HARRIS

A LINCOLN ELECTRIC COMPANY

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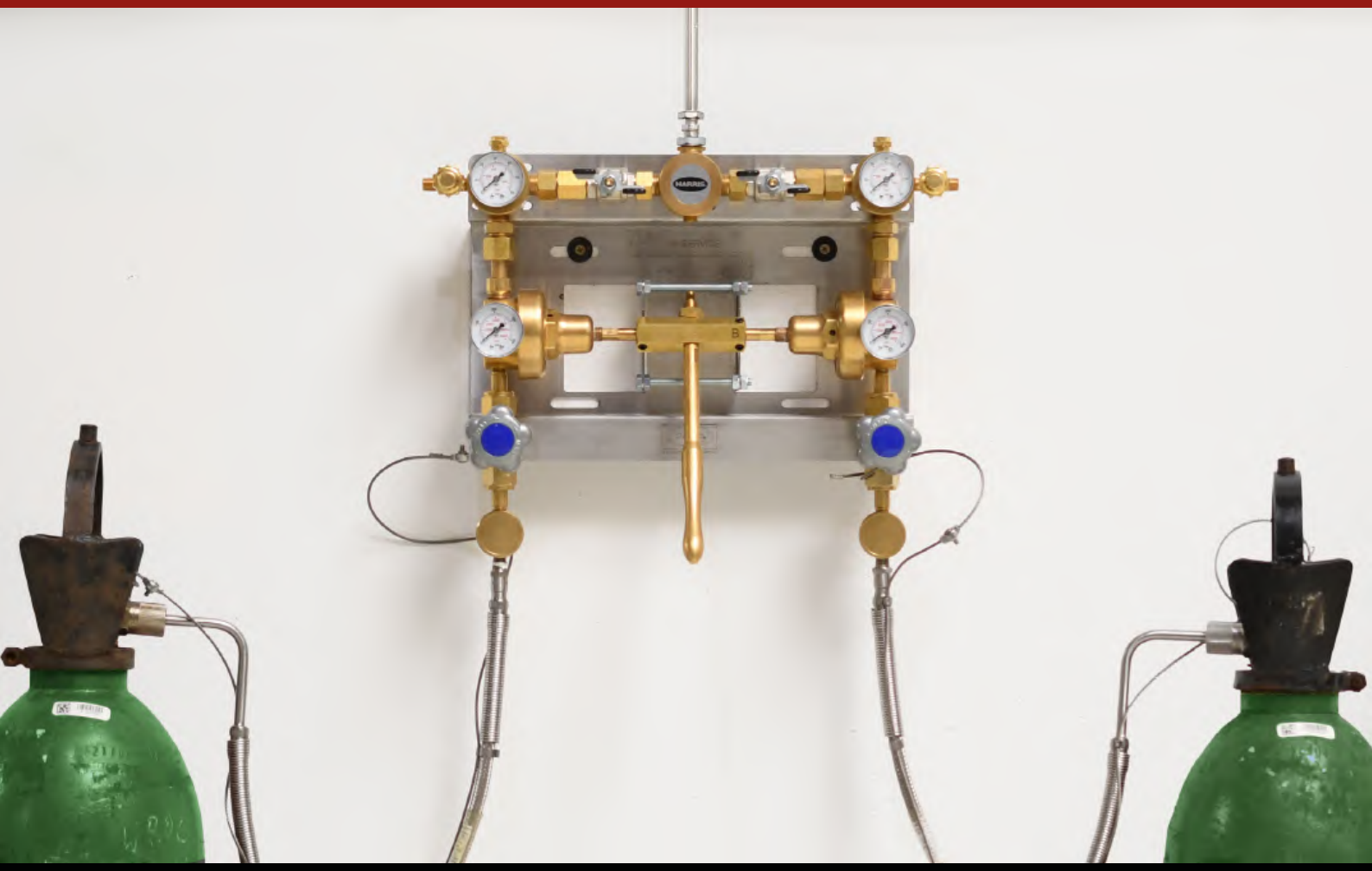


Gas Distribution Systems

Catalog 2025

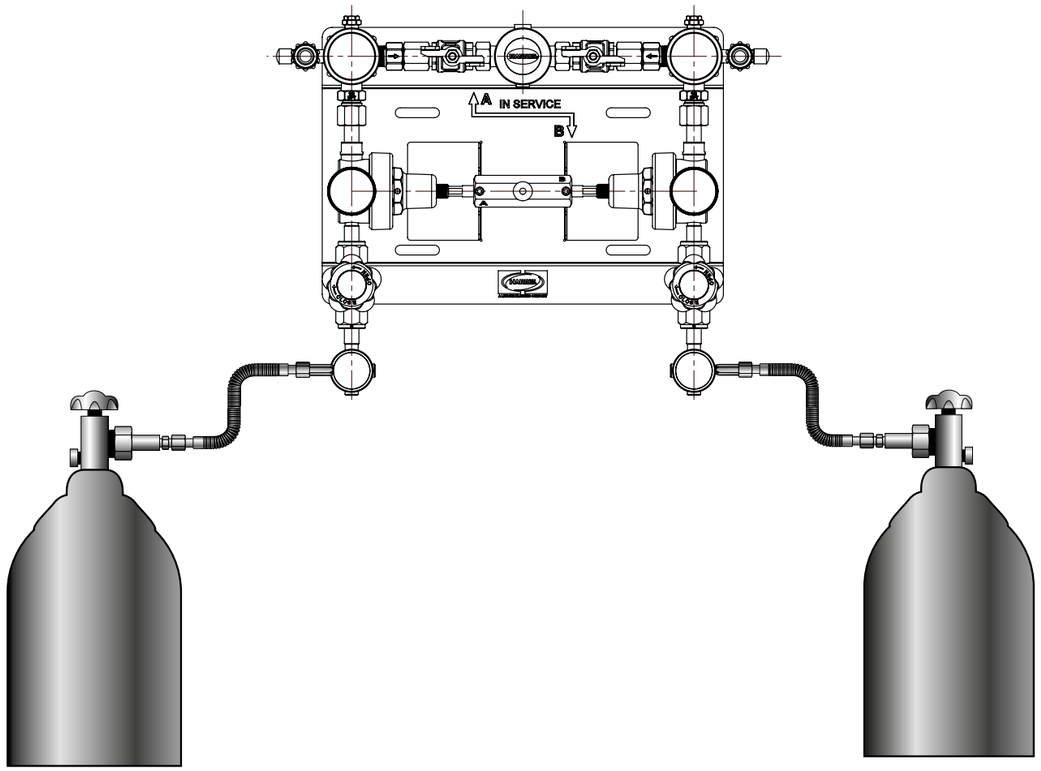
INDUSTRIAL

WHEN GASES ARE USED IN SIGNIFICANT VOLUMES, A CENTRALIZED GAS DELIVERY SYSTEM IS A PRACTICAL NECESSITY. A WELL-CONCEIVED DELIVERY SYSTEM WILL REDUCE OPERATING COSTS, INCREASE PRODUCTIVITY AND ENHANCE SAFETY.

