



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.

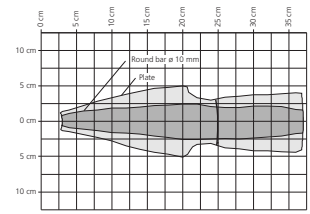
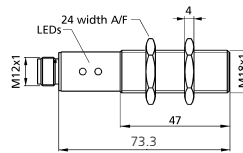
Maintenance

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



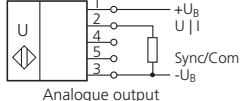
Note

- 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



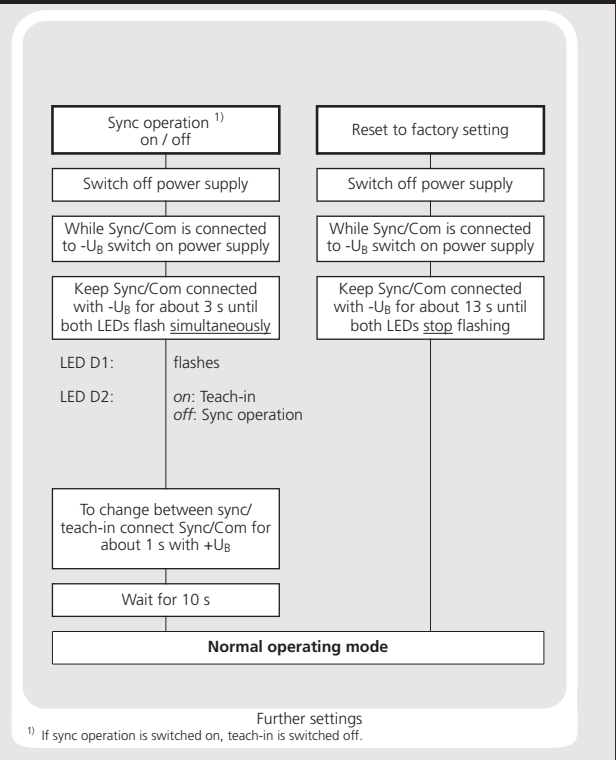
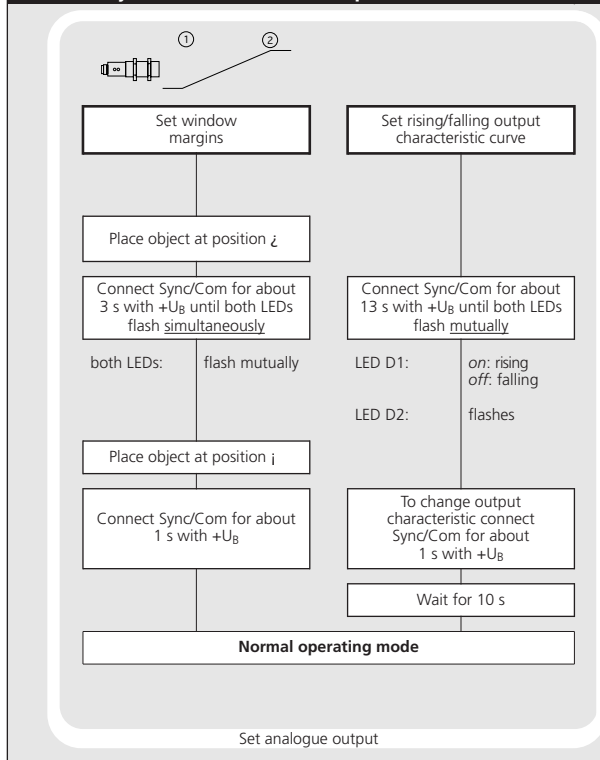
201/30/EU
CE

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

- tings made hitherto are deleted.
- The sensor can be reset to its factory setting.

Sensor adjustment with Teach-in procedure



Further settings

¹⁾ If sync operation is switched on, teach-in is switched off.

