

MOLEX P/N	ENG. NO.	CABLE LENGTH (mm)	LED
1202510097	BKB8120-FBW-003	300	NO
1202510098	BKB8120-FBW-01	1000	NO
1202510099	BKB8120-FBW-050	5000	NO
1202510100	BKB8120-FBW-10	10000	NO
1202510101	BKB812N-FBW-003	300	YES
1202510102	BKB812N-FBW-01	1000	YES
1202510103	BKB812N-FBW-05	5000	YES
1202510104	BKB812N-FBW-10	10000	YES
1202510105	BKB812P-FBW-003	300	YES
1202510106	BKB812P-FBW-01	1000	YES
1202510107	BKB812P-FBW-05	5000	YES
1202510108	BKB812P-FBW-10	10000	YES

9x LABEL	2x BLANKING PLUG
	
	

A top-down view of a circular device. It features a central rectangular element (12) and 19 numbered circular elements (1-19) arranged in a circular pattern. The device has a multi-layered outer ring (11). A dashed vertical line and a dashed horizontal line intersect at the center. A solid dot is located at the top of the vertical dashed line, and another solid dot is located on the right side of the horizontal dashed line. A line points from the label 12 to the central rectangular element, and another line points from the label 11 to the outer ring.

PIN	COLOR
1	VIOLET
2	RED
3	GREY
4	RED/BLUE
5	BLUE
6	GREEN
7	BROWN
8	WHITE/GREEN
9	WHITE/YELLOW
10	WHITE/GREY
11	BLACK
12	YELLOW/GREEN
13	YELLOW/BROWN
14	BROWN/GREEN
15	WHITE
16	YELLOW
17	PINK
18	GREY/BROWN
19	GREY/PINK

SCALE 1:2

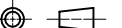
Technical drawing of the BRAD BKB12X-FBW-XX or -XXX sensor, showing top and side views with dimensions and labels.

Top View Dimensions and Labels:

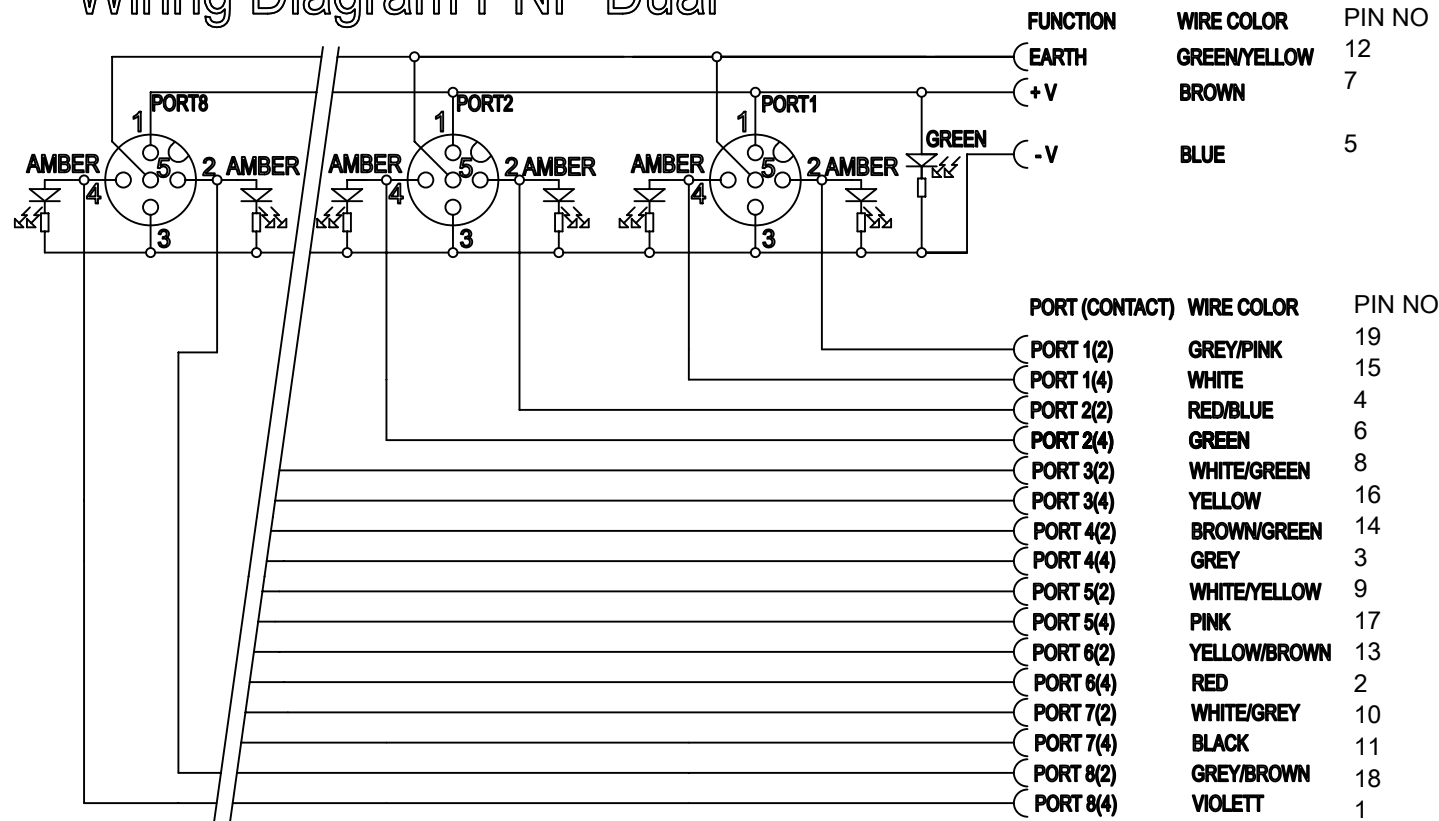
- LENGTH (SEE TABLE 1)**: Overall length of the sensor.
- 107**: Distance from the front face to the center of the first P4/P2 connector.
- 73 ±0.35**: Distance between the centers of the first and second P4/P2 connectors.
- 4**: Distance from the front face to the center of the first P4/P2 connector.
- 5**: Distance from the front face to the center of the second P4/P2 connector.
- 34**: Distance between the centers of the first and second P4/P2 connectors.
- 54**: Total width of the sensor.
- 57**: Distance from the front face to the center of the third P4/P2 connector.
- 27**: Distance between the centers of the third and fourth P4/P2 connectors.
- 152**: Total width of the sensor.
- 2x FIXING HOLES SUITABLE FOR M4 SCREWS**: Two fixing holes on the top face.
- 1**, **2**, **3**, **4**, **5**, **6**, **7**, **8**: Labels for the P4/P2 connectors.
- LASER PRINTING: PN:120251XXXX**
- ENG : BKB12X-FBW-XX OR -XXX**
- PO : XXXXXXXXXXXX**
- LASER PRINTING BRAD LOGO**

Side View Dimensions and Labels:

