



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

AOD-N1



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

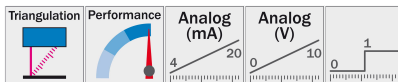


At a glance

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

Mechanics/electronics

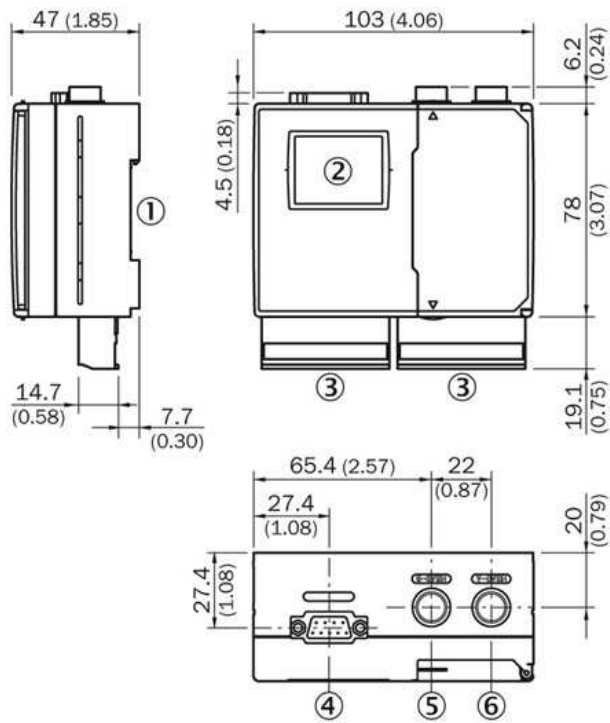
Electrical connection:	Terminal board
Supply voltage V_S ¹⁾ :	DC 12 V ... 24 V
Power consumption ²⁾ :	6 W
Warm-up time:	≤ 5 min
Indication:	1,4" color display
Weight ³⁾ :	240 g
Housing material:	Polycarbonat and nylon 66

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

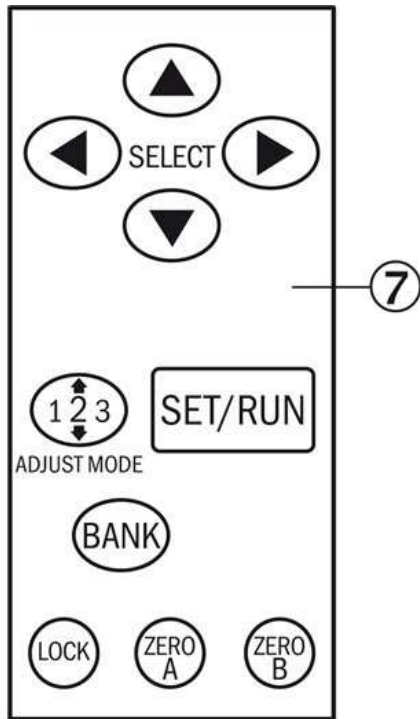
Enclosure rating:	IP 20
Protection class:	III
Ambient temperature:	Operation: -10 ... 45 °C, Storage: -20 ... 60 °C
Vibration resistance:	10 Hz ... 55 Hz (amplitude 1.5 mm, x-, y-, z-axis 2 hours each)
Shock resistance:	50 G (x-, y-, z-axis 3 times each)
Relative humidity (not condensing):	35 % ... 85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

Dimensional drawing



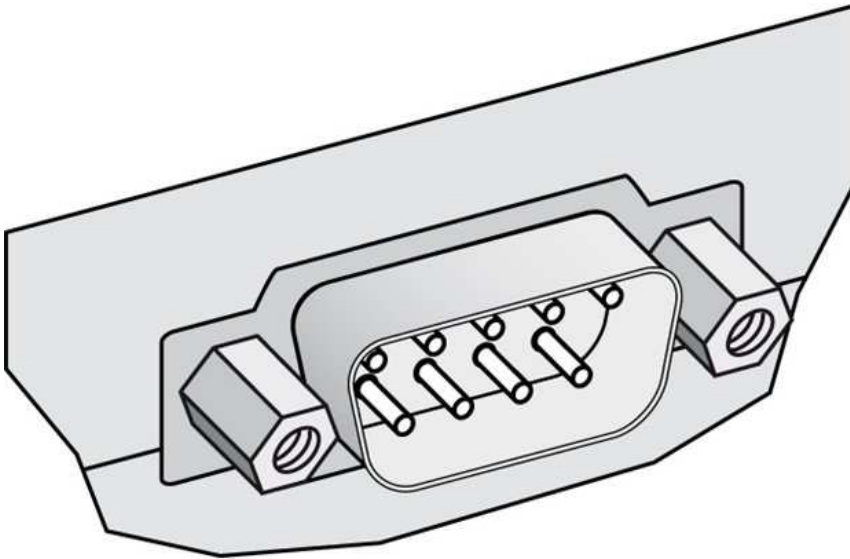
- |1| DIN rail mounting
- |2| LC display
- |3| terminal board (detachable)
- |4| RS-232C interface
- |5| sensor head B connection port
- |6| sensor head A connection port

