

G3-M

Medium Sized Ergonomic Grip

The G3-M is a medium sized, ergonomic, modular and customizable grip handle. This handle offers comfort, flexibility, and robustness for a multitude of operator control applications. The design of the G3-M is slightly smaller than the G3-C and offers ruggedness, while providing essential control solutions, in a smaller package. The feel of the new design accommodates operators with or without gloves, without sacrificing comfort. The G3-M also incorporates a large offering of standard faceplates that can be oriented from 0, 90 and 180 degrees. These faceplates utilize a variety of OTTO's push-buttons, rockers and Hall effect products. The faceplate can also be custom configured with various OTTO switches based on the application requirements. In addition, the G3-M offers an optional trigger integrated in the grip handle.

The G3-M can be panel mounted as a fixed control grip or it can be mounted on an OTTO JH, JHL and JHM joystick. Combining the grip handle with a full featured OTTO joystick base results in an integrated, rugged, and reliable operator control solution. When combined with the JHL joystick, we also offer a bent shaft option to angle the grip 0, 5, 10 or 15 degrees from vertical.

Features:

- High performance ergonomic grip in a smaller package
- The grip can be used with either the left or right hand
- Numerous standard faceplate design options
- Custom faceplate designs available
- Available with or without trigger
- Various mounting and termination styles available
- Modular design provides high level of customization and reduces the need for tooling charges
- Compatible with OTTO JH, JHL and JHM series Hall effect Joysticks
- Accommodates a wide variety of OTTO pushbutton, rockers, toggles, and Hall effect switches



