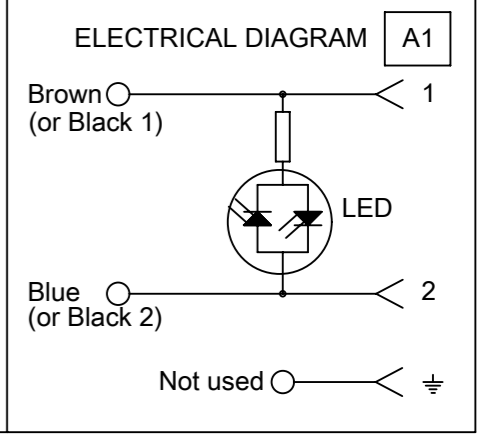
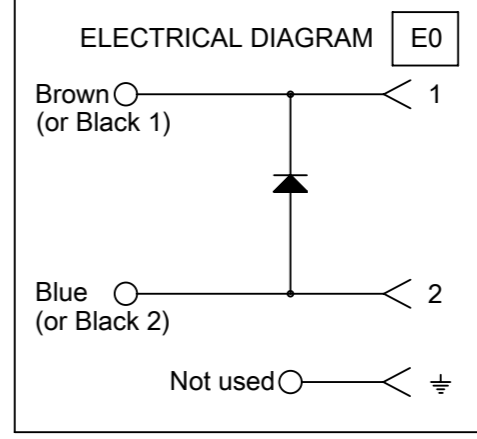
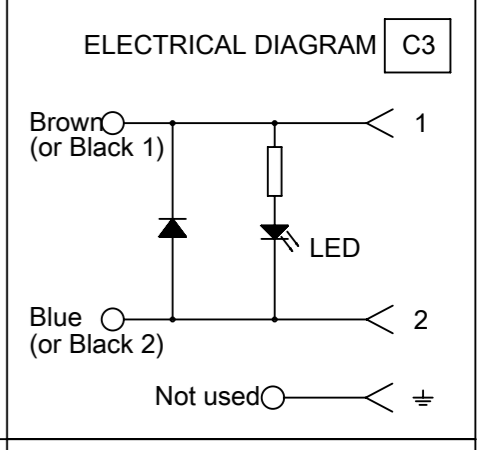
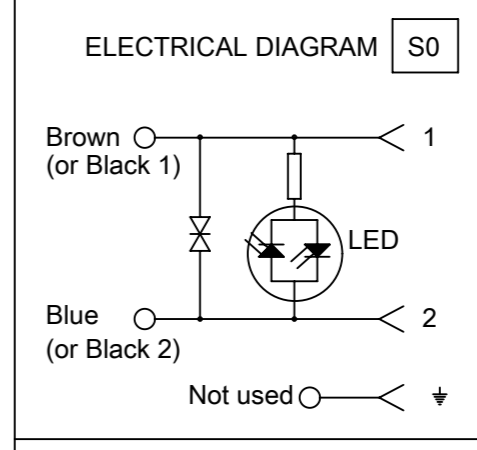
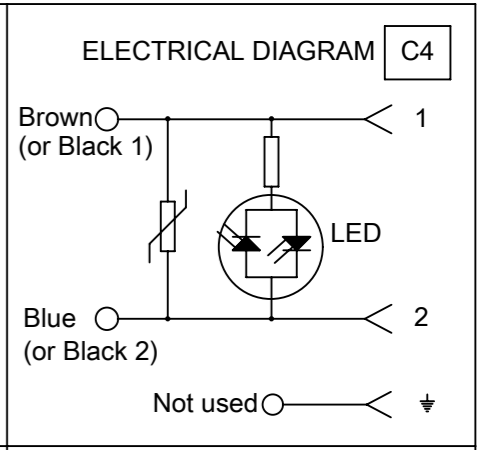
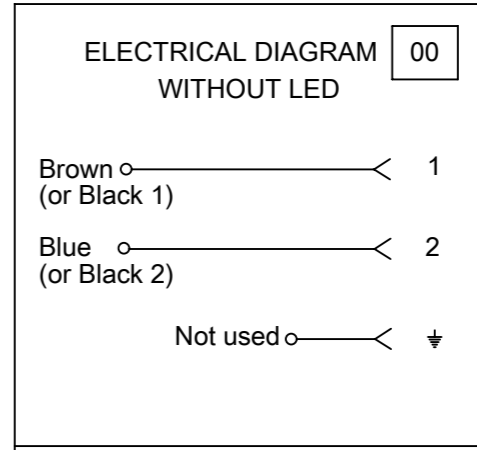


