



Short range distance sensors (displacement) OD Max, RS-232

AOD-N1



Model Name > [AOD-N1](#)
Part No. > [6028961](#)

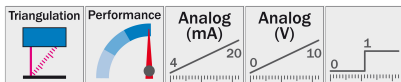


At a glance

- Several measurement ranges from 24 ... 26 mm up to 250 mm ... 450 mm
- CMOS receiving element for measurement independent of surface
- High measurement frequency and high linearity
- Variety of selectable integrated calculations based on values from two sensors
- Laser technology for precise measurement or detection of very small objects
- Several output options

Your benefits

- Minimum machine downtime due to its reliability on any surface, regardless of brightness or color
- Highly accurate measurement, even during the production process, ensures high product quality
- High measuring frequency of 10 kHz increases processing speeds and reduces cycle times
- Reduce the cost to change your process by making a reference measurement using two sensors
- Comparatively low investment costs for challenging measuring tasks
- An easy-to-read LC display and simple push-button keypad programming ensures simple setup and servicing
- Reduced material costs, when using the distance sensors to control costrelevant production processes



Features

System part:	Controller unit
Performance	
Response time ¹⁾ :	0.5 ms
Measuring frequency:	10 kHz
Additional function:	8 memory banks, Arithmetic calculations, Automatic sensitivity adjustment, Teach-in of analog outputs, Teach-in of switching outputs, Set hysteresis, Frequency filters, Hold functions, Peak measurement, Internal data recorder, Manual sensitivity adjustment, Averaging settings 1 ... 4,096x, Switching mode Distance to object (DtO), Switching mode Window (Wnd), Peak to peak measurement, Bottom measurement, Timer functions
Output rate:	0.1 ms
Note:	Required for OD350-x, OD85-x, OD30-x

¹⁾ Automatic sensitivity adjustment ≤ 2 ms

Interfaces

Data interface:	RS-232
Output type ¹⁾ :	5 x NPN (100 mA)
Analog output::	2 x -5 ... +5 V (≥ 1 k Ω), 2 x 4 mA ... 20 mA (≤ 300 Ω) ²⁾ ³⁾
Resolution analog output:	16 bit
Error output (max. output current):	2 x alarm
Reference input:	2 x zero-ref
Inputs for memory bank selection:	3 x bank
Hold input:	2 x hold, 1 x hold-reset

¹⁾ PNP: HIGH = $V_S - (< 2 \text{ V})$ /LOW = $< 2 \text{ V}$; NPN: HIGH = $< 2 \text{ V}$ /LOW = V_S ²⁾ ³⁾ Source of analog output is either sensor heads, or calculation result