G3-M grip with J2 style faceplate customized with Large FNR K1S



G3-M grip with J2 style faceplate customized with Large FNR K1S

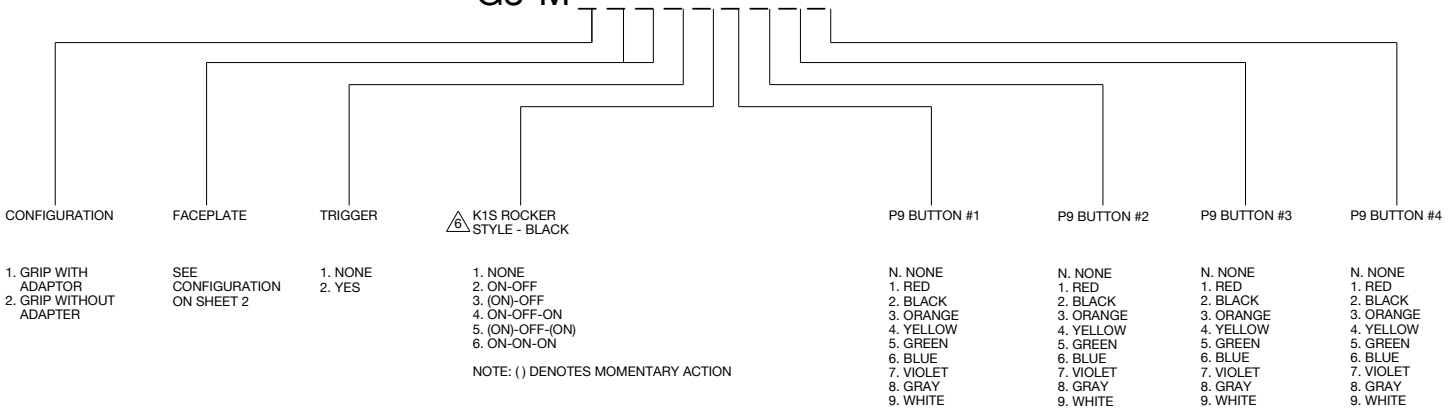


G3-M grip with G2 style faceplate



G3-M grip with G2 style faceplate customized with HWTS

G3-M

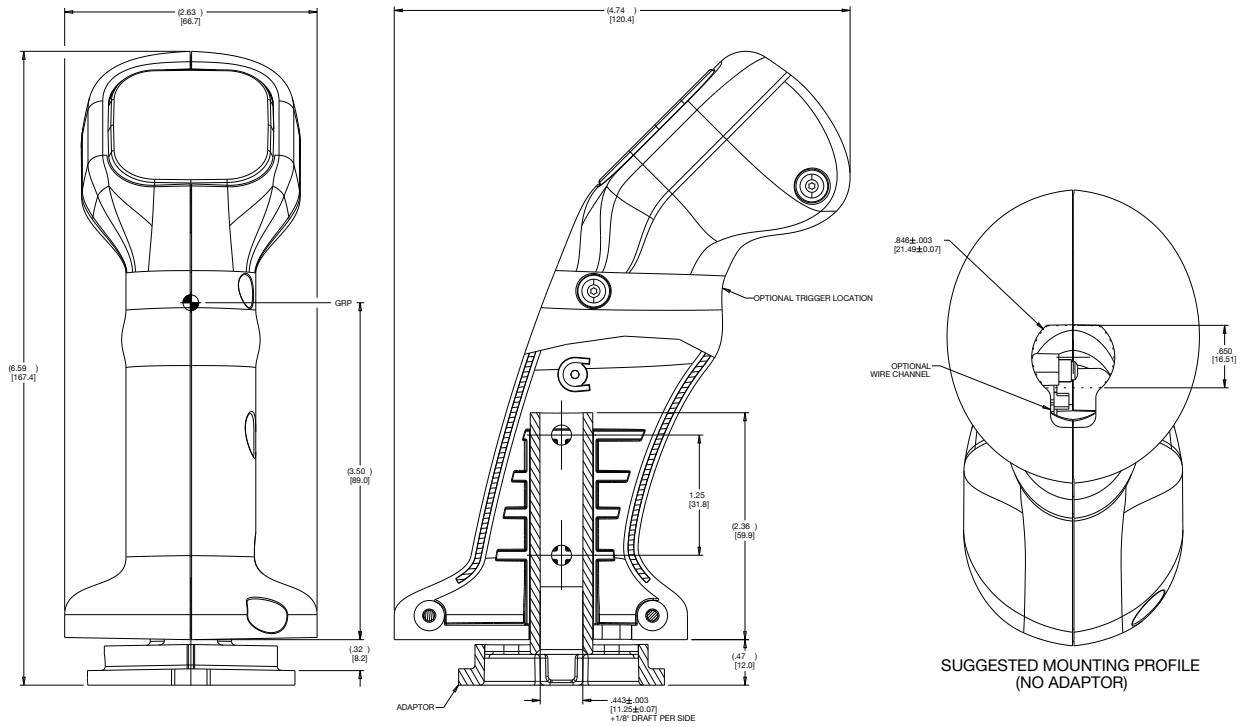


PRODUCT SPECIFICATIONS				
ELECTRICAL:				
HTLT4 SWITCHES				
RATED AT V _{CC} = 5V @ 20 °C LOAD = 1mA (4.7KΩ)	UNITS	MIN	TYP	MAX
SUPPLY VOLTAGE	VDC	4.50	5.00	5.50
OUTPUT VOLTAGE, +Y, -Y, +X, -X 0° DEFLECTION	VDC @5V V _{CC}	2.25	2.50	2.75
OUTPUT AT FULL TRAVEL -X, -Y DIRECTION	VDC @5V V _{CC}	0.25	0.50	0.75
OUTPUT AT FULL TRAVEL +X, +Y DIRECTION	VDC @5V V _{CC}	4.25	4.50	4.75
SUPPLY CURRENT B=0, V _{CC} =5V, I _{OUT} =0	mA	NA	10	12
OUTPUT IMPEDANCE	Ω	NA	1.0	NA
HTWM SWITCHES				
RATED AT V _{CC} = 5V @ 25 °C LOAD = 1mA (4.7KΩ)	UNITS	MIN	TYP	MAX
SUPPLY VOLTAGE	VDC	4.50	5.00	5.50
OUTPUT VOLTAGE AT CENTER	VDC @ 5V V _{CC}	2.25	2.50	2.75
OUTPUT VOLTAGE FULL TRAVEL DIRECTION 1 (+ TRAVEL)	VDC @ 5V V _{CC}	4.25	4.50	4.55
OUTPUT VOLTAGE FULL TRAVEL DIRECTION 1 (- TRAVEL)	VDC @ 5V V _{CC}	0.45	0.50	0.75
SUPPLY CURRENT B=0, V _{CC} =5V, I _{OUT} =0	mA	NA	NA	10
HTWS SWITCHES				
RATED AT V _{CC} = 5V @ 25 °C LOAD = 1mA (4.7KΩ)	UNITS	MIN	TYP	MAX
SUPPLY VOLTAGE	VDC	4.50	5.00	5.50
OUTPUT VOLTAGE AT CENTER	VDC AT 5V V _{CC}	2.25	2.50	2.75
OUTPUT VOLTAGE AT FULL TRAVEL DIRECTION 1 (+ TRAVEL)	VDC AT 5V V _{CC}	4.25	4.50	4.75
OUTPUT VOLTAGE AT FULL TRAVEL DIRECTION 2 (- TRAVEL)	VDC AT 5V V _{CC}	0.25	0.50	0.75
SUPPLY CURRENT B=0, V _{CC} =5V, I _{OUT} =0	mA	NA	NA	20
K1S SWITCHES				
ELECTRICAL RATING	LOGIC LEVEL, 10 mA @ 5VDC MAX			
ELECTRICAL LIFE	1,000,000 CYCLES			
P9 SWITCHES & TRIGGER				
ELECTRICAL RATING	5 AMP RESISTIVE LOAD @ 28 VDC		10 mA RESISTIVE LOAD @ 5 VDC	
ELECTRICAL LIFE	25,000 CYCLES		1,250,000 CYCLES	
MECHANICAL:				
HTLT4 SWITCHES				
MECHANICAL LIFE - RETURN TO CENTER FULL FORWARD TO FULL BACK	3,000,000 CYCLES			
HTWM SWITCHES				
MECHANICAL LIFE - RETURN TO CENTER FULL FORWARD TO FULL BACK	3,000,000 CYCLES			
HTWS SWITCHES				
MECHANICAL LIFE FULL FORWARD TO FULL BACK	3,000,000 CYCLES			
MAXIMUM ALLOWABLE RADIAL LOAD	LBS	NA	NA	15
K1S SWITCHES				
MECHANICAL LIFE	1,000,000 CYCLES			
P9 SWITCHES & TRIGGER				
MECHANICAL LIFE	1,250,000 CYCLES			

