Calibration Gas Cylinders and Accessories

For portable gas detectors, certified and tested for accuracy.

WE KNOW WHAT'S AT STAKE.

Simplicity Counts

Hazardous gas detector calibration accuracy depends greatly upon use of certified standard gas concentration. MSA's broad selection of calibration gas and accessories is manufactured and tested to the highest industry standards. MSA gas cylinders offer the most economical calibration.

- All MSA calibration gas is supplied with individual Certificate of Analysis to NIST-traceable standard and MSDS.
- Most calibration accessories are designed for use with more than one instrument.
- MSA's calibration gas recycling program helps a non-profit organization.

GALAXY® GX2 Automated Test System with RFID-Tagged Calibration Gas Cylinders

RFID—Your Best Tracking Tool for Calibration Gas Cylinders

Radio Frequency Identification or RFID wireless technology is an invaluable tool for gas detector fleet management. RFID uses electromagnetic fields to track and identify electronic information known as tags. Tags, using RF transmitters and receivers, can be attached to or implanted within objects for identification via a reader device.

When applied to gas cylinders used for calibration of gas detector fleets, RFID technology and software offer convenient setup, record-keeping, automatic calibration cylinder recognition, cylinder pressure, expiration warnings, and status of multiple cylinders simultaneously.

MSA RFID-Tagged Calibration Gas Cylinders for Automated Calibration Gas Setup, Status Alerts and Traceability

RFID-tagged calibration gas cylinders help to ensure use of correct gas when using the MSA GALAXY® GX2 Automated Test System through automatic calibration cylinder recognition. RFID-tagged gas cylinders:

- Provide gas cylinder information necessary for successful calibration, including automatically entered cylinder expiration date and pressure level, offering exceptionally easy setup.
- Provide onscreen gas cylinder pressure gauge that displays multiple cylinder status simultaneously.
- Offer calibration gas and expiration warnings provided by the GALAXY GX2 System.

Bump Testing—Fast, Easy and Sensible

A qualitative bump test or functional instrument check uses test gas to verify that sensors and alarms function properly before use. While bump testing does not replace full calibration, this test provides a valuable measure of accuracy in helping to keep your crew safe on the job. The International Safety Equipment Association's position statement maintains that "A bump test or full calibration of direct-reading portable gas monitors should be made before each day's use in accordance with manufacturer's instructions, using an appropriate test gas."* Upon bump test failure, instruments must be fully calibrated prior to use.

MSA GALAXY GX2 Automated Test System

Use of the GALAXY GX2 Test System for your MSA portable instruments is fast, convenient and can greatly enhance your safety program. This system, driven by the most advanced technology available in any portable gas detector, MSA XCell® Sensors, provides testing and calibration of ALTAIR® and ALTAIR PRO Single-Gas Detectors and ALTAIR 4XR and ALTAIR 5X Multigas Detectors. The GALAXY GX2 Automated Test System offers proactive safety management, providing significantly reduced total cost of ownership through reduced calibration gas usage and faster testing times.

- Color touch screen aids in ease of setup and viewing.
- Status at-a-glance is provided through various light indicators.
- Exceeds 50% reduction in cost of ownership.
- Simultaneous testing of up to ten instruments.
  *http://www.safetyequipment.org/

Calibration Gas Cylinders and Accessories

MSA Calibration Cylinders

Model RP Check Kits include regulator with cylinder pressure gauge, adapter hose, sensor adapter (where applicable), instructions, and two-cylinder case. Model RP Kit steel calibration gas cylinders measure approximately 14 1/4" high, 3 1/2" in diameter, or aluminum container 13 1/4" high, 3" in diameter. Depending upon individual pressure requirements, cylinders contain 58t to 100 liters of specified gas mixture.

P/N	Description
477149	Calibration Check Kit, Model RP, with 0.25 lpm regulator, includes:
467895	Regulator (0.25 lpm)
24194	Tubing, 30" (without sampling line connection)
10089321	Calibration Cap: ALTAIR 4XR
635833	Fitting, Quick Disconnect
628474	Zero plug for MSA electrochemical sensors
465898	Fitting, Quick Disc., Internal, 3/16 Barb

Non-Reactive Gases

Gas Type	Concentration	34L	58L	100L	116L
AIR (ZERO GAS)	THC < 1 PPM	–	–	801050	10150608
CARBON DIOXIDE (CO_2)	2.5%	–	–	479265	–
CARBON DIOXIDE (CO_2)	1.5%	–	–	807386	–
CARBON DIOXIDE (CO_2)	10.00%	–	801050	–	–
CARBON DIOXIDE (CO)	300 PPM	–	–	473180	–
CARBON MONOXIDE (CO)	60 PPM	–	–	–	10150609
CARBON MONOXIDE (CO)	50 PPM	–	–	809241	–
ISOBUTYLENE	100 PPM	–	–	494450	–
OXYGEN (O_2)	20.80%	–	–	–	10150610
METHANE	50%	–	10075804	–	–
METHANE (W/ODORANT)	100%	–	711014	–	–

Reactive Gases

Gas Type	Concentration	34L	58L	116L
AMMONIA (NH3)	25 PPM	711078	814866	10150611
CHLORINE (CL2)	10 PPM	711066	806740	10150612
	2 PPM	711082	710331	10150613
HYDROGEN CHLORIDE (HCL)	40 PPM	711080	710210	–
HYDROGEN CYANIDE (HCN)	10 PPM	711072	809351	10150614
HYDROGEN SULFIDE (H2S)	40 PPM	711062	467897	10150616
	20 PPM	10153844	10153845	10153846
	15 PPM	711064	806253	–
	10 PPM	711060	467898	–
	5 PPM	711086	710414	–
NITRIC OXIDE (NO)	50 PPM	711074	812144	10150617
NITROGEN DIOXIDE (NO2)	10 PPM	711068	808977	10150599
	5 PPM	711084	710332	–
SULFUR DIOXIDE (SO2)	10 PPM	711070	808978	10150600
PHOSPHINE (PH3)	0.5 PPM	711088	710553	10151016
ISOBUTYLENE	100 PPM	10048279	10028038	–

Multigas "Cocktail Mixes" Table

Reactive Gases

COMB Gas	CO	O$_2$	H$_2$S	NO$_2$	SO$_2$	CO$_2$	34L	58L	116L
1.45% METHANE AS PENTANE SIMULANT	60 PPM	15%	20 PPM	–	–	–	10048280	10045035	10150595
1.45% METHANE AS PENTANE SIMULANT	60 PPM	15%	20 PPM	–	10 PPM	–	10098855	10117737	10150622
1.45% METHANE AS PENTANE SIMULANT	60 PPM	15%	–	10 PPM	–	–	10058036	10058034	10150597
1.45% METHANE AS PENTANE SIMULANT	60 PPM	15%	20 PPM	–	–	2.50%	10104621	10103262	10150606
1.45% METHANE AS PENTANE SIMULANT	300 PPM	15%	10 PPM	–	–	–	711058	804770	–
2.5% METHANE	60 PPM	15%	20 PPM	–	–	–	10048981	10048890	10150596
2.5% METHANE	60 PPM	15%	–	10 PPM	–	–	10058172	10058171	10150598
2.5% METHANE	300 PPM	15%	10 PPM	–	–	–	711076	813720	–

Non-Reactive Gases

COMB Gas	CO	O$_2$	34L	58L	116L	100L
1.45% METHANE AS PENTANE SIMULANT	60 PPM	15%	10048789	478191	–	–
2.5% METHANE	60 PPM	15%	10049056	813718	–	–
1.45% METHANE AS PENTANE SIMULANT	300 PPM	15%	–	–	–	10010162
1.45% METHANE AS PENTANE SIMULANT	–	15%	–	–	–	478192

ALTAIR 2X Detector

H$_2$S	SO$_2$	CO	NO$_2$	34L	58L	116L
20 PPM	–	–	–	10153844	10153845	10153846
20 PPM	10 PPM	–	–	10153808	10153807	10153808
20 PPM	–	60 PPM	–	10153800	10153801	10153802
–	–	60 PPM	10 PPM	10153803	10153804	10153805

Regulators

GAS MISER® DEMAND REGULATOR			FIXED FLOW REGULATORS				COMBINATION REGULATOR
Model RP	BD-20	BD-20	Model RP		Model R		Model RP
	CGA 330	CGA 590	0.25 LPM	1.5 LPM	0.25 LPM	0.5 LPM	0.25 LPM
10034391	10148159	710289	467895	467896	459949	459948	711175
	Up to 3000 psi cylinders	Up to 3000 psi cylinders	–	–	–	–	–
Can be used with all reactive gases (replaces 710288)	CGA 330 is standard fitting for H2S containing mixtures	CGA 590 is standard fitting for non-H2S mixtures	–	–	–	–	Easily converts 34, 58, 116, or 100L into "squirt" bottle; provides stable gas concentration

Model RP – Regulator threads onto into 34, 58 and 116L aluminum bottles and 100L steel bottles; limited to 1000 psi

Model BD – Regulator attaches directly onto cylinder containing up to 3000 psi gas pressure

Model R – Regulator fits 19L steel cylinder (red or blue); often contains combustible gas mixture

Devalving Tools

P/N	Description
711228	Model RP
711229	Model R
711227	Return Box

GALAXY GX2 System Ordering Information

GALAXY GX2 System Test Stand

	1 VALVE (FOR USE WITH 1 CALIBRATION GAS CYLINDER)		4 VALVE (FOR USE WITH 1-4 CALIBRATION GAS CYLINDERS)	
	Charging	**No-charging**	**Charging**	**No-charging**
ALTAIR / ALTAIR PRO SINGLE-GAS DETECTOR	–	10128644	–	10128643
ALTAIR 4XR MULTIGAS DETECTOR	10128630	10128642	10128629	10128641
ALTAIR 5X MULTIGAS DETECTOR	10128626	10128628	10128625	10128627

The GALAXY GX2 System test stand supplies pre-configured plugs, barbs, fresh air filter, power supply with corresponding plug, spare parts kit (gas tubing, barbs and plugs), Ethernet cable (short cable for connection between test stands), and screen protector. Please see ordering information below for further system components, including electronic cylinder holder (includes regulator) or non-electronic cylinder holder (without regulator), digital secure USB key, end cap, and multi-unit charger.

Accessories

P/N	Description
10105756	Electronic cylinder holder
10125135	Non-electronic cylinder holder
10127111	4 GB SD card
10123937	Digital secure USB key
10125907	End cap
10127422	ALTAIR 4XR Detector Multi-unit Charger, NA
10127427	ALTAIR 5X Detector Multi-unit Charger, NA
10127112	Laminated quick start guide
10127518	12" (TBR) Ethernet cable for test stand to test stand connection
10126657	DIN rail clip kit (2 clips & screws per kit)
10082834	USB IR dongle
10034391	Demand flow regulator (universal)
710289	Large capacity (<3000 psi) demand regulator
10124286	NA power supply (1 of 2)
10127146	NA power cord (2 of 2)
10126268	Vehicle power adapter
10127808	Printer - detector or receipt sticker
10126437	Detector sticker label roll
10126138	Receipt & sticker label roll
10145138	Printer ribbon

Calibration Gas

P/N	Description
10048280	Calibration gas cylinder (34L) 1.45% CH4, 15% O2, 60 ppm CO, 20 ppm H2S
10045035	Calibration gas cylinder (58L) 1.45% CH4, 15% O2, 60 ppm CO, 20 ppm H2S
10098855	Calibration gas cylinder (34L) 1.45% CH4, 15% O2, 60 ppm CO, 20 ppm H2S, 10 ppm SO2
10117738	Calibration gas cylinder (58L) 1.45% CH4, 15% O2, 60 ppm CO, 20 ppm H2S, 10 ppm SO2
10104621	Calibration gas cylinder (34L) 1.45% CH4, 15% O2, 60 ppm CO, 20 ppm H2S, 2.5% CO2
10103262	Calibration gas cylinder (58L) 1.45% CH4, 15% O2, 60 ppm CO, 20 ppm H2S, 2.5% CO2

Technical Specifications

OPERATING TEMPERATURE	GALAXY GX2 System	0-40°C
POWER INPUT	Power module	100-240 VAC, 47-63 Hz
	Optional vehicle module	9-32 VDC
PHYSICAL CHARACTERISTICS	Test stand	Height: 11.80" (299.72 mm)
		Width: 6.50" (165.10 mm)
		Depth: 7.90" (200.66 mm)
		Material: acrylonitrile butadiene ABS
	Cylinder holder	Height: 11.80" (299.72 mm)
		Width: 6.50" (165.10 mm)
		Depth: 6.10" (154.94 mm)
		Material: acrylonitrile butadiene ABS
	Multi-unit charger	Height: 11.80" (299.72 mm)
		Width: 6.50" (165.10 mm)
		Depth: 6.44" (163.58 mm)
		Material: acrylonitrile butadiene ABS

Calibration cylinders are recyclable!

MSA and non-profit The Arc of Butler County have established a Cylinder Recycling Center. Empty MSA calibration cylinders are salvaged by The Arc, followed by proper cylinder disposal. All proceeds from this program are managed by and benefit The Arc.

MSA de-valving tools ensure that cylinders are empty and rendered non-fillable, as calibration cylinders are considered to be hazardous material unless deemed empty. MSA also offers pre-addressed shipping boxes (also recyclable).

MSA's Recycling Center limits calibration cylinder return to MSA-logo'd cylinders only; non-MSA cylinders will be rejected. Contact MSA Customer Service for additional details, 1-800-MSA-2222.

Devalving Tools

P/N	Description
711228	Model RP
711229	Model R
711227	Return Box

Don't see what you need?
Contact Customer Service at 1.800.MSA.2222 for information concerning custom calibration options.

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit **MSAsafety.com/offices**.