Mechanics/electronics

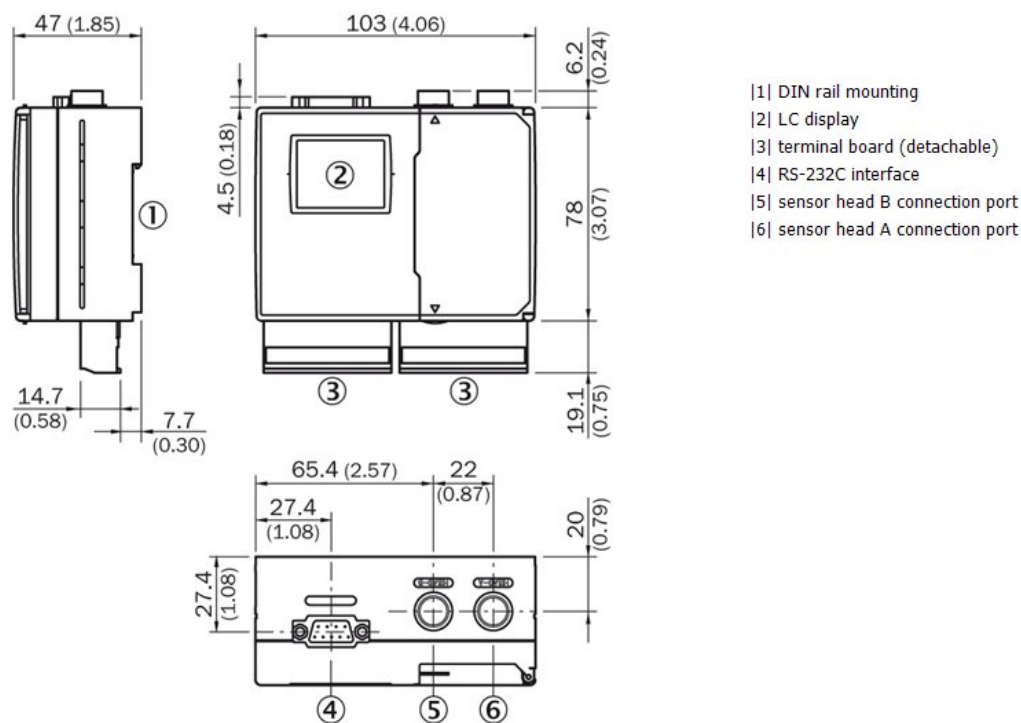
Connection type:	Terminal board
Supply voltage V_S ¹⁾ :	DC 12 V ... 24 V
Power consumption ²⁾ :	6 W
Warm-up time:	≤ 5 min
Indication:	1,4" color display
Weight:	240 g ³⁾
Housing material:	Polycarbonat and nylon 66

¹⁾ DC 12 V (-5 %) ... DC 24 V (+10 %) ²⁾ When connected with two sensor heads, incl. analog current output ³⁾ Inclusive terminal board