A centralized system will allow the consolidation of all cylinders into one storage location. With all the cylinders in one place, inventory control will be streamlined and cylinder handling will be simplified and improved. Gases can be separated by type to enhance safety.

With gas delivery systems the frequency of cylinder changeouts are reduced. This reduction is achieved by connecting multiple cylinders to supply panels in banks in such a way that one bank can be safely vented, replenished and purged while a second bank provides continuous gas service. This type of system can supply gas to multiple applications and even entire facilities, eliminating the need for separate cylinders and regulators for each point of use.

Since cylinder switchover can be accomplished automatically by the supply panel, cylinders in a bank will be uniformly exhausted, resulting in improved gas utilization and lower costs. The integrity of the delivery system will be better protected since cylinder change-outs will be done in an isolated, controlled environment.



Let the experts at Harris show you how you can **raise productivity, lower operational cost, and improve the quality of your products** by choosing the right gases and equipment for your specific application.
Whether you are working with Oxygen, Hydrogen, Nitrogen, or any of the fuel gases, Harris offers a complete line of Gas Control Systems coupled with experienced engineers and technical specialists who are **ready to assist** you from the gas supply to the flame.

CONTENTS

GAS PRESSURE & FLOW CONTROL

UNIVERSITIES & LABORATORIES

WELDING

CHEMICAL PROCESSES

CUTTING

LASER

THE HARRIS PRODUCTS GROUP

The Harris Products Group was formed by combining two strong names in the welding business - Harris Calorific and J.W. Harris. The Harris Products Group is a world leader in metalworking products used in the brazing, soldering, welding, cutting and gas distribution industries. The combined company offers excellence in the manufacture of:

- Gas welding and cutting equipment
- Industrial and specialty gas regulation equipment
- Gas distribution systems
- Brazing and soldering alloys
- Welding alloys
- Pre-formed bends, rings and return bends

The Harris Products Group is a wholly-owned subsidiary of The Lincoln Electric Company. Lincoln Electric has 71 manufacturing locations in 21 countries and a worldwide network of distributors and sales offices serving customers in over 160 countries.

MANUFACTURING FACILITIES

Based in Mason, Ohio, The Harris Products Group has twelve manufacturing locations in six countries and a worldwide network of distributors and sales offices covering more than 90 countries.

THE MERGER RESULTED FROM A SERIES OF ACQUISITIONS BY THE LINCOLN ELECTRIC COMPANY

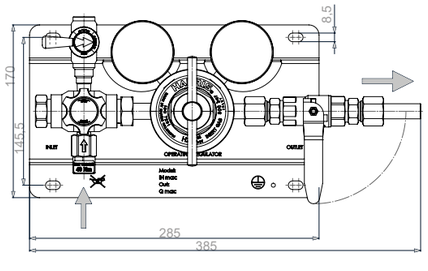
- **1990** Harris Calorific
- **2005** J.W. Harris Company
- **2005** Gulf Wire Corporation
- **2005** Filler Metals, Inc.
- **2008** Brastak
- **2019** Worthington Industries (Solder Products)
- **2021** Portugal Brazing Facility
- **2021** Overstreet-Hughes Company, Inc. (Fabricated Tube Products)
- **2021** Shoals Tubular, Inc.

GAS SUPPLY MANIFOLDS
for Oxygen and Propane, Hydrogen, Methane and inert gases

One-side manifolds provide continuous gas flow from a single cylinder or bank of cylinders. Designed for applications where a slight rise in delivery pressure from full to empty cylinder can be tolerated or as a first stage of pressure reduction. Available for Oxygen, Propane, Hydrogen, Methane, Acetylene and inert gases. Manual adjustment of the regulator allows the user to set downstream pressure.
Available in two versions: Standard (IMS) and High Flow (IMS HF)

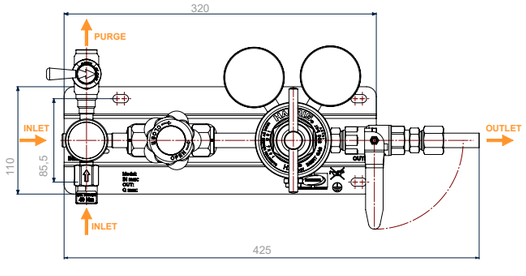
Model shown: IMS HF-15-OX-1x1

STANDARD (IMS) version with modular shut-off diaphragm valve with one inlet for a cylinder/bank of cylinders (1x1), expandable with the IMS Header Extensions for the required number of inlets.



IMS-25-IG-1x1-PV-NRV

HIGH FLOW (IMS HF) version with high flow master shut-off valve with one inlet for a cylinder/bank of cylinders (1x1), expandable by the IMS-HF extensions for the required number of inlets.



