

SCOTT™ CEM DAILY STANDARDS™

Two-Component				CEM DAILY STANDARD		Recommended Two-Stage Regulator Model Number
Calibration Standard	Size	Contents		CEM 1%	CEM 2%	
		CF	m ³			
Ammonia in Air						
1 – 4.9 ppm	30AL	144	4		•	Q1-215B-660
5 – 9.9 ppm	30AL	144	4		•	
1 – 10%*	30AL	144	4		•	
Ammonia in N₂						
1 – 4.9 ppm	30AL	140	4		•	Q1-215B-705
5 – 9.9 ppm	30AL	140	4		•	
1 – 10%*	30AL	140	4		•	
Carbon Dioxide in Air						
100 – 9999 ppm	30AL	144	4	•	•	Q1-318B-590
1 – 20%	30AL	144	4	•	•	
Carbon Dioxide in N₂						
100 – 9999 ppm	30AL	140	4	•	•	Q1-318B-580
1 – 20%	30AL	140	4	•	•	
Carbon Monoxide in Air						
0.5 – 9.9 ppm	30AL	144	4	•	•	Q1-318B-590
10 – 99 ppm	30AL	144	4	•	•	
100 – 9999 ppm*	30AL	144	4	•	•	
1 – 3%	30AL	144	4	•	•	
Carbon Monoxide in N₂						
0.5 – 9.9 ppm	30AL	140	4	•	•	Q1-318B-350
10 – 99 ppm	30AL	140	4	•	•	
100 – 9999 ppm*	30AL	140	4	•	•	
1 – 10%*	30AL	140	4	•	•	
Hydrogen Chloride in N₂						
5 – 24.9 ppm	AN	209	6		•	Q1-217CP-330
	KN	273	8		•	
25 – 5000 ppm	AN	209	6		•	
	KN	273	8		•	
5001 ppm – 5%	AN	209	6		•	
	KN	273	8		•	
Hydrogen Sulfide in Air						
1 – 9.9 ppm	30AL	144	4	•	•	Q1-215B-660
10 – 99 ppm	30AL	144	4		•	
100 – 999 ppm	30AL	144	4		•	
Hydrogen Sulfide in N₂						
1 – 9.9 ppm	30AL	140	4		•	Q1-215B-330
10 – 99 ppm	30AL	140	4		•	
100 – 999 ppm	30AL	140	4		•	

* Cylinder pressure and contents will vary.

CEM DAILY STANDARDS™ continued

Two-Component				CEM DAILY STANDARD		Recommended Two-Stage Regulator Model Number
Calibration Standard	Size	Contents		CEM 1%	CEM 2%	
		CF	m ³			
Methane in Air						
1 – 49 ppm	30AL	144	4	•	•	Q1-318B-590
50 – 999 ppm	30AL	144	4	•	•	
Nitric Oxide in N₂						
1 – 4.9 ppm	30AL	140	4	•	•	Q1-215B-660
5 – 9.9 ppm	30AL	140	4	•	•	
10 – 29.9 ppm	30AL	140	4	•	•	
30 – 99 ppm	30AL	140	4	•	•	
100 – 4999 ppm	30AL	140	4	•	•	
5000 ppm - 1%	30AL	140	4	•	•	
Nitrogen Dioxide in Air						
1 – 4.9 ppm	30AL	144	4		•	Q1-215B-660
5 – 29.9 ppm	30AL	144	4		•	
30 – 99 ppm	30AL	144	4		•	
100 – 499 ppm	30AL	144	4		•	
500 – 5000 ppm	30AL	144	4		•	
Nitrogen Dioxide in N₂						
0.1 – 0.9 ppm	30AL	144	4		•	Q1-215B-660
1 – 4.9 ppm	30AL	144	4		•	
5 – 29.9 ppm	30AL	144	4		•	
30 – 99 ppm	30AL	144	4		•	
100 – 499 ppm	30AL	144	4		•	
500 – 5000 ppm*	30AL	144	4		•	
Oxygen in N₂						
0.4 – 23.5%	30AL	140	4	•	•	Q1-318B-(**)
23.6 – 49%	44	213	6	•	•	
Propane in Air						
1 – 99 ppm	30AL	144	4	•	•	Q1-318B-590
100 – 999 ppm	30AL	144	4	•	•	
1000 – 6000 ppm*	30AL	144	4	•	•	
Propane in N₂						
1 – 99 ppm	30AL	140	4	•	•	Q1-318B-350
100 – 999 ppm	30AL	140	4	•	•	
0.1 – 1%	30AL	140	4	•	•	
Sulfur Dioxide in Air						
10 – 99 ppm	30AL	144	4	•	•	Q1-215B-660
100 – 4999 ppm	30AL	144	4	•	•	
Sulfur Dioxide in N₂						
10 – 99 ppm	30AL	140	4	•	•	Q1-215B-660
100 – 4999 ppm	30AL	140	4	•	•	

