

## Regulator Information

100 Series - 5/8"-18UNF - 1/8" Hosebarb outlet - Preset at 0.5 LPM Flow Rate

SERIES	SERIES	MAX INLET PSIG	MAX OUTLET PSIG	SEAT	DIAPHRAM	KNOB
SERIES	75	2000	15	KEL F	Passivated Neoprene	N
	100	2000	15	KEL F	Passivated Neoprene	Y
	200	2000	30	KEL F	Stainless steel	Y

200 Series For critical applications where low concentrations of reactive gasses are used, upgrade to our 200 Series Preset Constant Flow Regulator, This regulator features a stainless steel diaphragm and KEL F seats which ensure the integrity of the calibration gas.

INLET	ORDER NUMBER	INLET	APPLICABLE CYLINDER SIZES	GAUGE (PSI)	POSITION OF INLET ON REGULATOR
	1	5/8"-18UNF	58DS, 103DS, 58DAL, 74DAL, 15DAL, 34DAL	0-1000	BOTTOM
2	CGA 600	17DS, 34DS	0-500	BOTTOM	
3	CGA 346		0-3000	SIDE	
4	CGA 170	37RAL, RS2	0-3000	SIDE	
5	CGA 180	103RAL, 74DAL	0-3000	SIDE	
6	CGA 510	S12	0-1000	SIDE	
7	NPTF 1/8"		0-3000	SIDE	
8	CGA 330	RAL--	0-3000	SIDE	
9	CGA 580	550SD, RAL--, RS--	0-3000	SIDE	
A	CGA 590	550DS, RAL--, RS--	0-3000	SIDE	
B	CGA 350	RAL--, RS--	0-3000	SIDE	
C	CGA 165	221DS, 48DAL	0-500	SIDE	
D	CGA 660	RAL--	0-3000	SIDE	
E	NPTF 1/4"		0-1000	SIDE	
F	CGA 705	RAL--(AMMONIA)	0-3000	SIDE	

**DO NOT PRINT BLUE ITEMS ON THE CATALOG**

OUTLET	ORDER NUMBER	OUTLET
	1	Hosebarb 1/8"
2	Hosebarb 3/16"	
3	Tube Fitting 1/8"	
4	NPTF 1/8"	
5	Hosebarb 1/4"	
6	NPTM 1/8"	
7	1/8" ELBOW TUBE	
8	1/4" TUBE FITTING	
9	1/8" ELB TUBE W/ TEFLON SET	
A	1/8" NPTM X HALF UNION	

FLOW RANGE	ORDER NUMBER	FLOW RANGE
	P-(specify)	Preset at specified flow in LPM
A-(specify)	Adjustable to specified flow	

Other Inlets and outlets available upon request.

## Cylinder Specifications

CYLINDER SIZE	SCOTT SPECIALTY	AIR LIQUID CALGAZ	CONTENTS AT FULL SERVICE PRESSURE		SERVICE PRESSURE		DIMENSIONAL LENGTH		OUTSIDE DIAMETER		TARE WEIGHT IN		OUTLET FITTING
			LTRS.	CU.FT	PSIG	BAR	INCHES	CM	INCHES	CM	LBS.	KG.	
4DS	SCOTTY 4		4	.14	120	8.3	8	20.31	2.5	6.3	0.22	.1	AEROSOL
7DAL			7	0.25	155	10.7	7 ½	19.05	2 6/10	6.6	0.15	0.07	AEROSOL
11DAL	SCOTTY 11	1AL	11	0.4	155	10.7	11	26.29	2 9/10	7.3	0.31	.14	AEROSOL
17DS	SCOTTY 17	7EOC	14	0.6	240	16.5	11	27.9	2 7/8	7.3	1.0	0.45	CGA600
34DS	SCOTTY 35	7HP	34	1.2	500	34.5	11	27.9	2 7/8	7.3	1.5	0.68	CGA600
58DS		6DM	58	2.0	1000	69	8	20.3	3 ¼	8.3	1.2	0.54	5/8"-18UNF
103DS	SCOTTY 105	6D	103	3.6	1000	69	13 27/32	35.2	3 ¼	8.3	2.4	1.09	5/8"-18UNF
221DS	SCOTTY 221	12	221	8.0	260	18	16 ¼	41.3	9	22.9	5.7	2.58	CGA165
550DS		5E	550	20.0	2000	138	21	53	4	10	11.66	5.3	CGA
15DAL			15	0.53	240	16.5	10 ½	26.62	2 9/10	7.38	.4	.18	5/8"-18UNF
34DAL	Scotty 34 Extra Life	2AL	34	1.06	500	34.5	10 ½	26.62	2 9/10	7.38	.6	.27	5/8"-18UNF
48DAL	SCOTTY 48		48	1.7	300	21	16 ¼	41	4	10	1.75	.79	CGA165
58DAL	Scotty 58 Extra Life	8AL	58	2.0	500	34.5	13 ½	34.3	3 ½	8.9	1.8	0.82	5/8"-18UNF
74DAL	Scotty 74 Extra Life		74	2.6	480	33	16 ¼	41.3	4	10.1	1.75	0.79	CGA170/ 5/8"-18UNF
37RAL (Hyd-FID)			37	1.3	1800	124	9 ½	23	2	5	0.88	0.4	CGA170
103RAL	Scotty 104 Extra Life		103	3.6	1800	124	9 3/8	23.8	3 3/16	8.1	1.3	0.59	CGA180
RS12 (Propane Tank)			352	12.3	240	16.5	18	46	12	30	17.6	8	CGA510
RS2 (lecture bottle)	LB	LB	56	2	1800	124	13	32.50	2	5.0	3.96	1.8	CGA170/ 180
RAL20 (Medical E)			682	20	1800	124	26	66	4	10	13.2	6	CGA
RAL33	CI	7AL	924	33	2000	138	16	40	7	17.5	15	6.8	CGA
RAL150	AL	30AL	3962	150	2000	138	48	120	8	20	48	22	CGA
RS200	A	44	5660	200	2000	138	51	129	9	23	116	53	CGA
RS300	K	49	8480	300	2400	165	55	139	9	23	137	62	CGA

