

# FEMALE PLUG M12 90° ANGLED



**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  
 TEMPERATURE: CABLE INFORMATION ON SHEET 2



## C CONTACTS POSITION FRONT VIEW:

3 CONTACTS		4 CONTACTS		5 CONTACTS		8 CONTACTS	
PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE
1	BROWN	1	BROWN	1	BROWN	1	WHITE
2	---	2	WHITE	2	WHITE	2	BROWN
3	BLUE	3	BLUE	3	BLUE	3	GREEN
4	BLACK or YELLOW/GREEN	4	BLACK	4	BLACK	4	YELLOW
5	---	5	---	5	GREY or YELLOW/GREEN	5	GREY
						6	PINK
						7	BLUE
						8	RED

## FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2

ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH
7	1	LABEL YELLOW	VINYL	---
	-	PRINTING FOR CABLES lxx	---	---
6	-	CABLE	SEE SHEET 2	---
5	-	OVERMOLDING BLACK	TPU	---
4	1	COUPLING NUT FEMALE	BRASS	NICKEL
3	1	INSERT FEMALE BLACK	PUR	---
2	1	ORING RED	FPM	---
1	3 / 4 / 5 / 8	CONTACT M12 FEMALE	BRASS	SELECTIVE Au OVER Ni

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

DIMENSION UNITS: mm SCALE: 2:1

GENERAL TOLERANCES (UNLESS SPECIFIED):  
 ANGULAR TOL ± 1.0°  
 4 PLACES ±  
 3 PLACES ±  
 2 PLACES ± 0.05  
 1 PLACE ± 0.1  
 0 PLACES ± 0.2

EC NO: 726454  
 DRWN: LIKITV 2022/09/27  
 CHK'D: GGA 2022/11/30  
 APPR: GGA 2022/11/30

INITIAL REVISION:  
 DRWN: JMARSZALEK 2016/01/11  
 APPR: RSILLER 2016/04/08

THIRD ANGLE PROJECTION

DRAWING: A3-SIZE SERIES: 120065 MATERIAL NUMBER: SEE PART LIST CUSTOMER: GENERAL MARKET SHEET NUMBER: 1 OF 5

**molex**  
 CSE M12 XP AC FE RA XM SE UNSH  
 PRODUCT CUSTOMER DRAWING  
 DOCUMENT NUMBER: 1200658471 DOC TYPE: PSD DOC PART: 000 REVISION: A12

CODING REQUIRED TO IEC 61076-2-101

DOCUMENT STATUS	P1	RELEASE DATE	2022/11/30	11:33:43
-----------------	----	--------------	------------	----------

ENGINEERING NO. - NUMERICAL CODE (Available parts see PART LIST table. Others on request).

8 0 X 0 0 1 X X X X X X X X

80=M12x1 Single ended

Contacts:  
3=3 Contacts  
4=4 Contacts  
5=5 Contacts  
8=8 Contacts

Heads style:  
001=Plug Female  
90° Angled

Cable type: See Table

Units:  
M=Meter  
C=Centimeter

Length Examples:  
005=0.5 unit  
010=1 unit  
100=10 units

OPTIONS

H= 2 pcs. of I/D Carrier  
PVC Transparent  
(Cables Ixx & P82 always with 2 pcs. of I/D Carrier even if no H in Engineering No.)

Overmold color:  
Blank (Standard)=Black TPU  
Blank=Yellow TPU for cables A09,S19,S20,S26  
Blank=Yellow TPE-E for cables K03,K05  
A=Grey / G=Black / Y=Yellow  
Blank=Yellow PVC for cable E13  
Coupling Nut:  
Blank (Standard) & 3=Knurled Brass Ni Plated  
1=Hexagonal Stainless steel  
5=Knurled Derlin  
7=Knurled Brass Ni Plated, Teflon Coated  
Blank=7 for cables I20, I26, K03, K05, P82, S26  
9=Knurled / Hexagonal Brass Ni Plated SW13