Adjustment possible

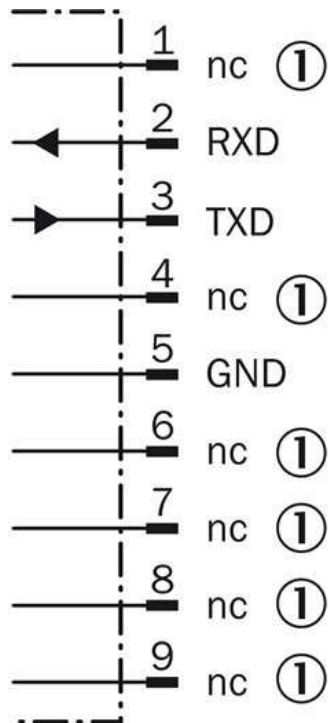


- |7| Control elements

Connection type RS-232C

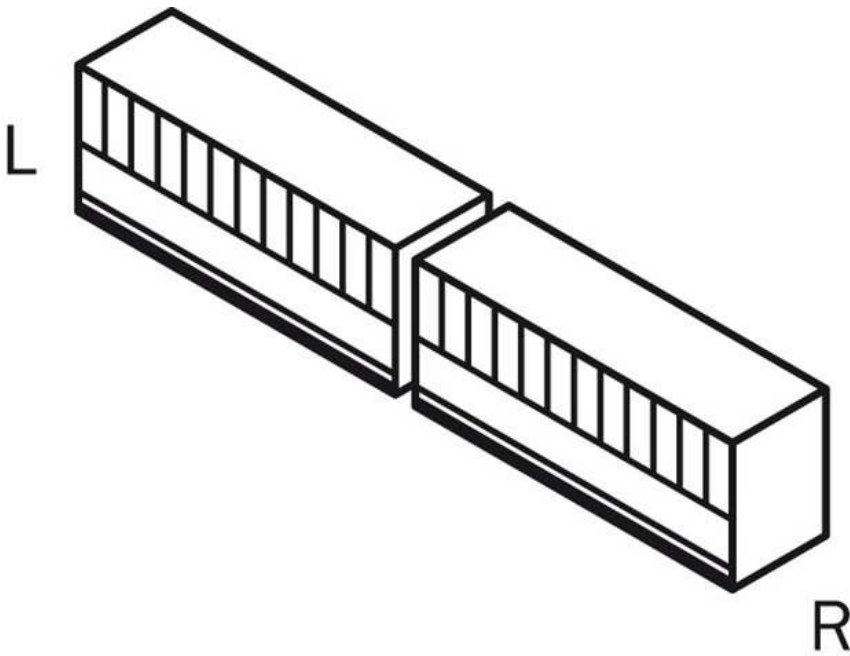


Connection diagram RS-232C

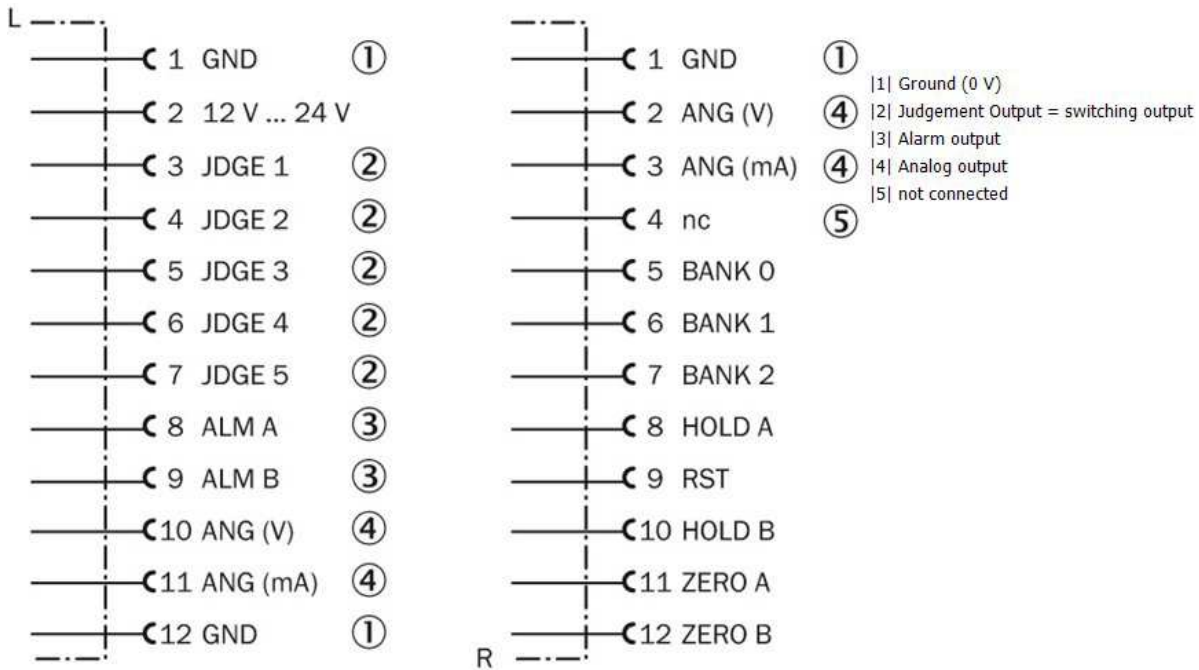


① | not connected

Connection type terminal board



Connection diagram terminal board



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