Analog Rocker – AR3

Analog Rockers were developed to provide the reliability required in demanding environmental conditions such as multifunction grips, dashboards or armrest controls for heavy duty industrial applications.

The unique sensing design makes the rocker module an ideal proportional function solution for ‘off-road’ machinery.

Analog Rockers have been designed to be integrated into standard and custom designed grips, panels and electronic controls.

Main Features

- Contactless sensing – Hall effect
- Life greater than 2 million cycles
- One sensor - optional second sensor for redundancy
- Integrated temperature compensation
- Short circuit protection

Electrical Data		
Supply Ratings	Voltage range DC current	8.5V … 30V or 5.0 V ± 10% 50 mA at 24V
Voltage Output	Output 1 Output 2*	0.5V … 4.5V 4.5V … 0.5V
Total error		< 10%
Output current		max. 1 mA
Other electrical Characteristics	EMI	> 100 V/m
Mechanical Data		
Life		> 2 million cycles
Operating temperature - Storage - Working		 - 40°C to 85°C - 35°C to 70°C
Operating force		4-6 N
Vertical load maximum		30 N
Protection Level		IP 65 (from above when mounted)
Rocker deflection angle		± 30°

** for redundant version*

Ordering code		1	2	3	4	5	6	7	8	9
	Example	AR3S	01	GY	30/30	4N	0	V	2	00
1 **Type**	AR3 = analog rocker 3 S = varnished PCB N = non varnished PCB									
2 **Actuator Shape**	01 = long lever 02 = short lever 05 = thumb lever									
3 **Actuator Colour**	GY = grey									
4 **Actuator Angle**	30/30 = left 30° / right 30°									
5 **Operation Force**	4N = lever shape 01 5N = lever shape 02 6N = lever shape 05 operation force depends on actuator shape									
6 **Electrical supply**	0 = voltage 8.5 ... 30 V 1 = 5 V ± 10%									
7 **Output**	V = voltage									
8 **Sensors**	1 = 1 sensor 2 = 2 sensors (for redundancy)									
9 **Output Voltage Co**	00 = output 1 / 0.5V ... 4.5V; 1mA output 2 / 4.5V ... 0.5V; 1mA 02 = output 1 / 0.5V ... 4.5V; 1mA 03 = output 1 / 4.5V ... 0.5V; 1mA									

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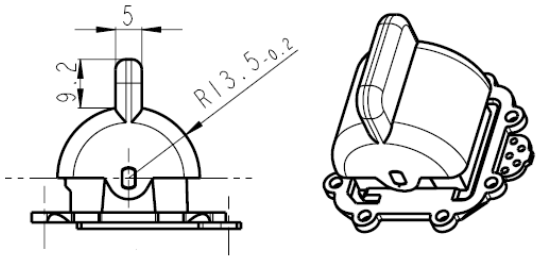
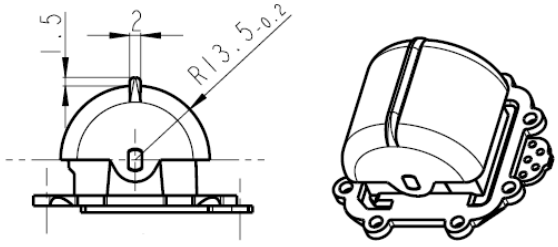
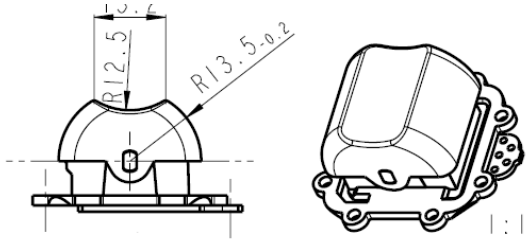


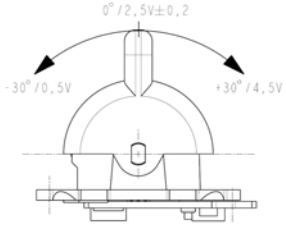
Module actuator shape 01

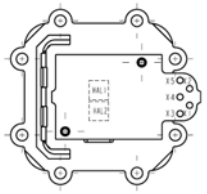


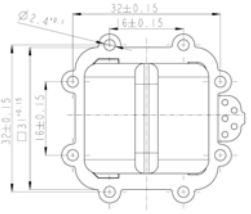
Module actuator shape 02



Module actuator shape 05







Pin assignment:

PIN	ALLOCATION	FUNCTION (8,5-30V)	FUNCTION (5V)
X5	OUT 1	OUTPUT 1 (HAL1)	OUTPUT 1 (HAL1)
X4	OUT 2	OUTPUT 2 (HAL2) *	OUTPUT 2 (HAL2) *
X3	V	RESERVED	5V±10%
X2	GND IN 1	REFERENCE GROUND	REFERENCE GROUND
X1	U BAT	VOLTAGE SUPPLY 8,5-30V	NOT CONNECTED

* FOR REDUNDANT VERSION ONLY