

"INNOVATORS IN GAS DETECTION"



CD-420
CO, NH₃, Cl₂, H₂S, NO₂, SO₂, HCN or O₂

4-20 mA 2-Wire Gas Transmitter



and others

Fixed Gas Monitoring Systems

FEATURES:

The CD-420 4-20 mA, 2-wire transmitter provides continuous monitoring for toxic and oxygen gas hazards in ambient air. Engineered with BW field-proven industrial sensing and instrument technology, the CD-420 is virtually maintenance free.

- △ Reduced operating, maintenance and installation costs
- △ Accurate, reliable performance that eliminates false alarms
- △ Modular, plug-in encapsulated components and plug-in sensor
- △ Linear 4-20 mA output with a wide supply voltage range (12 to 35V)
- △ Electrochemical sensor
- △ Micropower analog technology, draws only 20 mA in operation
- △ Hinged operations door
- △ Power ON LED
- △ If a system fault occurs or the sensor is degrading, the CD-420 will transmit a signal to the controller.
- △ Change the measuring range or gas sensed in the field (all models except CD-420-3 series carbon monoxide models)
- △ 2 year, non-prorated instrument and sensor warranty

Ordering Information

Transmitter with Sensor and Measuring Range Module Selected

CD-420-M(#)	CO*	CD-420-3M(#)	CO		
CD-420-A(#)	NH ₃ *	CD-420-3A(#)	NH ₃	CD-420-3A2-LT	NH ₃
CD-420-H(#)	H ₂ S*	CD-420-3H(#)	H ₂ S		
CD-420-C(#)	Cl ₂ *	CD-420-3C(#)	Cl ₂		
CD-420-D(#)	NO ₂ *	CD-420-3D(#)	NO ₂		
CD-420-S(#)	SO ₂ *	CD-420-3S(#)	SO ₂		
CD-420-X(#)	O ₂ *	CD-420-3X(#)	O ₂		
CD-420-Z(#)	HCN*				

Note: # = Measuring Range. To specify see table on back page.
For other gases contact BW Technologies.

* - field interchangeable measuring range modules

Accessories and Spares

CD-SEP-K3	Sensor Separation Kit		
UA-DUC-K2	Remote Duct Mount Kit		
FRM-1	VDC Field Relay Module		
FRM-AC	VAC (110-230) Field Relay Module		
PS-RM01	CO sensor	PS-RS01	SO ₂ sensor
PS-RH01	H ₂ S sensor	PS-RD01	NO ₂ sensor
PS-RA01	NH ₃ sensor	PS-RZ01	HCN sensor
PS-RC01	Cl ₂ sensor	PS-RX01	O ₂ sensor
PS-RA201*	NH ₃ sensor (0-100ppm)	PS-R601*	NH ₃ sensor (0-500ppm)
PS-RA601-LT*	NH ₃ sensor (low temp.)	PS-RM08*	CO sensor

* - CD-420-3 models only

www.gasmonitors.com

Email: info@bwt.net



CD-420

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SO₂, HCN or O₂

4-20 mA 2-Wire Gas Transmitter

The CD-420 Transmitter is shipped factory tested and calibrated, ready for immediate installation.

Gas detection equipment is only as good as its sensor. BW electrochemical sensors provide:

- △ Reliable protection
- △ Accurate performance
- △ Long life

Advanced micropower electronic technology delivers superior performance, eliminating false alarms and providing a linear output for direct compatibility with existing control systems.

In the event of power outages, troublesome start-up alarms are eliminated. The CD-420 resets automatically back into the system loop, ensuring system integrity.

With a faster response time, the CD-420 provides reliable early hazard warnings at an affordable price.

Note: CD-420-3 models are equipped with two 250 mA auxiliary outputs. Output 1 is activated by low alarm. Output 2 is activated by high alarm, sensor expired advice, system fault or sensor fault alarms.

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SPECIFICATIONS

TRANSMITTER: 2-wire, 4-20 mA Industrial Micropower Transmitters

	CD-320-3 Models		Standard Models	
Supply Voltage:	10-28V		12-35V	
Loop Resistance (max):	650 ohms at 28 VDC; 50 ohms at 10 VDC		650 ohms at 24 VDC	
Current Consumption:	20 mA (max)		20 mA	
Signal Range (18 AWG):	31,300 ft / 9,600 m		31,300 ft / 9,600 m	
Status Indicator (internal):	LED Indicator	Current Output	Indicators	Current Output
Normal Operation:	Power ON	4-20 mA	Power ON	4-20 mA
Power Off:	LED Off	0 mA	LED Off	0 mA
Sensor Fault:	Slow flashes	≈ 2 mA	—	3.5 mA
Overrange:	—	24 mA	—	24 mA
Auxilliary Outputs (2):	—	250 mA at VDC	—	—
Daily Sensor Self Test:			N/A	

SENSOR: Plug-in, industrial gas specific, electrochemical cell
 Drift: Zero drift: nominal; Span drift: <10% of reading per year

Humidity: 5 to 95% RH non-condensing

Operating Temperature:

NH₃: -20 to +35°C / -13 to +86°F

NH₃(low temperature): -40 to +40°C / -40 to +104°F

H₂S: -40 to +50°C / -40 to +122°F

Other toxics and O₂: -20 to +50°C / -4 to +122°F

Gas Monitoring Specifications	Detectable Accuracy	Standard Measuring Ranges Available						
		Units	#=1	#=2	#=3	#=4	#=5	#=6
CO	1 ppm	ppm	0-500	0-1000	0-100	0-50	0-200	0-600
CO (3M)	1 ppm	ppm	0-500	0-1000	0-100		0-200	
NH ₃	0.5 ppm	ppm	0-50	0-100			0-150	
NH ₃ (3A)	0.5 ppm	ppm		0-100				0-500
NH ₃ (3A2-LT)	0.5 ppm	ppm		0-100				
Cl ₂	0.1 ppm	ppm	0-5.0	0-10.0	0-100			
Cl ₂ (3C)	0.1 ppm	ppm			0-100		0-20	
H ₂ S	1 ppm	ppm	0-100	0-50	0-500	0-20	0-30	
H ₂ S (3H)	1 ppm	ppm	0-100	0-50	0-500			
NO ₂	0.1 ppm	ppm	0-10.0	0-20.0				
NO ₂ (3D)	0.1 ppm	ppm	0-10.0	0-20.0				
SO ₂	1 ppm	ppm	0-50	0-20	0-10.0	0-2.0		
SO ₂ (3S)	1 ppm	ppm	0-50	0-20	0-10			
O ₂	0.1 %	%v/v	0-25.0%	0-30 %				
O ₂ (3X)	0.1 %	%v/v	0-25.0%	0-30 %				
HCN	0.1 ppm	ppm	0-20.0	0-50.0	0-100			

FEATURES:

Power-up delay: eliminates start-up alarms
 Auto reset: automatically resets back in system loop after power failures and/or brownouts

PHYSICAL: Rugged, RFI/EMI shielded enclosure with 2 cable ports

Size: 6.1 x 5 x 2.3 in. / 15.25 x 12.5 x 5.75 cm

Weight: 1.65 lb. / 750 g

WARRANTY: 2 year non-prorated warranty (NH₃ sensor: 1 year)

Sensors: 2 year full replacement warranty (NH₃ sensor: 1 year)

Life Expectancy: Toxics > 3 years; O₂ > 2 years

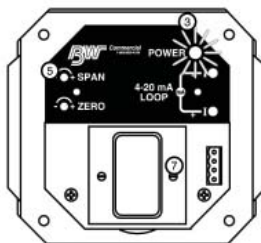
DUE TO ONGOING RESEARCH AND PRODUCT IMPROVEMENT, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

RATINGS AND CERTIFICATIONS:

Standard Models:
 CE to both U.S. and Canadian Standards General Purpose

CD-420-3 Models:
 CE to both U.S. and Canadian Standards: General Purpose

Certified to IEC Standard: No. 61010-1
 CE: Conforms to European Union directives
 Enclosure: Type IP46 (NEMA 4 equivalent)



- 1 Eliminate false alarms
- 2 Electrochemical sensor
- 3 Power ON LED
- 4 Direct linear output
- 5 Secure hinged door access
- 6 Lower operating costs
- 7 Measuring range module
- 8 Rugged, modular design

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