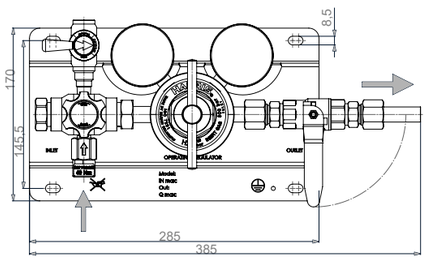
IMS HF-50-IG-1x1-PV-NRV

FEATURE	IMS STANDARD	IMS HF (HIGH FLOW)
Regulator Model	H25	H25 HF
Designed according to ISO 7291 Standard	OK	
Stainless Steel diaphragm	OK	
High Pressure capsule seat with Kel-F (CTFE)	OK - Standard	OK - High Flow
Sintered bronze - 25 micron	OK	
T-screw handle	OK	
Internal relief valve	OK	
5 year Warranty	OK	
Inlet Pressure	0-300 bar (0-25 bar for Acetylene)	
Max Gas Flow Nm3/h	Please check the flow chart on the next page	
Tested at nominal pressure and direct passage	100%	
Compact Design	OK	
Plug and go	Ready to use	
Easy to extend	Standard IMS extensions	High flow IMS-HF extensions
Quick and easily replaceable components	OK	
Non Return Valves	OK - Included	OK - Optional
Purge Valve	OK - Optional	
Outlet Shutoff Valve	OK - Included	
External Relief Valve	OK - Included on HF	
Mounted on laser engraved stainless steel plate	OK	
Flashback Arrestors - FBA	Included on Acetylene panels versions	
Automatic Quick Action shut off	Included on Acetylene panels versions	
Working temperature	-20°c to +60°C	
Inlet	1/4" FNPT	
Outlet	G 1/2"	
Weight	3.6 kg	
Related Options	Purge valves	
	Extensions (Modular/Compact)	
	High pressure contact gauges / High pressure transducers	
	Low pressure contact gauges / Low pressure transducers	
	Pre-heater	
	Alarm panels / Telemetry systems	
	Flashback arrestor	
	High pressure hoses	
	Line relief valves	

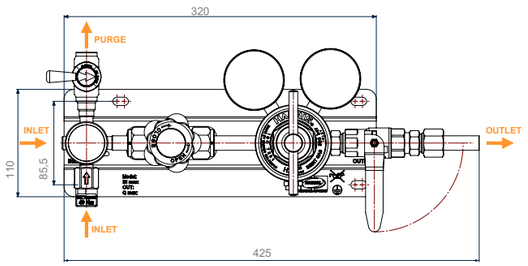
REGULATOR MATERIALS	
Body	Brass
Diaphragm	Stainless steel type AISI 302 / For Acetylene: Neoprene rubber reinforced with Nylon
Filter	Sintered bronze **– 25 micron**
Seat	Nylon-66
O-ring	Buna-N

Other materials available under request.

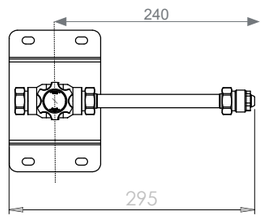
IMS-25-IG-1x1-PV-NRV:



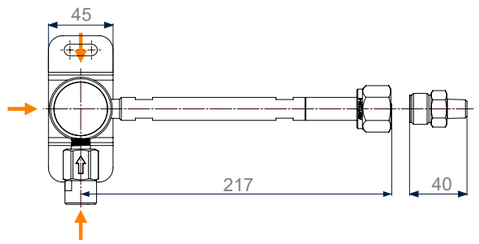
IMS HF-50-IG-1x1-PV-NRV:



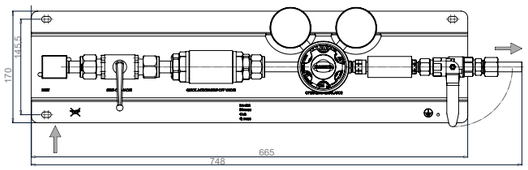
Modular extensions (standard):



Modular extensions (High Flow):

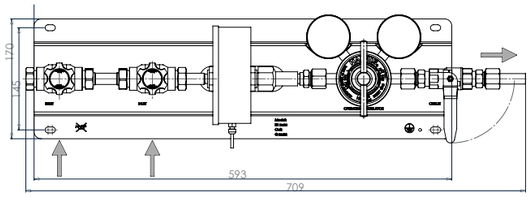


Acetylene:



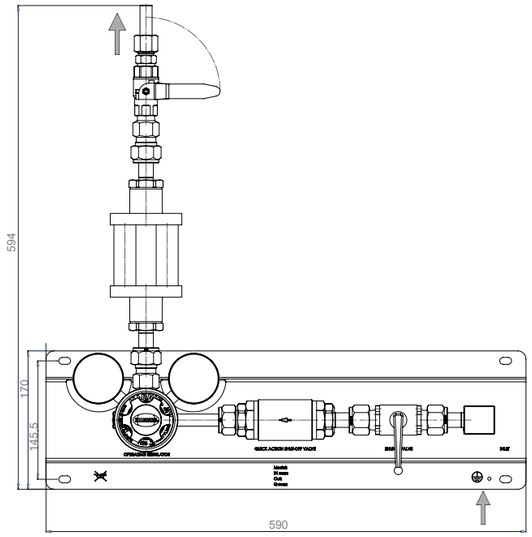
IMS-1.5-AC-1x1

CO2+Heater:



IMS-15-IG-1x2-PH500

Acetylene:



