

6

5

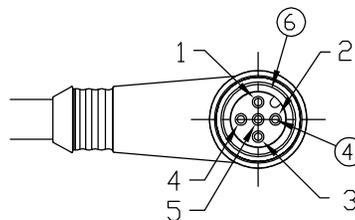
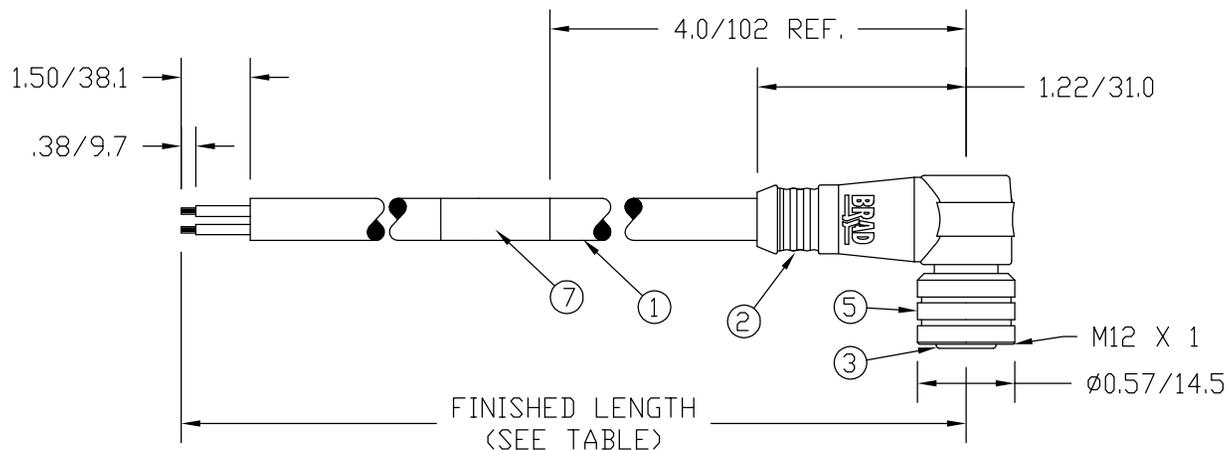
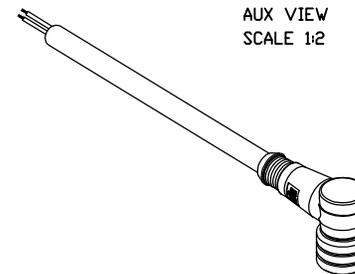
4

3

2

1

MATERIAL NUMBER	ENGINEERING NUMBER	FINISHED LENGTH
120065-1720	805001K03M020	2.0M +89mm -0 [6.56' +3.5' -0]
120065-1721	805001K03M040	4.0M +165mm -0 [13.12' +6.5' -0]
120065-1722	805001K03M050	5.0M +165mm -0 [16.40' +6.5' -0]
120065-1723	805001K03M060	6.0M +165mm -0 [19.69' +6.5' -0]
120065-2155	805001K03M100	10.0M +318mm -0 [32.81' +12.5' -0]



FEMALE FACE VIEW

WIRING DIAGRAM	WIRING DIAGRAM
1	BROWN
2	WHITE
3	BLUE
4	BLACK
5	GRAY

WIRING DIAGRAM

NOTES:

- 1) MATERIALS: SEE TABLE
- 2) FINISHES: SEE TABLE
- 3) CABLE: #18/5 ITC/PLTC TPE
- 4) ELECTRICAL DATA:  
MAX. VOLTAGE: 250 VAC/VDC  
MAX. CURRENT 4 AMPS
- 5) ENVIRONMENTAL:  
PROTECTION IP67  
TEMPERATURE RANGE: -20°C TO 105°C
- 6) WRAP LABEL IS MARKED WITH P/N, DATE CODE,  
VOLTAGE & AMPERAGE.
- 7) ASSEMBLY IS RoHS COMPLIANT.

ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH
7	1	LABEL	MYLAR	BLACK/YELLOW
6	1	O-RING	VITON	RED
5	1	COUPLER	BRASS	TEFLON/NICKEL
4	5	SOCKET CONTACT	COPPER ALLOY	GOLD OVER NICKEL
3	1	INSERT	PUR	BLACK
2	1	OVERMOLD	TPE	YELLOW
1	1	#18/5 CABLE	TPE JACKET	YELLOW

RELEASED DRAWING  
 EC NO: MEL2010-0054  
 DRWN: BWOODMAN 8/17/09  
 CHKD: YOU 2009/07/29  
 APPR: JFMURPHY 2009/08/21

QUALITY SYMBOLS  
 ▽=0  
 ∇=0

DESCRIPTION  
 A

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	±----	±----
3 PLACES	±----	±----
2 PLACES	±.01	±.01
1 PLACE	±0.3	±----

ANGULAR ±----°

DRAFT WHERE APPLICABLE  
 MUST REMAIN  
 WITHIN DIMENSIONS

DIMENSION STYLE  
 IN/MM

DRAWN BY DATE  
 BWOODMAN 2009/08/17

CHECKED BY DATE  
 YOU 2009/08/17

APPROVED BY DATE  
 ---

MATERIAL NO.  
 SEE TABLE

SIZE  
 A

SCALE  
 1:1

DESIGN UNITS  
 INCH

THIRD ANGLE PROJECTION

TITLE  
 MICRO-CHANGE CORDSET  
 5P FE 90 SINGLE KEY  
 #18/5 YELLOW TPE CABLE

MOLEX INCORPORATED

DOCUMENT NO.  
 SD-120065-024

SHEET NO.  
 1 OF 1

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

6

5

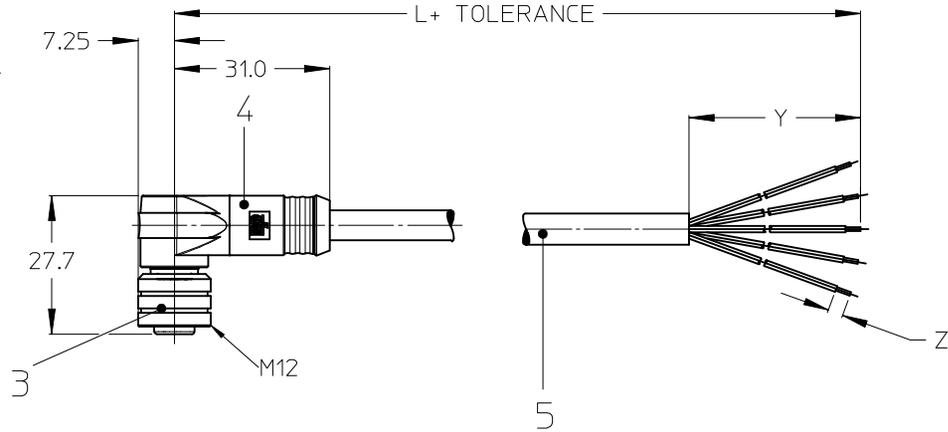
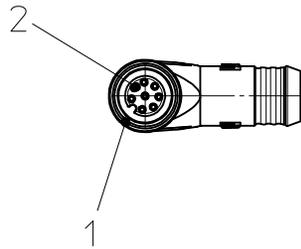
4

3

2

1

# RIGHTANGLE PLUG M12 FEMALE



### NOTES:

TEMPERATURE RANGE	SEE TABLE ON PAGE 2
CONTACT CURRENT RATING	3-5 POLES 4A 8 POLES 2A
VOLTAGE RATING	3-4 POLES 250V 5 POLES 60V 8 POLES 30V
PROTECTION CLASS	IP 67

### TOLERANCES

≤ 1m	+20/-10mm
1m - 5m	± 25mm
5m - 10m	± 30mm
> 10m	± 30mm
> 20m	± 50mm

	3 POL	4 POL	5 POL	8 POL	REMARKS
Y	30 +/-2	50 +/-2	50 +/-2	80 +/-3	OPEN END FOR TESTING
Z	3-6	3-6	3-6	3-6	NOT DEFINED

3 WIRE		4 WIRE		5 WIRE		8 WIRE	
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	4	BLACK	4	BLACK	4	YELLOW
5	-	5	-	5	GREY	5	GREY
6						6	PINK
						7	BLUE
						8	RED
REQUIRED TO IEC 60947-5-2				REQUIRED TO DIN 47100			

