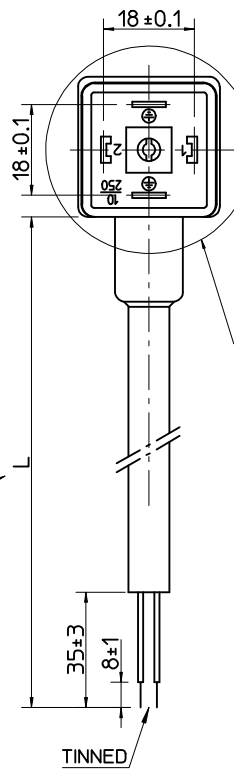


WIRING CONFIGURATION



Screw and gasket, see sheet 2, PN Key

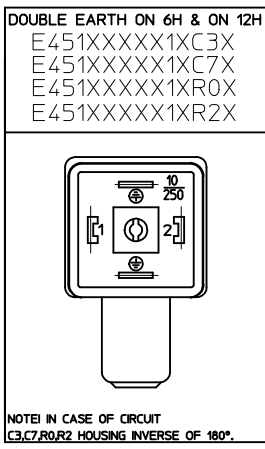
See Insert Orientation

Insert Orientation

CIRCUIT PRINTOUT/WHITE

NOTE! IN CASE OF EO, R0, 00 CIRCUITS DIN CONNECTOR IS WITHOUT LED.

| | | |
|---|---------------------------------------|--------------------------------------|
| DOUBLE EARTH ON 6H & 12H E451XXXXXXXX1XXXX | EARTH PIN ON 12H E451XXXXXXXX2XXXX | EARTH PIN ON 6H E451XXXXXXXX6XXXX |
| DOUBLE EARTH ON 3H & 9H E451XXXXXXXX4XXXX | EARTH PIN ON 3H E451XXXXXXXX3XXXX | EARTH PIN ON 9H E451XXXXXXXX9XXXX |

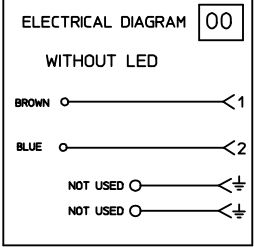


| | | |
|----------------------------------|----------------------------------|----------------------------------|
| ELECTRICAL DIAGRAM R0 | ELECTRICAL DIAGRAM C4 | ELECTRICAL DIAGRAM S0 |
| ELECTRICAL DIAGRAM S3 | ELECTRICAL DIAGRAM A1 | ELECTRICAL DIAGRAM C3 |
| ELECTRICAL DIAGRAM E0 | ELECTRICAL DIAGRAM R2 | ELECTRICAL DIAGRAM C7 |

Note: Circuit E0 works from 12V to 230V. Only one type in coding E452XXXXXXXXE05.

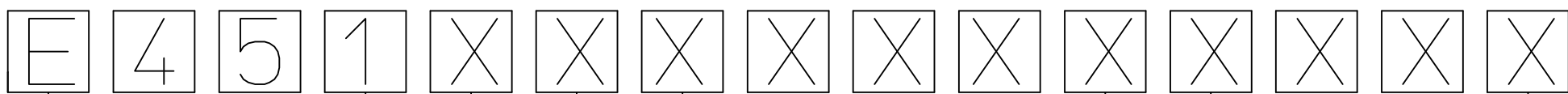
Table of lenght tolerances [mm]

| Over | Up to and including | Tolerance (+) |
|-------|---------------------|---------------|
| 0 | 1000 | ±20 |
| 1000 | 3000 | ±30 |
| 3000 | 5000 | ±40 |
| 5000 | 10000 | ±50 |
| 10000 | 15000 | ±100 |
| 15000 | 20000 | ±150 |
| 20000 | | ±L/100 |