COUPLING NUTS



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	SHIELD
A09	3 / 4 / 5	0.34mm <sup>2</sup>	PVC YELLOW	UL 2661	I/II A/B 90°C/300V	-	-	-	-
E13	3	18AWG	PVC YELLOW	UL 2661/1731	I/II A/B 80°C/300V	-	-	-	-
E02	3 / 4 / 5 / 8	0.25mm <sup>2</sup>	PVC BLACK	UL 2464/1729	C22.2 I/II A/B 80°C/300V	-30°C to +80°C, 10xO.D.	-10°C to +80°C, 15xO.D.	-	-
E03	3 / 4 / 5	0.34mm <sup>2</sup>	PVC BLACK	UL 2464/1729	C22.2 I/II A/B 80°C/300V	-30°C to +80°C, 10xO.D.	-10°C to +80°C, 15xO.D.	-	-
E52	3 / 4 / 8	0.34mm <sup>2</sup>	PVC GREY	-	-	-30°C to +70°C	-5°C to +70°C	-	-
H08	3 / 4 / 5 / 8	0.25mm <sup>2</sup>	PUR BLACK LS0H	UL 21198/10493	C22.2 I/II A/B 80°C/300V	-40°C to +80°C, 5xO.D.	-25°C to +80°C, 10xO.D.	2 000 000 cycles at 20°C, Temp. range +5°C to +60°C	-
H09	3 / 4 / 5	0.34mm <sup>2</sup>	PUR BLACK LS0H	UL 21198/10493	C22.2 I/II A/B 80°C/300V	-40°C to +80°C, 5xO.D.	-25°C to +80°C, 10xO.D.	2 000 000 cycles at 20°C, Temp. range +5°C to +60°C	-
H12	4	0.50mm <sup>2</sup>	PUR BLACK LS0H	UL 21198/10493	C22.2 I/II A/B 80°C/300V	-50°C to +80°C, 5xO.D.	-25°C to +80°C, 10xO.D.	2 000 000, Temp max 60°C	-
H69	4	0.20mm <sup>2</sup>	PUR GREY LS0H	-	-	-	-	-	-
I02	3 / 4 / 8	0.25mm <sup>2</sup>	PVC CEI GREY	-	-	-30°C to +70°C	-5°C to +70°C	-	-
I03	3 / 4 / 5	0.34mm <sup>2</sup>	PVC CEI GREY	-	-	-30°C to +70°C	-5°C to +70°C	-	-
I04	4	0.50mm <sup>2</sup>	PVC CEI GREY	-	-	-25°C to +70°C	-5°C to +70°C	-	-
I20	3 / 4	0.34mm <sup>2</sup>	PVC CEI GREY	-	-	-30°C to +70°C	-5°C to +70°C	-	YES
I26	5	0.34mm <sup>2</sup>	PVC CEI GREY	-	-	-30°C to +70°C	-5°C to +70°C	-	-
K03	5	18 AMG	TPE YELLOW	PLTC 105C E470965	I/II A/B 90°C/300V	-	-	-	-
K05	3 / 4 / 5	0.34mm <sup>2</sup>	TPE YELLOW	UL ITC E195601 or PLC	I/II A/B 90°C/300V	-	-	-	-
P02	3 / 4 / 5 / 8	0.25mm <sup>2</sup>	PUR / PVC BLACK	-	-	-30°C to +80°C, 7xO.D.	-5°C to +80°C, 15xO.D.	-	-
P03	3 / 4 / 5	0.34mm <sup>2</sup>	PUR / PVC BLACK	-	-	-30°C to +80°C, 7xO.D.	-5°C to +80°C, 15xO.D.	-	-
P12	3 / 5	0.50mm <sup>2</sup>	PUR BLACK	-	-	-30°C to +90°C	-5°C to +90°C	-	-
P19	8	0.25mm <sup>2</sup>	PUR BLACK	-	-	-40°C to +90°C, 7.5xO.D.	-15°C to +90°C, 12.5xO.D.	2 000 000 cycles, 15xO.D.	YES
P20	3 / 4 / 5	0.34mm <sup>2</sup>	PUR BLACK LS0H	-	-	-30°C to +80°C	-	-	YES
P82	3 / 4 / 5	0.34mm <sup>2</sup>	PUR IRR ORANGE	-	-	-50°C to +105°C, 5xO.D.	-40°C to +105°C, 7.5xO.D.	-	-
S19	8	0.25mm <sup>2</sup>	PVC YELLOW	UL 2661/1569	C22.2 II A 105°C/300V	-30°C to +105°C, 10xO.D.	-15°C to +105°C, 15xO.D.	-	YES
S20	3 / 4 / 5	0.34mm <sup>2</sup>	PVC YELLOW	UL 2661/1731	C22.2 II A 105°C/300V	-30°C to +105°C	-	-	YES
S26	5	0.34mm <sup>2</sup>	PVC YELLOW	UL 2661/1731	C22.2 II A 105°C/300V	-30°C to +105°C	-	-	YES