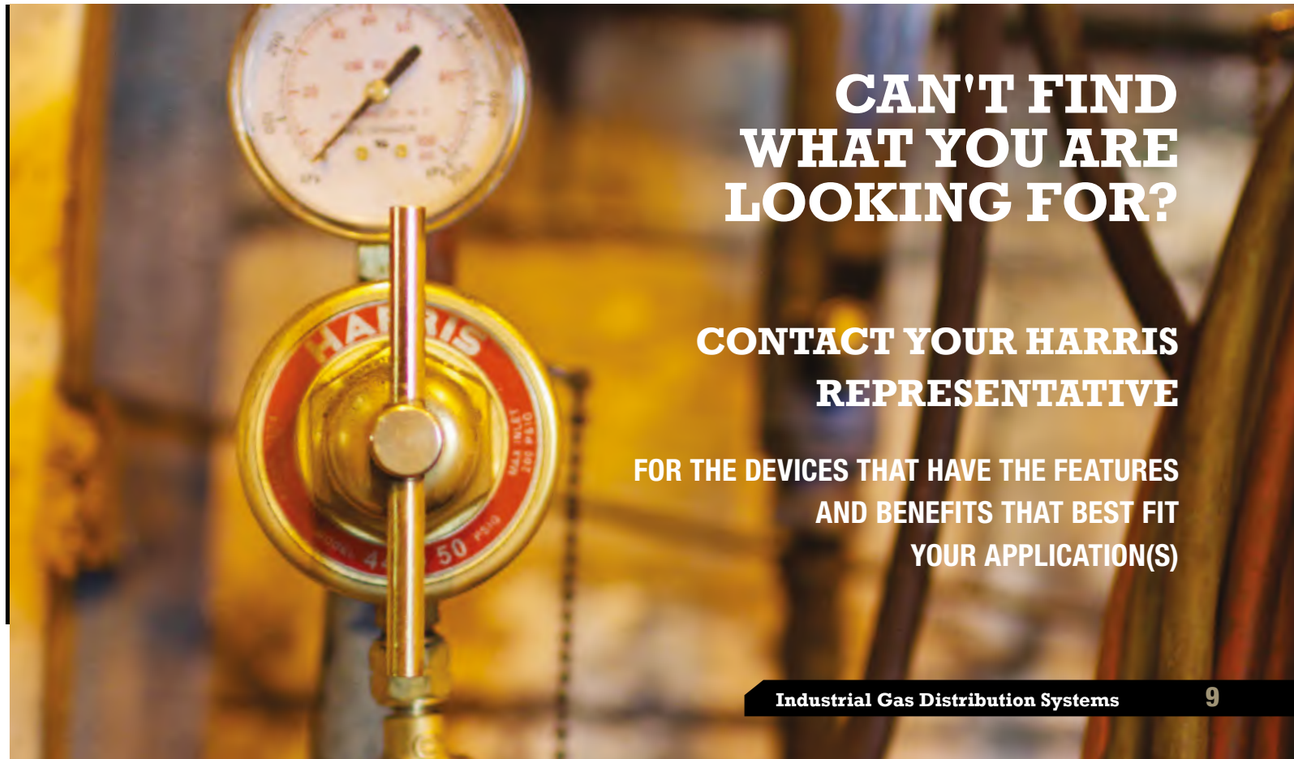
IMS HF-1.5-AC-1x1

ONE–SIDE GAS SUPPLY MANIFOLDS

ORDERING CONFIGURATION

Model	Outlet pressure (bar)	Gas		Number of Sides	Number of Cylinders/Inlets	Option	
IMS	1.5	Acetylene	AC	1	1	Purge Valve	PV
IMS HF	4	Propane	LP		> 1 (add extensions)	IMS Modular Extension	IMS Header
	6	Inert gas	IG			IMS-HF Modular Extension	IMS-HF-ME
	10	Hydrogen	H			High Pressure Contact Gauge	HPCG
	15	Oxygen	OX			Low Pressure Contact Gauge	LPCG
	25	Carbon dioxide	CO_2			Alarm Panel	HAS
	40					Pre-heater - 500W	PH500
	50					Flashback Arrestor	FBA
						Inlet Safety Non Return Valves	NRV
						High Flow Line Safety Relief Valve	LSRV
						High Pressure Transducer	HPT
						Low Pressure Transducer	LPT
						Telemetry	IGMS

Ordering Configuration Example:
IMS- 15- OX- 1X 1-PV
IMS HF -25- H-1X2-PV-ME
Other gases, pressures and configurations available under request. Please contact us.

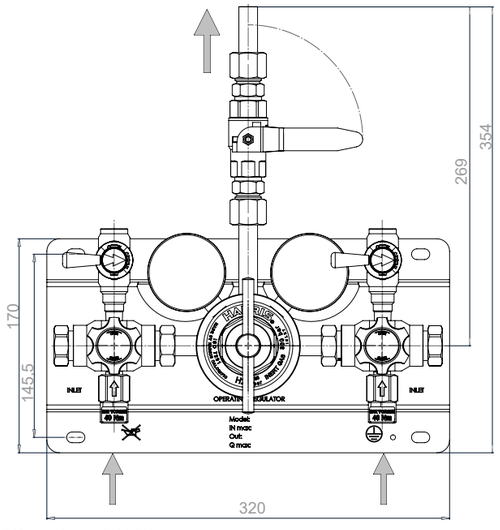


TWO-SIDE GAS SUPPLY MANIFOLDS
for Oxygen and Propane, Hydrogen, Methane and inert gases

Two-side manifolds provide continuous gas flow from a single cylinder or bank of cylinders.
Designed for applications where a slight rise in delivery pressure from full to empty cylinder can be tolerated or as a first stage of pressure reduction. Available for Oxygen, Propane, Hydrogen, Methane, Acetylene and inert gases. Manual adjustment of the regulator allows the user to set downstream pressure. Both sides can be used at the same time or a manual switchover is possible.
Available in two versions: Standard (IMS) and High Flow (IMS HF)

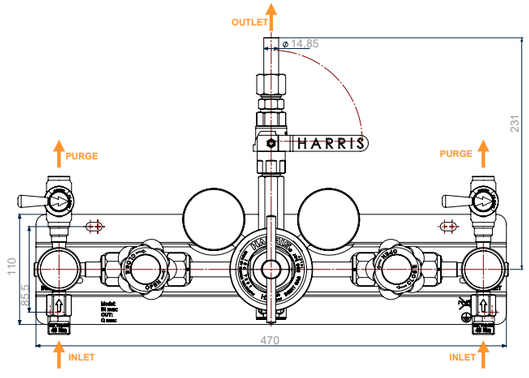
Model shown: IMS HF-50-OX-1x1-PV

STANDARD (IMS) version with modular shut-off diaphragm valve with two inlets for a cylinder/bank of cylinders (2x1), expandable with the IMS Header Extensions for the required number of inlets.



IMS-25-IG-2x1-PV-NRV

HIGH FLOW (IMS HF) version with high flow master shut-off valve with two inlets for a cylinder/bank of cylinders (2x1), expandable by the IMS-HF extensions for the required number of inlets.