**Table of length tolerances [mm]**

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



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DIMENSION UNITS	SCALE	CURRENT REV DESC: OBSOLETE PART NUMBERS		<b>molex</b>		
mm	NTS					
GENERAL TOLERANCES (UNLESS SPECIFIED)				E461XXXXXXXXXX FORM INDUSTRIAL		
ANGULAR TOL	±	°		PRODUCT CUSTOMER DRAWING		
4 PLACES	±	EC NO: 638770		DOCUMENT NUMBER		
3 PLACES	±	DRWN: RPRABHUM	2020/03/19	SD-121050-008		
2 PLACES	±	CHK'D: GGA	2020/07/21	DOC TYPE	DOC PART	REVISION
1 PLACE	±	APPR: GGA	2020/07/21	PSD	001	B
0 PLACES	±	INITIAL REVISION:		SHEET NUMBER		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRWN: JMARSZALEK	2013/09/03	1 OF 4		
FIRST ANGLE PROJECTION		APPR: MIWASIECZKO	2015/09/28			
DRAWING		SERIES	MATERIAL NUMBER	CUSTOMER		
A3-SIZE		121050	SEE SHEET 2 & 4	GENERAL MARKET		

E 4 6 1 X X X X X X X X X X X X

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

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

CABLE TYPE  
SEE TABLE 1  
CABLE CROSS SECTION AREA  
SEE TABLE 2

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

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

EARTH PIN LOCATION:  
2=EARTH ON 12H,  
6=EARTH ON 6H.

GASKET SCREWS:  
1=NBR PROFILE GASKET+FIXING SCREWS (M3x25 mm).  
2=NBR FLAT GASKET+SCREW (M3x25 mm).  
3=SILICONE PROFILE GASKET+SCREW (M3x25 mm).  
4=SILICON FLAT GASKET+SCREW (M3x25 mm).  
P=INTEGRATED GASKET+FIXING SCREW+GROMMET (M3x27 mm).  
R=INTAGRATED GASKET+SCREW+GROMMET (M3x27 mm).  
T=PROFILE GASKET+SCREW+GROMMET (M3x27 mm).

INTERNAL CIRCUIT  
WIREING 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


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DIMENSION UNITS	SCALE	CURRENT REV DESC: OBSOLETE PART NUMBERS							
mm	NTS	 E461XXXXXXXXXX FORM INDUSTRIAL							
GENERAL TOLERANCES (UNLESS SPECIFIED)									
ANGULAR TOL	± °	EC NO: 638770 DRWN: RPRABHUM 2020/03/19 CHK'D: GGA 2020/07/21 APPR: GGA 2020/07/21							
4 PLACES	±	INITIAL REVISION: DRWN: JMARSZALEK 2013/09/03 APPR: MIWASIECZKO 2015/09/28							
3 PLACES	±	DOCUMENT NUMBER: SD-121050-008 DOC TYPE: PSD DOC PART: 001 REVISION: B							
2 PLACES	±	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS FIRST ANGLE PROJECTION DRAWING: A3-SIZE SERIES: 121050 MATERIAL NUMBER: SEE PN KEY CUSTOMER: GENERAL MARKET SHEET NUMBER: 2 OF 4							
1 PLACE	±								
0 PLACES	±								

TABLE 2 - CABLES

Molex PN Raw cable	Cable type	Cable code	Wires no.	Cross Section	Jacket material	Wire colors	Wire colors	Wire colors
1202091424	I	0	3	1 mm <sup>2</sup>	PVC CEI 2022 II O.R.	Grey	7.6±0.2	BN, BU, GN/YE
1210180467	A	2	2	20 AWG	PVC CSA/UL 2661	Black	5.4±0.2	BN, BU
1210180128	A	2	3	20 AWG	PVC CSA/UL 2661	Black	5.6±0.2	BN, BU, GN/YE
1210180394	A	2	4	20 AWG	PVC CSA/UL 2661	Black	6.2±0.25	BN, BU, BK, GN/YE
1210180297	B	2	2	20 AWG	PUR CSA/UL 20668	Black	5.6±0.2	BN, BU
1210180126	B	2	3	20 AWG	PUR CSA/UL 20668	Black	5.6±0.2	BN, BU, GN/YE
1210180387	B	2	4	20 AWG	PUR CSA/UL 20668	Black	6.3±0.2	BN, BU, BK, GN/YE
1210180284	D	2	3	0.5 mm <sup>2</sup>	PVC CEI 20-20	Grey	5.5+0.3/-0	BN, BU, GN/YE
1210180047	I	2	2	0.5 mm <sup>2</sup>	PVC CEI 2022 II O.R.	Grey	5.5+0.3/-0	BN, BU
1210180284	I	2	3	0.5 mm <sup>2</sup>	PVC CEI 2022 II O.R.	Grey	5.5+0.3/-0	BN, BU, GN/YE
1210180146	I	2	4	0.5 mm <sup>2</sup>	PVC CEI 2022 II O.R.	Grey	6.5±0.2	BN, BU, BK, GN/YE
1210180177	I	2	5	0.5 mm <sup>2</sup>	PVC CEI 2022 II O.R.	Grey	7.0 +0.3/-0	BN, BU, BK, WH, GN/YE
1210180022	N	2	2	0.5 mm <sup>2</sup>	PVC H03VV-F	Black	5.2±0.2	BN, BU
1202092753	N	2	3	0.5 mm <sup>2</sup>	PVC H03VV-F	Black	5.5±0.2	BN, BU, GN/YE
1210180153	N	2	4	0.5 mm <sup>2</sup>	PVC H03VV-F	Black	5.9±0.3	BN, BU, BK, GN/YE
1210180046	P	2	2	0.5 mm <sup>2</sup>	PUR - BLEND	Black	5.5±0.2	BN, BU
1202092439	P	2	3	0.5 mm <sup>2</sup>	PUR - BLEND	Black	5.5 +0.3/-0	BN, BU, GN/YE
1210180302	P	2	4	0.5 mm <sup>2</sup>	PUR - BLEND	Black	6.5±0.2	BN, BU, BK, GN/YE
1202092215	P	2	5	0.5 mm <sup>2</sup>	PUR - BLEND	Black	7+0.3/-0.1	BN, BU, BK, WH, GN/YE
1210180409	A	3	2	18 AWG	PVC CSA/UL 2661	Black	6.2±0.25	BN, BU
1210180129	A	3	3	18 AWG	PVC CSA/UL 2661	Black	6.5±0.25	BN, BU, GN/YE
1210180159	A	3	4	18 AWG	PVC CSA/UL 2661	Black	7.0+0.3/-0	BN, BU, BK, GN/YE
1210180464	A	3	5	18 AWG	PVC CSA/UL 2661	Black	7.8±0.25	BN, BU, BK, WH, GN/YE
1210180351	B	3	2	18 AWG	PUR CSA/UL 20668	Black	6.2±0.2	BN, BU
1210180127	B	3	3	18 AWG	PUR CSA/UL 20668	Black	6.5±0.2	BN, BU, GN/YE
1210180160	B	3	4	18 AWG	PUR CSA/UL 20668	Black	7±0.2	BN, BU, BK, GN/YE
1210180463	B	3	5	18 AWG	PUR CSA/UL 20668	Black	7.8±0.25	BN, BU, BK, WH, GN/YE
1210180073	D	3	3	0.75 mm <sup>2</sup>	PVC CEI 20-20	Grey	6.5±0.2	BN, BU, GN/YE
1210180145	D	3	4	0.75 mm <sup>2</sup>	PVC CEI 20-20	Grey	7.1±0.2	BN, BU, BK, GN/YE
1202098206	I	3	2	0.75 mm <sup>2</sup>	PVC CEI 2022 II O.R.	Grey	5.5±0.2	BK1, BK2
1210180120	I	3	3	0.75 mm <sup>2</sup>	PVC CEI 2022 II O.R.	Grey	6.0±0.2	BK1, BK2, BK3
1210180143	I	3	4	0.75 mm <sup>2</sup>	PVC CEI 2022 II O.R.	Grey	7.0±0.2	BN, BU, BK, GN/YE
1210180032	N	3	2	0.75 mm <sup>2</sup>	PVC H05VV-F	Black	6.2±0.2	BN, BU
1210180069	N	3	3	0.75 mm <sup>2</sup>	PVC H05VV-F	Black	6.5±0.2	BN, BU, GN/YE
1210180144	N	3	4	0.75 mm <sup>2</sup>	PVC H05VV-F	Black	7.1±0.2	BN, BU, BK, GN/YE
1210180174	N	3	5	0.75 mm <sup>2</sup>	PVC H05VV-F	Black	8.0+0.2/-0	BN, BU, BK, GY, GN/YE
1202094190	P	3	2	0.75 mm <sup>2</sup>	PUR - BLEND	Black	6.5±0.2	BN, BU
1210180071	P	3	3	0.75 mm <sup>2</sup>	PUR - BLEND	Black	6.5±0.2	BN, BU, GN/YE
1210180152	P	3	4	0.75 mm <sup>2</sup>	PUR - BLEND	Black	7.0±0.2	BN, BU, BK, GN/YE

TABLE 2 - CABLES

"Molex PN Raw cable "	Cable type	Cable code	Wires no.	Cross Section	Jacket material	Jacket color	Diameter Ø [mm]	Wire colors
1210180384	R	3	3	0.75 mm <sup>2</sup>	TPR HAL. FREE	Black	6.5±0.2	BN, BU, GN/YE
1210180094	T	3	3	0.75 mm <sup>2</sup>	PUR CSA/UL 20668	Yellow	6.5±0.2	BN, BU, GN/YE
1210180309	Y	3	3	0.75 mm <sup>2</sup>	SILICONE RUBBER	Red	6.5±0.2	BN, BU, GN/YE
1210180081	F	4	3	1 mm <sup>2</sup>	PVC CNOMO	Grey	7.1+0.2/-0	BK1, BK2, GN/YE
1210180042	I	4	2	1 mm <sup>2</sup>	PVC CEI 2022 II O.R.	Grey	7.1+0.2/-0	BN, BU
1210180079	I	4	3	1 mm <sup>2</sup>	PVC CEI 2022 II O.R.	Grey	7.1+0.2/-0	BN, BU, GN/YE
1210180036	N	4	2	1 mm <sup>2</sup>	PVC H05VV-F	Black	6.5±0.2	BN, BU
1210180082	N	4	3	1 mm <sup>2</sup>	PVC H05VV-F	Black	6.9±0.2	BN, BU, GN/YE
1210180117	R	4	3	1 mm <sup>2</sup>	TPR HAL. FREE	Black	7.1±0.2	BN, BU, GN/YE
1210180085	N	5	3	1.5 mm <sup>2</sup>	PVC H05VV-F	Black	7.9±0.2	BN, BU, GN/YE
1210180313	I	6	2	0.35 mm <sup>2</sup>	PVC CEI 2011	Grey	4.8±0.2	BN, WH
1210180149	I	9	4	0.75 mm <sup>2</sup>	PVC CEI 2022 II	Grey	7.3±0.2	BN, BU, BK, GN/YE

TABLE 1 - TYPES OF CABLES

Code	Cable types	Features	Cross Section
N	PVC	Application general purpose cable which has good resistance to water, but usually poor oil resistance.	0.5 mm <sup>2</sup> 0.75 mm <sup>2</sup> 1 mm <sup>2</sup>
I	CEI	Approved to IEC 332-2A, flame retardant and self extinguishing. Limited resistant to mineral oils.	0.5 mm <sup>2</sup> 0.75 mm <sup>2</sup> 1 mm <sup>2</sup>
P	PUR	Offer good resistance to oil and chemicals. Can swell when constantly immersed in water.	0.5 mm <sup>2</sup> 0.75 mm <sup>2</sup> 1 mm <sup>2</sup>
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 18 AWG
B	PUR CSA-UL	Approved to CSA-UL 20668, very good resistance to oil and chemicals.	20 AWG 18 AWG

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DIMENSION UNITS <b>mm</b>	SCALE <b>NTS</b>				
GENERAL TOLERANCES (UNLESS SPECIFIED)		EC NO: 638770		E461XXXXXXXXXX FORM INDUSTRIAL	
ANGULAR TOL ± °		DRWN: RPRABHUM	2020/03/19	PRODUCT CUSTOMER DRAWING	
4 PLACES ±		CHK'D: GGA	2020/07/21	DOCUMENT NUMBER	
3 PLACES ±		APPR: GGA	2020/07/21	SD-121050-008	
2 PLACES ±		INITIAL REVISION:		DOC TYPE	DOC PART
1 PLACE ±		DRWN: JMARSZALEK	2013/09/03	PSD	001
0 PLACES ±		APPR: MIWASIECZKO	2015/09/28	REVISION	B
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	FIRST ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER
		A3-SIZE	121050	SEE SHEET 2 & 4	GENERAL MARKET
					SHEET NUMBER
					3 OF 4

TABLE 3 - PART LIST

Molex PN:	Engineering No.:
1210500911	E461I4N10K21C4H
1210500920	E461I4N50021C4H
1210500923	E461N2N12K21C32
1210500941	E461P2N15021C42
1210501743	E461I2N50061C4H
1210501807	E461I2N30061C4H
1210501843	E461I2N20061A12
1210502047	E461N3N30021C42
1210502048	E461B3A1002PC4B
1210502229	E461P2N15061C4H
1210502252	E461N2N15021C42
1210502478	E461P2N10061C4H
1210502483	E461N3N50061C4H
1210502714	W461P2N15021C4H
1210502745	W461P2N1502PC4H
1210503210	E461I4N30061C42
1210503211	E461I4N50061C42
1210503289	E461N2N30021C4H
1210503303	E461N2N20021C4H
1210503436	E461N2N2002PC4H

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DIMENSION UNITS	SCALE	CURRENT REV DESC: OBSOLETE PART NUMBERS					<b>molex</b>		
mm	NTS								
GENERAL TOLERANCES (UNLESS SPECIFIED)							E461XXXXXXXXXX FORM INDUSTRIAL		
ANGULAR TOL	± °						PRODUCT CUSTOMER DRAWING		
4 PLACES	±	EC NO: 638770							
3 PLACES	±	DRWN: RPRABHUM	2020/03/19						
2 PLACES	±	CHK'D: GGA	2020/07/21						
1 PLACE	±	APPR: GGA	2020/07/21						
0 PLACES	±	INITIAL REVISION:				DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
		DRWN: JMARSZALEK	2013/09/03			SD-121050-008	PSD	001	B
		APPR: MIWASIECZKO	2015/09/28						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	FIRST ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER	SHEET NUMBER			
		A3-SIZE	121050	SEE TABLE 3	GENERAL MARKET	4 OF 4			

DOCUMENT STATUS	P1	RELEASE DATE	2020/07/21	04:42:59
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