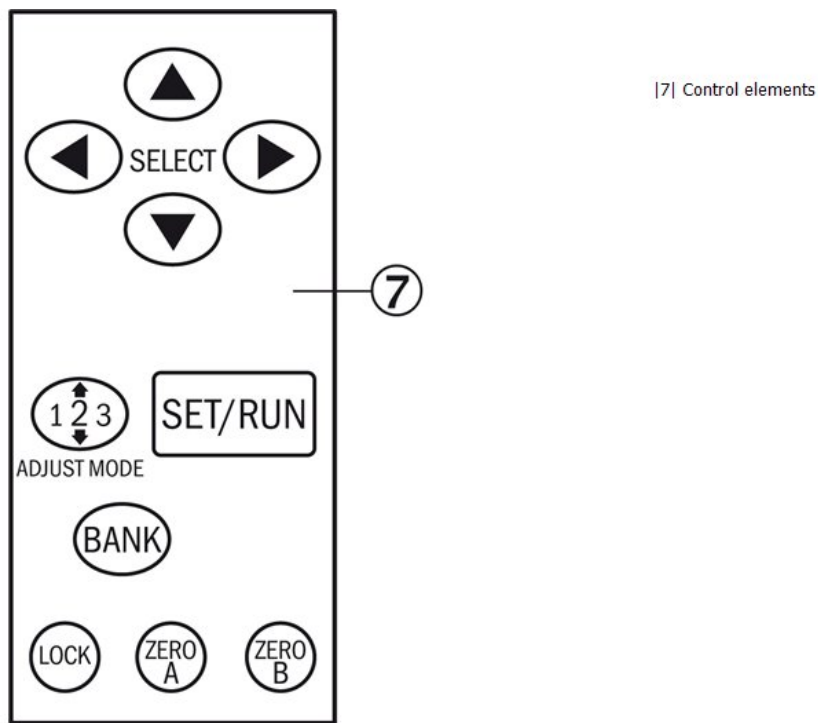
Ambient data

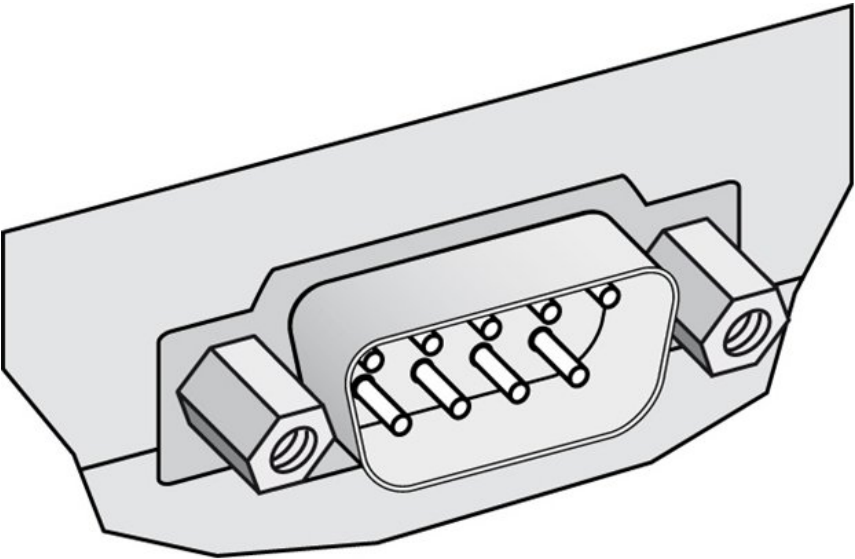
Enclosure rating:	IP 20
Protection class:	III
Ambient temperature:	Operation: -10 ... 45 °C, Storage: -20 ... 60 °C
Vibration resistance:	10 Hz ... 55 Hz (amplitude 1.5 mm, x-, y-, z-axis 2 hours each)
Shock resistance:	50 G (x-, y-, z-axis 3 times each)
Relative humidity (not condensing):	35 % ... 85 %