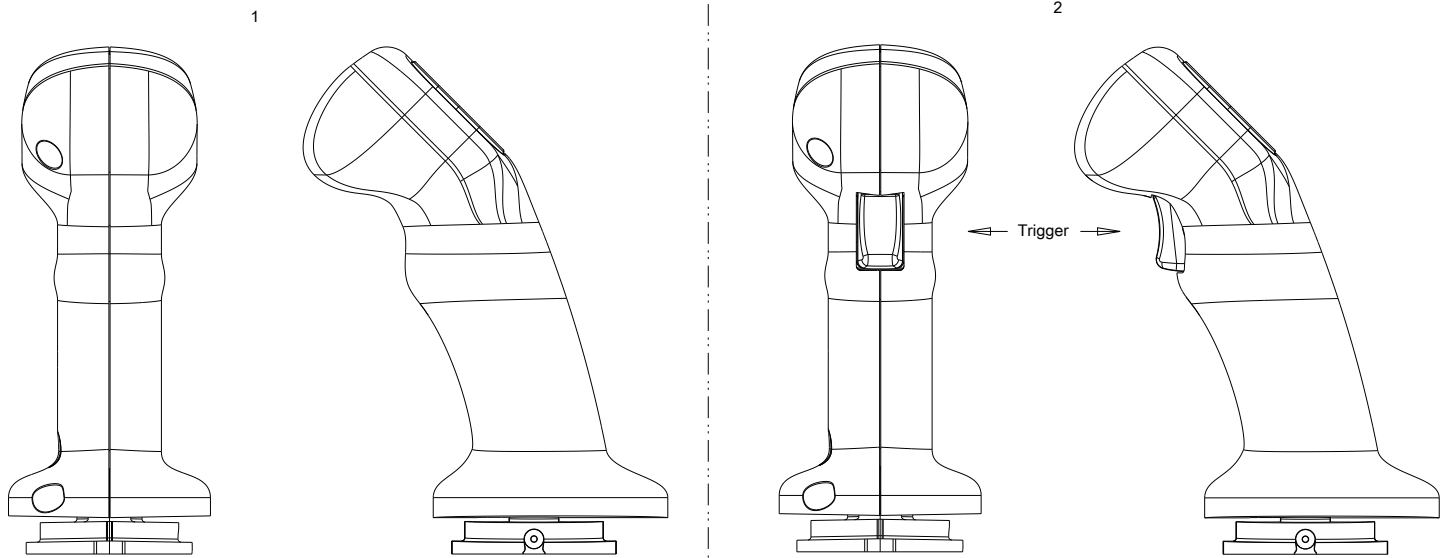
PRODUCT SPECIFICATIONS				
ENVIRONMENTAL:				
	UNITS	MIN	TYP	MAX
OPERATING TEMPERATURE	°C	-40	20	85
HTLT4 SWITCHES				
ELECTRONICS ENCLOSURE DESIGN	ISO 20653, IP6K8S - DUSTTIGHT, CONTINUOUS IMMERSION, 1 METER FOR 31 MINUTES, STATIONARY DURING TEST(S)			
HTWM SWITCHES				
ELECTRONICS ENCLOSURE DESIGN	ISO 20653, IP6K8S - DUSTTIGHT, CONTINUOUS IMMERSION, 1 METER FOR 31 MINUTES, STATIONARY DURING TEST(S)			
HTWS SWITCHES				
ELECTRONICS ENCLOSURE DESIGN	ISO 20653, IP6K8S - DUSTTIGHT, CONTINUOUS IMMERSION, 1 METER FOR 31 MINUTES, STATIONARY DURING TEST(S)			
K1S SWITCHES				
ELECTRONICS ENCLOSURE DESIGN	ISO 20653, IP66/IPK8S - DUSTTIGHT, CONTINUOUS IMMERSION, 1 METER FOR 31 MINUTES, STATIONARY DURING TEST(S)			
P9 SWITCHES & TRIGGER				
SWITCH SEAL INTEGRITY	ISO 20653, IP6K8S - DUSTTIGHT, CONTINUOUS IMMERSION, 1 METER FOR 31 MINUTES, STATIONARY DURING TEST(S)			
	ISO 20653, IP6K8S - DUSTTIGHT, HIGH PRESSURE, STEAM-JET CLEANING, STATIONARY DURING TEST(S)			
GRIP				
SEAL INTEGRITY	UNSEALED			
MATERIAL:				
HANDLE	THERMOPLASTIC, GLASS REINFORCED, BLACK			
FACEPLATE	THERMOPLASTIC, GLASS REINFORCED, BLACK			
ADAPTOR	THERMOPLASTIC, GLASS REINFORCED, BLACK			
WIRES	22 AWG, UL STYLE 1569, (20" LONG)			

NOTES:

- DRAWING TO BE INTERPRETED IN ACCORDANCE WITH THE CURRENT REVISION OF ASME Y14.5
- THIS PART IS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST APPLICABLE REGULATIONS OF EC DIRECTIVES FOR THE RESTRICTION OF THE USE OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT (ROHS), WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) AND REGISTRATION, EVALUATION, AUTHORIZATION AND RESTRICTION OF CHEMICALS (REACH).
- PACKAGING:
PLACE GRIP ASSEMBLY INTO PLASTIC BAG,
PLACE LABEL ON BAG.
- ID LABEL APPLIED ON INSIDE OF GRIP HEAD
MARKING ON ID LABEL TO READ:
OTTO
OTTO P/N, DATE CODE.
- NUMBER OF SWITCHES DEPENDENT ON CONFIGURATION CHOSEN,
FOR ALL SWITCHES NOT PRESENT IN THE CONFIGURATION CHOOSE NONE.
- ON POSITION OR MOMENTARY POSITION IS UP OR TO THE RIGHT.
- POSITIVE TRAVEL IS UP OR TO THE RIGHT. CONTACT FACTORY FOR ADDITIONAL OPTIONS.
- LOGIC LEVEL RATINGS VOID IF LOGIC LEVEL LOAD(S)
EXCEEDED AT ANY TIME.
- UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCH (METRIC).
IN THE EVENT OF A CONFLICT, THE INCH NOMINAL VALUE AND TOLERANCE
WILL TAKE PRECEDENCE.



SECTION A-A

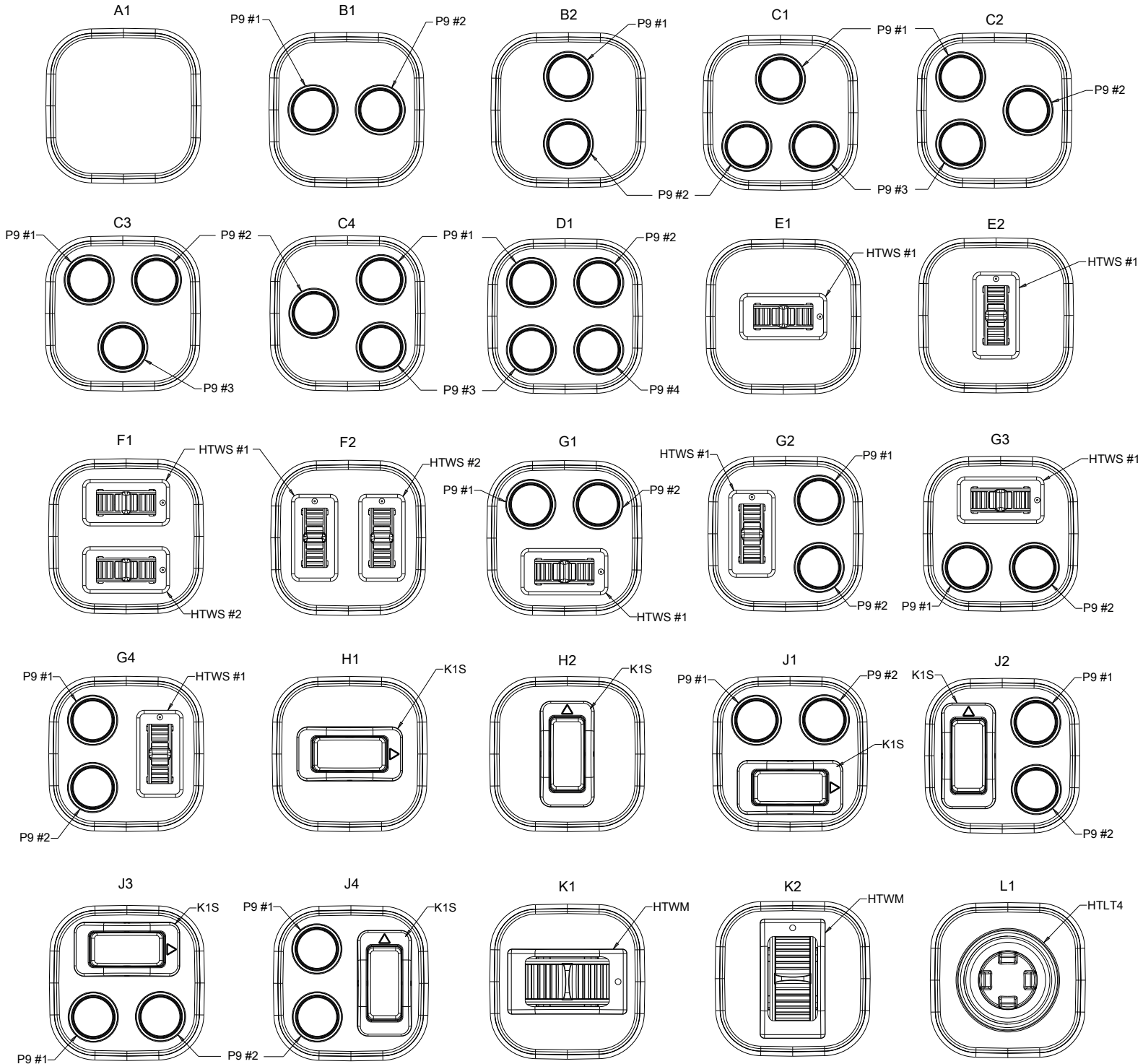


G3-M WITH NO TRIGGER

G3-M WITH TRIGGER OPTION

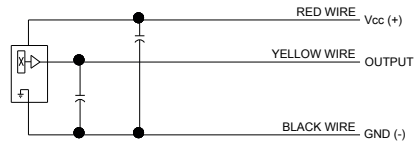
TRIGGER CONFIGURATIONS
SCALE 6:5

G3-M FACEPLATES

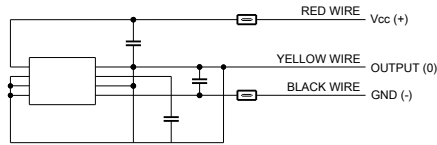


SCHEMATIC

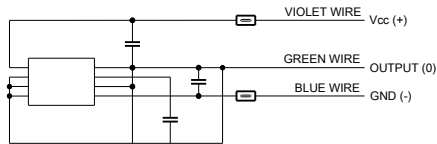
HTWM
HTWM-1A12X22



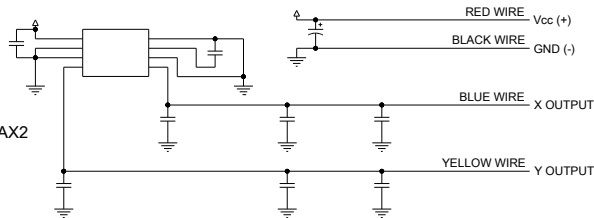
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HTWS-1A12X22



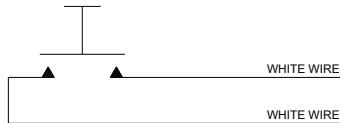
HTWS #2
HTWS-1A12X22



HRTL4
HRTL4-212111AAX2



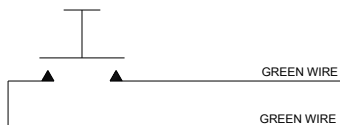
P9 #1
P9-91112X



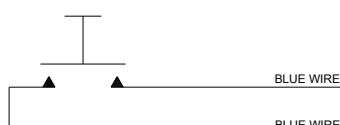
P9 #2
P9-91112X



P9 #3
P9-91112X



P9 #4
P9-91112X



TRIGGER

