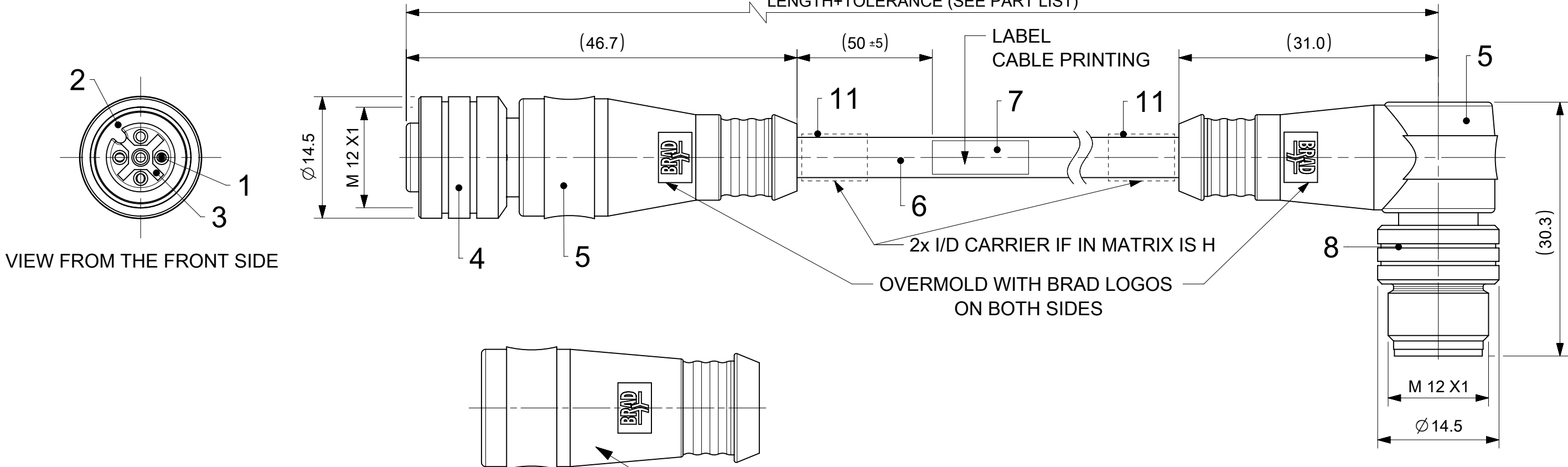


FEMALE PLUG M12 STRAIGHT TO MALE PLUG M12 90° ANGLED

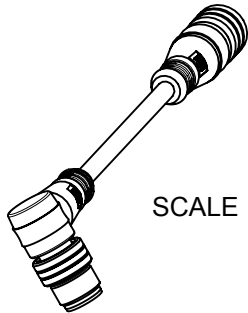


TECHNICAL SPECIFICATION:
CONTACT CURRENT RATING: 3-5 POLES 4A
8 POLES 2A
VOLTAGE RATING: 3-4 POLES 250V
5 POLES 60V DC
8 POLES 30V
PROTECTION CLASS: IP 67
TEMPERATURE: -25°C / +85°C

BILL OF MATERIAL

11	2 (SEE MATRIX)	ID CARRIER	PVC	TRANSPARENT
10	1	INSERT MALE	PUR	BLACK
9	3/4/5/8	CONTACT M12 MALE	BRASS	SELECTIVE GOLD OVER NICKEL
8	1	COUPLING NUT MALE	BRASS	NICKEL
7	1	LABEL	VINYL	YELLOW
6	-	CABLE	SEE MATRIX/ CABLE SPECIFICATION	---
5	-	OVERMOULD	TPU	SEE MATRIX
4	1	COUPLING NUT FEMALE	BRASS	NICKEL
3	1	INSERT FEMALE	PUR	BLACK
2	1	O-RING	FPM	RED
1	3/4/5/8	CONTACT M12 FEMALE	BRASS	SELECTIVE GOLD OVER NICKEL
ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH/COLOR

DOCUMENT STATUS	P1	RELEASE DATE	2023/12/25	13:30:36
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SCALE 1:2