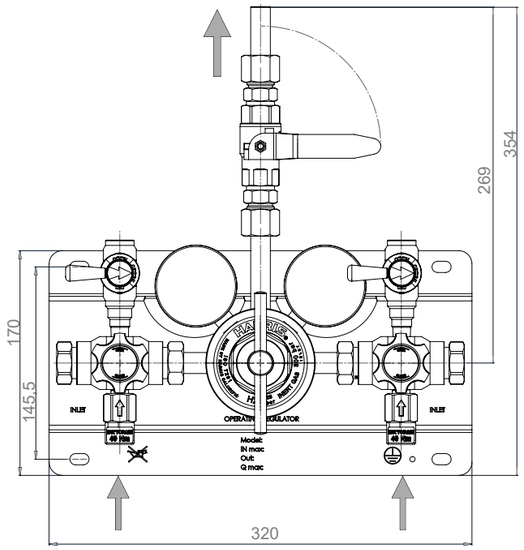
IMS HF-25-IG-2x1-PV-NRV

FEATURE	IMS STANDARD	IMS HF (HIGH FLOW)
Regulator Model	H25	H25 HF
Designed according to ISO 7291 Standard	OK	
Stainless Steel diaphragm	OK	
High Pressure capsule seat with Kel-F (CTFE)	OK - Standard	OK - High flow
Sintered bronze - 25 micron	OK	
T-screw handle	OK	
Internal relief valve	OK	
5 year Warranty	OK	
Inlet Pressure	0-300 bar (0-25 bar for acetylene)	
Max Gas Flow Nm3/h	Please check the flow chart on the next page	
Tested at nominal pressure and direct passage	100%	
Compact Design	OK	
Plug and go	Ready to use	
Easy to extend	Standard IMS extensions	High flow IMS-HF extensions
Quick and easily replaceable components	OK	
Non-return Valves	Ok - Included	Ok - Optional
External Relief Valve	Ok - Optional	Ok - Included
Mounted on laser engraved stainless steel plate	OK	
Working temperature	-20°C to +60°C	
Inlet	1/4" FNPT	
Outlet	G 1/2"	
Weight	4.1 kg	
Related Options	Purge valves	
	Extensions (Modular/Compact) / High Pressure Transducer	
	High pressure contact gauges / Low Pressure Transducer	
	Low pressure contact gauges	
	Pre-heater	
	Alarm panels / Telemetry Systems	
	Flashback arrestor	
	High pressure hoses	

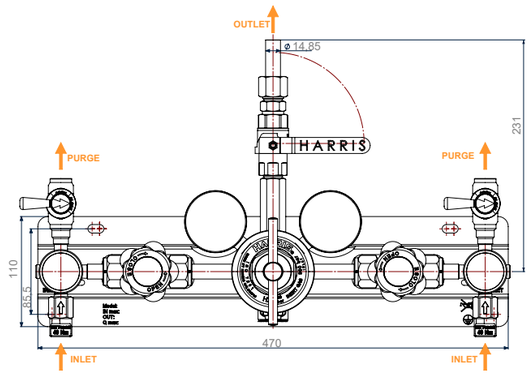
REGULATOR MATERIALS	
Body	Brass
Diaphragm	Stainless steel type AISI 302 / / For Acetylene: Neoprene rubber reinforced with Nylon
Filter	Sintered bronze **– 25 micron**
Seat	Nylon-66
O-ring	Buna-N

Other materials available under request.

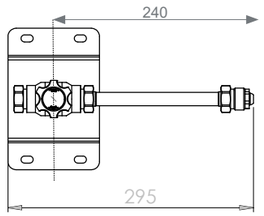
IMS-25-IG-2x1-PV-NRV:



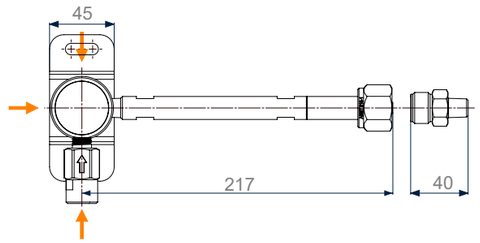
IMS HF-25-IG-2x1-PV-NRV:



Modular extensions (standard):



Modular extensions (High Flow):



TWO-SIDE GAS SUPPLY MANIFOLDS

ORDERING CONFIGURATION

Model	Outlet pressure (bar)	Gas		Number of Sides	Number of Cylinders/Inlets	Option	
IMS	1.5	Acetylene	AC			Purge Valve	PV
IMS HF	4	Propane	LP	2	1	IMS Modular Extension	IMS Header
	6	Inert gas	IG		> 1 (add extensions)	IMS-HF Modular Extension	IMS-HF-ME
	10	Hydrogen	H			IMS-HF Compact Extension	IMS-HF-KE
	15	Oxygen	OX			High Pressure Contact Gauge	HPCG
	25	Carbon dioxide	CO_2			Low Pressure Contact Gauge	LPCG
	40					Alarm Panel	HAS
	50					Pre-heater - 500W	PH500
						Flashback Arrestor	FBA
						High Pressure Transducer	HPT
						Low Pressure Transducer	LPT
						Telemetry	IGMS

Ordering configuration examples:
IMS- 15- OX- 1X 1- PV
IMS-HF-25-IG 2X 2 -PV- ME
Other gases, pressures and configurations available under request. Please contact us.

GAS SUPPLY MANIFOLD

designed to prevent the freezing up of the gas installation

Semi-automatic switchover manifolds IMS series prevent downtime by automatically switching gas supply from the primary cylinder bank to the reserve cylinder side. The user resets the primary bank by turning the lever.

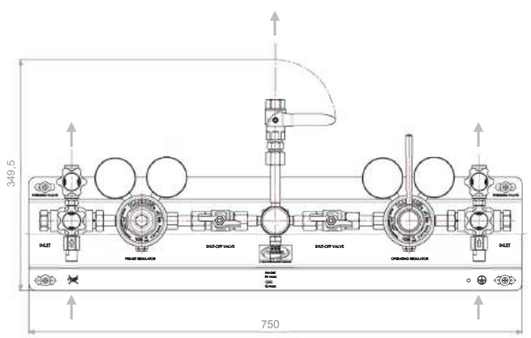
Designed for applications where a continuous flow of gas is critical for the process and pressure differential of outlet pressure is tolerated or as a first stage of pressure reduction. Available for: Oxygen, Propane, Hydrogen, Methane, Acetylene and inert gases.

The use of contact gauges (optional) together with the alarm box (optional) helps the monitoring of gas content.

Available in two versions: Standard (IMSSA) and High Flow (IMSSA-HF)

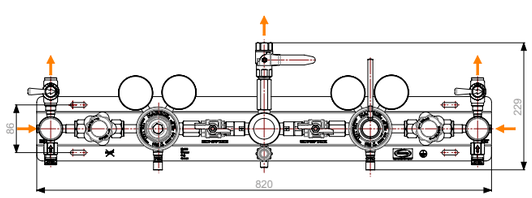
Model shown: IMSSA-25-OX-2x1

IMSSA (Standard version) with modular shut-off diaphragm valve with two inlets for a cylinder/bank of cylinders (2x1), expandable with the IMS Header Extensions for the required number of inlets



IMSSA-15-IG-2x1-PV-NRV

IMSSA-HF (High Flow Version) with high flow master shut-off valve with two inlets for a cylinder/ bank of cylinders (2x1), expandable by the IMS-HF extensions for the required number of inlets



IMSSA-HF-10-IG-2x1-PV-NRV

SWITCHOVER GAS SUPPLY MANIFOLD

FEATURE	IMS STANDARD	IMS HF (HIGH FLOW)
Regulator model	H25	H25 HF
Designed according to ISO 7291 Standard	OK	
Stainless steel diaphragm	OK	
High pressure capsule seat with Kel-F (CTFE)	OK - Standard	OK - High Flow
Sintered bronze - 25 micron	OK	
T-screw handle	OK	
Internal relief valve	OK	
5 year warranty	OK	
Max. inlet pressure	0-300 bar (0-25 bar for acetylene)	
Tested at nominal pressure and direct passage	100%	
Compact design	OK	
Plug and go	Ready to use	
Easy to extend	Standard IMS extensions	High flow IMS-HF extensions
Quick and easily replaceable components	OK	
Non-return valves	Included	
External Relief Valve		Ok - Included
Purge valve	Ok - Optional	Ok - Included
Outlet shutoff valve	OK - included	
Mounted on laser engraved stainless steel plate	OK	
Working temperature	-20°c to +60°C	
Inlet	1/4" FNPT	
Outlet	G 1/2"	
Weight	7.6 kg	
Related Options	Purge valves	
	Modular Extensions	
	High pressure contact gauges / High Pressure Transducer	
	Low pressure contact gauges / Low Pressure Transducer	
	Pre-heater	
	Alarm panels / Telemetry Systems	
	Flashback arrestor	
	High pressure hoses	

REGULATOR MATERIALS	
Body	Brass
Diaphragm	Stainless steel type AISI 302 / For Acetylene: Neoprene rubber reinforced with Nylon
Filter	Sintered bronze **– 25 micron**
Seat	Nylon-66
O-ring	Buna-N

Other materials available under request.

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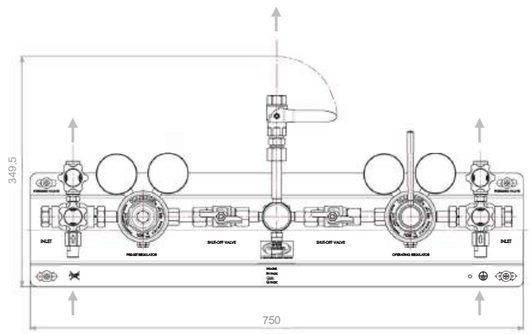
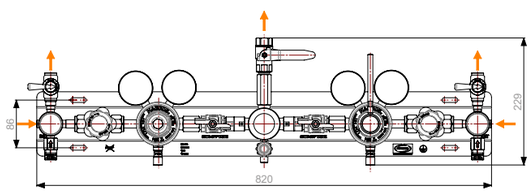
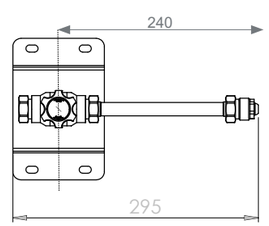
IMSSA-15-IG- 2x1-PV-NRV



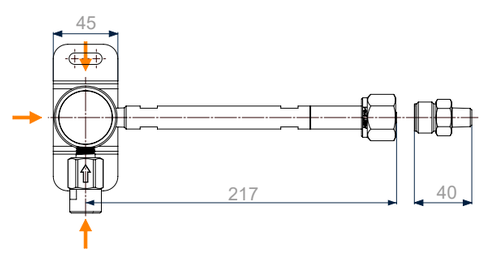
IMSSA-HF-SA-10-IG-2x1-PV-NRV



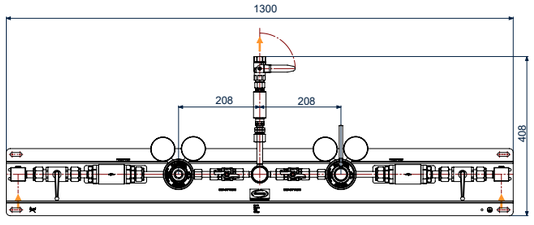
Modular extensions (standard):



Modular extensions (High Flow):

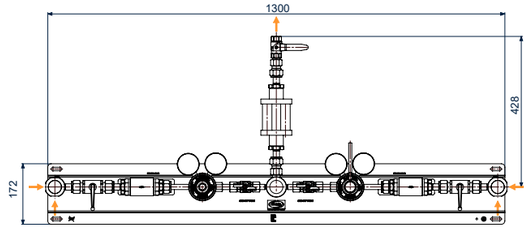


Acetylene:



IMSSA-15-AC-2x1-PV-NRV

Acetylene:



IMSSA-HF-15-AC-2x1-PV-NRV

ORDERING CONFIGURATION

Model	Outlet pressure (bar)	Gas		Number of Sides	Number of Cylinders/Inlets	Option	
IMSSA	1.5	Acetylene	AC			Purge Valve	PV
IMSSA HF	4	Propane	LP	2	1	IMS Modular Extension	EXT
	6	Inert gas	IG		> 1 (add extensions)	IMS-HF Modular Extension	ME
	10	Hydrogen	H			High Pressure Contact Gauge	HPCG
	15	Oxygen	OX			Low Pressure Contact Gauge	LPCG
	25	Carbon dioxide	CO_2			Alarm Panel	HAS
	40	Nitrous oxide	N_2O			Pre-heater - 230V, 500W	PH500
						Flashback Arrestor	FBA
						Second Stage - Line Regulator	
						High Pressure Transducer	HPT
						Low Pressure Transducer	LPT
						Telemetry Systems	IGMS

Ordering Configuration Examples:
IMSSA-15-OX-1X1-PV
IMSSA HF-25-IG-2X2-PV-ME
IMSSA-1.5 AC-1X1
Other gases, pressures and configurations available under request. Please contact us.

GAS SUPPLY MANIFOLD

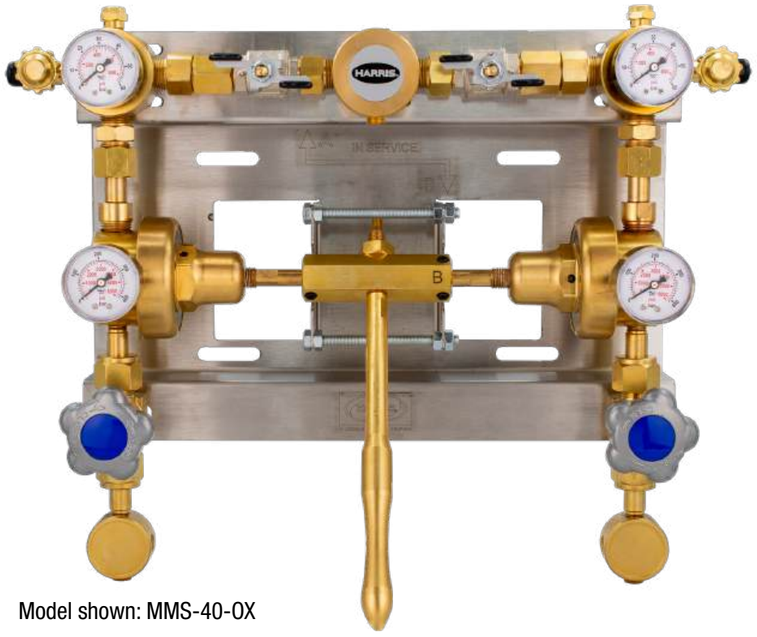
designed to prevent the freezing up of the gas installation

Master semi-automatic switchover manifolds **MMS-150 Series** prevent downtime by automatically switching gas supply from the primary cylinder bank to the secondary cylinder side. The user resets the primary bank by turning the lever up/down, allowing a full reversible side use. Designed for applications where a continuous flow of gas is critical for the process and pressure differential of outlet pressure is tolerated or as a first stage of pressure reduction.

Available for: Oxygen, Propane, Hydrogen, Methane, Acetylene and inert gases.

The use of contact gauges (optional) together with the alarm box (optional) helps monitoring the gas content.

MMS-150 Series with high flow master shutoff valves with expandable extensions are available in 3 versions:
MMS: For High Pressure Cylinder Gas
MMS-L: For liquid system/dewars in the gas phase
MMS-H: For hybrid version. Lower pressure for liquid system (gas phase) on one side and high pressure cylinder on the other side.



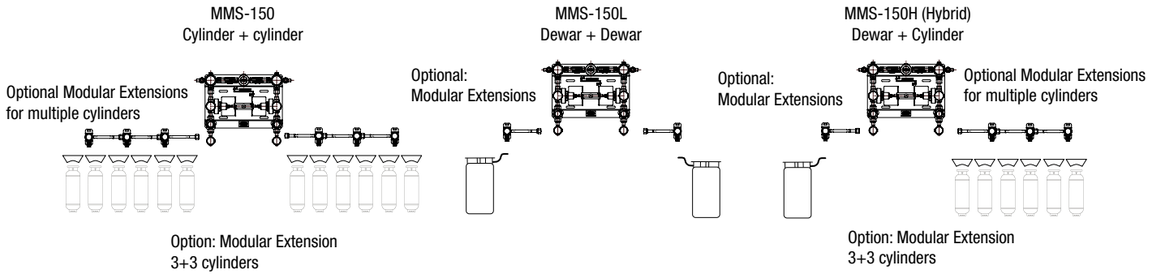
Model shown: MMS-40-OX

REGULATOR MATERIALS	
Body	Brass
Diaphragm	Stainless steel type AISI 302 / For Acetylene: Neoprene rubber reinforced with Nylon
Filter	Sintered bronze **– 25 micron**
Seat	Nylon-66
O-ring	Buna-N

Other materials available under request.

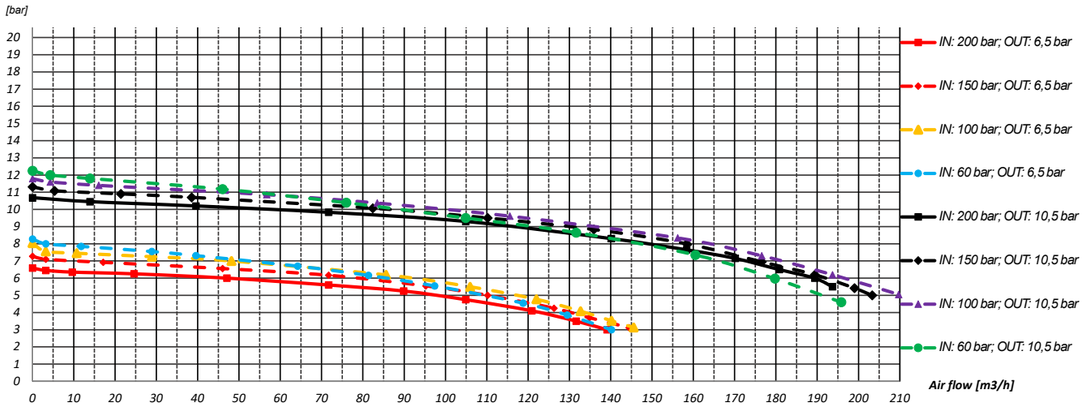
FEATURE	MMS (HIGH FLOW)
Regulator model	H25 HF
Designed according to ISO 7291 Standard	OK
Stainless steel diaphragm	OK
High Pressure capsule seat with Kel-F (CTFE)	OK - High Flow
Sintered bronze - 25 micron	OK
UP/DOWN lever system	OK
Automatic internal and external relief valve	OK
3-year warranty	OK
Max. inlet pressure	0-300 bar
Outlet pressures	04/06/10/15/25/40/50 bar
Tested at nominal pressure and direct passage	100%
Compact design	OK
Plug and go	Ready to use
Easy upgradable extensions	High flow IMS-HF extensions
Quick and easily replaceable components	OK
Non-return valves	Included
Purge valve	OK - included
Master high flow inlet shutoff valve	OK - included
Mounted on laser engraved stainless steel plate	OK
Working temperature	-20°c to +60°C
Inlet	1/4" FNPT
Outlet	G 1/2"
Weight	7.6 kg
Related Options	Extensions (Modular/Compact)
	High pressure contact gauges / High Pressure Transducers
	Low pressure contact gauges / Low Pressure Transducers
	Pre-heater
	Alarm panels / Telemetry Systems
	Flashback arrestor
	High pressure hoses

Other materials available under request.

