213065
US 18 M 1500 IU-B4
Ultrasonic sensor

- 1 analog output (4…20 mA / 0…20 mA / 0…10 V)
- 1 Multi I/O (Switching Output, External Teach)
- Configuration via External Teach or IO-Link
- Configurable as an ultrasonic proximity sensor or barrier
- Teach modes (Single, Window, Two-Point, Reflex)
- Very short, robust metal design
- Synchronous and Multiplex Operation

BK: black BN: brown BU: blue WH: white

Function

IO-Link

Technical data (typ.)	+20°C, 24 V DC
Electrical features	
Service voltage	18 … 30 V DC
No-load current (max.)	40 mA (24 V DC)
Inverse polarity protection	yes, except for the analog output PIN2
Short-circuit protection	Yes
Insulation voltage endurance	500 V
Mechanical features	
Housing dimensions	M18 x 55 mm
Thread	M18 x 1
Housing length	55 mm
Transmission exit	axial
Assembly distance (sensor to sensor)	700 mm
Housing material	Brass (nickel-plated)
Material	Epoxy resin, PUR (Transducer surface)
Weight	30 g
Certifications, approvals	
Protection class	III, operation on protective low voltage
Approvals	UL

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Technical data (typ.)	+20°C, 24 V DC
General features	
Operating principle	Ultrasonic sensor, Ultrasonic barrier
Evaluation	digital, analog
Design	Thread
Characteristics	IO-Link
Parallel operation possible	Yes
Functional scope	
Operation modes	Master / slave function (synchronization or multiplex operation)
Scope of delivery	Sensor, 2 x M18 nuts
Output, input, interface	
Switching output	Push-pull, 150 mA, NO/NC, switchable
Max. switch current	150 mA
Voltage drop (max.)	2 V
Analog output	0 … 10 V, 4 … 20 mA (0 ... 20 mA IO-Link)
Interface	IO-Link (V1.1, COM2 (38.4 kBd) Smart Sensor Profile)
Load resistance	> 10 KΩ (0 … 10 V) / < 400 Ω (4 … 20 mA / 0 ... 20 mA)
Detection range, measuring range, tolerance limits	
Nominal switching distance (Sn)	1500 mm
Range	150 … 1500 mm
Adjustment range	150 … 1500 mm (Teach in)
Resolution	1.0 mm (IO-Link Process Value)
Resolution analog output	0.3 mm (at max. measuring range for analog output; calculated from: [Set measuring range / 4095])
Standardized measuring plate	200 x 200 mm
Switching hysteresis (max.)	6 mm (Adjustable up to 20 mm via IO-Link)
Reproducibility	< 1 mm
Linearity error	< 0.5 %
Display, operation	
Sensitivity adjustment	Remote teach
Display	LED 1x green - Status, 1x yellow - Switching output
Time behavior	
Measuring frequency	100 Hz
Ultrasonic frequency	200 kHz
Switching frequency	< 5 Hz
Readiness delay (max.)	300 ms
Ambient conditions	
Shock/vibration load	30 g, 11 ms / 10 … 55 Hz, 1.0 mm
Ambient temperature during operation	-25 … +70 °C
Temperature drift	0.2 %/K (compensated)
Temperature drift	< 1 %/Sn (compensated)
Protection type	IP 67
Electrical connection	
Connection	Connector, M12, 4-pin
Accessories	
Connection cable	VKHM … /4

More information / accessories	https://www.di-soric.com/213065

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