| <p>ORIGINAL RELEASE EC NO: IPG2013-1190 DRWN: JMARSZALEK 2012/11/12 CHKD: MSZWAJKOWSKI 2012/11/12 APPR: MIWASIECZKO 2013/02/12</p> | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE | SCALE | DESIGN UNITS | <p>FIRST ANGLE PROJECTION</p> <p>E451XXXXXXXXXXXX DIN FORM A EN 175301-803</p> <p>molex</p> | | | | | | | | | | | | | |
|--|---|--|--------------------------------|-------|--------------|--|-------------|----------|-------------|----------|-------------|---------|-------------|---------|-------------|---|---|--------|-----------------------------------|
| | <p>▽=0 ◻=0</p> | <table border="1"> <thead> <tr><th>mm</th><th>INCH</th></tr> </thead> <tbody> <tr><td>4 PLACES</td><td>± --- ± ---</td></tr> <tr><td>3 PLACES</td><td>± --- ± ---</td></tr> <tr><td>2 PLACES</td><td>± --- ± ---</td></tr> <tr><td>1 PLACE</td><td>± --- ± ---</td></tr> <tr><td>0 PLACE</td><td>± --- ± ---</td></tr> </tbody> </table> | mm | INCH | 4 PLACES | | ± --- ± --- | 3 PLACES | ± --- ± --- | 2 PLACES | ± --- ± --- | 1 PLACE | ± --- ± --- | 0 PLACE | ± --- ± --- | <p>MM ONLY</p> <p>DRAWN BY DATE JMARSZALEK 2012/11/12</p> <p>CHECKED BY DATE MSZWAJKOWSKI 2012/11/12</p> <p>APPROVED BY DATE MIWASIECZKO 2013/02/12</p> | - | METRIC | <p>TITLE</p> <p>SD-121050-004</p> |
| | mm | INCH | | | | | | | | | | | | | | | | | |
| | 4 PLACES | ± --- ± --- | | | | | | | | | | | | | | | | | |
| 3 PLACES | ± --- ± --- | | | | | | | | | | | | | | | | | | |
| 2 PLACES | ± --- ± --- | | | | | | | | | | | | | | | | | | |
| 1 PLACE | ± --- ± --- | | | | | | | | | | | | | | | | | | |
| 0 PLACE | ± --- ± --- | | | | | | | | | | | | | | | | | | |
| <p>ANGULAR ± --- °</p> <p>DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS</p> | <p>MATERIAL NO.</p> <p>MATRIX DRAWING</p> | <p>DOCUMENT NO.</p> <p>SD-121050-004</p> | <p>SHEET NO.</p> <p>1 OF 3</p> | | | | | | | | | | | | | | | | |
| | | <p>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION</p> | | | | | | | | | | | | | | | | | |

10 9 8 7 6 5 4 3 2 1



E - Packing without bags
 W - Single packing
 Q - Quick packing

NUMBER OF WIRES:
 1=2 WIRES
 2=2 WIRES + EARTH
 3=3 WIRES + EARTH

CABLE TYPE
 SEE SHEET 3 - TABLE 1

CABLE CROSS SECTION AREA
 SEE SHEET 3 - TABLE 2

HEAD COLOUR:
 G=GREY;
 N=BLACK;
 T=TRANSPARENT;
 A=CSA-UL BLACK;
 B=CSA-UL GREY.

CABLE LENGHT IN CM
 Eg.:050=50 CM, 300=300 CM, 10K=1000 CM.

EARTH PIN LOCATION:
 1=DOUBLE EARTH ON 6H AND 12H.
 2=EARTH ON 12H.
 6=EARTH ON 6H.

TYPE OF GASKET AND SCREW:
 1=NBR PROFILE GASKET + FIXING SCREWS (M3x25 mm).
 2=NBR FLAT GASKET + FIXING SCREW (M3x25 mm).
 3=SILICONE PROFILE GASKET + FIXING SCREW (M3x25 mm).
 4=SILICON FLAT GASKET + FIXING SCREW (M3x25 mm).
 P=INTEGRATED GASKET ASSEMBLED + FIXING SCREW WITH GROMMET ASSEMBLED ON CONNECTOR (M3x27 mm).
 R=INTEGRATED GASKET + FIXING SCREW + GROMMET (M3x27 mm).
 T=PROFILE GASKET + FIXING SCREW + GROMMET (M3x27 mm).