SCALE 1:1

CABLE LENGTH TOLERANCES

OVER	UP TO AND INCLUDING	TOLERANCES
0	305mm	+19mm
305mm	915mm	+45mm
915mm	1830mm	+56mm
1830mm	3660mm	+89mm
3660mm	7320mm	+165mm
7320mm	14640mm	+317mm
14640mm	30500mm	+610mm
30500mm	>	+2% of finished length

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

DIMENSION UNITS: mm SCALE: 1:1

CURRENT REV DESC: OBSOLETE PART NUMBERS AS PER PCN#510807.

**molex**

CSE M12 XP AC FE RA XM SE UNSH

PRODUCT CUSTOMER DRAWING

EC NO: 726454  
DRWN: LIKITV 2022/09/27  
3 PLACES ±  
CHK'D: GGA 2022/11/30  
APPR: GGA 2022/11/30

INITIAL REVISION:  
DRWN: JMARSZALEK 2016/01/11  
APPR: RSILLER 2016/04/08

DOCUMENT NUMBER: 1200658471  
DOC TYPE: PSD  
DOC PART: 000  
REVISION: A12

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING: A3-SIZE  
SERIES: 120065  
MATERIAL NUMBER: SEE PART LIST  
CUSTOMER: GENERAL MARKET  
SHEET NUMBER: 2 OF 5