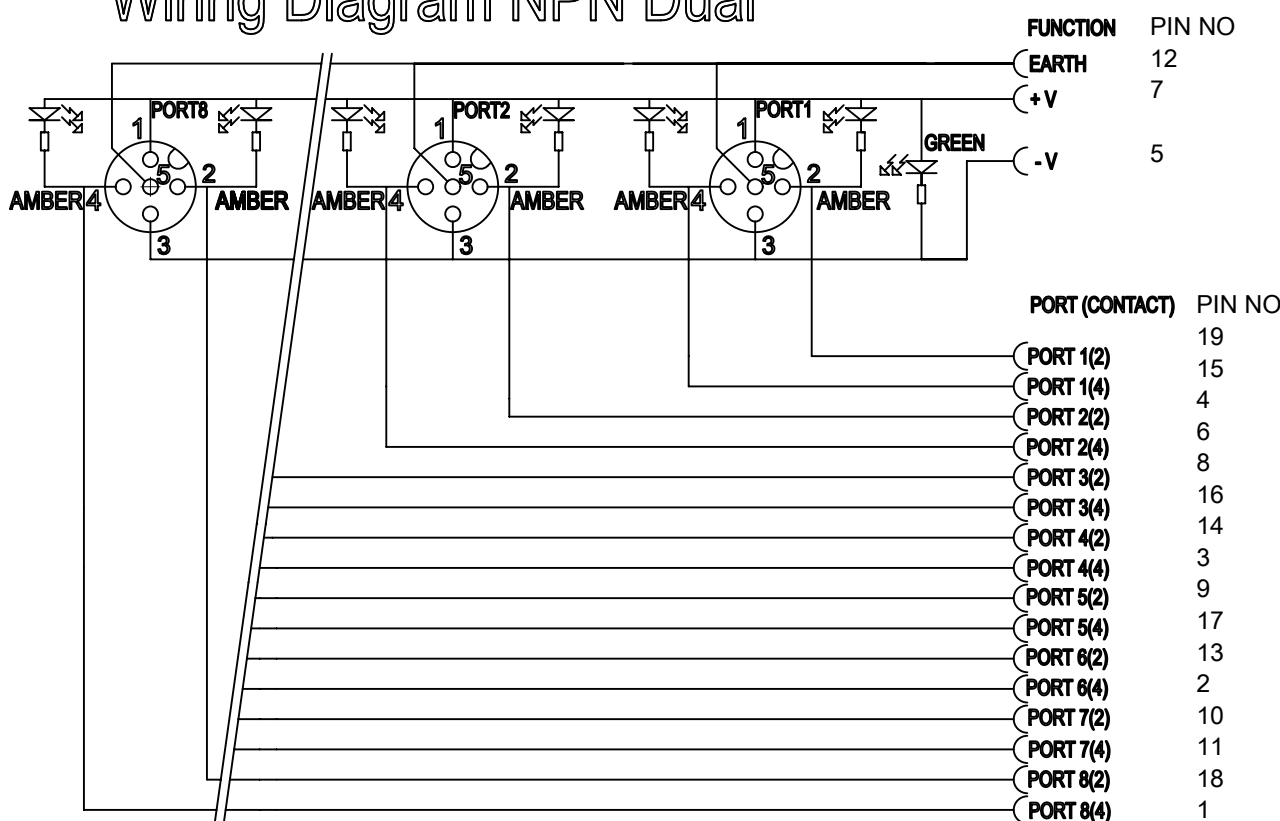
- 13.5 ±0.25**: Thickness of the sensor.
- 18**: Distance from the bottom face to the center of the first P4/P2 connector.
- 29.5 +0.5 -0.0**: Total height of the sensor.
- 0**: Label for the front face.
- 9**: Label for the top face.
- 8**: Label for the bottom face.
- 6**, **7**: Labels for the P4/P2 connectors.

FUNCTIONAL SYMBOLS		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:				molex							
mm		1:1													
GENERAL TOLERANCES (UNLESS SPECIFIED)															
ANGULAR TOL		± 1.0 °						MPIS U12 NOS 5P 8PT 0.3M MC 19P BK							
4 PLACES		±													
3 PLACES		±													
DIVISIONAL SYMBOLS		2 PLACES		± 0.05		PRODUCT CUSTOMER DRAWING				DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION	
1 PLACE		± 0.3		INITIAL REVISION:				1202510097				PSD	000	A4	
0 PLACES		± 0.5		DRWN: SSM 2019/01/11 APPR: RSILLER 2020/01/17											
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER	
						A3-SIZE		120251		SEE TABLE 1		GENERAL MARKET		1 OF 2	

