microsonic



온라인 카탈로그 발췌:

# *crm+130/DIU/TC/E*

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microsonic GmbH / Phoenixseestraße 7 / 44263 Dortmund / Germany / **T** +49 231 975151-0 / **F** +49 231 975151-51 / **E** info@microsonic.de
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## crm+

고품위crm+센서는 1.4571의 스테인리스스틸 하우징
및 센싱 부에 필름 코팅이 된 제품입니다

## 하이라이트

- Ultrasonic transducer protected by PEEK film › for simple cleaning and high resistance to wear
- Stainless-steel housing
- Digital display with direct measured value output in mm/cm or %
- IO-Link interface › for support of the new industry standard
- Numeric configuration of the sensor using digital display › permits the complete advance configuration of the sensor
- Automatic synchronisation and multiplex operation › for simultaneous operation of up to ten sensors in close quarters

## 기본 사항

- PNP 또는 NPN 1, 2 스위칭 출력
- 1 or 2 switching outputs › in pnp variant
- Analogue output 4–20 mA and 0–10 V › with automatic switching between current and voltage outputs
- 5 detection ranges with a measurement range of 30 mm to 8 m
- microsonic Teach-in using T1 or T2 buttons
- 0.025 mm to 2.4 mm resolution
- Temperature compensation
- 9~30V 작동 전압
- 링크컨트롤(LinkControl) › PC로 센서를 환경설정

# *Sensor membrane with wear-resistant protective film*

In many filling processes, spray on the sensor membrane simply cannot be avoided. These sprays often harden so that after longer periods of operation contamination can only be removed from the sensor membrane by mechanical means. The new protective film of the crm+ sensors now makes it easy to remove caked-on soiling, such as hardened casting compound and cement spatter.

The protective film is also highly resistant to corrosive media. The threaded sleeve is made of 1.4571 stainless steel.




*TouchControl with LED display - Wear-resistant PEEK protective film*

### *There are three output stages*

available for all five detection ranges:



1 switching output with Push-Pull circuity



1 Schaltausgang in pnp-Schaltungstechnik 1 pnp switching output



2 pnp switching outputs



1 analogue output 4–20 mA and 0–10 V

### 스위칭 출력이 있는 큐브 센서에는 세 가지 작동 모드가 있습니다.

- 단일 스위칭 포인트
- 양방향 반사 장벽
- 윈도우 모드

### *With TouchControl*

all configuration can be done right at the sensor. The easily legible three-digit LED display continually shows the current distance value and automatically switches between millimetre and centimetre displays.

### *Setting a switching or analogue output*

can optionally be carried out by numeric input of the desired distance values, or using a teach-in procedure. This permits the user to select the configuration method preferred. The crm+ sensors support synchronisation and multiplex operation and have extensive parameterisation options via LinkControl. For detailed information, please see at mic+ sensors.

### *LinkControl*

consists of the LinkControl-Adapter LCA-2 and the LinkControl-Software and facilitates the configuration of the crm+ sensors via a PC or laptop with any conventional Windows® operating system.



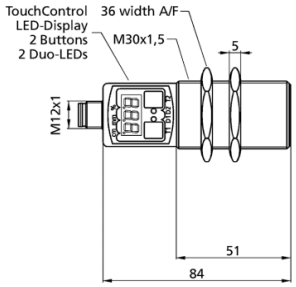

*LCA-2*를 통해 프로그래밍을 위하여 *PC*에 연결된 센서.

### *IO-Link integrated*

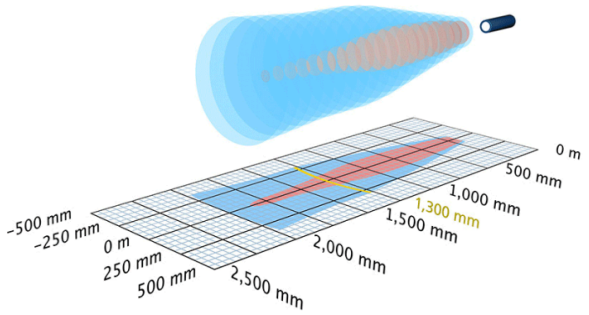
in version 1.1. The crm+ ultrasonic sensors are equipped with Smart Sensor Profile, which creates more transparency between IO-Link devices.

# crm+130/DIU/TC/E

## 축척 도면




## 감지 영역




1 x pnp + 1 x 아날로그 4-20 mA / 0-10 V

2,000 mm

| | |
|---|---|
| **디자인** | M30 실린더형 |
| **작동 모드/기본 기능** | 근접 스위치/반사모드<br>반사 센서<br>윈도우 모드<br>아날로그 거리 측정 |
| **특이성** | 높은 내화학성<br>스테인리스 스틸 버전<br>디스플레이 |

## 초음파 사양

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|---|---|
| **측정값** | 에코 전파 시간 |
| **전송 주파수** | 200 kHz |
| **비검출 영역** | 200 mm |
| **동작 범위** | 1.300 mm |
| **최대 범위** | 2,000 mm |
| **분해능** | 0.18 mm |
| **재현률** | ± 0.15 % |
| **정밀도** | ± 1 % (온도 변화 내부 보상) |

## 전기적인 데이터

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|---|---|
| **동작 전압 $U_B$** | 9 - 30 V d.c., 역결선보호 |
| **전압 변동** | ± 10 % |
| **무부하 소비전류** | ≤ 80 mA |
| **연결 타입** | 5-핀 M12 규격 플러그 |

## 출력

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|---|---|
| **출력 1** | 아날로그 출력<br>전류: 4-20 mA / 전압: 0-10 V (at $U_B \geq 15$ V), 단락 보호 기능<br>rising/falling 전환 가능 |
| **Ausgang 2** | 스위칭 출력<br>pnp: $I_{최대}$ = 500 mA ($U_B$-2V)<br>NOC/NCC 조정가능,쇼트 보호회로 |
| **스위칭 히스테리시스** | 20 mm |
| **스위칭 주파수** | 8 Hz |
| **응답속도** | 92 ms |
| **선지연 유용성** | < 300 ms |

## 입력

| | |
|---|---|
| **입력 1** | com 입력 동기화 입력 |

## 하우징

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|---|---|
| **재질** | 스테인리스 스틸, 플라스틱 부분, PBT, TPU |
| **초음파 송신기** | PEEK 필름 코팅, PTFE O-ring |
| **EN60529에 따르는 보호등급** | IP 67 |
| **동작온도** | -25°C to +70°C |
| **보관 온도** | -40°C to +85°C |
| **무게** | 150 g |
| **다른 버전** | 케이블 연결 (요청시) |

## 기술 특징/특성

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|---|---|
| **온도 보상** | 아니오 |
| **제어** | 2 푸쉬 버튼 + LED 디스플레이 (터치컨트롤) |
| **세팅을 위한 범위** | Teach-in and numeric configuration via TouchControl<br>LCA-2 with LinkControl |
| **Synchronisation** | 아니오 |
| **다중화** | 아니오 |
| **표시기** | 3-digit LED 디스플레이, 2 x 3색상의 LED |

## 액세서리

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|---|---|
| **분리가능 액세서리** | KST5A-2/M12<br>KST5A-5/M12<br>KST5G-2/M12<br>KST5G-5/M12<br>BF-30<br>UF-90/M30<br>LCA-2<br>LCA-2 Koffer<br>SyncBox1 |

## 핀 할당

