

Gas-Detection Instruments

Regulators

Regulators are used to ensure you receive the required flow of calibration gas for your application. MSA regulators save customers money by delivering calibration test gas at a rate of .25 lpm versus competitors test gas which flows at a rate of .50 lpm.

Features and Benefits

- Gas Miser® Demand Regulator: no additional maintenance is required for accurate calibration once attached to the calibration cylinder
- Gas Miser Manifold: allows test or calibration of up to four instruments at the same time using the same calibration gas
- Calibration Tubing: polyurethane tubing for use with calibration equipment
- Model RP Check Kits and Model R Check Kits: consist of a regulating valve which includes a cylinder pressure gauge, an adapter hose with sampling line connection, sensor adapters (where applicable), instructions, and a case fitted with room for two calibration check gas cylinders
- Model RP Check Kits
- Model RP Combination Regulators

Ordering Information

REGULATORS	.25/1.5 LPM Flow Control	
467895	Model RP Cylinder	.25 lpm*
467896	Model RP Cylinder	1.5 lpm
Gas Miser Demand Regulator		
10034391	Model RP, Universal	
710289	Model BD-20, with CGA 590 fitting	
10148159	Model BD-20, with CGA 330 fitting	
Model RP Combination Regulator		
711175	Model RP Combination Regulator,	.25 lpm
711174	Model RP Combination Regulator,	1.5 lpm
Gas Miser Manifold		
710274	4-station Manifold	
Model RP Calibration Check Kits		
477150	Check Kit, Model RP, with 1.5 lpm regulator—	complete
477149	Check Kit, Model RP, with 0.25 lpm regulator—	complete



Gas Miser Model RP .25/1.5 LPM Flow Control Model RP



Model RP Combination Regulator Gas Miser Model BD-20



Gas Miser Manifold



Model RP Calibration Check Kit

Calibration Gas

Each MSA Calibration Gas Cylinder is shipped with an individual copy of a material safety data sheet (MSDS) and an individual copy of a certificate of analysis. MSA certifies that the gas mixture in calibration gas cylinders was prepared gravimetrically, using NIST traceable weights. The lot number and nominal value of the gas constituents in percent by volume, percent by mass, PPM, or volume are specified on the cylinder. The uncertainty statement of the specified nominal value is also listed.

Model RP and Model R Calibration Cylinders—Non-Reactive Gases, Steel Cylinder



Model RP Cylinder

- *Contents:* Pressure 1000 psig; approximately 100 liters at atmospheric pressure
- *Size:* 13-3/4" x 3"
- *Weight:* 2 lb 13 oz
- *Material:* Steel

Gas Fill	100 liters 1000 psi Model RP	19 liters 300 psi Model R	34 liters 500 psi Econo-Cal	Gas Mixture	Background
AIR	801050	—	—	air zero (THC < 1 ppm)	—
CARBON MONOXIDE	806255	—	—	400 ppm carbon monoxide	air
	473180	461769	—	300 ppm carbon monoxide	air
	809243	—	—	200 ppm carbon monoxide	air
	809242	—	—	100 ppm carbon monoxide	air
	809241	—	—	50 ppm carbon monoxide	air
	806734	—	—	100 ppm carbon monoxide	nitrogen
HYDROGEN	803102	—	—	0.8% hydrogen	air
ISOBUTYLENE	494450	—	10048279	100 ppm isobutylene	air
METHANE	491041	459942	—	2.5% methane	air
	801049	—	—	6.6% methane	nitrogen
OXYGEN	479857	468248	—	20.8% oxygen	nitrogen
	493580	476302	—	5.0% oxygen	nitrogen
NITROGEN	481317	—	—	100% nitrogen	—
NITROUS OXIDE	806736	—	—	100 ppm nitrous oxide	nitrogen
PENTANE	804532	—	—	0.75% pentane (50% LEL)	air
PROPANE	493579	—	—	0.6% propane	air
COMBINATION GAS CYLINDERS	10007047	—	—	0.35% pentane, 19.0% oxygen, 100 ppm carbon monoxide	nitrogen
	801051	—	—	0.6% propane, 15% oxygen, 60 ppm carbon monoxide	nitrogen
	10010162	—	—	1.45% methane, 300 ppm carbon monoxide, 15% oxygen	nitrogen
	813718	—	—	2.5% methane, 60 ppm carbon monoxide, 15% oxygen	nitrogen
	10040791	—	—	2.5% methane, 300 ppm carbon monoxide, 15% oxygen	nitrogen
	478192	—	—	1.45% methane, 15% oxygen	nitrogen

