



HMS7 SINGLE AXIS
CONTROLLER

DATA SHEET

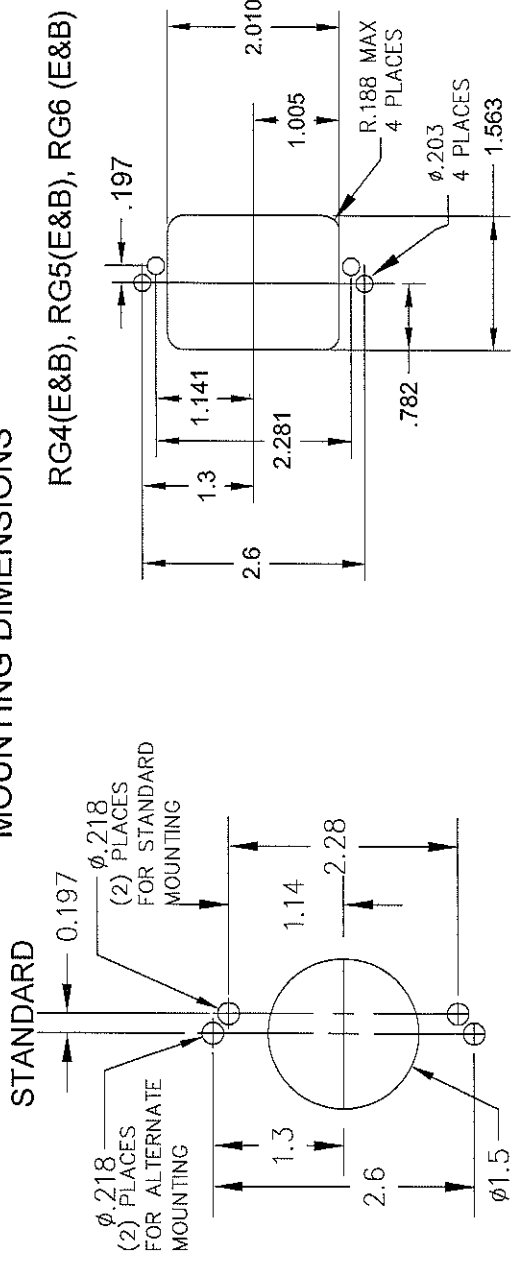
MECHANICAL OPTIONS

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REVISIONS

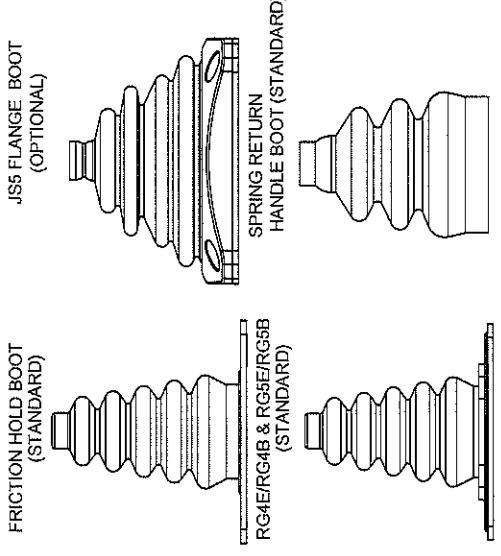
ZONE	REV	DESCRIPTION	DATE	APPROVED
C	S12	ADDED PER ECN#28913	MER*5/3/17	<i>MER</i>