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

DIMENSION UNITS	SCALE
mm	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	

CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#514494

EC NO: 770993
DRWN: MADHAM5
CHK'D: GGA
APPR: GGA

2023/11/09
2023/12/25
2023/12/25

INITIAL REVISION:
DRWN: DSOPPIN
APPR: RSILLER

2018/09/27
2018/10/22

molex

CSE M12 XP AC FE STR MA RA XM

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER
1200070026

DOC TYPE
PSD

DOC PART
000

REVISION
A8

MATERIAL NUMBER
SEE PART LIST

CUSTOMER
GENERAL MARKET

SHEET NUMBER
1 OF 4

10

9

8

7

6

5

4

3

2

1

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

88X032XXXXXX

88 = M12x1
Double ended

Poles:
3 = 3 Poles
4 = 4 Poles
5 = 5 Poles
8 = 8 Poles

Heads style:
032 = Plugs FE Straight & Male 90°

Cable types:
E02=0.25mm² PVC Black
E03=0.34mm² PVC Black
E13=0.75mm² PVC Yellow
E52=0.34mm² PVC Grey(RAL 7001)
E57=0.34mm² PVC Grey(RAL 7001)
H09=0.34mm² PUR Black
H69=0.34mm² PUR Grey LSOH SCR
I02=0.25mm² PVC Grey CEI
I03=0.34mm² PVC Grey CEI
I20=0.25mm² PVC Grey CEI SCR DC
I26=0.34mm² PVC Grey CEI SCR AC
P02=0.25mm² PUR/PVC Black
P03=0.34mm² PUR/PVC Black
P08=0.25mm² PUR Yellow HIFLEX
P20=0.34mm² PUR Grey LSOH braid
P82=0.34mm² PUR orange irradiated DC
S20=0.34mm² PVC Yellow SJTO braid

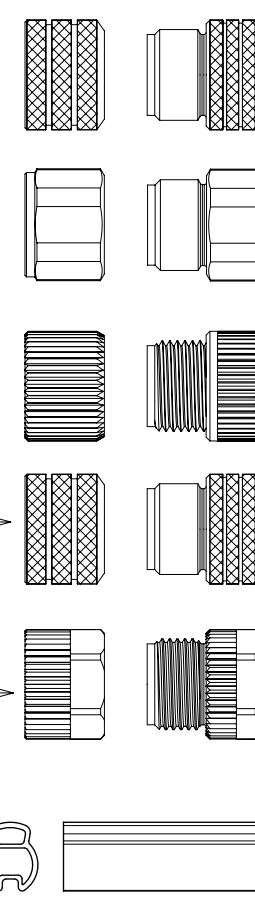
Units:
C = Centimeter
M = Meter
K = Kilometer
F = Feet

Length
Examples:
020 = 2 M
060 = 6 M
100 = 10 M

Overmold color:
Blank (Standard)=Black TPU
Blank=Yellow PVC for cables
A09, S19, S20, S26
Blank=Yellow TPE-E for cables
K03, K05
A=Grey / G=Black / Y=Yellow
Coupling Nut:
Blank (Standard)=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

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

COUPLING NUT
FEMALE MALE



CABLE SPECIFICATION

CABLE TYPE	NO. OF WIRES	CROSS SECTION	CABLE JACKET	UL	CSA	STATIC: TEMP. / BENDING RADIUS	DYNAMIC: TEMP. / BENDING RADIUS	DRAG CHAIN	SHIELD
E02	3 / 4 / 5 / 8	0.25mm²	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	0.34mm²	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	4	0.34mm²	PVC GRAY	-	-	- 30 to + 70°C	- 5 to + 70°C	-	-
H09	3 / 4 / 5	0.34mm²	PUR BLACK LSOH	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	-
H69	4	0.2mm²	PUR LSOH	-	-	-	-40°C to +80°C	-	-
P02	3 / 4 / 5 / 8	0.25mm²	PUR / PVC BLACK	-	-	-30°C to +80°C, 7xO.D.	-5°C to +80°C, 15xO.D.	-	-
P03	3 / 4 / 5	0.34mm²	PUR / PVC BLACK	-	-	-30°C to +80°C, >7xO.D.	-5°C to +80°C, >15xO.D.	-	-
P82	4	0.34mm²	PUR IRR ORANGE	-	-	-50°C to +105°C,	-50°C to +105°C,	-	-
I03	4	0.34mm²	PVC GRAY	-	-	-30°C to +70°C	-5°C to +70°C	-	-
K03	4	AWG18	TPE YELLOW	ITC E195601 OR PLTC	AWM I/II A/B FT4 LL54185	-	-40°C to +105°C	-	-
K05	4	0.34mm²	TPE YELLOW	ITC E195601 OR PLTC	AWM I/II A/B FT4 LL54185	-	-40°C to +105°C	-	-
S20	4	0.34mm²	PVC YELLOW	UL 2661/1731	C22.2 AWM II	-30°C to +105°C	-40°C to +105°C	-	-

CABLE LENGTH TOLERANCE

OVER	UPTO AND INCULDING	TOLERANCE
0	305	+19
305	915	+45
915	1830	+56
1830	3660	+89
3660	7320	+165
7320	14640	+317
14640	30500	+610
30500	>	+2% OF LENGTH

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DIMENSION UNITS
mm

SCALE
1:1

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

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2023/11/09
2023/12/25
2023/12/25

INITIAL REVISION:
DRWN: DSOPPIN
APPR: RSILLER

2018/09/27
2018/10/22

THIRD ANGLE PROJECTION

DRAWING
A3-SIZE

SERIES
120007

DOCUMENT NUMBER
1200070026

MATERIAL NUMBER
SEE PART LIST

CUSTOMER
GENERAL MARKET

DOC TYPE
PSD

DOC PART
000

REVISION
A8

SHEET NUMBER
2 OF 4

DOCUMENT STATUS

P1

RELEASE DATE

2023/12/25 13:30:36

9

8

7

6

5

4

3

2

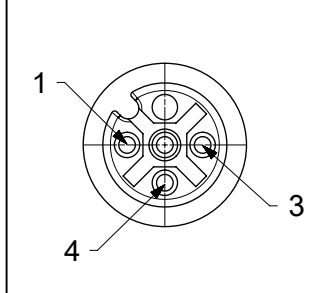
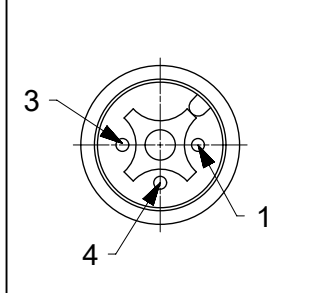
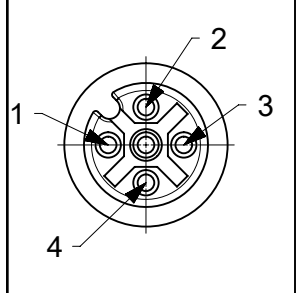
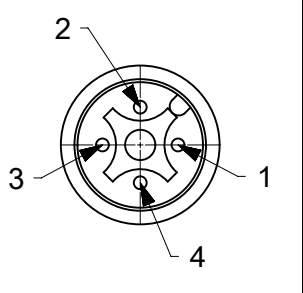
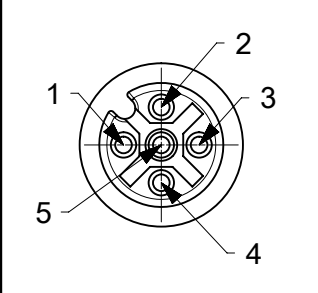
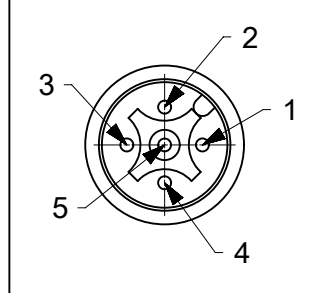
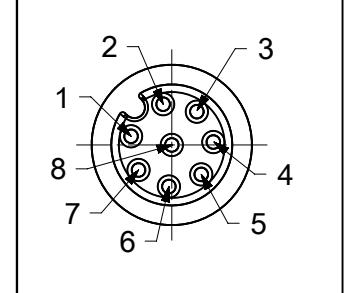
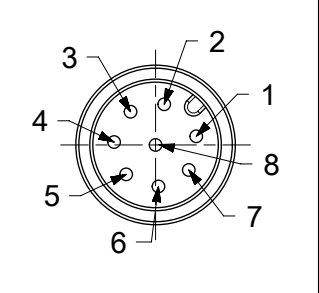
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FORMAT: master-b-prod-A3

REVISION: J1

DATE: 2021/05/01

CONTACT POSITION FRONT VIEW:

3 POLES FEMALE		3 POLES MALE		4 POLES FEMALE		4 POLES MALE		5 POLES FEMALE		5 POLES MALE		8 POLES FEMALE		8 POLES MALE	
															
PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE
1	BROWN	1	BROWN	1	BROWN	1	BROWN	1	BROWN	1	BROWN	1	WHITE	1	WHITE
2	-	2	-	2	WHITE	2	WHITE	2	WHITE	2	WHITE	2	BROWN	2	BROWN
3	BLUE	3	BLUE	3	BLUE	3	BLUE	3	BLUE	3	BLUE	3	GREEN	3	GREEN
4	BLACK	4	BLACK	4	BLACK	4	BLACK	4	BLACK	4	BLACK	4	YELLOW	4	YELLOW
5	-	5	-	5	-	5	-	5	GREY OR GREEN/YELLOW	5	GREY OR GREEN/YELLOW	5	GREY	5	GREY
CODING REQUIRED TO IEC 61076-2-101				CODING REQUIRED TO IEC 61076-2-101				CODING REQUIRED TO IEC 61076-2-101				6	PINK	6	PINK
												7	BLUE	7	BLUE
												8	RED	8	RED
												CODING REQUIRED TO IEC 61076-2-101			

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DIMENSION UNITS	SCALE
mm	1:1
GENERAL TOLERANCES (UNLESS SPECIFIED)	
ANGULAR TOL	± 1.0 °
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3 PLACES	±
2 PLACES	± 0.05
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DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#514494

