

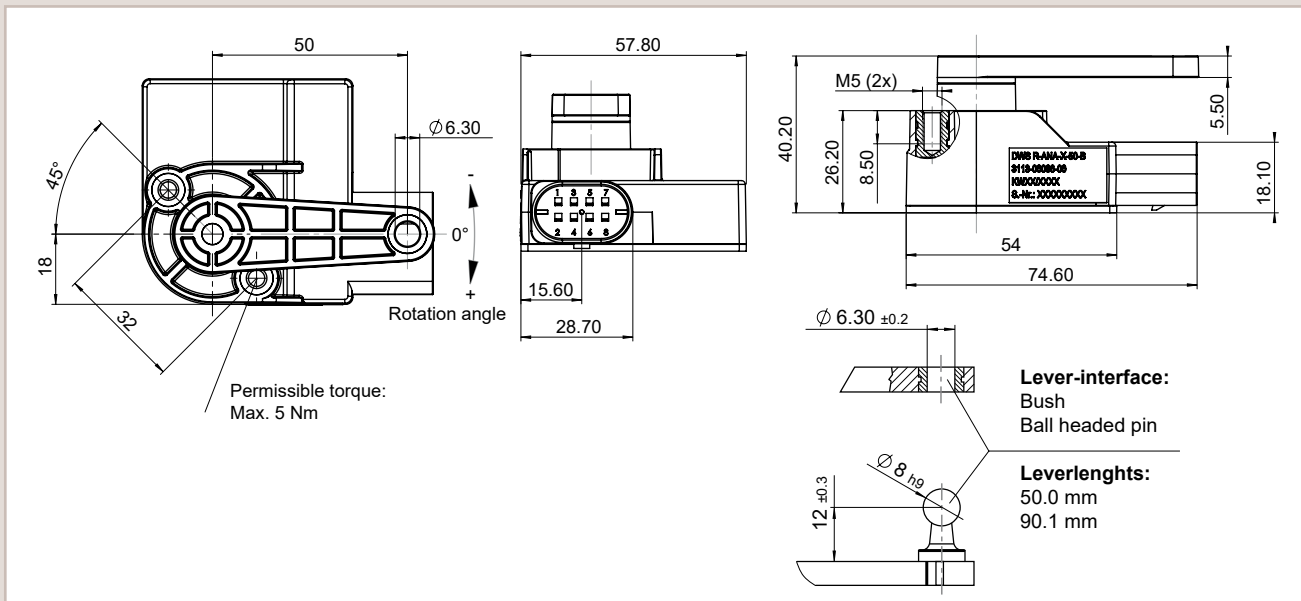
ROTARO ROTARY ANGLE SENSOR

Using the ROTARO rotary angle sensor, an angle can be reliably and precisely measured. The non-contacting, inductive angle determination allows the position sensor to function with absolutely no wear. The laserwelded sensor housing provides maximum protection against dust and water. Its resistance to magnetic fields and pronounced temperature stability makes the rotary angle sensor extremely durable and enables it to be used under extremely adverse conditions. This results in a wide range of possible applications. These include the determination of the accelerator pedal position, steering angle determinations or measurement of the throttle valve position.

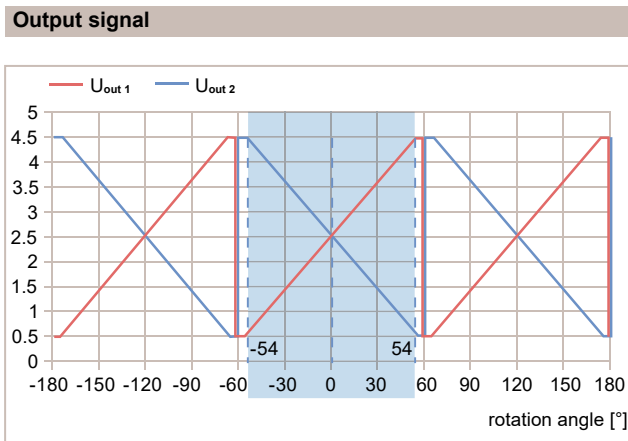
- Contactless via inductive sensor
- Redundant output signal
- Protection class IP 6K9K, plugged connector
- Available in different variations



Dimensions [mm]



Technical data	
Technology	Contactless via inductive sensor
Mechanical data	
Mechanical angle of rotation	Unlimited 360° rotatable
Dimensions	See drawing
Mating connector	AMP 1394416-1
Electrical data	
Nominal operating voltage	5 V $\pm 10\%$ or 9 V – 32 VDC
Output signal	0.5 – 4.5 V, ratiometric $\pm 60^\circ$ (of which $\pm 54^\circ$ as X-characteristic) 3 x repeating
Operating conditions	
Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +85°C
Service life	5 million cycles
Protection class	IP 6K9K, plugged connector



Connector pin assignment	
Power supply with 5 V DC*	
PIN 1	5 V DC sensor 2
PIN 2	Analogue output $U_{out 1}$ (0.5 – 4.5 V ratiometric)
PIN 3	-
PIN 4	5 V DC sensor 1
PIN 5	Analogue output $U_{out 2}$ (0.5 – 4.5 V ratiometric)
PIN 6	-
PIN 7	GND sensor 2
PIN 8	GND sensor 1

* The power supply (PIN 1 and PIN 4) and the ground supply (PIN 7 and PIN 8) can be bridged externally to reduce the number of lines.

Part numbers	
ROTARO 50mm bush	3133-00086-01
ROTARO 50mm ball headed pin	3133-00087-01
ROTARO 90mm bush	3133-00068-01
ROTARO 90mm ball headed pin	3133-00069-01

Connector pin assignment	
Power supply with 9 V DC to 32 V DC**	
PIN 1	Bridge to PIN 4 (external)
PIN 2	Analogue output $U_{out 1}$ (0.5 – 4.5 V ratiometric)
PIN 3	9 V DC – 32 V DC sensor 1 / 2
PIN 4	Bridge to PIN 4 (external)
PIN 5	Analogue output $U_{out 2}$ (0.5 – 4.5 V ratiometric)
PIN 6	-
PIN 7	GND sensor 2
PIN 8	GND sensor 1

** The bridge between PIN 1 and PIN 4 must be external. The ground supply (PIN 7 and PIN 8) can be bridged externally to reduce the number of lines.