



## H series handle

- Ergonomic design
- Ergonomic handle made of thermoplastic material
- Available with different proportional and ON/OFF functions
- Available with or without "dead man" trigger

### General features

Shell and plate material	Nylon®
IP weather protection (mounted)	IP44
Ambient temperature	from -20°C to 60°C / from -4°F to 140°F
UV resistance	according to IEC68-2-5, S test C procedure

### Electric device features

#### H type ON/OFF push button

Version	spring return
Contact type	NA
Current rating	2 A resistive load @ 12 VDC
Mechanical life (nr. of operations)	10 <sup>6</sup>
Electric life (nr. of operations)	200x10 <sup>3</sup>
Operating force	0.8 N
Weather protection	IP50



#### HT type ON/OFF push button

Version	spring return
Contact type	NA
Current rating	2 A resistive load @ 12 VDC
Mechanical life (nr. of operations)	10 <sup>6</sup>
Electric life (nr. of operations)	200x10 <sup>3</sup>
Operating force	7.5 N
Weather protection	IP64



#### H type rocker switch

Version	spring return
Contact type	(on)/off/(on)
Current rating	2 A resistive load @ 12 VDC
Mechanical life (nr. of operations)	200x10 <sup>5</sup>
Weather protection	IP44



#### "Dead man" trigger

Version	spring return
Contact type	NA
Current rating	2 A resistive load @ 12 VDC
Mechanical life (nr. of operations)	10 <sup>6</sup>
Electric life (nr. of operations)	200x10 <sup>3</sup>
Operating force	0.8 N
Weather protection	IP50



#### Proportional roller

Supply	8-32 VDC
Max. current consumption	< 24 mA
Max. output current	1 mA
Output signal (range)	0.5 - 4.5 V
Output signal (central position)	2.5V
Signal tolerance (central position and stroke end)	±100 mV
Minimum load	10 Ω
Actuator deflection angle	± 35° (±1°)
Mechanical life (nr. of operations)	10 <sup>6</sup>
Operating force	2 N
Mechanical vibration	IEC 68-2 EN 60068-2-29 (pulse)
Mechanical shock	400m/s <sup>2</sup> x 6 ms, 100 times
Weather protection	IP67-IP69K
EMC compatibility	ISO 13766 - ISO 14982



#### Rocker switch

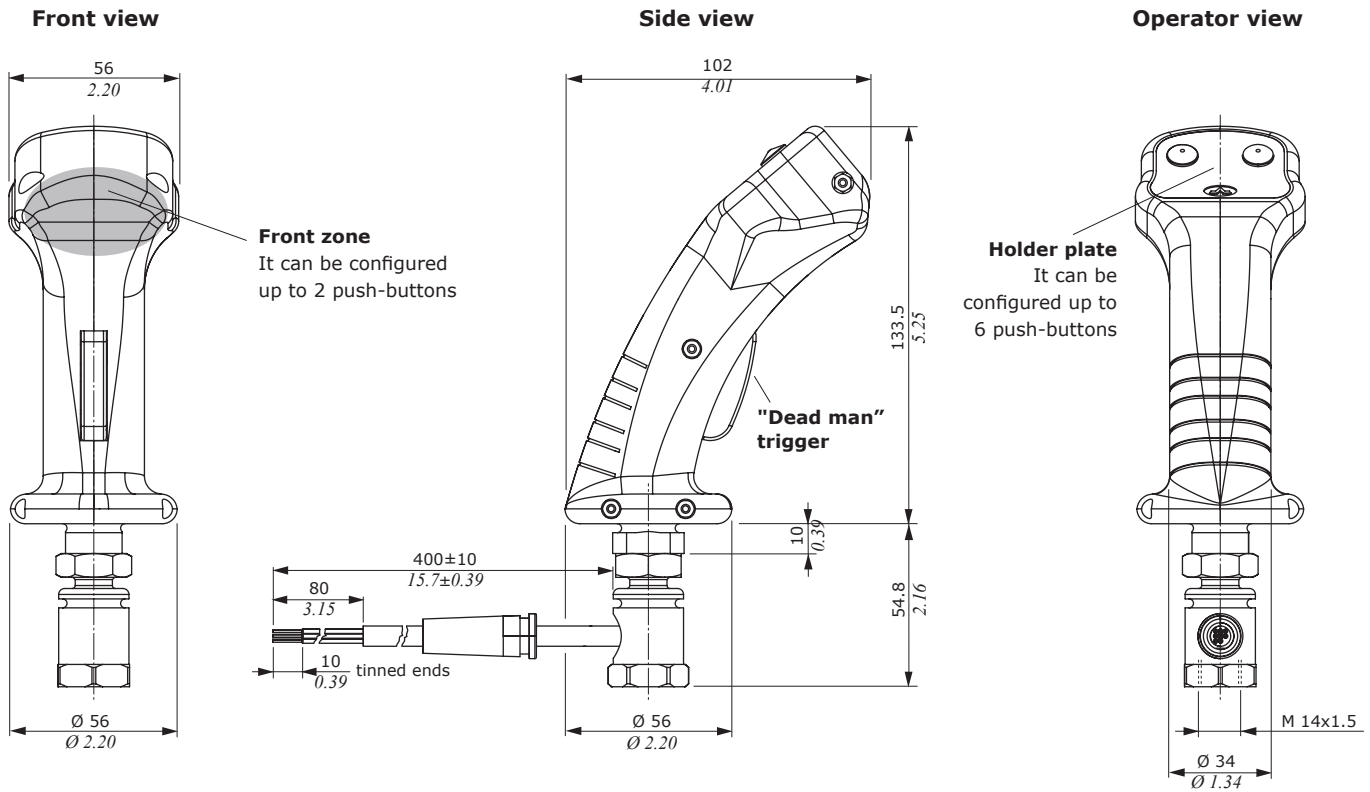
Version	with detent
Contact type	on/off
Current rating	2 A resistive load @ 12 VDC
Mechanical life (nr. of operations)	10 <sup>5</sup>
Weather protection	IP44



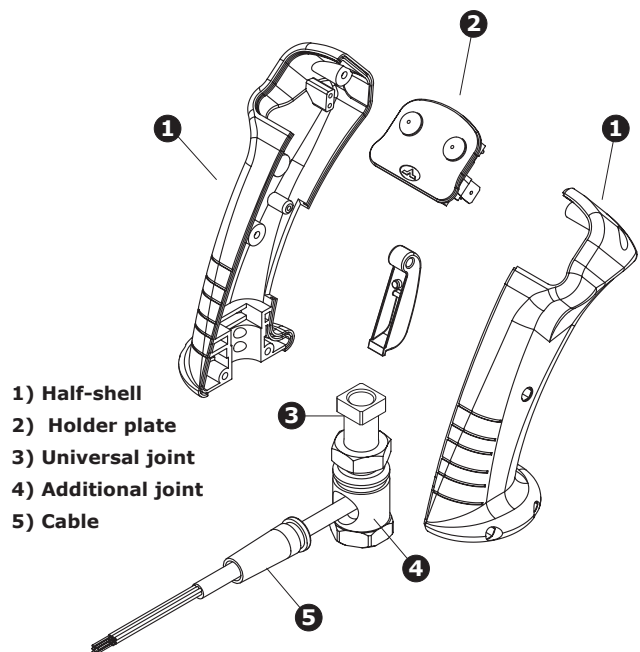
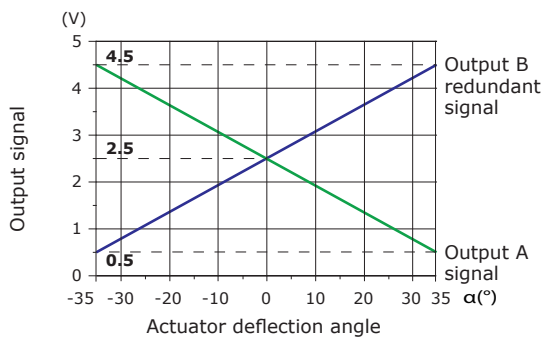
#### Cables

Conductor material	copper with tinned ends
Nr. of conductors	up to 12
Conductor section	from AWG16 to AWG20
Insulating material	PVC
Protective covering material	fireproof polyurethane

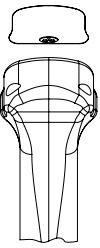
## Dimensions



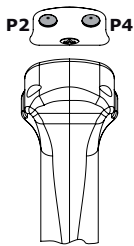
**Proportional roller output detail**



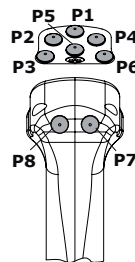
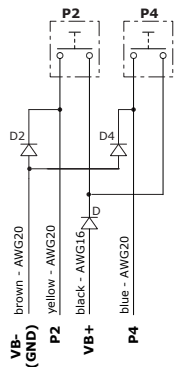
### Without "dead man" trigger



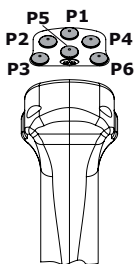
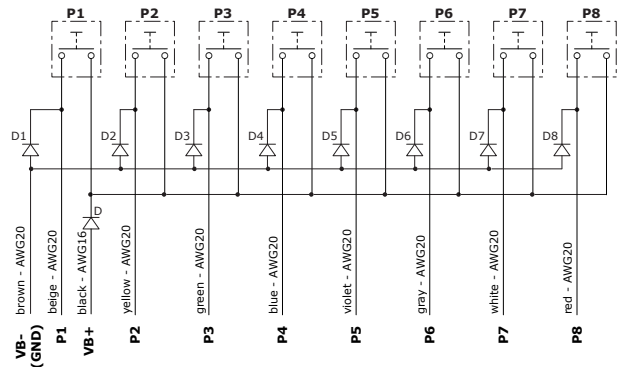
Code	<b>2IM4000213</b>
Description	HB009
Holder plate	-
Frontal zone	-
Joint	Standard for SVM400



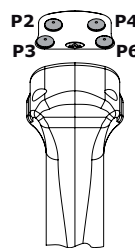
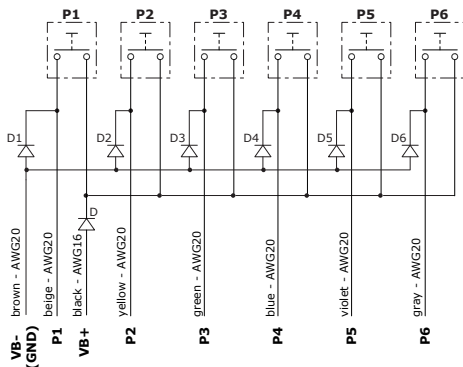
Code	<b>2IM4000235</b>
Description	HB029-2RD040-4RD040
Holder plate	2 push-buttons with spring return (P2-P4)
Frontal zone	-
Joint	Standard for SVM400-430 joystick



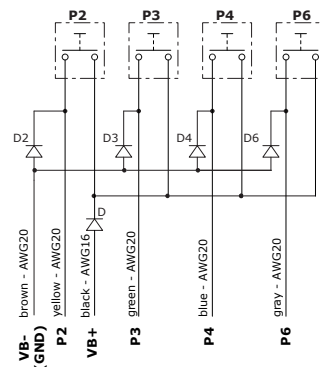
Code	<b>2IM4200017</b>
Description	HC069-1RD040-2RD040-3RD040-4RD040-5RD040-6RD040-7RD040-8RD040
Holder plate	6 push-buttons with spring return (P1...P6)
Frontal zone	2 push-buttons with spring return (P7-P8)
Joint	Standard for SVM400-430 joystick



Code	<b>2IM4000201</b>
Description	HB069-1RD040-2RD040-3RD040-4RD040-5RD040-6RD040
Holder plate	6 push-buttons with spring return (P1...P6)
Frontal zone	-
Joint	Standard for SVM400-430 joystick



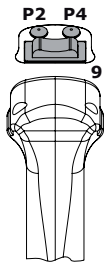
Code	<b>2IM4000221</b>
Description	HB049-2RD040-3RD040-4RD040-6RD040
Holder plate	4 push-buttons with spring return (P2-P3-P4-P6)
Frontal zone	-
Joint	Standard for SVM400-430 joystick



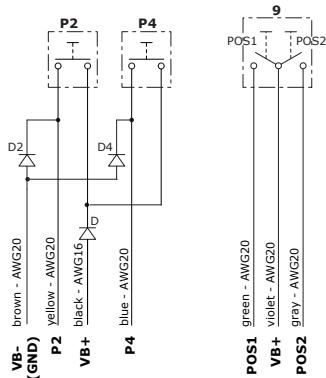
NOTE - For different joint see page 4.  
For different handle configurations, contact our Sales Dept.