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Model RP and Econo-Cal Calibration Cylinders—Reactive Gases, Aluminum Cylinders



Model RP Cylinder

- *Contents:* Pressure 500 psig; approximately 58 liters at atmospheric pressure
- *Size:* 3-1/2" dia. x 14-1/2" high
- *Weight:* 1 lb 11 oz
- *Material:* Aluminum



Econo-Cal Cylinder

- *Contents:* Pressure 500 psig; approximately 34 liters at atmospheric pressure
- *Size:* 2-3/4" dia. x 11-1/4" high
- *Weight:* 1 lb 1 oz
- *Material:* Aluminum

Gas Fill	58 liters 500 psi Model RP	34 liters 500 psi Econo-Cal	Gas Mixture	Background
AMMONIA	814866	711078	25 ppm ammonia	nitrogen
CHLORINE	806740	711066	10 ppm chlorine	nitrogen
	710331	711082	2 ppm chlorine	nitrogen
HYDROGEN SULFIDE	467897	711062	40 ppm hydrogen sulfide	nitrogen
	806253	711064	15 ppm hydrogen sulfide	nitrogen
	467898	711060	10 ppm hydrogen sulfide	nitrogen
NITRIC OXIDE	812144	711074	50 ppm nitric oxide	nitrogen
NITROGEN DIOXIDE	808977	711068	10 ppm nitrogen dioxide	air
PHOSPHINE	710533	711088	0.5 ppm phosphine	nitrogen
HYDROGEN CHLORIDE	710210	—	40 ppm hydrogen chloride	nitrogen
HYDROGEN CYANIDE	809351	711072	10 ppm hydrogen cyanide	nitrogen
SULFUR DIOXIDE	808978	711070	10 ppm sulfur dioxide	air
COMBINATION GAS CYLINDERS	804770	711058	1.45% methane, 15% oxygen, 300 ppm carbon monoxide, 10 ppm hydrogen sulfide	nitrogen
	10048788	10048790	1.45% methane, 15% oxygen, 20 ppm hydrogen sulfide	nitrogen
	—	10058023	1.45% methane, 15% oxygen, 300 ppm carbon monoxide, 2.5% carbon dioxide	nitrogen
	10045035	10048280	1.45% methane, 15% oxygen, 60 ppm carbon monoxide, 20 ppm hydrogen sulfide	nitrogen
	804769	711056	1.45% methane, 15% oxygen, 10 ppm hydrogen sulfide	nitrogen
	813720	711076	2.5% methane, 15% oxygen, 300 ppm carbon monoxide, 10 ppm hydrogen sulfide	nitrogen
	10048890	10048981	2.5% methane, 15% oxygen, 60 ppm carbon monoxide, 20 ppm hydrogen sulfide	nitrogen
	10048889	10048888	2.5% methane, 15% oxygen, 20 ppm hydrogen sulfide	nitrogen
	10050744	10058022	1.45% methane, 15% oxygen, 10 ppm hydrogen sulfide, 300 ppm carbon monoxide, 2.5% carbon dioxide	nitrogen
	10007049	—	0.35% pentane, 19% oxygen, 100 ppm carbon monoxide, 35 ppm hydrogen sulfide	nitrogen
10058021		1.45% methane, 15% oxygen, 300 ppm carbon monoxide, 2.5% carbon dioxide	nitrogen	

Note: Reactive gases have an expiration date listed on each cylinder. This is to ensure the highest quality and accuracy for instrument calibration. Most cylinders have an expiration date of 12 months. Check with MSA Customer Service for the exact shelf life of a particular calibration cylinder.