* Cylinder pressure and contents will vary.

** O₂ ≤ 5% = CGA 580; 5% < O₂ ≤ 23.5% = CGA 590; 23.6% < O₂ = CGA 296.

SCOTT™ CEM DAILY STANDARDS™

Three-Component				CEM DAILY STANDARD		Recommended Two-Stage Regulator Model Number
Calibration Standard	Size	Contents		CEM 1%	CEM 2%	
		CF	m ³			
Carbon Dioxide and Nitric Oxide in N₂						
CO ₂ 100 – 9999 ppm, NO 1 – 4.9 ppm	30AL	144	4	•	•	Q1-215B-660
CO ₂ 100 ppm – 20%, NO 5 – 29.9 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, NO 30 – 99 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, NO 100 – 4999 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, NO 5000 ppm – 1%	30AL	144	4	•	•	
Carbon Dioxide and Oxygen in N₂						
CO ₂ 100 ppm – 20%, O ₂ 0.4 – 23.5%	30AL	144	4	•	•	Q1-318B-(**)
CO ₂ 100 ppm – 20%, O ₂ 23.6 – 49%	30AL	144	4	•	•	Q1-318B-296
Carbon Dioxide and Sulfur Dioxide in N₂						
CO ₂ 100 – 9999 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	Q1-215B-660
CO ₂ 1 – 20%, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	
Carbon Monoxide and Nitric Oxide in N₂						
CO 0.5 – 9.9 ppm, NO 1 – 4.9 ppm	30AL	144	4	•	•	Q1-215B-660
CO 0.5 – 9.9 ppm, NO 5 – 29.9 ppm	30AL	144	4	•	•	
CO 0.5 – 9.9 ppm, NO 30 – 99 ppm	30AL	144	4	•	•	
CO 0.5 – 9.9 ppm, NO 100 – 4999 ppm	30AL	144	4	•	•	
CO 0.5 – 9.9 ppm, NO 5000 ppm – 1%	30AL	144	4	•	•	
CO 10 – 99 ppm, NO 1 – 4.9 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, NO 5 – 29.9 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, NO 30 – 99 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, NO 100 – 4999 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, NO 5000 ppm – 1%	30AL	144	4	•	•	
Carbon Monoxide and Oxygen in N₂						
CO 0.5 – 9.9 ppm, O ₂ 0.4 – 49%	30AL	144	4	•	•	Q1-318B-(**)
CO 10 – 99 ppm, O ₂ 0.4 – 49%	30AL	144	4	•	•	
CO 100 ppm – 9.5%, O ₂ 0.4 – 49%*	30AL	144	4	•	•	
Carbon Monoxide and Sulfur Dioxide in N₂						
CO 0.5 – 9.9 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	Q1-215B-660
CO 10 ppm – 10%, SO ₂ 10 – 99 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, SO ₂ 100 – 4999 ppm	30AL	144	4	•	•	
Nitric Oxide and Sulfur Dioxide in N₂						
NO 1 – 4.9 ppm, SO ₂ 10 – 99 ppm	30AL	144	4	•	•	Q1-215B-660
NO 5 – 29.9 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	
NO 30 – 99 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	
NO 100 – 4999 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	
NO 5000 ppm – 1%, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	
NO 1 – 4.9 ppm, SO ₂ 100 – 4999 ppm	30AL	144	4	•	•	
Oxygen and Propane in N₂						
O ₂ 0.4 – 49%, C ₃ H ₈ 1 ppm – 1.6%*	30AL	144	4	•	•	Q1-318B-(**)
Oxygen and Sulfur Dioxide in N₂						
O ₂ 0.4 – 49%, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	Q1-215B-660