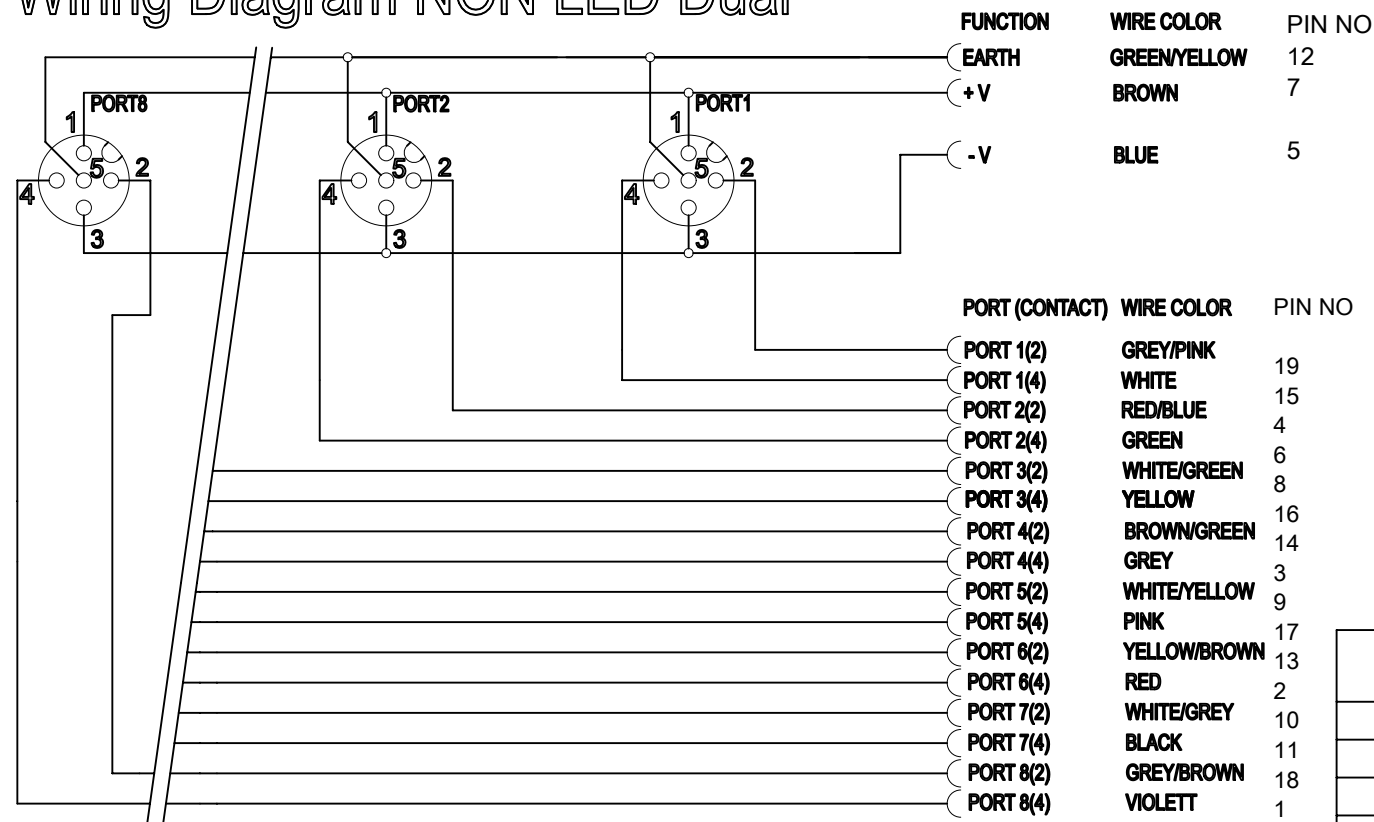
Wiring Diagram PNP Dual



Wiring Diagram NPN Dual



Wiring Diagram NON LED Dual



BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	MATERIAL	FINISH
1	9	LABEL	ABS	WHITE
2	1	CABLE PLATE	PBT	BLACK
3	-	CABLE	TPU BASED	BLACK
4	40	CONTACT	BRASS	GOLD OVER NICKEL
5	8	O-RING	FPM	RED
6	17	LED (SEE TABLE 1)	NO LED = PA WITH LED = PA	BLACK TRANSPARENT
7	8	SHELL	BRASS	NICKEL PLATED
8	1	HOUSING	PBT	BLACK
9	-	OVERMOLDING	PVC	YELLOW
10	1	COUPLING NUT	ZINC DIE CAST	BLACK
11	1	INSERT 19 POLE	PVC	YELLOW
12	19	CONTACT	BRASS	GOLD OVER NICKEL
13	2	ACC PCAP M12 FE	PA	BLACK

CABLE LENGTH TOLERANCES

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

FUNCTIONAL SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	SCALE	CURRENT REV DESC:
$\nabla/A = 0$	DIMENSION UNITS	mm	1:1
$\nabla/E = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		
$\nabla/F = 0$	ANGULAR TOL	$\pm 1.0^\circ$	
DIVISIONAL SYMBOLS	4 PLACES	$\pm$	
	3 PLACES	$\pm$	
	2 PLACES	± 0.05	
	1 PLACE	± 0.3	
	0 PLACES	± 0.5	
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		
	THIRD ANGLE PROJECTION	DRAWING	SERIES
	$\oplus \ominus$	A3-SIZE	120251
	EC NO: 698219	DRWN: SSM	2022/01/27
	CHK'D: RSILLER	APPR: RSILLER	2022/03/04
	INITIAL REVISION:	DRWN: SSM	2019/01/11
		APPR: RSILLER	2020/01/17
	DOCUMENT NUMBER	DOC TYPE	DOC PART
	1202510097	PSD	000
	MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
	SEE TABLE 1	GENERAL MARKET	2 OF 2