ITEM	PART	MATERIAL	FINISH
5	CABLE	SEE TABLE (PAGE 2)	---
4	OVERMOULDING	TPU	SEE CODE (PAGE 2)
3	MALE COUPLING NUT	BRASS	SEE CODE (PAGE 2)
2	PIN CONTACT	BRASS	GOLD PLATED
1	INSERT	PUR	BLACK

<b>ENTER DESCRIPTION</b> EC NO: IPG2014-0812 DRWN:PMERUNKA 2013/08/09 CHKD:APOHL 2013/11/04 APPR:APOHL 2013/11/18	<b>QUALITY SYMBOLS</b> = 0 = 0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b> <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.05</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.10</td> <td>± ---</td> </tr> <tr> <td>0 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.05	± ---	1 PLACE	± 0.10	± ---	0 PLACE	± ---	± ---	<b>DIMENSION STYLE</b> MM ONLY DRAWN BY: PMERUNKA DATE: 2012/04/24 CHECKED BY: RSILLER DATE: 2013/01/18 APPROVED BY: CBURGER DATE: 2013/07/16	<b>SCALE</b> 1:1 <b>DESIGN UNITS</b> METRIC THIRD ANGLE PROJECTION	<b>TITLE</b> CSE M12 XP AC FE RA XM SE UNSH
				mm	INCH																		
4 PLACES	± ---	± ---																					
3 PLACES	± ---	± ---																					
2 PLACES	± 0.05	± ---																					
1 PLACE	± 0.10	± ---																					
0 PLACE	± ---	± ---																					
MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-120065-052	SHEET NO. 1 OF 4																					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																				

**NUMERICAL CODE** (Available parts see table page 3 ff others on request.)



80 = M12x1 single ended

poles:  
3 = 3 poles  
4 = 4 poles  
5 = 5 poles

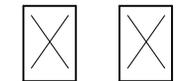
header:  
000 = plug female straight  
001 = plug female 90° right  
006 = plug male straight  
007 = plug male 90° right

Cable:  
E02 = 0,25mm², PVC black  
E03 = 0,34mm², PVC black  
H08 = 0,25mm², PUR black LS0H  
H09 = 0,34mm², PUR black LS0H  
I03 = 0,34mm², PVC grey  
K05 = 0,34mm², TPE yellow  
P02 = 0,25mm², PUR/PVC black  
P03 = 0,34mm², PUR/PVC black  
P82 = 0,34mm², PUR black irradiated  
B30 = 0,34mm², TPE black

M = meter

length:  
Example  
020 = 2 m

**Special Types:**



5 = Delrin  
H = Sid with ID tag  
1 = Stainless Steel  
7 = Teflon coat

y = yellow overmoulding empty for black

CABLE TYPE	WIRE GAUGE	CABLE JACKET	UL	CSA	static	flexing	drag chain tested	other
E02	0.25mm²	PVC black	STYLE 2464	I/II A/B 80°/300V	-30°C to +80°C 5xD	-5°C to +80°C 9xD	---	---
E03	0.34mm²	PVC black	STYLE 2464	I/II A/B 80°/300V	-30°C to +80°C 5xD	-5°C to +80°C 9xD	---	---
H08	0.25mm²	PUR black LS0H	AWM STYLE 21198/10493	APPROVED	-50°C to +80°C 5xD	-25°C to +80°C 10xD	2000000 cycles	---
H09	0.34mm³	PUR black LS0H	AWM STYLE 21198/10493	APPROVED	-50°C to +80°C 5xD	-25°C to +80°C 10xD	drag chain 60°C	---
I03	0.34mm²	PVC grey	---	---	-30°C to +70°C	-5°C to +70°C	---	---
K05	0.34mm²	TPE yellow	ITC E195601 or PLTC	AWM I/II A/B FT4 LL54185	---	---	---	CSA-US:ITC LL54185-02
P02	0.25mm²	PUR/PVC black	not applicable	not applicable	-30°C to +80°C 7xD	-5°C to +80°C 15xD	---	---
P03	0.34mm²	PUR/PVC black	not applicable	not applicable	-30°C to +80°C 7xD	-5°C to +80°C 15xD	---	---
P82	0.34mm²	irrad. PUR orange	---	---	-50°C to +105°C 5xD	-40°C to +105°C 7.5xD	---	---
B30	0.34mm²	PUR black	STYLE 21215	yes	-40°C to +90°C 5xD	-25°C to +80°C 7.5xD	---	---

ENTER DESCRIPTION EC NO: IPG2014-0812 DRWN:PMERUNKA 2013/08/09 CHKD:APOHL 2013/11/04 APPR:APOHL 2013/11/18 2	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.05 ± --- 1 PLACE ± 0.10 ± --- 0 PLACE ± --- ± --- ANGULAR ± .5 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION STYLE MM ONLY DRAWN BY: PMERUNKA DATE: 2012/04/24 CHECKED BY: RSILLER DATE: 2013/01/18 APPROVED BY: CBURGER DATE: 2013/07/16	SCALE 1:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE CSE M12 XP AC FE RA XM SE UNSH	
		MATERIAL NO. SEE TABLE			DOCUMENT NO. SD-120065-052	SHEET NO. 2 OF 4	
		<b>molex</b>					
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

P/N	Engineering-No
1200062292	803001E03M003
1200658046	803001E03M006
1200658047	803001E03M0061
1200062402	803001E03M008
1200060175	803001E03M010
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1200060007	803001E03M020
1200061541	803001E03M022
1200060178	803001E03M030
1200061540	803001E03M033
1200658564	803001E03M040
1200658048	803001E03M0401
1200060008	803001E03M050
1200658234	803001E03M0501
1200658268	803001E03M0505
1200658886	803001E03M050H
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1200061553	803001E03M058
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1200658885	803001E03M100H
1200060184	803001E03M150
1200060187	803001E03M200
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1200659105	808001H08M100Y

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1200064210	803001I03M051
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1200658237	803001P03M006
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1200064433	804001H09M050G
1200658010	804001H09M050H
1200658194	804001H09M100
1200064436	804001H09M100G
1200658011	804001H09M100H
1200658195	804001H09M150
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1200658708	804001I03M020G
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1200658709	804001I03M030G
1200064244	804001I03M040
1200658710	804001I03M040G
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1200062575	804001I03M0501
1200063532	804001I03M0505
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1200060507	804001I03M100
1200658712	804001I03M100G
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1200063563	804001I04M030G
1200062112	804001I20M003
1200658276	804001I20M100
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1200650909	804001K03M0508
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1200651632	804001K03M0602
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1200651634	804001K03M100
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1200652059	804001K03M200
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1200010072	804001P03M006W
1200061986	804001P03M010
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1200060024	804001P03M020
1200651783	804001P03M020G

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1200010076	804001P03M030W
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1200658631	804001P03M040G
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1200651784	804001P03M050A
1200651785	804001P03M050G
1200651786	804001P03M050GQ
1200658992	804001P03M050H
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1200658206	804001P03M060
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1200062313	804001P03M100H
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1200060516	804001P03M150
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1200062155	804001P82M030
1200062520	804001P82M050
1200060043	804001P82M0507
1200062615	804001P82M100

<b>ENTER DESCRIPTION</b> EC NO: IPG2014-0812 DRWN: PMERUNKA 2013/08/09 CHKD: APOHL 2013/11/04 APPR: APOHL 2013/11/18 REV 2	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr><th>mm</th><th>INCH</th></tr> <tr><td>4 PLACES ± ---</td><td>± ---</td></tr> <tr><td>3 PLACES ± ---</td><td>± ---</td></tr> <tr><td>2 PLACES ± 0.05</td><td>± ---</td></tr> <tr><td>1 PLACE ± 0.10</td><td>± ---</td></tr> <tr><td>0 PLACE ± ---</td><td>± ---</td></tr> </table>	mm	INCH	4 PLACES ± ---	± ---	3 PLACES ± ---	± ---	2 PLACES ± 0.05	± ---	1 PLACE ± 0.10	± ---	0 PLACE ± ---	± ---	DIMENSION STYLE <b>MM ONLY</b>	SCALE <b>1:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION
	mm	INCH																
	4 PLACES ± ---	± ---																
	3 PLACES ± ---	± ---																
2 PLACES ± 0.05	± ---																	
1 PLACE ± 0.10	± ---																	
0 PLACE ± ---	± ---																	
DRAWN BY PMERUNKA	DATE 2012/04/24	TITLE <b>CSE M12 XP AC FE RA XM SE UNSH</b>																
CHECKED BY RSILLER	DATE 2013/01/18	MATERIAL NO. <b>SD-120065-052</b>																
APPROVED BY CBURGER	DATE 2013/07/16	SHEET NO. <b>3 OF 4</b>	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															

P/N	Engineering-No
1200658006	804001P82M1507
1200658007	804001P82M2007
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1200060652	805001E03M020
1200658574	805001E03M030
1200658575	805001E03M040
1200060654	805001E03M050
1200060655	805001E03M0501
1200060657	805001E03M100
1200658359	805001E03M150
1200658664	805001H09M010
1200658665	805001H09M015
1200658296	805001H09M020
1200658666	805001H09M030
1200658667	805001H09M040
1200658297	805001H09M050
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1200658471	805001I03M010
1200658326	805001I03M015
1200658607	805001I03M030
1200658608	805001I03M040
1200061563	805001I03M050
1200063825	805001I03M050G
1200062334	805001I03M100
1200061850	805001I26M050
1200063564	805001I26M100
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1200651723	805001K03M060
1200652155	805001K03M100
1200658617	805001P03M010
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1200658627	805001P03M030

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1200652156	805001P03M060
1200060664	805001P03M100
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1200658650	808001H08M030
1200658651	808001H08M040

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1200658684	808001I02M020
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1200658620	808001P02M030
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1200650962	808001P02M050
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1200650963	808001P02M100
1200658483	808001P02M150
1200658106	808001P19M030
1200655008	808001P19M050
1200658328	808001P19M100
1200658544	808001P19M250
1200659118	803001I03M050Y
1200659120	803001I03M030Y
1200659121	803001I03M100Y
1200659056	803001E03M050Y
1200659057	803001E03M100Y
1200659074	803001E03M150Y
1200659124	804001H09M100HY
1200659061	804001E03M020Y
1200659062	804001E03M050Y
1200659063	804001E03M100Y
1200659068	804001I03M050Y
1200659069	804001P82M0507Y
1200659077	804001E03M150Y
1200659078	804001I03M100Y
1200659079	804001S20M050Y

P/N	Engineering-No
1200659086	804001P82M1007Y
1200668648	804001P82M0207Y
1200659091	804001S20M100Y
1200659093	804001A09M050Y
1200659094	804001A09M100Y
1200659095	804001H09M050HY
1200659098	804001S20M200Y
1200659099	804001H09M050Y
1200659108	804001P03M050HY
1200652259	803001B30M010
1200652260	803001B30M020
1200652261	803001B30M050
1200652262	803001B30M100
1200652263	804001B30M010
1200652264	804001B30M020
1200652265	804001B30M050
1200652266	804001B30M100
1200652267	805001B30M010
1200652268	805001B30M020
1200652269	805001B30M050
1200652270	805001B30M100

ENTER DESCRIPTION EC NO: IPG2014-0812 DRWN:PMERUNKA 2013/08/09 CHKD:APOHL 2013/11/04 APPR:APOHL 2013/11/18 2	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.05 ± --- 1 PLACE ± 0.10 ± --- 0 PLACE ± --- ± ---		DRAWN BY DATE PMERUNKA 2012/04/24		TITLE CSE M12 XP AC FE RA XM SE UNSH			
		ANGULAR ± .5 °		CHECKED BY DATE RSILLER 2013/01/18		APPROVED BY DATE CBURGER 2013/07/16			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-120065-052		SHEET NO. 4 OF 4	