* Cylinder pressure and contents will vary.

** Due to oxygen concentrations in these mixtures, CGA valve connections may vary – contact your Air Liquide representative.

SCOTT™ CEM DAILY STANDARDS™

Four-Component				CEM DAILY STANDARD		Recommended Two-Stage Regulator Model Number
Calibration Standard	Size	Contents		CEM 1%	CEM 2%	
		CF	m ³			
Carbon Dioxide, Carbon Monoxide, Nitric Oxide in N ₂ CO ₂ 100 – 9999 ppm, CO 0.5 – 9.9 ppm, NO 1 – 4.9 ppm	30AL	144	4	•	•	Q1-215B-660
CO ₂ 100 ppm – 20%, CO 0.5 – 9.9 ppm, NO 5 – 29.9 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 0.5 – 9.9 ppm, NO 30 – 4999 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 0.5 – 9.9 ppm, NO 5000 ppm – 1%	30AL	144	4	•	•	
CO ₂ 100 – 9999 ppm, CO 10 – 9999 ppm, NO 1 – 4.9 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 10 ppm – 10%, NO 5 – 29.9 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 10 ppm – 10%, NO 30 – 4999 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 10 ppm – 10%, NO 5000 ppm – 1%	30AL	144	4	•	•	
CO ₂ 100 – 9999 ppm, CO 1 – 10%, NO 1 – 4.9 ppm	30AL	144	4	•	•	
CO ₂ 1 – 20%, CO 0.5 ppm – 10%, NO 1 – 4.9 ppm	30AL	144	4	•	•	
CO ₂ 1 – 20%, CO 0.5 – 9.9 ppm, NO 5 – 29.9 ppm	30AL	144	4	•	•	
Carbon Dioxide, Carbon Monoxide, Oxygen in N ₂ CO ₂ 100 – 9999 ppm, CO 0.5 – 9.9 ppm, O ₂ 0.4 – 49%	30AL	144	4	•	•	Q1-318B-(**)
CO ₂ 100 ppm – 20%, CO 10 ppm – 9.5%, O ₂ 0.4 – 49%*	30AL	144	4	•	•	
Carbon Dioxide, Carbon Monoxide, Propane in Air CO ₂ 100 ppm – 20%, CO 0.5 – 9.9 ppm, C ₃ H ₈ 1 ppm – 1.6%*	30AL	144	4	•	•	Q1-318B-590
CO ₂ 100 ppm – 20%, CO 10 – 99 ppm, C ₃ H ₈ 1 ppm – 1.6%*	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 100 ppm – 4%, C ₃ H ₈ 1 ppm – 0.6%*	30AL	144	4	•	•	
Carbon Dioxide, Carbon Monoxide, Propane in N ₂ CO ₂ 100 ppm – 20%, CO 0.5 – 9.9 ppm, C ₃ H ₈ 1 ppm – 2.9%	30AL	144	4	•	•	Q1-318B-350
CO ₂ 100 ppm – 20%, CO 10 – 99 ppm, C ₃ H ₈ 1 ppm – 2.9%	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 100 ppm – 10%, C ₃ H ₈ 1 ppm – 2.9%	30AL	144	4	•	•	

* Cylinder pressure and contents will vary.

