



Operating Instructions

Ipc-25/CI/M18
Ipc-25/CU/M18

Ultrasonic Proximity Sensor with Analogue Output

Product Description

The Ipc sensor offers a non-contact measurement of the distance to an object which must be positioned within the sensor's detection zone. In dependence of the set window limits, a distance-proportional analogue signal is output.

Via the Syn/Com input (pin 5), the window limits of the analogue output and its characteristic can be adjusted (teach-in). Two LEDs indicate the state of the output.

With the LinkControl adapter, which is available as accessory, all sensor parameters can optionally be set via a PC.

Safety Notes

- Read the operating instructions prior to start-up.
- Connection, installation and adjustment works may only be carried out by expert personnel.
- No safety component in accordance with the EU Machine Directive.

Installation

- Mount the sensor at the installation site.
- Connect a connection cable to the M12 device plug.

Start-Up

- Connect the power supply.
- Carry out the adjustment in accordance with the diagram.

Factory Setting

- Synchronous mode deactivated
- Rising analogue characteristic curve between the blind zone and the operating range

Synchronisation

With the synchronous mode activated and an electrical interconnection of the Sync/Com inputs (pin 5), up to 10 sensors can be synchronised.

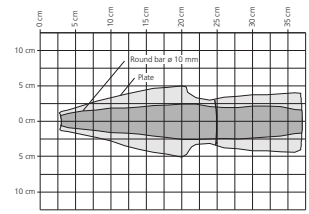
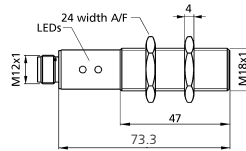
Maintenance

microsonic sensors are maintenance-free. With heavy dirt deposits, we recommend a cleaning of the white sensor surface.

Note

- The Ipc sensor has a blind zone, within which distance measurements are not possible.
 - The Ipc sensor is equipped with an internal temperature compensation. Due to the sensor's self-heating, the temperature compensation reaches its optimum working point after approx. 30 minutes of operation.
 - In the normal operating mode, an illuminated LED signals that the object is positioned inside the range of the analogue window.
 - In the synchronous mode, an adjustment via teach-in is not possible.
- ✓If no signal is transmitted to the Sync/Com input for 30 seconds during the teach-in setting, the set-

Technical data



Blind zone	30 mm	
Operating range	250 mm	
Maximum range	350 mm	
Angle of beam spread	See detection zone	
Transducer frequency	320 kHz	
Resolution, sampling rate	0.08 mm	
Reproducibility	± 0.15 %	
Accuracy	Temperature drift internal compensated, ≤ 2 %, may be deactivated ¹⁾	
Operating voltage U_B	10 - 30 V DC, reverse polarity protection	
Voltage ripple	± 10 %	
No-load current consumption	< 40 mA	
Housing	Brass sleeve, nickel-plated, plastic parts: PBT, ultrasonic transducer: polyurethane foam, epoxy resin with glass content	
Class of protection to EN 60 529	IP 67	
Type of connection	5-pin M12 initiator plug, brass, nickel-plated	
Controls	Yes, Sync/Com input	
Indicators	2 yellow LEDs	
Programmable	Yes, with LinkControl	
Synchronisation	Yes, internal	
Operating temperature	-25°C to +70°C	
Storage temperature	-40°C to +85°C	
Weight	65 g	
Analogue output	0...10 V	4...20 mA
	R _L ≥ 100 kΩ at U _B ≥ 15 V, short-circuit-proof, rising/falling characteristic	R _L ≤ 100 Ω at 10 V ≤ U _B ≤ 20 V, R _L ≤ 500 Ω bei U _B ≥ 20 V, rising/falling characteristic
Response time ¹⁾	24 ms	
Time delay before availability	< 300 ms	
Norm conformity	EN 60947-5-2	
Order no.	Ipc-25/CU/M18	Ipc-25/CI/M18

¹⁾ Can be programmed with LinkControl

- The sensor can be reset to its factory setting.



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Sensor adjustment with Teach-in procedure