INTERNAL CIRCUIT
 WIRING CONFIGURATION

VOLTAGE AND LED COLOUR:

| | | |
|---------|---------|---------|
| 1= 12V | A= 12V | G= 12V |
| 2= 24V | B= 24V | H= 24V |
| 3= 48V | C= 48V | K= 48V |
| 4= 115V | D= 115V | L= 115V |
| 5= 230V | E= 230V | M= 230V |

RED LED GREEN LED YELLOW LED

| ORIGINAL RELEASE EC NO: IPG2013-1190 DRWN: JMARSZALEK 2012/11/12 CHKD: MSZWAJKOWSKI 2012/11/12 APPR: MIWASIECZKO 2013/02/12 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <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>± ---</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>0 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </table> | | mm | INCH | 4 PLACES | ± --- | ± --- | 3 PLACES | ± --- | ± --- | 2 PLACES | ± --- | ± --- | 1 PLACE | ± --- | ± --- | 0 PLACE | ± --- | ± --- | DIMENSION STYLE MM ONLY | SCALE - | DESIGN UNITS METRIC | FIRST ANGLE PROJECTION E451XXXXXXXXXX DIN FORM A EN 175301-803 molex |
|---|--|--|---|---------------------|------|----------|-------|-------|----------|-------|-------|----------|-------|-------|---------|-------|-------|---------|-------|-------|----------------------------|------------|------------------------|---|
| | | | mm | INCH | | | | | | | | | | | | | | | | | | | | |
| | 4 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | |
| | 3 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | |
| 2 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | | |
| 1 PLACE | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | | |
| 0 PLACE | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | | |
| DESCRIPTION ▼=0 ◻=0 | DRAWN BY: JMARSZALEK DATE: 2012/11/12 CHECKED BY: MSZWAJKOWSKI DATE: 2012/11/12 APPROVED BY: MIWASIECZKO DATE: 2013/02/12 | TITLE MATRIX DRAWING | DOCUMENT NO. SD-121050-004 | SHEET NO. 2 OF 3 | | | | | | | | | | | | | | | | | | | | |
| | ANGULAR ± --- ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO. | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | | | | | | | | | | | | | |
| | | SIZE A3 | | | | | | | | | | | | | | | | | | | | | | |