ALL CGA OUTLET FITTINGS CYLINDER CGA DEPENDS ON MIXTURE WITHIN THE CYLINDER

All 15DAL/34DAL/58DS/58DAL/103DS cylinders have female threads.

All 34DS/17DS have male threads on the cylinder.

IF CYLINDERS ARE LISTED BY THEIR CAPACITIES OF GAS FOLLOWED BY THE MATERIAL OF CONSTRUCTION, THE CAPACITY IS IN LITERS. I.E. 17DS=17 LITERS DISPOSABLE STEEL; 103RAL= 103 LITERS REFILLABLE ALUMINUM.

IF CYLINDERS ARE LISTED BY THEIR MATERIAL OF CONSTRUCTION FOLLOWED BY THE CAPACITY, THN THE CAPACITY IS IN CU. FT. IE RS2=REFILLABLE STEEL 2 CUBIC FEET.

**ISO Certified 9001:2008**

**Shelf Life, Certification, and Tolerance**

**SHELF LIFE**

17DS, 34DS, 103DS, 221DS, 550DS, RS2 – NON REACTIVE MIXTURES

PRODUCT	BALANCE	SHELF LIFE
NON-REACTIVE MIXTURES EXCEPT RS2 WHICH IS 1 YEAR	N2/AIR	36 MONTHS

34DAL, 58DAL, 116DAL, 103RAL – REACTIVE MIXTURES

PRODUCT	BALANCE	SHELF LIFE
H2S (includes 4-gas mixtures)	N2/AIR	13 MONTHS
HCN	N2	18 MONTHS
SO2	N2/AIR	18 MONTHS
NO	N2	12 MONTHS
NH3	N2/AIR	24 MONTHS
ETO	N2	12 MONTHS
HCL	N2	8 MONTHS
CL2	N2	12 MONTHS
PHOSPHINE	N2	12 MONTHS
NO2	AIR	6 MONTHS

11DAL-AEROSOL (BUMP GAS)

PRODUCT	BALANCE	SHELF LIFE
REACTIVE GAS	AIR/N2	6 MONTHS
NON REACTIVE GAS	AIR/N2	12 MONTHS

## CERTIFICATION

The minor component in a mixture will be certified. The nominal value will be used on the label and be certified with a +/- percentage according to the following chart.

<b>CYLINDER</b>	<b>+/- 2%</b>	<b>+/- 5%</b>	<b>+/- 10%</b>	<b>+/- 20%</b>
<b>DS AND RS</b>	11 PPM - 100%	1 – 10 PPM	< 1 PPM	-----
<b>DAL AND RAL</b>	51 - 300 PPM	21 - 50 PPM	1 - 20 PPM	< 1 PPM
<b>AEROSOL (REACTIVE GAS)</b>	-----	-----	-----	1 - 9999PPM
<b>AEROSOL (NON-REACTIVE GAS)</b>	-----	10PPM-100%	< 10 PPM	-----

## TOLERANCE

The master of a gas mixture is made gravimetrically, Zero tolerance is applied to every single mixture. The gravimetric number will be the nominal number (requested concentration). This gravimetric number will be confirmed by an analytical number. The criterion for analytical variance is +/- 2% which is defined as  $(\text{nominal number} - \text{analytical number}) / \text{nominal number} \times 100$ . If the variance is less than +/- 2%, then the master is acceptable and the nominal number of this mixture will be used for reporting to the customer. If the variance is larger than +/- 2%, the master will be rejected.