CABLE TYPE	NO. OF WIRES	CROSS SECTION	CABLE JACKET	UL	CSA	STATIC: TEMP. / BENDING RADIUS	DYNAMIC: TEMP. / BENDING RADIUS	DRAG CHAIN: TEMP. / BENDING RADIUS	DRAG CHAIN	CABLE SPEC. DRAWING
B30	3 / 4 / 5	0.34mm <sup>2</sup>	TPU Black	UL 21215/758	C22.2 I/II A/B 80°/600V	-40°C to +90°C 5xO.D.	-25°C to +80°C 7.5xO.D.	-5°C to +60°C 7.5xO.D.	up to 5 000 000 cycles at temp 20°C	SD-120209-001
B33	4 / 5	0.34mm <sup>2</sup>	TPU Gray							SD-120209-001
B36	4 / 5	0.34mm <sup>2</sup>	TPU Orange							SD-120209-001
B39	5	0.75mm <sup>2</sup>	TPU Gray							n/a
B41	8	0.25mm <sup>2</sup>	TPU Black							SD-120209-006
B42	5	0.34mm <sup>2</sup>	TPU Black							SD-120209-001
B49	8	0.25mm <sup>2</sup>	TPU Orange							SD-120209-006
B55	3 / 4 / 5	0.34mm <sup>2</sup>	TPU Yellow							n/a

OVER	UP TO AND INCLUDING	TOLERANCE
0	1000	+40 0
1000	5000	+60 0
5000	10000	+80 0
10000	20000	+140 0
20000	30000	+160 0
30000	>	+1% OF LENGTH

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FUNCTIONAL SYMBOLS:  $\nabla/A = 0$ ,  $\nabla/E = 0$ ,  $\nabla/P = 0$

DIVISIONAL SYMBOLS: 4 PLACES, 3 PLACES, 2 PLACES, 1 PLACE, 0 PLACES

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CURRENT REV DESC: STANDARDIZATION

EC NO: 681756  
DRWN: MKOWALCZYK01 2021/10/18  
CHK'D: ALEKSP3 2021/10/18  
APPR: KMARCINIAK01 2021/10/18

INITIAL REVISION:  
DRWN: AKONDRACIUK 2016/11/26  
APPR: MIWASIECZKO 2016/12/06

THIRD ANGLE PROJECTION

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

SCALE: 1:1

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL ± °

DOCUMENT NUMBER: 1200652251

DOC TYPE: PSD

DOC PART: 00P

REVISION: B2

SHEET NUMBER: 2 OF 2

MOLEX

CSE M12 XP AC FE STR WSOR XM SE UNSH

PRODUCT CUSTOMER DRAWING

A3-SIZE 120065

SEE PART LIST