9 8 7 6 5 4 3 2 1

TABLE 2 - CABLES

| Molex PN | mPm | Code | Wires | Cross Section | Material | Color | Diameter Ø | DIN A-B | DIN C |
|------------|-----|------|-------|---------------|----------------------|--------------|----------------|---------|-------|
| 1210180080 | I | 0 | 3 | 1 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 6,4±0,2 mm | OK. | - |
| 1210180467 | A | 2 | 2 | 20 AWG | PVC CSA/UL 2661 | Black | 5,4±0,2 mm | OK. | OK. |
| 1210180128 | A | 2 | 3 | 20 AWG | PVC CSA/UL 2661 | Black | 5,6±0,2 mm | OK. | OK. |
| 1210180394 | A | 2 | 4 | 20 AWG | PVC CSA/UL 2661 | Black | 6,2±0,25 mm | OK. | OK. |
| - | A | 2 | 5 | 20 AWG | PVC CSA/UL 2661 | Black | 7±0,2 mm | OK. | - |
| 1210180297 | B | 2 | 2 | 20 AWG | PUR CSA/UL 20668 | Black | 5,6±0,2 mm | OK. | OK. |
| 1210180126 | B | 2 | 3 | 20 AWG | PUR CSA/UL 20668 | Black | 5,6±0,2 mm | OK. | OK. |
| 1210180387 | B | 2 | 4 | 20 AWG | PUR CSA/UL 20668 | Black | 6,2±0,2 mm | OK. | OK. |
| - | B | 2 | 5 | 20 AWG | PUR CSA/UL 20668 | Black | 7±0,2 mm | OK. | - |
| 1210180122 | D | 2 | 3 | 0,5 mm2 | PVC TI2 CEI 20-20 | Grey | 5,5±0,2 mm | OK. | OK. |
| - | F | 2 | 3 | 0,5 mm2 | CNOMO | Grey RAL7000 | 5,5±0,2 mm | OK. | OK. |
| 1210180047 | I | 2 | 2 | 0,5 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 5,5±0,3/-0 mm | OK. | OK. |
| 1210180284 | I | 2 | 3 | 0,5 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 5,6±0,3/-0 mm | OK. | OK. |
| 1210180146 | I | 2 | 4 | 0,5 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 6,5±0,2 mm | OK. | OK. |
| 1210180177 | I | 2 | 5 | 0,5 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 7±0,2 mm | OK. | - |
| 1210180022 | N | 2 | 2 | 0,5 mm2 | PVCH03 | Black | 5,2±0,2 mm | OK. | OK. |
| 1202092753 | N | 2 | 3 | 0,5 mm2 | PVCH03 | Black | 5,5±0,2 mm | OK. | OK. |
| 1210180153 | N | 2 | 4 | 0,5 mm2 | PVCH03 | Black | 6,9 mm max | OK. | OK. |
| 1210180046 | P | 2 | 2 | 0,5 mm2 | PUR - BLEND | Black | 5,5±0,2 mm | OK. | OK. |
| 1202092439 | P | 2 | 3 | 0,5 mm2 | PUR - BLEND | Black | 5,5 +0,3/-0 mm | OK. | OK. |
| 1210180302 | P | 2 | 4 | 0,5 mm2 | PUR - BLEND | Black | 6,5±0,2 mm | OK. | OK. |
| 1202092215 | P | 2 | 5 | 0,5 mm2 | PUR - BLEND | Black | 7+0,3/-0,1 mm | OK. | OK. |
| 1210180409 | A | 3 | 2 | 18 AWG | PVC CSA/UL 2661 | Black | 6,5±0,25 mm | OK. | - |
| 1210180129 | A | 3 | 3 | 18 AWG | PVC CSA/UL 2661 | Black | 6,5±0,25 mm | OK. | - |
| 1210180159 | A | 3 | 4 | 18 AWG | PVC CSA/UL 2661 | Black | 7±0,3 mm | OK. | - |
| 1210180464 | A | 3 | 5 | 18 AWG | PVC CSA/UL 2661 | Black | 7,8±0,25 mm | OK. | - |
| 1210180351 | B | 3 | 2 | 18 AWG | PUR CSA/UL 20668 | Black | 6,8±0,2 mm | OK. | - |
| 1210180127 | B | 3 | 3 | 18 AWG | PUR CSA/UL 20668 | Black | 6,5±0,2 mm | OK. | - |
| 1210180160 | B | 3 | 4 | 18 AWG | PUR CSA/UL 20668 | Black | 7±0,2 mm | OK. | - |
| 1210180463 | B | 3 | 5 | 18 AWG | PUR CSA/UL 20668 | Black | 7,8±0,2 mm | OK. | - |
| 1210180073 | D | 3 | 3 | 0,75 mm2 | PVC TI2 CEI 20-20 | Grey | 6,5±0,2 mm | OK. | OK. |
| 1210180145 | D | 3 | 4 | 0,75 mm2 | PVC TI2 CEI 20-20 | Grey | 7,1±0,2 mm | OK. | - |
| 1202098208 | I | 3 | 2 | 0,75 mm2 | PVC CEI 2022 II O.R. | Grey RAL7001 | 5,5±0,2 mm | OK. | - |
| 1210180120 | I | 3 | 3 | 0,75 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 6±0,2 mm | OK. | - |
| 1210180143 | I | 3 | 4 | 0,75 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 7±0,2 mm | OK. | - |
| 1210180032 | N | 3 | 2 | 0,75 mm2 | PVCH05 | Black | 6,2±0,2 mm | OK. | - |
| 1210180069 | N | 3 | 3 | 0,75 mm2 | PVCH05 | Black | 6,5±0,2 mm | OK. | - |
| 1210180144 | N | 3 | 4 | 0,75 mm2 | PVCH05 | Black | 7,1±0,2 mm | OK. | - |
| 1210180174 | N | 3 | 5 | 0,75 mm2 | PVCH05 | Black | 8,0±0,2-0 mm | OK. | - |
| 1202094190 | P | 3 | 2 | 0,75 mm2 | PUR - BLEND | Black | 6,5±0,2 mm | OK. | - |