MOUNTING DIMENSIONS

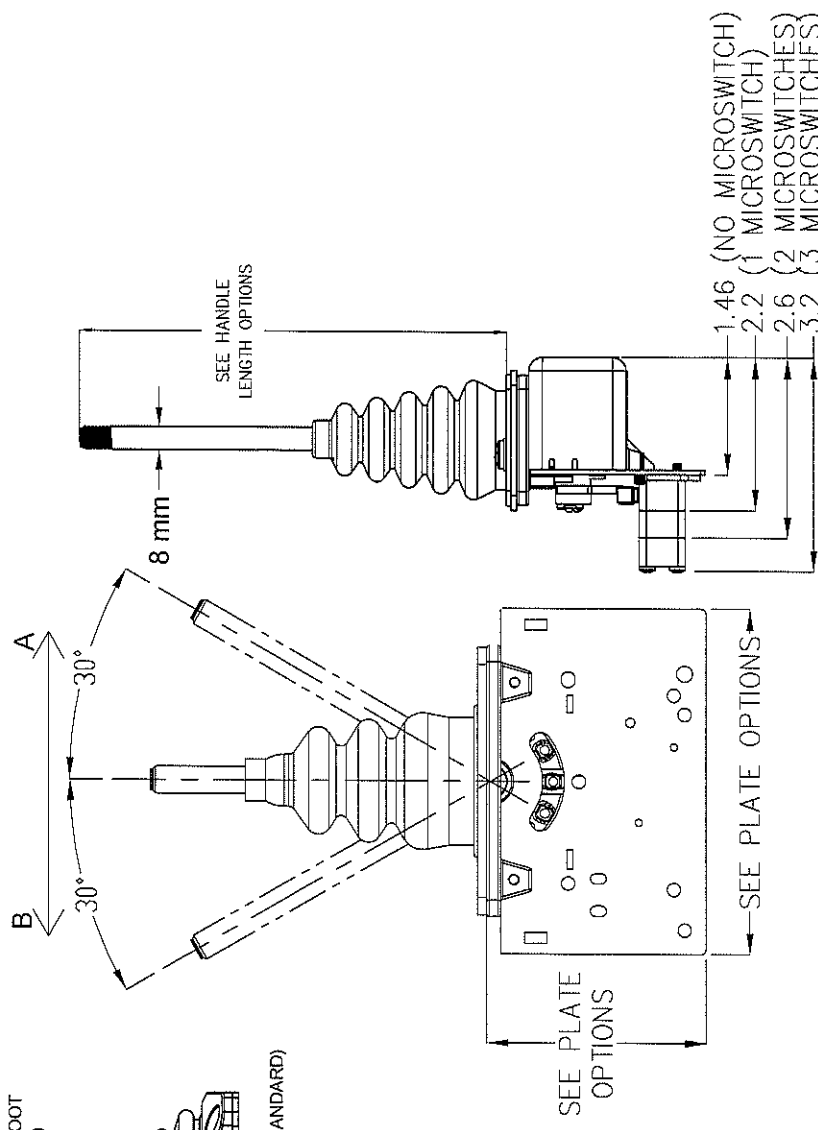


Specs:
 IP rating: IP67
 Temperature Rating: -40 to 70°C
 Mechanical life :1million cycles
 EMC tests per EN61000-4.3 and ISO 11452
 Note: All dimensions shown are in inches unless stated otherwise

BOOT OPTIONS



Handle Travel Direction



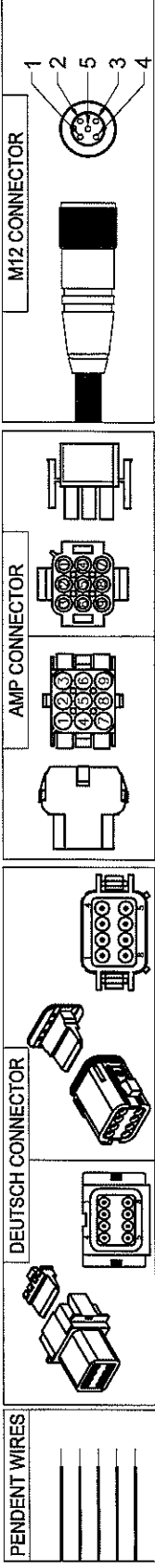
ELECTRONIC CONFIGURATIONS

Power Supply Range	Output Type	#Digital Inputs	#Digital Outputs	#Analog Outputs	Analog Output Range	Ratiometric Output Capable	Friction Hold Capable	Notes
9V - 30V	Voltage Output	1	2	1	0V to Vbat - 1V*	Yes	Yes	*Actual Output values and curve shape set by software. Analog Output tolerances per chart on right.
9V - 30V	PROPORTIONAL DUTY CYCLE OUTPUT	2	0	2	0% TO 100% Duty Cycle*	No	Yes	
4.5V - 7.5V	Voltage Output	0	0	1	0.25V - 6.75V	Yes	Yes	
4.5V - 7.5V	Voltage Output	0	0	1	0V - 7.5V	Yes	Yes	
9V - 30V	PLC Current Output	1	2	1	4mA to 20mA*	No	Yes	
9V - 30V	Voltage Output	4	4	1	0V to Vbat - 1V*	Yes	Yes	
9V - 30V	Voltage Output	1	2	1	0V to Vbat - 1V*	Yes	Yes	

Wiring Options: Pendant wires, Deutsch connectors, AMP connectors or Customer Request.

