

# AR3 Analog Rocker



The AR3 Analog Rockers from DeltaTech Controls 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

## 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
Pull-down resistor	Recommendation	4.7 kΩ
Total error		< 10%
Output current		max. 1 mA
Other electrical Characteristics	EMI	> 100 V/m

## Mechanical Data

Life	> 2 million cycles
Operating temperature	
- Storage	- 40°C to 85°C
- Working	- 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

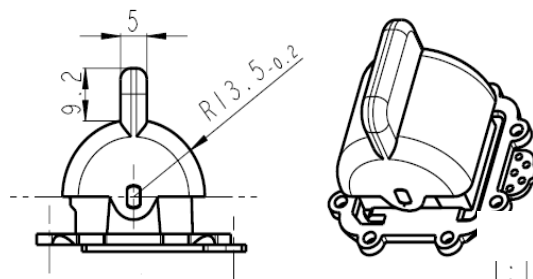
# AR3 Analog Rocker



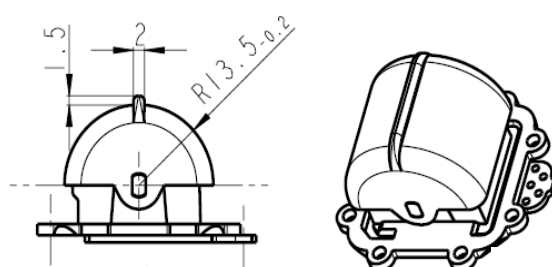
## Order Code

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

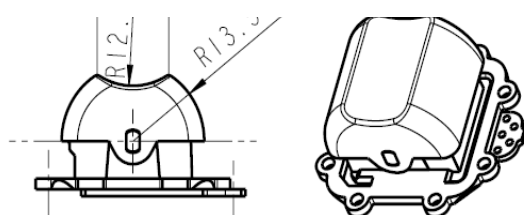
\*ratiometric to 5V elec. supply



Module actuator shape 01

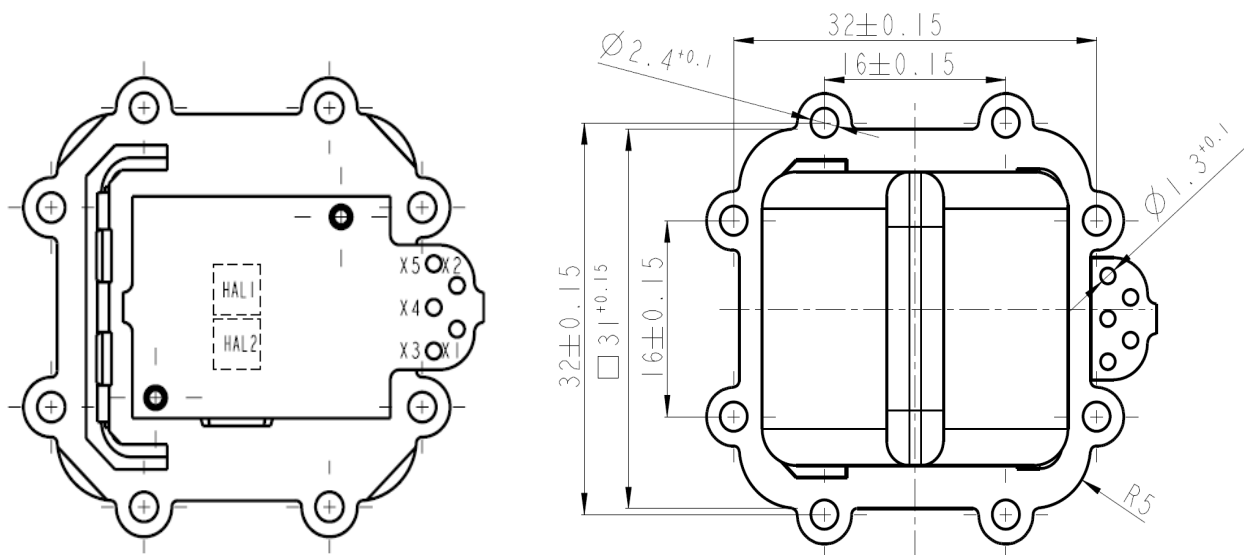
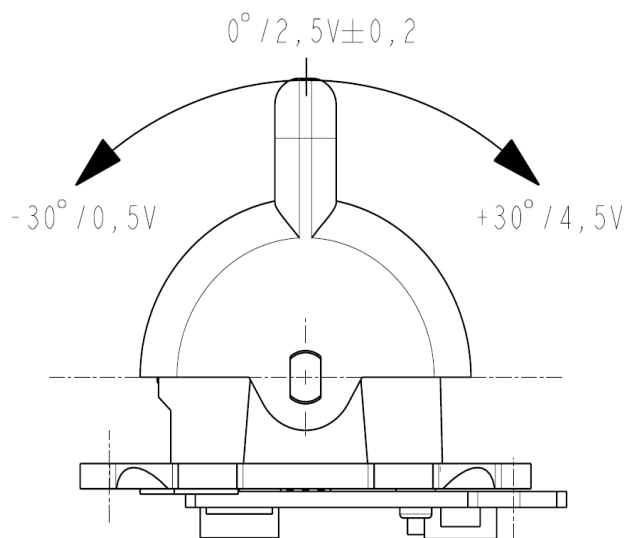


Module actuator shape 02



Module actuator shape 05

# AR3 Analog Rocker



## 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 <sub>IN 1</sub>	REFERENCE GROUND	REFERENCE GROUND
X1	U <sub>BAT</sub>	VOLTAGE SUPPLY 8,5-30V	NOT CONNECTED

\* FOR REDUNDANT VERSION ONLY

# AR3 Analog Rocker



## **DeltaTech Controls – A CoActive Technologies Company - worldwide Facilities**

With sales offices and manufacturing facilities located worldwide, please visit our website at [www.deltatechcontrols.com](http://www.deltatechcontrols.com) for a complete listing and to find the office nearest to you.

### **Germany**

#### **Headquarter**

Holzhauser Strasse 26-32  
D-13509 Berlin

Germany

phone: + 49 30 43 999 0

fax: + 49 30 43 999 203

Mail: [sales.dtc.europe@coactive-tech.com](mailto:sales.dtc.europe@coactive-tech.com)

### **France**

2 Boulevard Michaël Faraday  
Arlington Square, Bâtiment B  
Serris – F 77716 Marne-La Vallée Cedex 4  
France

phone: + 33 160 24 51 51

fax: + 33 3 84 69 08 97

Mail: [sales.dtc.europe@coactive-tech.com](mailto:sales.dtc.europe@coactive-tech.com)

### **USA**

5288 Valley Industrial Blvd. S  
Shakopee, MN 55379

USA

phone: + 1 952 403 7400

fax: + 1 952 233 9707

Mail: [sales.dtc.americas@coactive-tech.com](mailto:sales.dtc.americas@coactive-tech.com)

### **Japan**

9F, Ariake Frontier Building B  
3-1-25 Ariake, Koto-ku, Tokyo 135-0063  
Japan

phone: + 81 3 5530 9365

fax: + 81 3 5530 8737

Mail: [sales.dtc.asia@coactive-tech.com](mailto:sales.dtc.asia@coactive-tech.com)

### **China**

3rd F. North Building  
No. 239 Gangao Rd.  
W.G.Q.FTZ. Pudong  
Shanghai. 200131

China

phone: + 86 13810247876

fax: +86 21 3393 8281

Mail: [sales.dtc.asia@coactive-tech.com](mailto:sales.dtc.asia@coactive-tech.com)

### **Korea**

Room #503, TaeSung Building,  
265-5, SeoHyun - Dong, PuDang - Gu,  
SeonNam - Si, GyeonGi - Do,  
Korea 463-050

phone: + 82 32 704 0347

fax: + 82 32 704 0348

Mail: [sales.dtc.asia@coactive-tech.com](mailto:sales.dtc.asia@coactive-tech.com)

No information and data contained in this publication shall be construed to create any liability on the part of DeltaTech Controls GmbH. Any new issue of this publication shall automatically invalidate and supersede any and all previous issues. Dimensions are subject to change without prior notice.

All Copyrights belong to DeltaTech Controls GmbH and CoActive Technologies.  
All other trademarks or registered trademarks are property of their respective owners.  
All data subject to change without notice. ©2010