TABLE 2 - CABLES

| Molex PN | mPm | Code | Wires | Cross Section | Material | Color | Diameter Ø | DIN A-B | DIN C |
|------------|-----|------|-------|---------------|----------------------|--------------|---------------|---------|-------|
| 1210180071 | P | 3 | 3 | 0,75 mm2 | PUR - BLEND | Black | 6,5±0,2 mm | OK. | - |
| 1210180152 | P | 3 | 4 | 0,75 mm2 | PUR - BLEND | Black | 7±0,2 mm | OK. | - |
| 1210180384 | R | 3 | 3 | 0,75 mm2 | TPR HAL. FREE | Black | 6,5±0,2 mm | OK. | - |
| 1210180094 | T | 3 | 3 | 0,75 mm2 | PUR CSA/UL | Yellow | 6,5±0,2 mm | OK. | - |
| 1210180309 | Y | 3 | 3 | 0,75 mm2 | SIL/0300 | Red | 6,5±0,2 mm | OK. | - |
| 1210180081 | F | 4 | 3 | 1 mm2 | CNOMO | Grey RAL7000 | 7,1+0,2/-0 mm | OK. | - |
| - | F | 4 | 4 | 1 mm2 | CNOMO | Grey RAL7000 | 7,1+0,2/-0 mm | OK. | - |
| 1210180042 | I | 4 | 2 | 1 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 7,1+0,2/-0 mm | OK. | - |
| 1210180079 | I | 4 | 3 | 1 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 7,1+0,2/-0 mm | OK. | - |
| 1210180036 | N | 4 | 2 | 1 mm2 | PVCH05 | Black | 6,5±0,2 mm | OK. | - |
| 1210180082 | N | 4 | 3 | 1 mm2 | PVCH05 | Black | 6,9±0,2 mm | OK. | - |
| 1210180117 | R | 4 | 3 | 1 mm2 | TPR HAL. FREE | Black | 7,1±0,2 mm | OK. | - |
| 1210180085 | N | 5 | 3 | 1,5 mm2 | PVCH05 | Black | 8,3+0,2/-0 mm | OK. | - |
| 1210180313 | I | 6 | 2 | 0,35 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 4,8±0,2 mm | OK. | - |
| - | A | 7 | 3 | 20 AWG | PVC CSA/UL 2661 | Yellow | 5,6±0,2 mm | OK. | OK. |
| 1210180149 | I | 9 | 4 | 0,75 mm2 | PVC CEI 2022 II O.R. | Grey RAL7035 | 7,3±0,2 mm | OK. | - |

TABLE 1 - CABLES TYPE

| Code | Cable types | Features | Stranding |
|------|-------------|---|--|
| N | PVC | Application general purpose cable which has good resistance to water, but usually poor oil resistance. | 0,5 mm2 = 15 x 0,20 0,75 mm2 = 21 x 0,20 1 mm2 = 28 x 0,20 |
| I | CEI | Approved to IEC 332-2A, flame retardant and self extinguishing. Limited resistant to mineral oils. | 0,5 mm2 = 28 x 0,15 0,75 mm2 = 42 x 0,15 1 mm2 = 32 x 0,20 |
| P | PUR | Offer good resistance to oil and chemicals. Can swell when constantly immersed in water. | 0,5 mm2 = 28 x 0,15 0,75 mm2 = 42 x 0,15 1 mm2 = 32 x 0,20 |
| A | PVC CSA-UL | Approved to CSA-UL 2661, application general purpose cable which has good resistance to water, but usually poor oil resistance. | 20 AWG = 32 x 0,15 18 AWG = 52 x 0,15 |
| B | PUR CSA-UL | Approved to CSA-UL 20668, very good resistance to oil and chemicals. | 20 AWG = 32 x 0,15 18 AWG = 52 x 0,15 |

| | | | | | | | | | | |
|---|-------------------------------|--|-------------------------|----------------------------|-------------------------|---|---|------------------------|--------------|--|
| ORIGINAL RELEASE EC NO: IPG2013-1190 DRWN: JMARSZALEK 2012/11/12 CHKD: MSZWAJKOWSKI 2012/11/12 APPR: MIWASIECZKO 2013/02/12 | QUALITY SYMBOLS ▽=0 ◻=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE - | DESIGN UNITS METRIC | FIRST ANGLE PROJECTION | | |
| | | | mm | INCH | DRAWN BY | DATE | TITLE | | | |
| | | 4 PLACES | ± --- | ± --- | JMARSZALEK | 2012/11/12 | E451XXXXXXXXXXXX DIN FORM A EN 175301-803 molex | | | |
| | | 3 PLACES | ± --- | ± --- | CHECKED BY | DATE | | | | |
| 2 PLACES | ± --- | ± --- | MSZWAJKOWSKI 2012/11/12 | | SD-121050-004 3 OF 3 | | | | | |
| 1 PLACE | ± --- | ± --- | APPROVED BY | | | | | | DOCUMENT NO. | |
| 0 PLACE | ± --- | ± --- | MIWASIECZKO 2013/02/12 | | MATRIX DRAWING | | | | | |
| ANGULAR ±---° | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | SIZE A3 | | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | |