



TABLE OF LENGTH 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

INSERT ORIENTATION

Housing 2 Poles + 2 Earths	Housing 3 Poles + 1 Earth
Earth H6/H12 E452XXXXXX1XXXX	Earth H12 E452XXXXXX2XXXX PIN 3 Not Used
Earth H3/H9 E452XXXXXX4XXXX	Earth H3 E452XXXXXX3XXXX PIN 3 Not Used
Earth H6/H12 E452XXXXXX1XC3X E452XXXXXX1XC7X E452XXXXXX1XR0X E452XXXXXX1XR2X	Earth H6 E452XXXXXX6XXXX PIN 3 Not Used
Insert rotated 180°	Earth H9 E452XXXXXX9XXXX PIN 3 Not Used

Type of Screws and Gaskets

Profiled Gasket	Flat Gasket	Integrated Gasket	Screw M3x25
<p>(□ 29.5)</p> <p>(5.2)</p> <p>(1.8)</p>	<p>(□ 28)</p> <p>(1.8)</p>	<p>(□ 28)</p> <p>(1.8)</p> <p>(9.3)</p>	<p>(25)</p> <p>M3</p>
			Screw M3x27 + Washer <p>(27)</p> <p>M3</p> <p>NBR Washer</p>

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

SYMBOLS	DIMENSION UNITS	SCALE	CURRENT REV DESC:		
▽ = 0	mm	1:1	molex STANDARD E452 DIN FORM A EN 175301-803 PRODUCT CUSTOMER DRAWING DOCUMENT NUMBER: 1210502000 DOC TYPE: PSD DOC PART: 000 REVISION: A MATERIAL NUMBER: SEE 1210502000_PDP CUSTOMER: GENERAL MARKET SHEET NUMBER: 1 OF 3		
▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)				
▽ = 0	ANGULAR TOL ± °				
▽ = 0	4 PLACES ±				
▽ = 0	3 PLACES ±				
▽ = 0	2 PLACES ±		EC NO: 603741	2018/07/13	
▽ = 0	1 PLACE ±		DRWN: APAWLAK01	2018/08/31	
▽ = 0	0 PLACES ±		CHK'D: RSILLER	2018/08/31	
□ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPR: RSILLER	2018/08/31	
THIRD ANGLE PROJECTION	DRAWING	SERIES	INITIAL REVISION:		
	A3-SIZE	121050	DRWN: APAWLAK01	2018/07/13	
			APPR: RSILLER	2018/08/31	

PN KEY ENGINEERING PN

E 4 5 2 X X X X X X X X X X

E - Packing without bag
W - Single Packing

Number of wires:
2 - 2 Wires + Earth

Cable type:
See Table

Head Colour:
G - Grey
N - Black
A - CSA-UL Black
B - CSA-UL Grey

Cable Length in[cm]
050 = 50cm
300 = 300cm
10K = 1000cm

Wiring Configuration:
See sheet 3

Voltage and Led Colour

Red Led:	Green Led:	Yellow Led:
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

Earth PIN location (see insert orientation table):
1 = Double Earth on H6 & H12
2 = Earth on H12
3 = Earth on H3
4 = Double Earth on H3 & H9
6 = Earth on H6
9 = Earth on H9

Type of Gasket and Screw (see sheet 1):
1 = NBR Profile Gasket + Fixing Screw M3x25mm
2 = NBR Flat Gasket + Fixing Screw M3x25mm
3 = Silicone Profile Gasket + Fixing Screw M3x25mm
4 = Silicone Flat Gasket + Fixing Screw M3x25mm
P = NBR Integrated Gasket + Fixing Screw with Washer M3x27mm Assembled on Connector
R = NBR Integrated Gasket + Fixing Screw with Washer M3x27mm NOT Assembled on Connector
T = NBR Profile Gasket + Fixing Screw with Washer M3x27mm