## Configurations

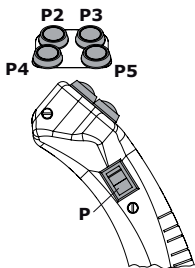
### Without "dead man" trigger



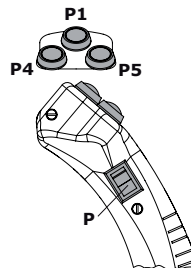
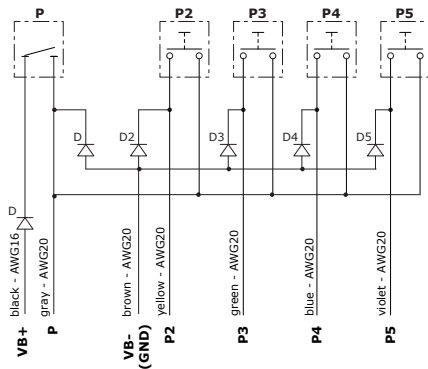
Code	<b>2IM4000145</b>
Description	HB529-2RD040-4RD040-9N040-CS
Holder plate	2 push-buttons with spring return (P1-P2), 1 rocker switch with spring return (9)
Frontal zone	-
Joint	Standard for SVM400-430 joystick



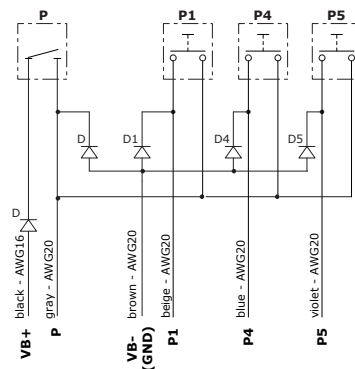
### With ON/OFF switch



Code	<b>2IM4700138</b>
Description	HTPB049-PND040-2R1D040-3R1D040-4R1D040-5R1D040
Holder plate	4 push-buttons with spring return (P2-P3-P4-P5)
Frontal zone	ON/OFF switch (P)
Joint	Standard for SVM400-430 joystick

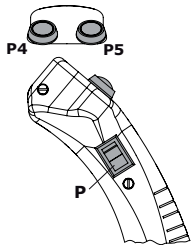


Code	<b>2IM4700139</b>
Description	HTPB039-PND040-1R1D040-4R1D040-5R1D040
Holder plate	3 push-buttons with spring return (P1-P4-P5)
Frontal zone	ON/OFF switch (P)
Joint	Standard for SVM400-430 joystick

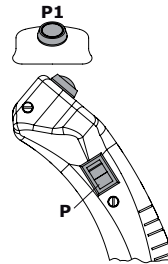
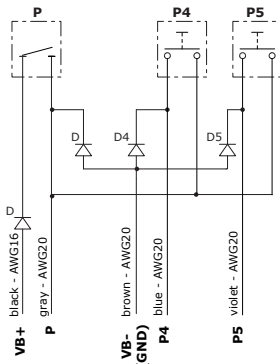


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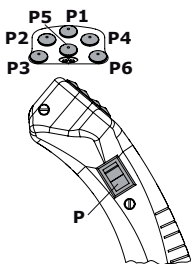
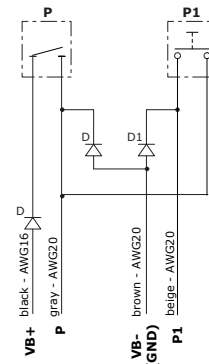
With ON/OFF switch



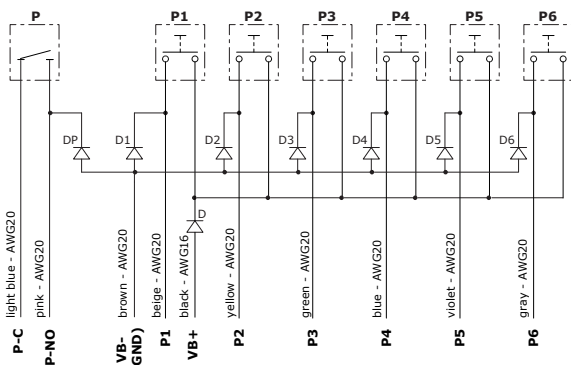
Code	<b>2IM4700140</b>
Description	HTPB029-PN040-4R1D040-5R1D040
Holder plate	2 push-buttons with spring return (P4-P6)
Frontal zone	ON/OFF switch (P)
Joint	Standard for SVM400-430 joystick



Code	<b>2IM4700141</b>
Description	HTPB019-PN040-1R2D040
Holder plate	1 push-button with spring return (P1)
Frontal zone	ON/OFF switch (P)
Joint	Standard for SVM400-430 joystick



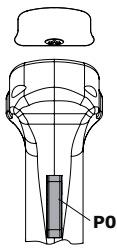
Code	<b>2IM4000309</b>
Description	HJ069-PN040-1RD040-2RD040-3RD040-4RD040-5RD040-6RD040
Holder plate	6 push-buttons with spring return (P1...P6)
Frontal zone	ON/OFF switch (P)
Joint	Standard for SVM400-430 joystick



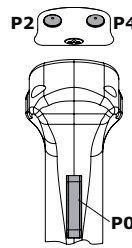
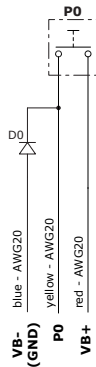
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### Configurations

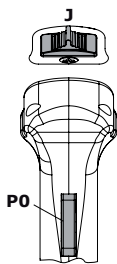
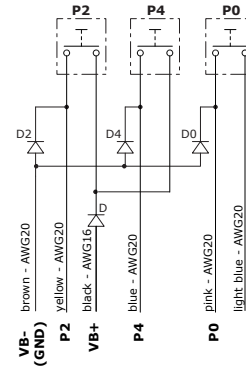
#### With "dead man" trigger



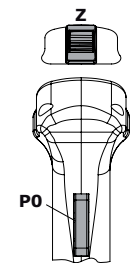
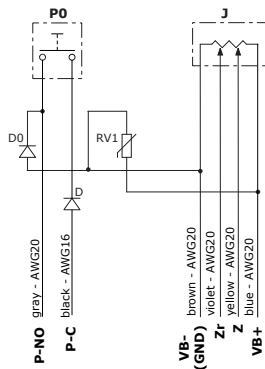
Code	<b>2IM4100075</b>
Description	HA009-ORD040
Holder plate	-
Frontal zone	"Dead man" trigger (P0)
Joint	Standard for SVM400-430 joystick



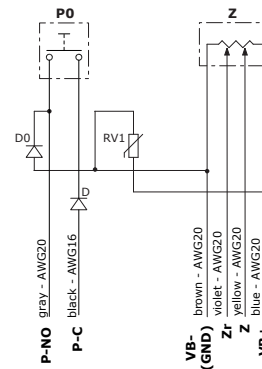
Code	<b>2IM4100109</b>
Description	HA029-ORD040-2RD040-4RD040
Holder plate	2 push-buttons with spring return (P2-P4)
Frontal zone	"Dead man" trigger (P0)
Joint	Standard for SVM400-430 joystick



Code	<b>2IM4800022</b>
Description	HZA9-ORD040-JN130040-(RV)
Holder plate	Proportional roller (J) with redundancy
Frontal zone	"Dead man" trigger (P0)
Joint	Standard for SVM400-430 joystick



Code	<b>2IM4800023</b>
Description	HZA9-ORD040-ZN130040-(RV)
Holder plate	Proportional roller (Z) with redundancy
Frontal zone	"Dead man" trigger (P0)
Joint	Standard for SVM400-430 joystick



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