Name	Power Supply Range	Output Type	#Digital Inputs	#Analog Inputs	#Sourcing Digital Outputs (trumper)	#Sinking Digital Outputs (trumper)	Friction Hold Capable	ID Resistor Capable	Notes
OCI-4	9V - 32V	CAN Open (DS401), J1939	4	0	0	0	No	Yes	*Four "Ground Matrix" inputs provide an ID feature. These inputs are sinking (active low) type.
OCI-9	9V - 32V	CAN Open (DS401), J1939	1	0	0	0	No	Ground Matrix*	

Wiring Options: Pendant wires, Deutsch connectors, AMP connectors or Customer Request.



HANDLE OPERATION

A-B AXIS	HANDLE RETURN	SPRING RETURN	HEAVY DUTY SPRING RETURN	FRICITION HOLD	MAINTAIN CENTER	DETENT CENTER
1	2	3	4			

SHAFT LENGTH	HANDLE HEIGHT	HANDLE TRAVEL
63mm	2.4"	1.3" EACH DIRECTION
80mm	3.1"	1.6" EACH DIRECTION
100mm	3.9"	2.1" EACH DIRECTION
150mm	5.8"	3.1" EACH DIRECTION

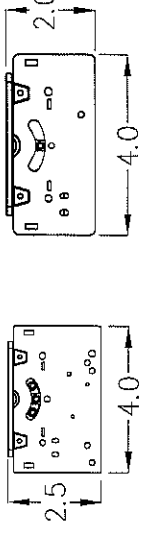
HANDLE OPTIONS
 SEE HANDLE OPTIONS SHEET

MICROSWITCH OPTIONS

- 1) NONE (OPTIONAL)
- 2) 1 MICROSWITCH (STANDARD)
- 3) 2 MICROSWITCHES (OPTIONAL)
- 4) 3 MICROSWITCHES (OPTIONAL)

ENCLOSURE OPTIONS

- 1) PLASTIC (STANDARD)
- 2) METAL (OPTIONAL)
- 3) NONE (NOT RECOMMENDED)



DRAWN BY: MER
 CHECKED: DDO

DATE: 5-17-16
 5/17/16

10 Controls Drive - Shelton, CT 06484
 Phone: (203) 929-8431 Fax: (203) 929-3867



PAGE 1 OF 3
 HMS7 CATALOG
 MECHANICAL

PROJECTION: SCALE: 1:1

PART NO. DWG NO. B29734
 SHEET 1 OF 3 REV C SIZE B

RG0
(BLANK HANDLE)

RG3
(4A DPST P.B ON TOP)

RG2
(10A SPST MOMENTARY P.B ON TOP)

RG8
(5A SPDT MAINTAINED P.B ON TOP)
:NO FLANGELESS:

RG1
(ROCKER SWITCH ON TOP)

RG21
(ROCKER SWITCH ON TOP WITH MAINTAINED ON RIGHT SIDE AND SPRING RETURN ON LEFT SIDE)
:NO FLANGELESS:

RG4
(10A SPST ON SIDE)

RG6
(10A SPST P.B ON TOP & 10A SPST P.B ON SIDE)

RG7
(4A SPST P.B ON TOP & 10A SPST P.B ON SIDE)
:NO FLANGELESS:

RG9
(5A SPDT MAINTAINED P.B ON TOP & 10A SPST P.B ON SIDE)
:NO FLANGELESS:

RG12
(MAINTAINED ROCKER SWITCH ON TOP)

RG4
(10A SPST ON SIDE)

RG6
(10A SPST P.B ON TOP & 10A SPST P.B ON SIDE)

RG7
(4A SPST P.B ON TOP & 10A SPST P.B ON SIDE)
:NO FLANGELESS:

RG9
(5A SPDT MAINTAINED P.B ON TOP & 10A SPST P.B ON SIDE)
:NO FLANGELESS:

RG10
(10A SPST P.B ON TOP & TWO 10A SPST P.B ON SIDE)
:NO FLANGELESS:

RG11
(TWO 10A SPST P.B ON SIDE)

RG12
(MAINTAINED ROCKER SWITCH ON TOP)

RG13
(MAINTAINED ROCKER SWITCH ON TOP WITH 10A SPST P.B ON SIDE)

RG18
(5A SPDT P.B ON TOP & TWO 5A SPDT P.B ON SIDE)
:NO FLANGELESS:

RG19
(MAINTAINED ROCKER SWITCH ON TOP WITH 5A SPST MAINTAINED P.B ON SIDE)

RG5
(ROCKER SWITCH ON TOP WITH 10A SPST N.O.P.B ON SIDE)

RG16
(ROCKER SWITCH ON TOP & 5A SPST MAINTAINED P.B ON SIDE)

RG20
(5A SPDT MAINTAINED P.B ON TOP & 5A SPDT MAINTAINED P.B ON SIDE)
:NO FLANGELESS:

RG21
(ROCKER SWITCH ON TOP WITH MAINTAINED ON RIGHT SIDE AND SPRING RETURN ON LEFT SIDE)
:NO FLANGELESS:

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ZONE	REV	DESCRIPTION	DATE	APPROVED
C	S12	ADDED PER ECN#28913	MER*5/3/17	<i>[Signature]</i>

RG4 (E or B)
(E: 10A SPST ON SIDE)
(B: MICROSWITCH ON SIDE)

RG5 (E or B)
(E: ROCKER SWITCH ON TOP WITH 10A SPST N.O.P.B ON SIDE)
(B: ROCKER SWITCH ON TOP WITH MICROSWITCH ON SIDE)

RG6 (E or B)
(E: 10A SPST P.B ON TOP & 10A SPST P.B ON SIDE)
(B: 10A SPST P.B ON TOP & MICROSWITCH ON SIDE)

RG9E
(5A SPDT MAINTAINED P.B ON TOP & 10A SPST P.B ON SIDE)

RG10
(10A SPST P.B ON TOP & TWO 10A SPST P.B ON SIDE)
:NO FLANGELESS:

RG11
(TWO 10A SPST P.B ON SIDE)

RG12
(MAINTAINED ROCKER SWITCH ON TOP)

RG13
(MAINTAINED ROCKER SWITCH ON TOP WITH 10A SPST P.B ON SIDE)

RG18
(5A SPDT P.B ON TOP & TWO 5A SPDT P.B ON SIDE)
:NO FLANGELESS:

RG19
(MAINTAINED ROCKER SWITCH ON TOP WITH 5A SPST MAINTAINED P.B ON SIDE)

RG4
(10A SPST ON SIDE)

RG6
(10A SPST P.B ON TOP & 10A SPST P.B ON SIDE)

RG7
(4A SPST P.B ON TOP & 10A SPST P.B ON SIDE)
:NO FLANGELESS:

RG9
(5A SPDT MAINTAINED P.B ON TOP & 10A SPST P.B ON SIDE)
:NO FLANGELESS:

RG10
(10A SPST P.B ON TOP & TWO 10A SPST P.B ON SIDE)
:NO FLANGELESS:

RG11
(TWO 10A SPST P.B ON SIDE)

RG12
(MAINTAINED ROCKER SWITCH ON TOP)

RG13
(MAINTAINED ROCKER SWITCH ON TOP WITH 10A SPST P.B ON SIDE)

RG18
(5A SPDT P.B ON TOP & TWO 5A SPDT P.B ON SIDE)
:NO FLANGELESS:

RG19
(MAINTAINED ROCKER SWITCH ON TOP WITH 5A SPST MAINTAINED P.B ON SIDE)

RG5
(ROCKER SWITCH ON TOP WITH 10A SPST N.O.P.B ON SIDE)

RG16
(ROCKER SWITCH ON TOP & 5A SPST MAINTAINED P.B ON SIDE)