CABLE TYPE	NO. OF WIRES	CROSS SECTION	CABLE O.D.	CABLE JACKET	UL	CSA	STATIC: TEMP. / BENDING RADIUS	DYNAMIC: TEMP. / BENDING RADIUS	SHIELD
A2	3	AWG 20	5.6mm±0.2	PVC BLACK	UL 2661	CSA C22.2	-30°C to +105°C, 10xO.D.	-5°C to +105°C, 15xO.D.	-
A3	3	AWG 18	6.5mm±0.25	PVC BLACK	UL 2661	CSA C22.2	-30°C to +105°C, 10xO.D.	-5°C to +105°C, 15xO.D.	-
B2	3	AWG 20	5.6mm±0.2	PUR BLACK	UL 20668	CSA C22.2	-40°C to +90°C, 5xO.D.	-25°C to +90°C, 10xO.D.	-
B3	3	AWG 18	6.5mm±0.2	PUR BLACK	UL 20668	CSA C22.2	-40°C to +90°C, 5xO.D.	-25°C to +90°C, 10xO.D.	-
F4	3	1mm ²	7.1mm+0.2	PVC GREY	-	-	-15°C to +70°C, 10xO.D.	-5°C to +60°C, 15xO.D.	-
I0	3	1mm ²	7.6mm±0.2	PVC GREY	-	-	-25°C to +70°C, 10xO.D.	-5°C to +70°C, 15xO.D.	YES
I2	3	0.5mm ²	5.5mm+0.3	PVC GREY	-	-	-25°C to +70°C, 10xO.D.	-5°C to +70°C, 15xO.D.	-
I3	3	0.75mm ²	6.0mm±0.2	PVC GREY	-	-	-25°C to +70°C, 10xO.D.	-5°C to +70°C, 15xO.D.	-
I4	3	1mm ²	7.1mm+0.2	PVC GREY	-	-	-25°C to +70°C, 10xO.D.	-5°C to +70°C, 15xO.D.	-
N2	3	0.5mm ²	5.6mm±0.7	PVC BLACK	-	-	-20°C to +70°C, 3xO.D.	-15°C to +70°C, 5xO.D.	-
N3	3	0.75mm ²	6.8mm±0.8	PVC BLACK	-	-	-20°C to +70°C, 3xO.D.	-15°C to +70°C, 5xO.D.	-
N4	3	1mm ²	7.15mm±0.85	PVC BLACK	-	-	-20°C to +70°C, 3xO.D.	-15°C to +70°C, 5xO.D.	-
P1	3	0.34mm ²	5.3mm±0.2	PUR BLACK	-	-	-25°C to +80°C, 10xO.D.	-5°C to +80°C, 15xO.D.	-
P2	3	0.5mm ²	5.5mm+0.3	PUR BLACK	-	-	-40°C to +90°C, 7.5xO.D.	-15°C to +90°C, 12.5xO.D.	-
P3	3	0.75mm ²	6.5mm±0.2	PUR BLACK	-	-	-40°C to +90°C, 7.5xO.D.	-15°C to +90°C, 12.5xO.D.	-
R4	3	1mm ²	7.1mm±0.2	TPR HF BLACK	-	-	-	-	-
Y3	3	0.75mm ²	6.5mm±0.2	SILICONE RED	-	-	-60°C to +180°C, 15xO.D.	-	-

Notes:

- Please see excel sheet 1210502000_PDP for currently configured part numbers.
- Drawing is a replacement for: SD-121050-001

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	▽ = 0	mm	SCALE	1:1					
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	▽ = 0	ANGULAR TOL	±	'					
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▽ = 0	0 PLACES	±			INITIAL REVISION:				
■ = 0	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES	DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
▽ = 0				A3-SIZE	121050	1210502000	PSD	000	A
						SEE 1210502000_PDP	GENERAL MARKET		2 OF 3

WIRING DIAGRAMS

ELECTRICAL DIAGRAM 00



ELECTRICAL DIAGRAM A1



ELECTRICAL DIAGRAM C3



ELECTRICAL DIAGRAM C4



ELECTRICAL DIAGRAM C7



ELECTRICAL DIAGRAM D0



ELECTRICAL DIAGRAM E0



ELECTRICAL DIAGRAM R0



ELECTRICAL DIAGRAM R2



ELECTRICAL DIAGRAM S0



ELECTRICAL DIAGRAM S1



ELECTRICAL DIAGRAM S3



ELECTRICAL DIAGRAM NS



Technical Spec:
 Supply Voltage: See PN KEY
 Max. current: 5A; A1-C4-S0
 1,5A; R2
 Contact Resistance: ≤15milliohms max.
 Operating Temperature:
 with NBR Gasket: -40°C +90°C
 with Silicone: -40°C +125°C

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4 PLACES ±			APPR: RSILLER			APPR: RSILLER			2018/08/31		
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2 PLACES ±			DRWN: RSILLER			APPR: RSILLER			2018/08/31		
1 PLACE ±			DOCUMENT NUMBER			MATERIAL NUMBER			CUSTOMER		
0 PLACES ±			1210502000			SEE 1210502000_PDP			GENERAL MARKET		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			THIRD ANGLE PROJECTION			DRAWING			SHEET NUMBER		
			A3-SIZE			121050			3 OF 3		