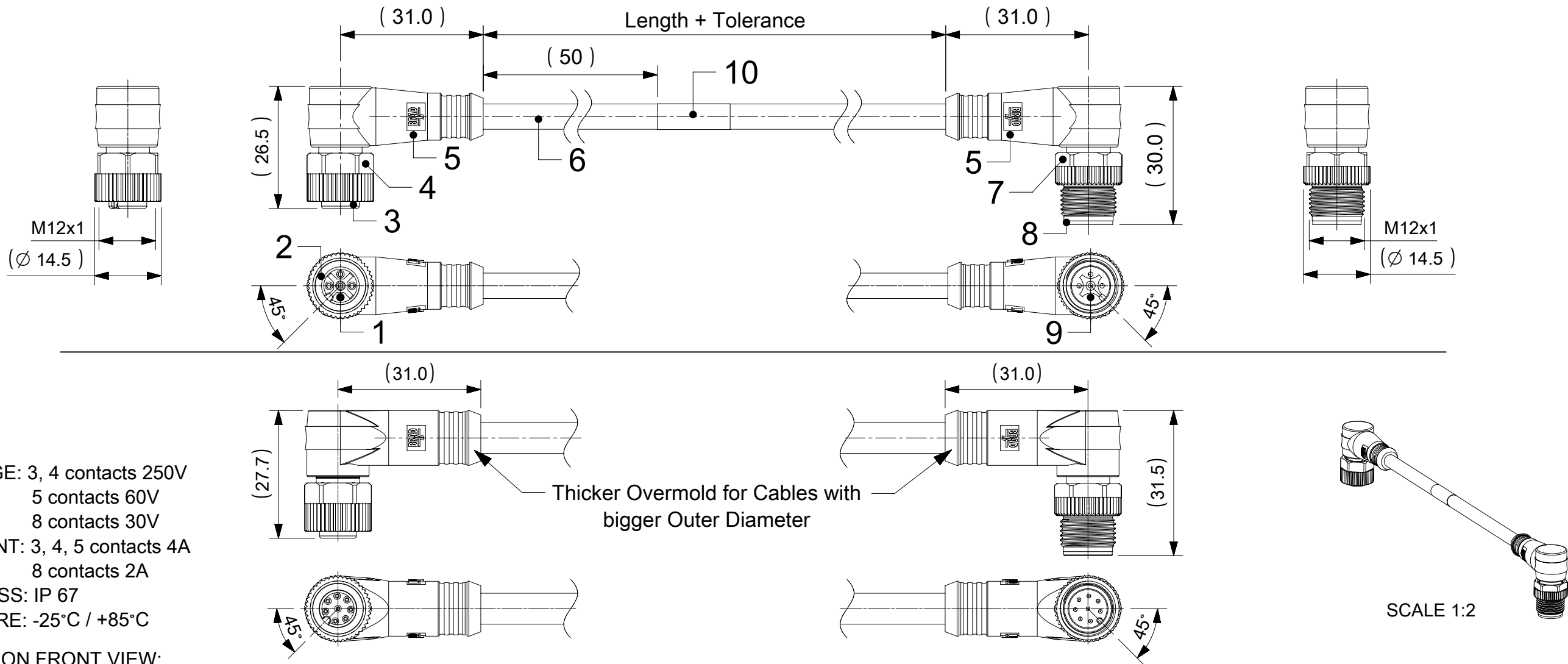
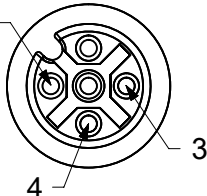
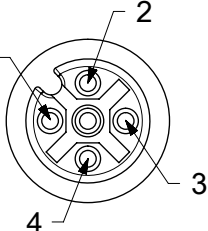
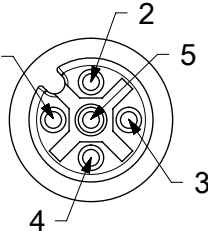
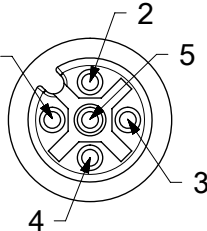
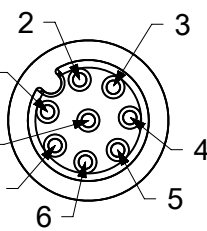
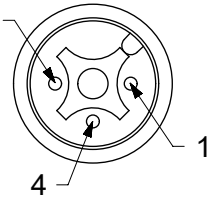
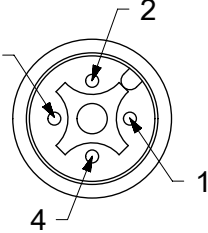
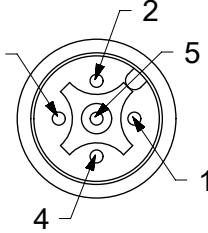
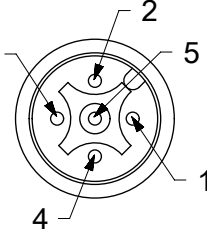
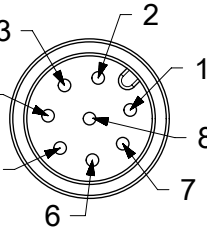


FEMALE PLUG M12 90° ANGLED TO MALE PLUG M12 90° ANGLED



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: -25°C / +85°C

CONTACTS POSITION FRONT VIEW:

| 3 CONTACTS                         |                                                                                     | 4 CONTACTS                                                                          |                                                                                     | 5 CONTACTS                                                                           |                                                                                       | 5 CONTACTS |     | 8 CONTACTS       |     |        |
|------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------|-----|------------------|-----|--------|
| CABLE                              | B30, B55                                                                            | B30, B33, B36, B55                                                                  | B30, B33, B36, B55                                                                  | B30, B33, B36, B55                                                                   | B42                                                                                   | B41, B49   |     |                  |     |        |
| FEMALE                             |  |  |  |  |  |            |     |                  |     |        |
| MALE                               |  |  |  |  |  |            |     |                  |     |        |
| CONNECTIONS                        | PIN                                                                                 | WIRE                                                                                | PIN                                                                                 | WIRE                                                                                 | PIN                                                                                   | WIRE       | PIN | WIRE             | PIN | WIRE   |
|                                    | 1                                                                                   | BROWN                                                                               | 1                                                                                   | BROWN                                                                                | 1                                                                                     | BROWN      | 1   | BROWN            | 1   | WHITE  |
|                                    | 2                                                                                   | ---                                                                                 | 2                                                                                   | WHITE                                                                                | 2                                                                                     | WHITE      | 2   | WHITE            | 2   | BROWN  |
|                                    | 3                                                                                   | BLUE                                                                                | 3                                                                                   | BLUE                                                                                 | 3                                                                                     | BLUE       | 3   | BLUE             | 3   | GREEN  |
|                                    | 4                                                                                   | BLACK                                                                               | 4                                                                                   | BLACK                                                                                | 4                                                                                     | BLACK      | 4   | BLACK            | 4   | YELLOW |
|                                    | 5                                                                                   | ---                                                                                 | 5                                                                                   | ---                                                                                  | 5                                                                                     | GREY       | 5   | GREEN/<br>YELLOW | 5   | GREY   |
|                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |            |     |                  | 6   | PINK   |
|                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |            |     |                  | 7   | BLUE   |
|                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       | 8          |     |                  | RED |        |
| CODING REQUIRED TO IEC 61076-2-101 |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |            |     |                  |     |        |

FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2

|      |             |                          |             |                            |
|------|-------------|--------------------------|-------------|----------------------------|
| 11   | SEE SHEET 2 | I/D CARRIER              | PVC         | TRANSPARENT                |
| 10   | 1           | LABEL YELLOW             | VINYL       | ---                        |
| 9    | 3 / 4 / 5   | CONTACT M12 MALE         | COPPER      | SELECTIVE GOLD OVER NICKEL |
|      | 8           |                          | BRASS       | SELECTIVE GOLD OVER NICKEL |
| 8    | 1           | INSERT MALE BLACK        | TPU         | ---                        |
| 7    | 1           | COUPLING NUT MALE SW13   | BRASS       | SEE SHEET 2                |
| 6    | -           | CABLE                    | SEE SHEET 2 | ---                        |
| 5    | -           | OVERMOULDING             | TPU         | SEE SHEET 2                |
| 4    | 1           | COUPLING NUT FEMALE SW13 | BRASS       | SEE SHEET 2                |
| 3    | 1           | INSERT FEMALE BLACK      | TPU         | ---                        |
| 2    | 1           | ORING RED                | FPM         | ---                        |
| 1    | 3 / 4 / 5   | CONTACT M12 FEMALE       | BRONZE      | SELECTIVE GOLD OVER NICKEL |
|      | 8           |                          | BRASS       | SELECTIVE GOLD OVER NICKEL |
| ITEM | QTY.        | DESCRIPTION              | MATERIAL    | FINISH                     |

|                                                                                                                                               |  |        |  |                                                                                                                            |  |                |  |              |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--|--------|--|----------------------------------------------------------------------------------------------------------------------------|--|----------------|--|--------------|--|
| 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: REMOVED OBSOLETE PART NUMBER AS PER PCN#512871.                                                          |  |                |  |              |  |
| mm                                                                                                                                            |  | 1:1    |  | <div><div>mo</div><div>lex</div></div> <div>CSE M12 XP AC FE RA WSOR MA RA XM DE</div> <div>PRODUCT CUSTOMER DRAWING</div> |  |                |  |              |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                         |  |        |  |                                                                                                                            |  |                |  |              |  |
| ANGULAR TOL ± 1.0 °                                                                                                                           |  |        |  |                                                                                                                            |  |                |  |              |  |
| EC NO: 732259                                                                                                                                 |  |        |  |                                                                                                                            |  |                |  |              |  |
| 4 PLACES                                                                                                                                      |  | ±      |  | DRWN: SANTHN                                                                                                               |  | 2022/12/15     |  |              |  |
| 3 PLACES                                                                                                                                      |  | ±      |  | CHK'D: GGA                                                                                                                 |  | 2022/12/21     |  |              |  |
| 2 PLACES                                                                                                                                      |  | ± 0.05 |  | APPR: GGA                                                                                                                  |  | 2022/12/21     |  |              |  |
| 1 PLACE                                                                                                                                       |  | ± 0.3  |  | INITIAL REVISION:<br>DRWN: JMARSZALEK 2016/10/12<br>APPR: RSILLER 2016/10/18                                               |  |                |  |              |  |
| 0 PLACES                                                                                                                                      |  | ± 0.5  |  |                                                                                                                            |  |                |  |              |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                    |  |        |  | THIRD ANGLE PROJECTION                                                                                                     |  | DRAWING        |  | SERIES       |  |
|                                                                                                                                               |  |        |  |                                       |  | A3-SIZE        |  | 120066       |  |
|                                                                                                                                               |  |        |  | MATERIAL NUMBER                                                                                                            |  | CUSTOMER       |  | SHEET NUMBER |  |
|                                                                                                                                               |  |        |  | SEE SHEET 3                                                                                                                |  | GENERAL MARKET |  | 1 OF 3       |  |

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

88X033XXXXXX

88=M12x1  
Double ended

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

Heads style:  
033=Plug Female 90°  
to Plug Male 90°

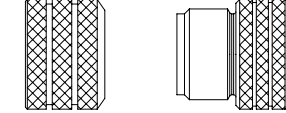
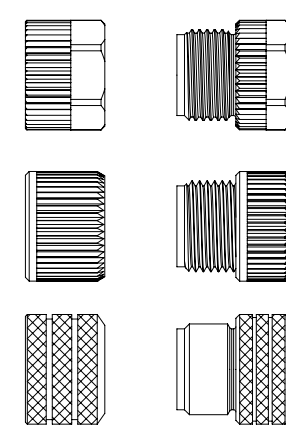
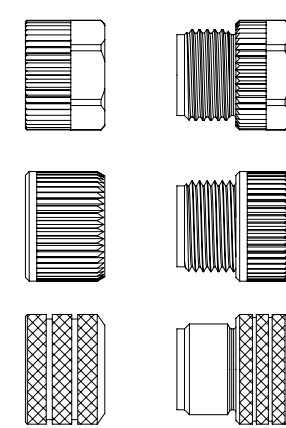
Cable type: See Table

Units:  
M=Meter  
C=Centimeter

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

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)

COUPLING NUT  
FEMALEMALE



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 PRODUCT SPECIFICATION | CABLE SPEC. DRAWING |
|------------|--------------|---------------|--------------|--------------|-------------------------|--------------------------------|---------------------------------|------------------------------------|----------------------------------------|-----------------------------|---------------------|
| B30        | 3 / 4 / 5    | 0.34mm²       | TPU Black    | UL 21215/758 | C22.2 I/II A/B 80°/600V | -40°C to +90°C<br>>5xO.D.      | -25°C to +80°C<br>>7.5xO.D.     | -5°C to +60°C<br>>7.5xO.D.         | up to 5 000 000 cycles<br>at temp 20°C | 1552200001                  | SD-120209-001       |
| B33        | 4 / 5        | 0.34mm²       | TPU Gray     |              |                         |                                |                                 |                                    |                                        |                             | SD-120209-001       |
| B36        | 4            | 0.34mm²       | TPU Orange   |              |                         |                                |                                 |                                    |                                        |                             | SD-120209-001       |
| B41        | 8            | 0.25mm²       | TPU Black    |              |                         |                                |                                 |                                    |                                        |                             | SD-120209-006       |
| B42        | 5            | 0.34mm²       | TPU Black    |              |                         |                                |                                 |                                    |                                        |                             | SD-120209-001       |
| B55        | 4 / 5        | 0.34mm²       | TPU Yellow   |              |                         |                                |                                 |                                    |                                        |                             | N/A                 |

CABLE LENGTH TOLERANCES

| LENGTH   | TOLERANCE  |
|----------|------------|
| 0m-1m    | +40 mm     |
| >1m-5m   | +60 mm     |
| >5m-10m  | +80 mm     |
| >10m-20m | +140 mm    |
| >20m-30m | +160 mm    |
| >30m     | +1% 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

CURRENT REV DESC: REMOVED OBSOLETE PART NUMBER AS PER PCN#512871.

EC NO: 732259

DRWN: SANTHN 2022/12/15

CHK'D: GGA 2022/12/21

APPR: GGA 2022/12/21

INITIAL REVISION:

DRWN: JMARSZALEK 2016/10/12

APPR: RSILLER 2016/10/18

THIRD ANGLE PROJECTION

DRAWING A3-SIZE

SERIES 120066

MATERIAL NUMBER SEE SHEET 3

CUSTOMER GENERAL MARKET

SHEET NUMBER 2 OF 3

molex

CSE M12 XP AC FE RA WSOR MA RA XM DE

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

1200669011

DOC TYPE

PSD

DOC PART

000

REVISION

A5