RG20
(5A SPDT MAINTAINED P.B ON TOP & 5A SPDT MAINTAINED P.B ON SIDE)
:NO FLANGELESS:

RG21
(ROCKER SWITCH ON TOP WITH MAINTAINED ON RIGHT SIDE AND SPRING RETURN ON LEFT SIDE)
:NO FLANGELESS:

RG14 & RG15

RG14 PUSHBUTTON PALM HANDLE (RIGHT HANDED)

RG15 PUSHBUTTON PALM HANDLE (LEFT HANDED)

RG0A

RG4 E&B (A-ADAPTOR)

ROUND BALL

SOLID KNOB

SOLID CAP HANDLE

SOLID KNOB WITH PUSHBUTTON

PALM KNOB

MG15

MG15L (PROTO)

MG15R (PROTO)

MG16 (PROTO)

MG15

MG15L (PROTO)

MG15R (PROTO)

MG16 (PROTO)

RG17
(ROCKER SWITCH MOUNTED VERTICALLY ON SIDE)

REDUCED FLANGE

FULL FLANGE

DRAWN BY	ALB	DATE	5-17-16
CHECKED	DDO	DATE	5/17/16
APVD ENC.			
APVD DESN			
APVD SALES			

10 CONTROLS DRIVE - Shelton, CT 06484
Phone: (203) 929-8431 Fax: (203) 929-3867

OEM CONTROLS

PAGE 2 OF 3
HMS7 CATALOG
ELECTRONICS

PROJECTION: SCALE: 1:1

PART NO. **B29734**

DWG NO. **B29734**

SHEET 2 OF 3

REV C

SIZE B

NOTE: ALL DIMENSIONS SHOWN ARE IN INCHES UNLESS STATED OTHERWISE

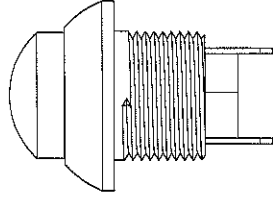
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STANDARD COMPONENTS SHOWN. OTHERS AVAILABLE UPON REQUEST

REVISIONS

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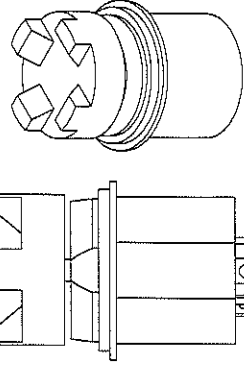
RAISED DOME PUSHBUTTON (SPST)



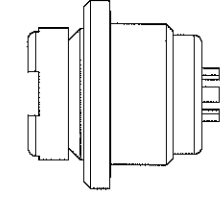
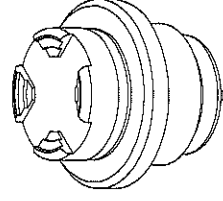
AVAILABLE COLORS

- RED
- BLACK
- YELLOW
- WHITE
- GRAY
- ORANGE

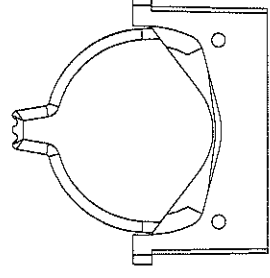
4 WAY ROCKER AVAILABLE OPTIONS



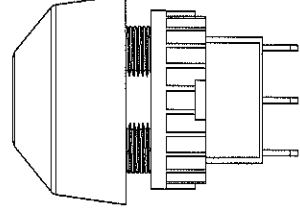
- TACTILE
- NO TACTILE



OTHER OPTIONS

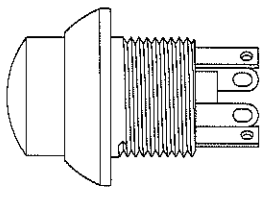


S12 SWITCH



PUSHBUTTON WITH MINI MICRO

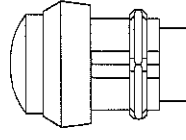
RAISED DOME PUSHBUTTON (SPDT)