Model RP Calibration Cylinder—Steel, 100% Methane



Model RP Cylinder

- *Contents:* Pressure 1000 psig; approximately 58 liters of pure methane with odorant added to smell like natural gas in all commercial gas lines
- *Size:* 8-1/2" x 3"
- *Weight:* 1 lb 13 oz
- *Material:* Steel

Gas Fill	58 liters 1000 psi Model RP	Gas Mixture	Background
METHANE	711014	100% methane	nitrogen

Model BD-20 Calibration Cylinders—Steel



Model BD-20 Cylinder

- *Contents:* Pressure 2200 psig; approximately 552 liters (20 cu ft) of gas at atmospheric pressure
- *Size:* 25" x 4-1/4"
- *Weight:* 1 lb 9 oz
- *Material:* Steel

Gas Fill	34 liters 500 psi Econo-Cal	Gas Mixture	Background
CHLORINE	710566	10 ppm chlorine	nitrogen
	710565	2 ppm chlorine	nitrogen
HYDROGEN SULFIDE	710776	40 ppm hydrogen sulfide	nitrogen

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Squirt Gas Bump Tester



Squirt Gas Cylinder

- *Contents:* Pressure 155 psig; approximately 11 liters at 70°F

SQUIRT GAS BUMP TEST KIT	813411	Squirt Gas Bump Test Kit, less cylinder, but with required fittings and adapters, complete with instructions
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		Instrument	Combustible Methane	Combustible Pentane Simulant	Oxygen	Carbon Monoxide	Hydrogen Sulfide	Isobutylene	Balance
CYLINDERS FOR SQUIRT GAS	815307	Explosimeter®	2.5%	See cylinder	—	—	—	—	Air
	814350	Gasport®	2.5%	—	15% O ₂	60 ppm CO	—	—	Nitrogen
	814349	Gasport	2.5%	—	15% O ₂	300 ppm CO	35 ppm H ₂ S	—	Nitrogen
	814497	Passport®, FiveStar	1.3%	50% LEL	15% O ₂	60 ppm CO	—	—	Nitrogen
	814559	Passport, FiveStar	1.3%	50% LEL	15% O ₂	300 ppm CO	35 ppm H ₂ S	—	Nitrogen
	814978	MiniCO*** Responder	—	—	—	60 ppm CO	—	—	Air
	814979	MiniH ₂ S** Responder	—	—	—	—	35 ppm H ₂ S	—	Nitrogen
	815308	MicroGard***	1.3%	52% LEL	15% O ₂	—	—	—	Nitrogen
	815704	Passport PID II	—	—	—	—	—	100 ppm	Air

Cylinder Holders



Single Portable Cylinder Holder

- 6" wide x 13" long x 4" high



Double Cylinder Holder, wall-mounted

- 17" high x 10" wide x 3-1/2" deep at base

CYLINDER HOLDERS	710386	Single Cylinder Holder, portable
	710483	Double Cylinder Holder, wall-mounted

Calibration Cylinders Are Recyclable!

MSA has affiliated with the Association of Retarded Citizens, Butler County—a nonprofit organization that employs mentally retarded citizens—and established a Cylinder Recycling Center. The calibration cylinders are not refilled, but salvaged for scrap. All money generated from selling the scrap cylinders is placed in the ARC operating fund for salaries and operating costs.

Calibration cylinders are considered hazardous unless the cylinders are empty. MSA has developed special devalving tools that will ensure the cylinder is empty and render the cylinder non-fillable. For your convenience, MSA also offers a specially pre-addressed shipping box (also recyclable) which helps you pay the lowest shipping costs available.

The MSA Recycling Center limits the return of calibration cylinders to MSA-logoed cylinders only. Non-MSA cylinders will be rejected. Contact the Customer Service Center for additional details at 1-800-MSA-2222.



RECYCLING ACCESSORIES	711228	Devalving Tool, Model "RP" and Econo-Cal Cylinders
	711229	Devalving Tool, Model "R" cylinders
	711227	Shipping Box, Special, Pre-addressed