Dimensional drawing

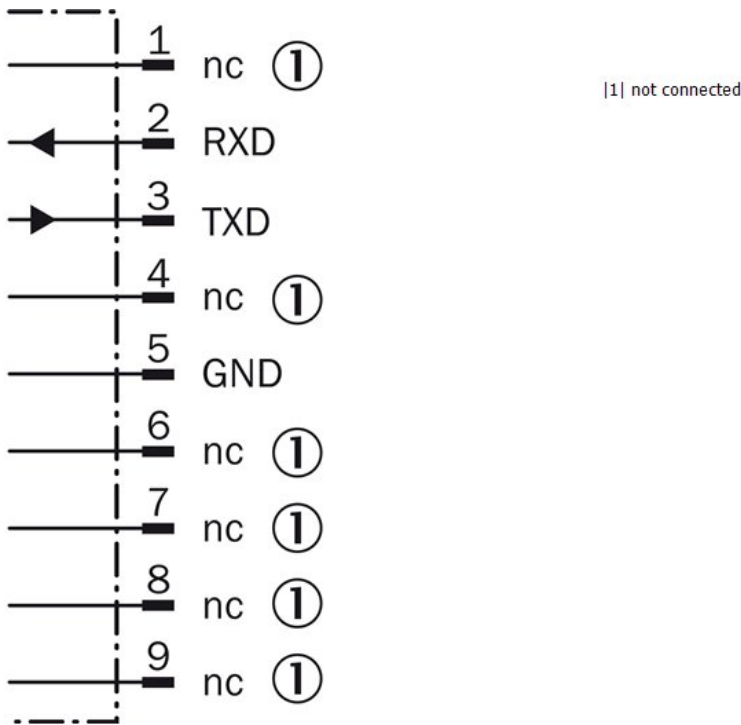


Adjustment possible

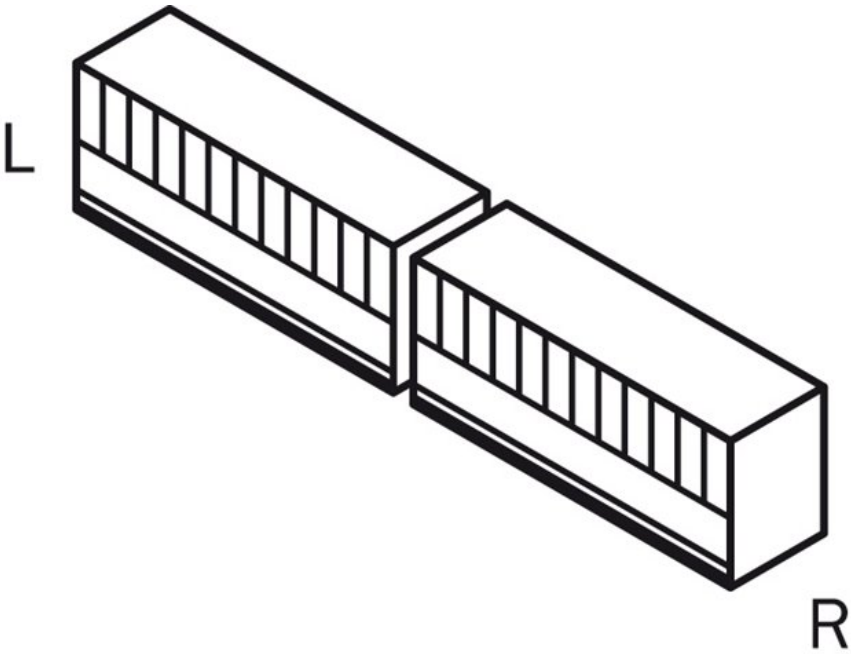




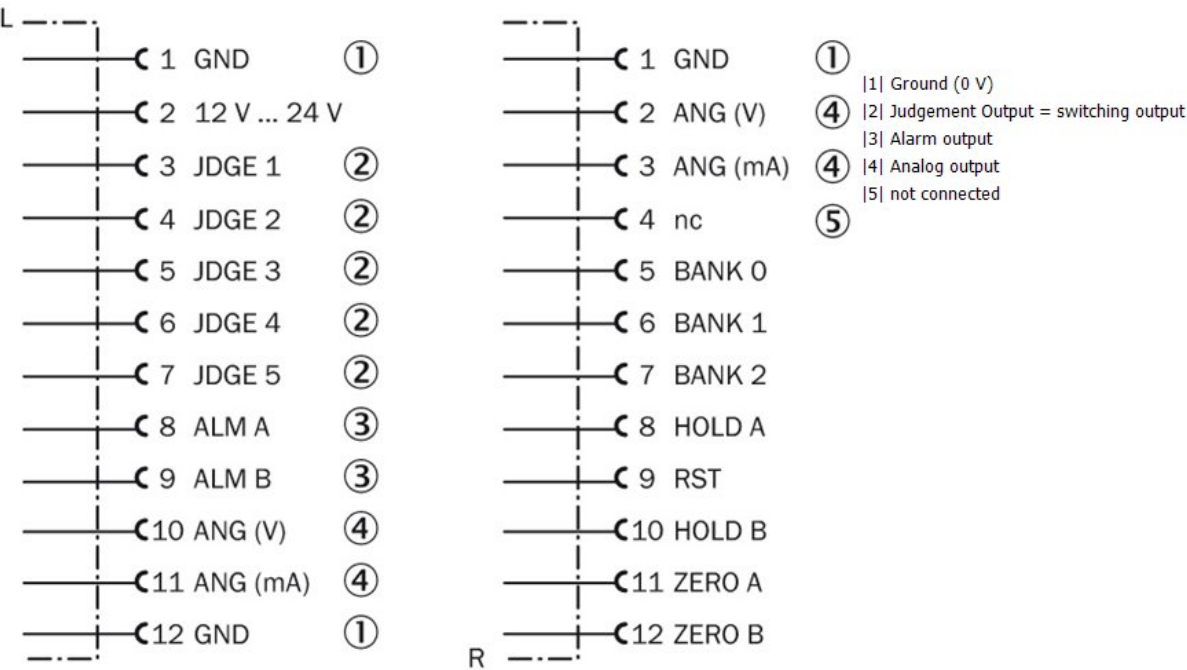
Connection diagram RS-232C



Connection type terminal board



Connection diagramm terminal board



Australia

Phone +61 3 9457 0600
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6801000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886-2-2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com