# PART LIST

No.	Part No.	Engineering No.	Cable Length	No.	Part No.	Engineering No.	Cable Length	No.	Part No.	Engineering No.	Cable Length	No.	Part No.	Engineering No.	Cable Length
1	1200060007	803001E03M020	2m	36	1200060508	804001I03M150	15m	71	1200063645	803001E13M100	10m	106	1200656216	808001E02M200	20m
2	1200060008	803001E03M050	5m	37	1200060510	804001P03M030	3m	72	1200063682	803001P82M0207	2m	107	1200656382	808001P02M400	40m
3	1200060009	803001E03M100	10m	38	1200060516	804001P03M150	15m	73	1200063754	808001P02M0501A	5m	108	1200656595	804001E02M0501	5m
4	1200060010	803001I03M050	5m	39	1200060517	804001P03M200	20m	74	1200063825	805001I03M050G	5m	109	1200658010	804001H09M050H	5m
5	1200060011	803001P03M020	2m	40	1200060652	805001E03M020	2m	75	1200064134	804001E52M050	5m	110	1200658011	804001H09M100H	10m
6	1200060012	803001P03M050	5m	41	1200060654	805001E03M050	5m	76	1200064174	804001E03M5005	50m	111	1200658071	804001E03M050H	5m
7	1200060013	803001P03M100	10m	42	1200060655	805001E03M0501 *	5m	77	1200064210	803001I03M051	5.1m	112	1200658089	805001P12M020	2m
8	1200060021	804001E03M020	2m	43	1200060657	805001E03M100	10m	78	1200064244	804001I03M040	4m	113	1200658185	804001H09M150G	15m
9	1200060022	804001E03M050	5m	44	1200060663	805001P03M020	2m	79	1200064289	804001P03M400	40m	114	1200658193	804001H09M050	5m
10	1200060023	804001E03M100	10m	45	1200060664	805001P03M100	10m	80	1200064350	804001P03M120	12m	115	1200658194	804001H09M100	10m
11	1200060024	804001P03M020	2m	46	1200061336	804001E03M0205	2m	81	1200064391	804001P03M1001	10m	116	1200658234	803001E03M0501 *	5m
12	1200060025	804001P03M050	5m	47	1200061538	803001E03M051	5.1m	82	1200064433	804001H09M050G	5m	117	1200658245	808001H08M050	5m
13	1200060042	804001I03M050	5m	48	1200061552	803001E03M066	6.6m	83	1200064436	804001H09M100G	10m	118	1200658261	808001E02M050	5m
14	1200060175	803001E03M010	1m	49	1200061553	803001E03M058	5.8m	84	1200065013	803001P03M030G	3m	119	1200658271	804001E03M0505	5m
15	1200060178	803001E03M030	3m	50	1200061563	805001I03M050	5m	85	1200650814	804001E52M050A	5m	120	1200658296	805001H09M020	2m
16	1200060184	803001E03M150	15m	51	1200061760	805001P03M150	15m	86	1200650960	808001P02M020	2m	121	1200658297	805001H09M050	5m
17	1200060187	803001E03M200	20m	52	1200061850	805001I26M050	5m	87	1200650961	808001P02M040	4m	122	1200658298	805001H09M100	10m
18	1200060202	803001I03M020	2m	53	1200061986	804001P03M010	1m	88	1200650962	808001P02M050	5m	123	1200658310	808001E02M0501	5m
19	1200060204	803001I03M030	3m	54	1200062027	803001P03M022	2.2m	89	1200650963	808001P02M100	10m	124	1200658314	805001P03M200	20m
20	1200060205	803001I03M100	10m	55	1200062093	804001H69M100	10m	90	1200651567	804001A09M100	10m	125	1200658326	805001I03M015	1.5m
21	1200060212	803001P03M030	3m	56	1200062292	803001E03M003	0.3m	91	1200651571	804001A09M150	15m	126	1200658338	804001E03M050G	5m
22	1200060216	803001P03M150	15m	57	1200062313	804001P03M100H	10m	92	1200651575	804001A09M200	20m	127	1200658339	804001E03M100G	10m
23	1200060479	804001E03M010	1m	58	1200062334	805001I03M100	10m	93	1200651642	804001K05M050	5m	128	1200658359	805001E03M150	15m
24	1200060480	804001E03M0201	2m	59	1200062575	804001I03M0501	5m	94	1200651644	804001K05M100	10m	129	1200658403	803001P03M003	0.3m
25	1200060481	804001E03M030	3m	60	1200062764	805001P82M1007	10m	95	1200651771	803001E52M050A	5m	130	1200658471	805001I03M010	1m
26	1200060483	804001E03M0501 *	5m	61	1200062837	803001P03M006	0.6m	96	1200651783	804001P03M020G	2m	131	1200658482	804001E03M015	1.5m
27	1200060485	804001E03M1001 *	10m	62	1200062838	808001E52M100	10m	97	1200651785	804001P03M050G	5m	132	1200658483	808001P02M150	15m
28	1200060486	804001E03M150	15m	63	1200062851	803001I03M025	2.5m	98	1200651787	804001P03M100	10m	133	1200658485	804001H69M010	1m
29	1200060487	804001E03M200	20m	64	1200063286	803001E13M030	3m	99	1200651793	805001P03M050	5m	134	1200658513	804001H09M020	2m
30	1200060488	804001E03M250	25m	65	1200063320	803001E13M060	6m	100	1200651797	808001E52M020	2m	135	1200658541	804001E03M070	7m
31	1200060489	804001E03M300	30m	66	1200063340	803001P03M025	2.5m	101	1200652147	804001P03M040	4m	136	1200658564	803001E03M040	4m
32	1200060492	804001E52M100A	10m	67	1200063386	805001P82M0507	5m	102	1200655050	803001E52M050	5m	137	1200658573	805001E03M010	1m
33	1200060503	804001I03M020	2m	68	1200063532	804001I03M0505	5m	103	1200655071	805001P82M0207	2m	138	1200658574	805001E03M030	3m
34	1200060505	804001I03M030	3m	69	1200063563	804001I04M030G	3m	104	1200656064	805001E03M0271	2.7m	139	1200658575	805001E03M040	4m
35	1200060507	804001I03M100	10m	70	1200063564	805001I26M100	10m	105	1200656065	808001E02M0601	6m	140	1200658585	808001E02M010	1m

## NOTES:

\* - Part No. with Yellow PVC overmolding

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																	
DIMENSION UNITS <b>mm</b>		SCALE <b>1:1</b>		CURRENT REV DESC: OBSOLETE PART NUMBERS AS PER PCN#510807.													
GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: 726454 DRWN: LIKITV 2022/09/27 3 PLACES ± CHK'D: GGA 2022/11/30 APPR: GGA 2022/11/30													
ANGULAR TOL ± 1.0°																	
PRODUCT CUSTOMER DRAWING																	
INITIAL REVISION:								DOCUMENT NUMBER				DOC TYPE		DOC PART		REVISION	
DRWN: JMARSZALEK 2016/01/11								1200658471				PSD		000		A12	
APPR: RSILLER 2016/04/08				MATERIAL NUMBER				CUSTOMER				SHEET NUMBER					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		SEE PART LIST		GENERAL MARKET		3 OF 5			



