Technical Information TI 121C/07/en Nr. 50068528

# Microprocessor photometer for chlorine and chlorine dioxide detection *CCM 181*

Battery-powered transmitter for the determination of chlorine and chlorine dioxide according to the DPD method and determination of other parameters





















### **Application**

- DPD measurement
- Calibration of chlorine and chlorine dioxide determination with the transmitter Liquisys M COM 223 / 253, and with the combination instrument PoolPac CCM 360

## Features and benefits

- Automatic zero adjustment
- Temperature monitoring
- State-of-the-art SMD microprocessor technology
- Long-term constant LED with low power consumption
- Membrane keypad resistant to scratching, acids and solvents
- Alphanumeric display with user prompts
- Acoustic feedback
- Complete with plastic case
- Mains-independent for mobile field use, powered by battery or rechargeable battery

### Measured parameters

<ul> <li>Chlorine</li> </ul>	0 1,5 mg/l
(free, bound, total)	0 6 mg/l
<ul> <li>Chlorine dioxide</li> </ul>	0 2,8 mg/l
<ul> <li>pH value</li> </ul>	6,5 8,4
<ul> <li>Cyanuric acid</li> </ul>	0 80 mg/l
<ul> <li>Aluminium</li> </ul>	0 0,3 mg/l
• Bromine	0 13 mg/l
• Iron	0 1 mg/l
<ul> <li>Ozone</li> </ul>	0 1 ma/l



# **Technical data**

Measuring cycle	approx. 10 seconds	
Display	16-digit LCD display	
Optics	temperature-compensated LED, filter ( $\lambda$ = 528 nm) and photosensor amplifier in protected measuring well arrangement	
Operation	acid- and solvent-resistant tactile membrane keypad with piezo bleep alarm	
Power supply	rechargeable NiCd battery with external 15 V charger	
Measured error	< 2 % of upper range value (see p. 1)	
Dimensions (H x W x D)	92 x 180 x 220 mm (instrument) 95 x 440 x 340 mm (case)	
Humidity	30 - 90 % rel. humidity (none-condensing)	
Ambient temperature	0 - 50 °C	
Data storage	Date, time, no., code no., method, measured value	
Languages	German, english, french, spanish, italian, dutch, danish, polish	

# **Accessories**

• **DPD tablets No. 1** Order No. 50035461

100 pcs., for free chlorine or chlorine

dioxide

• **DPD tablets No. 3** Order No. 50035462

100 pcs., for total chlorine

• Glycine tablets Order No. 50069378

bottle with 250 pcs.

• **Phenoired tablets** Order No. 50085623

100 pcs., for determination of pH

• Cuvet with lid Order No. 50069379

5 pcs., calibrated

# **Product structure**

	Analytical parameters	
	1	Chlorine, chlorine dioxide, pH, cyanuric acid, aluminium, bromine, iron, ozone
CCM 181-		Complete order code

Endress+Hauser Gmbh+Co. Instruments International P.O. Box 2222 D-79574 Weil am Rhein Germany

Tel. (07621) 975-02 Fax (07621) 975-345 http://www.endress.com info@ii.endress.com