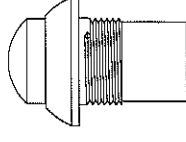
AVAILABLE COLORS

- WHITE
- YELLOW
- GRAY
- ORANGE
- BLUE
- GREEN

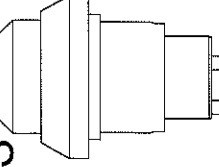
HALL EFFECT (ON/OFF) PUSHBUTTONS



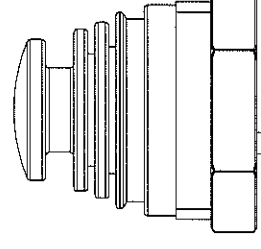
HALL EFFECT



TACTILE/NO TACTILE

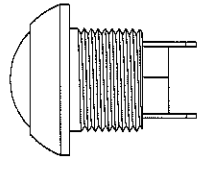


RAISED & FLUSH DOME



JS20 (SEE MAIN CATALOG)

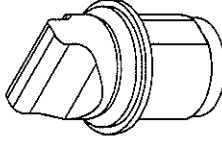
FLUSH DOME PUSHBUTTON



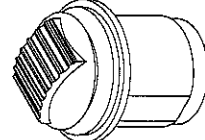
AVAILABLE COLORS

- YELLOW
- RED
- BLUE
- GREEN
- BLACK

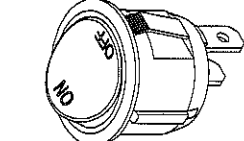
ROCKER SWITCHES



- OPTIONS
- MOM-OFF-MOM
 - MAINT ON-ON
 - MAINT ON-OFF-ON

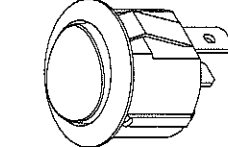


- OPTIONS
- MOM-OFF-MOM
 - MAINT ON-ON
 - MAINT ON-OFF-ON



- OPTIONS
- MOM-OFF-MOM
 - MA-OFF-MA

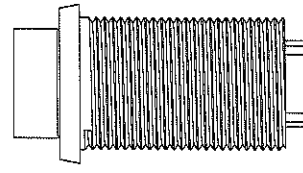
GREEN AND RED LED AVAILABLE



- OPTIONS
- MOM-OFF-MOM
 - MA-OFF-MA

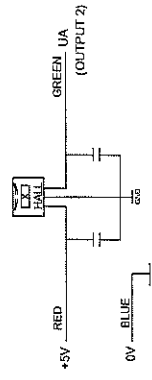
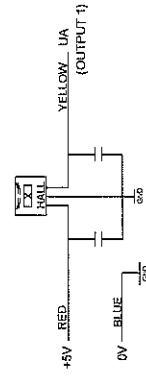
S9 SWITCH (SEE MAIN CATALOG)

PROPORTIONAL PUSHBUTTON



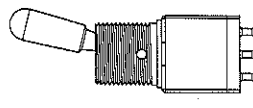
AVAILABLE COLORS

- WHITE
- BLACK

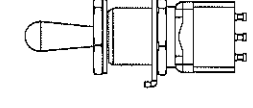


OUTPUT 1: 0.5V - 4.5V
OUTPUT 2: 4.5V - 0.5V

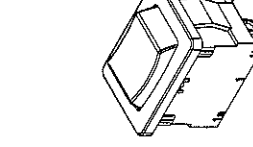
TOGGLE SWITCHES



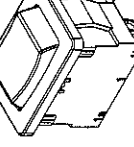
MOM-OFF-MOM



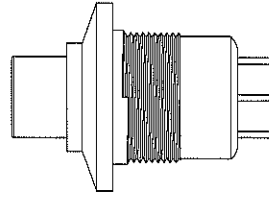
MAINT ON-ON



MAINT ON-OFF-ON



- OPTIONS
- MOM-MOM
 - MAINT-OFF-MAINT



MAINTAINED PUSHBUTTON

AVAILABLE COLORS

- BLACK
- WHITE

DRAWN BY	ALB	DATE	5-17-16
CHECKED	DDO	DATE	5/17/16
APVD ENG.			
APVD DESN			
APVD SALES			



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**PAGE 3 OF 3
HMS7 CATALOG
HANDLE OPTIONS**

PROJECTION: 1
SCALE: 1:1

PART NO. B29734
DWG NO. B29734
SHEET 3 OF 3
REV C
SIZE B