# PART LIST

No.	Part No.	Engineering No.	Cable Length
281	1200651949	804001A09M0602	6m
282	1200651983	805001A09M030	3m
283	1200651985	803001A09M0202	2m
284	1200652078	804001A09M0302	3m
285	1200652079	805001A09M300	30m
286	1200652111	805001A09M150	15m
287	1200652122	805001A09M0502	5m
288	1200652170	804001A09C2508	0.25m
289	1200652197	805001A09M1508	15m
290	1200652216	804001A09M0708	7m
291	1200652419	804001A09M2008	20m
292	1200652439	804001A09M0108	1m
293	1200659215	805001A09M010	1m
294	1200659216	805001A09M200	20m
295	1202010010	804001A09M250	25m
296	1200060221	803001S20M020	2m
297	1200060222	803001S20M030	3m
298	1200060224	803001S20M050	5m
299	1200659374	804001S20M350	35m
300	1200659774	808001S19M150	15m
301	1200659810	805001S26M200	20m
302	1200060225	803001S20M100	10m
303	1200060527	804001S20M010	1m
304	1200060528	804001S20M020	2m
305	1200060529	804001S20M030	3m
306	1200060531	804001S20M050	5m
307	1200061612	804001S20M030H	3m
308	1200062121	804001S20M060	6m
309	1200062148	804001I20M160	16m
310	1200062160	804001S20M100H	10m
311	1200062374	804001S20M020H	2m
312	1200062502	804001S20M050H	5m
313	1200062589	804001S20M010H	1m
314	1200062919	804001P20M100	10m
315	1200062922	804001P20M050	5m

No.	Part No.	Engineering No.	Cable Length
316	1200063109	804001S20M1001	10m
317	1200063165	805001P20M050	5m
318	1200064184	804001P20M250	25m
319	1200064268	808001S19M100	10m
320	1200064380	804001S20M0201	2m
321	1200064381	804001S20M0501	5m
322	1200064452	804001S20M3001	30m
323	1200064457	803001S20M0501	5m
324	1200650910	804001S20M100	10m
325	1200655008	808001P19M050	5m
326	1200658090	805001S26M100	10m
327	1200658187	804001S20M200	20m
328	1200658203	805001S26M1001	10m
329	1200658276	804001I20M100	10m
330	1200658287	803001I20M100	10m
331	1200658324	804001P20M030	3m
332	1200658328	808001P19M100	10m
333	1200658510	804001S20M2001	20m
334	1200658544	808001P19M250	25m
335	1200658547	803001P20M150	15m
336	1200658875	803001S20M0201G	2m
337	1200659029	804001S20M150	15m
338	1200659114	805001S26M050	5m
339	1200659156	805001S26M2001	20m
340	1200659240	803001P20M100HY	10m
341	1200657238	805001E03M250	25m
342	1200657145	804001P03M006	0.6m
343	1200657146	804001P03M070	7m
344	1200657147	804001P03M080	8m
345	1200657148	804001E03M003	0.3m
346	1200657149	804001E03M006	0.6m
347	1200657150	804001E03M080	8m
348	1200657185	805001E03M015	1.5m
349	1200658573	805001E03M010	1m
350	1200657265	805001H09M500	50m

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										
DIMENSION UNITS	SCALE	CURRENT REV DESC: OBSOLETE PART NUMBERS AS PER PCN#510807.								
mm	1:1									
GENERAL TOLERANCES (UNLESS SPECIFIED)										
ANGULAR TOL	± 1.0 °	EC NO: 726454 DRWN: LIKITV 2022/09/27 CHK'D: GGA 2022/11/30 APPR: GGA 2022/11/30								
4 PLACES	±									
3 PLACES	±	PRODUCT CUSTOMER DRAWING								
2 PLACES	± 0.05									
1 PLACE	± 0.1	INITIAL REVISION:				DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION
0 PLACES	± 0.2	DRWN: JMARSZALEK 2016/01/11 APPR: RSILLER 2016/04/08				1200658471		PSD	000	A12
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER		SHEET NUMBER		
			A3-SIZE	120065	SEE PART LIST	GENERAL MARKET		5 OF 5		