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INITIAL REVISION:
DRWN: DSOPPIN
APPR: RSILLER

THIRD ANGLE PROJECTION

DRAWING
A3-SIZE

SERIES
120007

MATERIAL NUMBER
SEE PART LIST

CUSTOMER
GENERAL MARKET

SHEET NUMBER
3 OF 4

moLEX

CSE M12 XP AC FE STR MA RA XM

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER
1200070026

DOC TYPE
PSD

DOC PART
000

REVISION
A8

	10	9	8	7	6	5	4	3	2	1																																																									
F	PART LIST										F																																																								
	NO.	MOLEX PN	ENGINEERING PN	LENGTH (mm)	NO.	MOLEX PN	ENGINEERING PN	LENGTH (mm)	NO.	MOLEX PN		ENGINEERING PN	LENGTH (mm)																																																						
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	2	1200070159	883032E03M006	600	50	1200661021	884032K03M090	9000	101	1200669890		884032P03M060	6000																																																						
	3	1200070160	883032E03M010	1000	51	1200661022	884032K03M100	10000	102	1200669891		884032P03M100	10000																																																						
	4	1200070161	883032E03M020	2000	52	1200661023	884032K03M120	12000	103																																																										
	5	1200668205	883032E03M050	5000	53	1200661480	884032K03M200	20000	104																																																										
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D	19	1200072705	883032P03M060	6000	67	1200071519	884032P03M006	600	118																																																										
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	37	1200071277	884032E52M010A	1000	85	1200668978	885032E03M100	10000	136																																																										
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B	39	1200668494	884032H09M010	1000	87	1200668603	885032P03M020G	2000	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION <table><tr><td>DIMENSION UNITS</td><td>SCALE</td><td colspan="2" rowspan="2">CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#514494</td><td colspan="4" rowspan="2"> molex </td></tr><tr><td>mm</td><td>1:1</td></tr><tr><td colspan="2">GENERAL TOLERANCES (UNLESS SPECIFIED)</td><td colspan="2" rowspan="5">EC NO: 770993 DRWN: MADHAM5 CHK'D: GGA APPR: GGA</td><td colspan="4" rowspan="5">CSE M12 XP AC FE STR MA RA XM</td></tr><tr><td>ANGULAR TOL</td><td>± 1.0 °</td></tr><tr><td>4 PLACES</td><td>±</td></tr><tr><td>3 PLACES</td><td>±</td></tr><tr><td>2 PLACES</td><td>± 0.05</td></tr><tr><td>1 PLACE</td><td>± 0.3</td><td colspan="2" rowspan="2">INITIAL REVISION: DRWN: DSOPPIN APPR: RSILLER</td><td colspan="2" rowspan="2">DOCUMENT NUMBER 1200070026</td><td rowspan="2">DOC TYPE PSD</td><td rowspan="2">DOC PART 000</td><td rowspan="2">REVISION A8</td></tr><tr><td>0 PLACES</td><td>± 0.5</td></tr><tr><td colspan="2">DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS</td><td>THIRD ANGLE PROJECTION</td><td>DRAWING</td><td>SERIES</td><td>MATERIAL NUMBER</td><td>CUSTOMER</td><td colspan="2">SHEET NUMBER</td></tr><tr><td colspan="2"></td><td></td><td>A3-SIZE</td><td>120007</td><td>SEE PART LIST</td><td>GENERAL MARKET</td><td colspan="2">4 OF 4</td></tr></table>				DIMENSION UNITS	SCALE	CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#514494		molex				mm	1:1	GENERAL TOLERANCES (UNLESS SPECIFIED)		EC NO: 770993 DRWN: MADHAM5 CHK'D: GGA APPR: GGA		CSE M12 XP AC FE STR MA RA XM				ANGULAR TOL	± 1.0 °	4 PLACES	±	3 PLACES	±	2 PLACES	± 0.05	1 PLACE	± 0.3	INITIAL REVISION: DRWN: DSOPPIN APPR: RSILLER		DOCUMENT NUMBER 1200070026		DOC TYPE PSD	DOC PART 000	REVISION A8	0 PLACES	± 0.5	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER	SHEET NUMBER					A3-SIZE	120007	SEE PART LIST	GENERAL MARKET	4 OF 4	
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45	1200661014	884032K03M020	2000	93	1200669769	888032E02M0501	5000																																																												
46	1200661015	884032K03M030	3000	94	1200669770	888032E02M1001	10000																																																												
47	1200661598	884032K03M036	3600	95	1200669892	884032E03M009	900																																																												
48	1200661017	884032K03M050	5000	96	1200669893	884032E03M013	1300																																																												
				97	1200669894	884032E03M016	1600																																																												
				98	1200669895	884032E03M021	2100																																																												
				99	1200669896	884032E03M032	3200																																																												
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