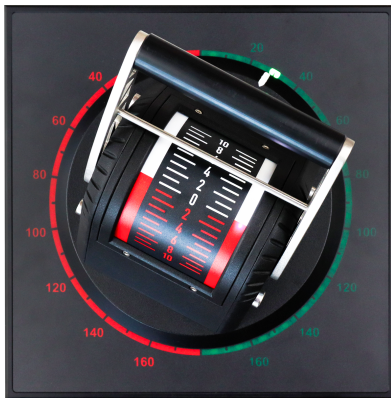


noriSys 4 LA4

Control lever for azimuth drives



- Various scales available
- Dimmable LED-band for lever position indication
- Electric shaft function for lever coupling and force feedback
- Control lever chains with automatic alignment for adjusting several control levers simultaneously
- Redundant integration via CANbus and/or integration via customised I/O solutions to many automation systems

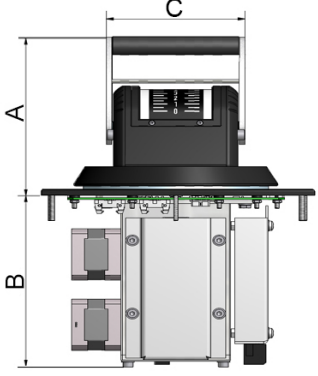
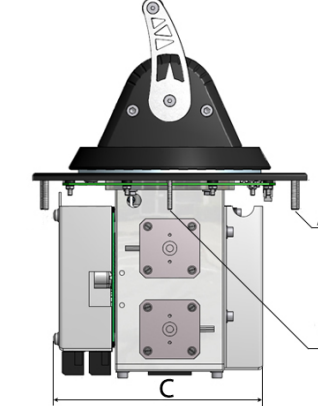
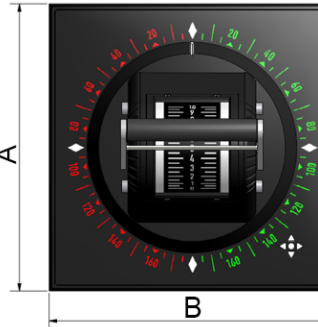
Technical Specifications

Supply voltage	U_{nom} 24 VDC, 18 ... 32 VDC
Digital interface	2x CANBus
Analog output	optional analogue output 4 ... 20 mA available
Protection class	IP56 front side

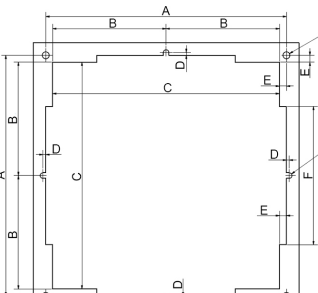


Dimensions and drawings

Device dimensions

	<p>Front view</p> <p>A) Length 130.00 mm B) Length 140.80 mm C) Length 96.00 mm</p>
	<p>Side view</p> <p>A) Thread M4, length 20.8 mm B) Thread M3, length 20.8 mm C) Length 146.5 mm</p>
	<p>Top view</p> <p>A) Length 192.00 mm B) Length 192.00 mm</p>

Console cut-out

	<p>A) Length 174 mm B) Length 82 mm C) Length 164 mm D) Length 2 mm E) Length 5 mm F) Length 100 mm G) 4 x Ø 5 mm H) 4 x Ø 4 mm</p>
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Technical data

Connection	
Supply voltage	Unom 24 VDC, 18 ... 32 VDC
Current consumption	0.15 ... 1.5 A according to level of equipment
Reverse voltage protection	Integrated
Over voltage protection	Integrated

Connectivity	
Digital interface	2x CANBus
Analog output (optional)	One per handle (4 ... 20 mA)
Illumination regulation input	For conventional 24 VDC PWM dimmer

Environmental influences	
Operating temperature	DIN IEC 60068-2-2 and DIN IEC 60068-2-1: -25°C ... +70°C
Climatic test	DIN IEC 60068-2-30 Db
Storage temperature	DIN IEC 60068-2: -40°C ... +85°C
Vibration resistance	DIN IEC 60068-2-6 Fc: ±1.0 mm @ 2 ... 13.2 Hz, ±0.7 g @ 13.2 ... 100 Hz
Degree of protection	DIN EN 60529: IP56 front side
ESD	IEC 61000-4-2: ± 6 kV/Contact Discharge; ± 8 kV/Air Discharge
HF-interference immunity	IEC 61000-6-2; IEC 61000-4-3, -4-4, -4-5, -4-6
Interference emission	IEC 61000-6-4

Mechanical dimensions	
Material	Enclosure: PUR, AlMg3, AlMgSi1
Mounting	Console mounting
Installation position	None
Dimensions	192 x 192 x 271 mm (141 mm under floor)
Weight	3.4 kg - 3.9 kg according to level of equipment

Other	
ESS	Optional electrical shaft system with separate 24 VDC power supply
Approvals	CE, BV, DNV, LR, KR

Type code

Type code structure LA4...									
	LA4	-FWD	-360	/0-10	-ORD1	-E1	-IL4	-ESS	-192x192
	Base type								
		Scale orientation							
			Rotary scale						
				Control head scale design					
					Control head scale subdesign				
						Signal processing			
							Illumination		
								Options	
									Layout

Type code LA4...										
Base type	LA4	Azimuth lever with rotational and thrust setpoint value								
Scale orientation		-FWD	Forward oriented installation							
		-AFT	Astern oriented installation							
Rotary scale		-180	Scale marking for 90° in cw/ccw, turning range of 180°							
		-360	Scale marking for 180° in cw/ccw, endless turning range (360°)							
Scale layout			/0-10							
			/10-0-10							
Scale customisation					Without code: no extra scale design is used					
				-ORD1	Scale design with order steps (*)					
Signal processing					-E1	Signal processing electronic, 2 x CANbus, 2 x 4 ... 20 mA OUT, 2 x Digital IN, 1 x PWM IN, LED band				
					-E2	Signal processing electronic, 2 x CANbus, 1x RS-485, 1 x Digital IN, 1x Digital OUT, 1 x PWM IN, LED band				
Illumination					-IL4	Rotation scale illumination and alignment cross				
					-IL5	Control head / Rotation scale with scale illumination and position indicator				
Options						-ESS	Electrical shaft system; lock points must be defined during order custom configuration available			
						-MLP	Mechanical lock points; lock points must be configured during order custom configurations available			
Layout							-192x192	Built-in size at console		
							-C	Customer variant		
	LA4	-	-	/	-	-	-	-	-	Example: LA4-FWD-90/0-10-E1-IL4-ESS-192x192

* Order steps: MAX. AHEAD, FULL AHEAD, HALF AHEAD, SLOW AHEAD, DEAD SLOW AHEAD, ZERO, DEAD SLOW ASTERN, SLOW ASTERN, HALF ASTERN, FULL ASTERN, MAX. ASTERN

Imprint/Disclaimer

Noris Automation GmbH
Friedrich-Barnewitz-Str. 10
18119 Rostock
Germany

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