** O₂ ≤ 5% = CGA 580; 5% < O₂ ≤ 23.5% = CGA 590; 23.6% < O₂ = CGA 296

CEM DAILY STANDARDS™ continued

Four-Component				CEM DAILY STANDARD		Recommended Two-Stage Regulator Model Number
Calibration Standard	Size	Contents		CEM 1%	CEM 2%	
		CF	m ³			
Carbon Dioxide, Nitric Oxide, Sulfur Dioxide in N ₂ CO ₂ 100 ppm – 20%, NO 1 – 4.9 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	Q1-215B-660
CO ₂ 100 ppm – 20%, NO 5 – 29.9 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, NO 30 – 4999 ppm, SO ₂ 10 – 99 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, NO 5000 ppm – 1%, SO ₂ 10 – 99 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, NO 30 – 4999 ppm, SO ₂ 100 – 4999 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, NO 5000 ppm – 1%, SO ₂ 100 – 4999 ppm	30AL	144	4	•	•	
Carbon Monoxide, Nitric Oxide, Sulfur Dioxide in N ₂ CO 0.5 – 10%, NO 1 – 4.9 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	Q1-215B-660
CO 0.5 – 9.9 ppm, NO 5 – 4999 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, NO 5 – 29.9 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, NO 30 – 99 ppm, SO ₂ 10 – 99 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, NO 100 – 4999 ppm, SO ₂ 10 – 99 ppm	30AL	144	4	•	•	
CO 0.5 – 9.9 ppm, NO 5000 ppm – 1%, SO ₂ 10 – 99 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, NO 5000 ppm – 1%, SO ₂ 10 – 99 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, NO 30 – 4999 ppm, SO ₂ 100 – 4999 ppm	30AL	144	4	•	•	
CO 0.5 – 9.9 ppm, NO 5000 ppm – 1%, SO ₂ 100 – 4999 ppm	30AL	144	4	•	•	
CO 10 ppm – 10%, NO 5000 ppm – 1%, SO ₂ 100 – 4999 ppm	30AL	144	4	•	•	
Carbon Monoxide, Oxygen, Sulfur Dioxide in N ₂ CO 0.5 – 9.9 ppm, O ₂ 0.4 – 49%, SO ₂ 10 – 4999 ppm*	30AL	144	4	•	•	Q1-215B-660
CO 10 ppm – 9.5%, O ₂ 0.4 – 49%, SO ₂ 10 – 4999 ppm*	30AL	144	4	•	•	

* Cylinder pressure and contents will vary.

** O₂ ≤ 5% = CGA 580; 5% < O₂ ≤ 23.5% = CGA 590; 23.6% < O₂ = CGA 296

SCOTT™ CEM DAILY STANDARDS™

Five-Component				CEM DAILY STANDARD		Recommended Two-Stage Regulator Model Number
Calibration Standard	Size	Contents		CEM 1%	CEM 2%	
		CF	m ³			
Carbon Dioxide, Carbon Monoxide, Nitric Oxide, Sulfur Dioxide in N ₂						
CO ₂ 100 ppm – 20%, CO 0.5 ppm – 10%, NO 1 – 4.9 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	Q1-215B-660
CO ₂ 100 ppm – 20%, CO 0.5 – 9.9 ppm, NO 5 – 4999 ppm, SO ₂ 10 – 4999 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 10 ppm – 10%, NO 5 – 29.9 ppm, SO ₂ 10 – 99 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 10 ppm – 10%, NO 30 – 4999 ppm, SO ₂ 10 – 99 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 10 ppm – 10%, NO 5 – 29.9 ppm, SO ₂ 100 – 4999 ppm	30AL	144	4	•	•	
CO ₂ 100 ppm – 20%, CO 10 ppm – 10%, NO 30 – 4999 ppm, SO ₂ 100 – 4999 ppm	30AL	144	4	•	•	