



| AR3

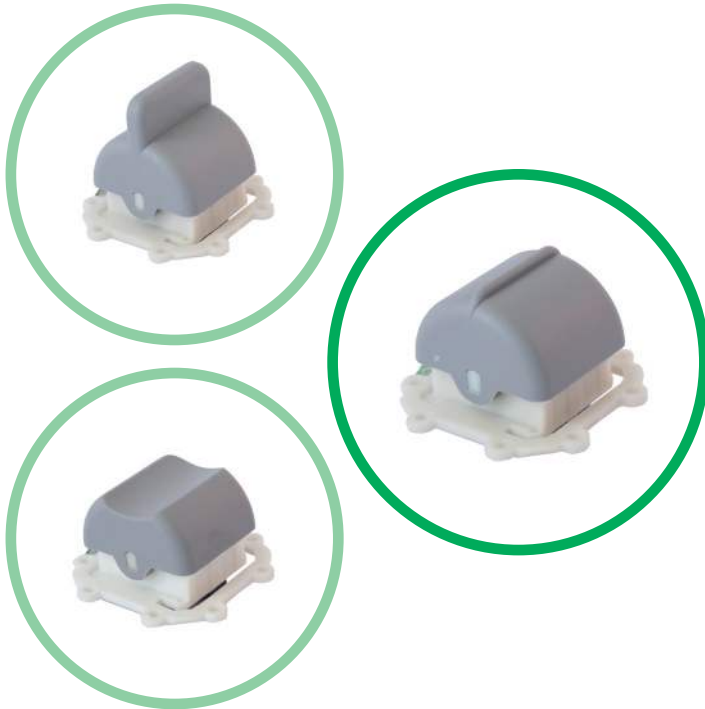
Analog Rocker

Introduction

The AR3 Analog Rockers have been 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.

The 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

Custom Modifications

- Output characteristics
- Actuator colour

SPECIFICATIONS

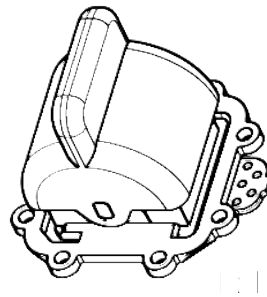
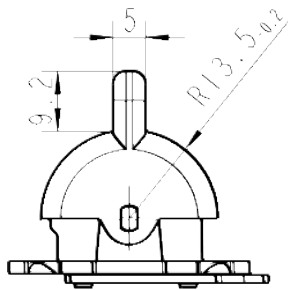
Electrical

Supply Ratings	Voltage range DC current	8.5V ... 30V or 5.0 V ± 10% 50 mA at 24V
Voltage Output	Output 1 Output 2 ^(A)	0.5V ... 4.5V 4.5V ... 0.5V
Pull-down resistor	Recommendation	4.7 kΩ
Total error		< 10%
Output current		max. 1 mA
Other electrical Characteristics	EMI	> 100 V/m

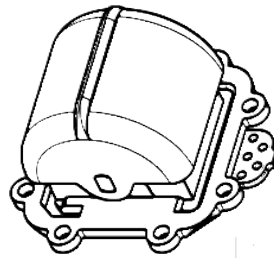
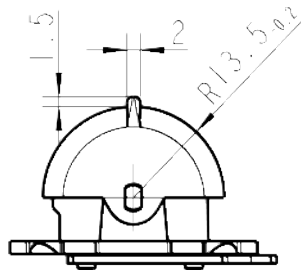
Mechanical

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°

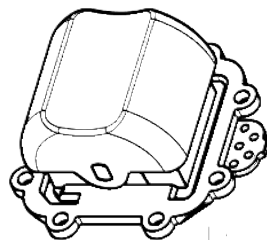
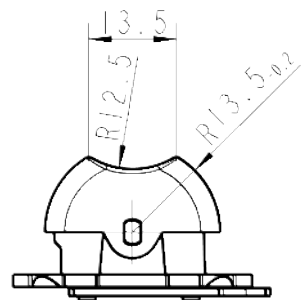
DIMENSIONS



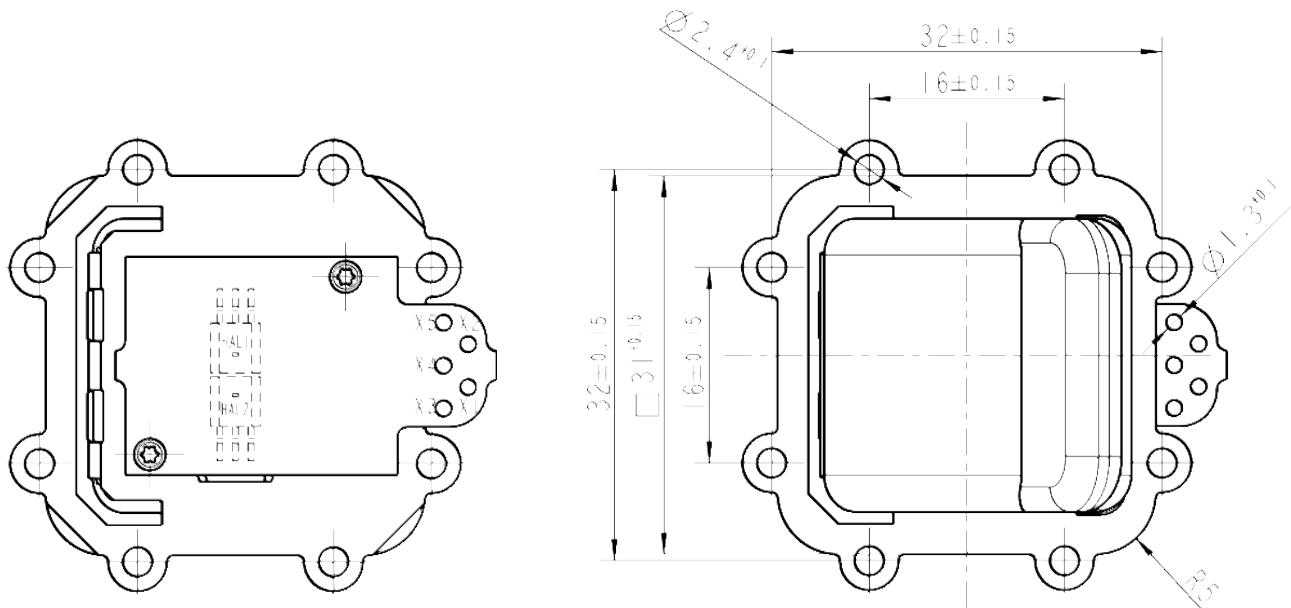
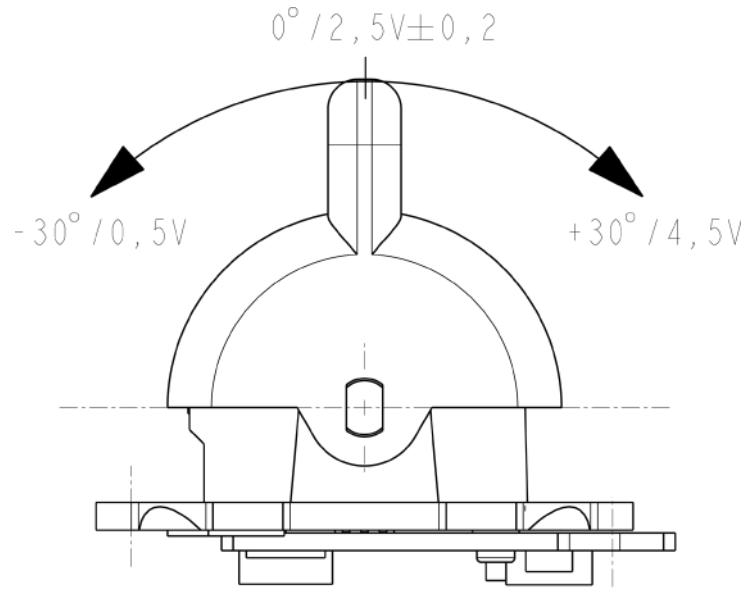
Module actuator shape 01



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) ^(A)	OUTPUT 2 (HAL2) ^(A)
X3	V	RESERVED	5V ±10%
X2	GND _{IN1}	REFERENCE GROUND	REFERENCE GROUND
X1	U _{BAT}	VOLTAGE SUPPLY 8.5-30V	NOT CONNECTED



ORDERING OPTIONS

Example : AR3S-01-GY-30/30-4N-0-V-2-00

Family	AR3S	01	GY	30/30	4N	0	V	2	00
AR3: analog rocker 3 S: varnished PCB N: non varnished PCB									
Actuator Shape		01							
01: long lever 02: short lever 05: thumb lever									
Actuator Colour			GY						
GY: grey									
Actuator Angle				30/30					
30/30: left 30° / right 30°									
Operation Force					4N				
4N: lever shape 01 5N: lever shape 02 6N: lever shape 05									
Electrical Supply						0			
0: voltage 8,5 ... 30 V 1: 5V ± 10%									
Output							V		
V: voltage									
Sensors								2	
1: 1 sensor 2: 2 sensors (for redundancy)									
Output Voltage Code (B)									00
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									



GENERAL NOTES

- (A) **for redundant version**
- (B) **ratiometric to 5V elec. supply**

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