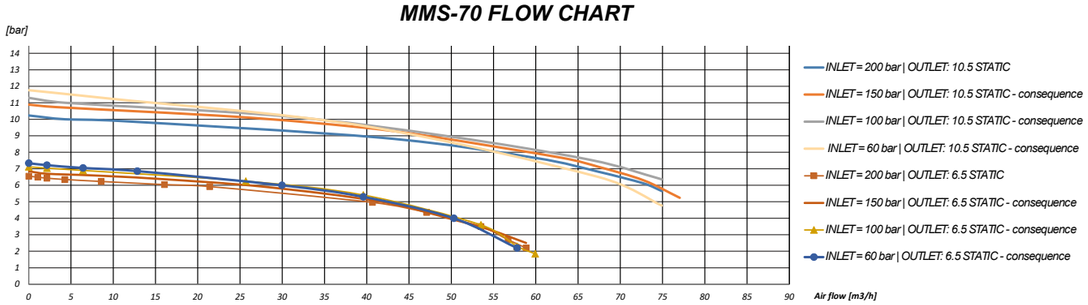


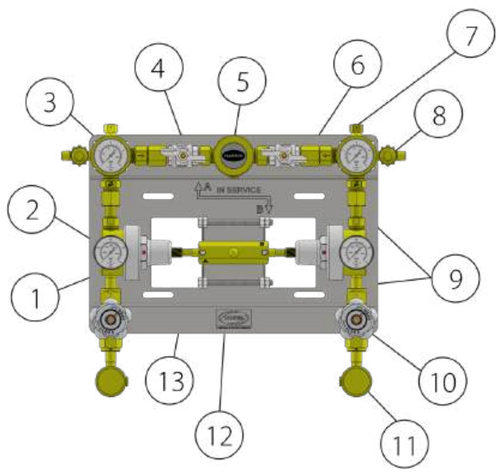
FLOW CHARTS

MMS-150 FLOW CHART



MMS-70 FLOW CHART





ITEM	DESCRIPTION
1	H25 HF – High Flow Regulator with internal safety valve (IRV)
2	Inlet Gauges 50 mm (MMS: 0-400 Bar, MMS-L/H: 0-60 Bar)
3	Oultlet Gauges 50 mm (0-16/0-25/0-60 Bar)
4	Shutoff Valves – Low pressure – high flow
5	½” FNPT Outlet Connection
6	Check Valves – low pressure – high flow
7	Relief Valves
8	Purge Valves
9	Easy & fast replacement Regulators system
10	High Flow High Pressure Masters Valves
11	1/4” FNPT Inlet Connection
12	Lever System – Sliding balls for smooth handle
13	Bracket - Stainless Steel AISI 304 with Laser inscriptions

ORDERING CONFIGURATION

Model	Outlet pressure (bar)	Gas		Number of Sides	Number of Cylinders/Inlets	Option	
MMS-150	4	Propane	LP			MMS-HF Modular Extension	ME
MMS-150L	6	Inert gas	IG	2	1	MMS-HF Compact Extension	KE
MMS-150H	10	Hydrogen	H		> 1 (add extensions)	High Pressure Contact Gauge	HPCG
MMS-70*	15	Oxygen	OX			Low Pressure Contact Gauge	LPCG
	25	Carbon dioxide	CO_2			Alarm Panel	HAS
	50	Nitrous oxide	N_2O			Pre-heater - 230V, 500W	PH500
						Second Stage - Line Regulator	
						High Pressure Transducer	HPT
						Low Pressure Transducer	LPT
						Telemetry System	IGMS

* Maximum outlet pressure is 20 bar
Ordering configuration examples:
MMS-150-06-OX-2x1
MMS-10-H-2x2-ME
Other gases, pressures and configurations available under request. Please contact us.

HARRIS
A LINCOLN ELECTRIC COMPANY

THE MOST COMPLETE LINE OF INDUSTRIAL GAS PRODUCTS designed to perform in critical applications

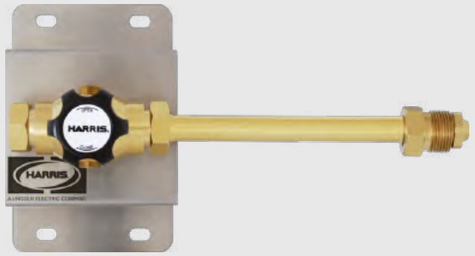
MODULAR EXTENSIONS

APPLICATIONS:

- Designed to increase the number of connected cylinders to supply panel

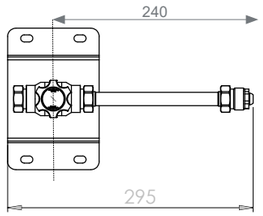
FEATURES:

- Max. inlet pressure 300 bar
- Modular design
- Diaphragm inlet shut off valve option
- Easy to install
- Two options: left or right

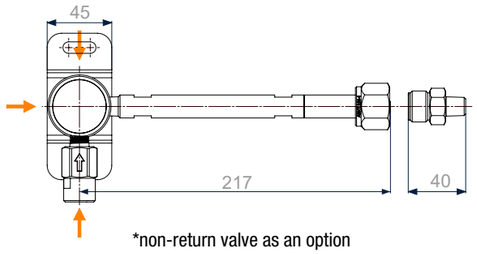


PART NO.		DESCRIPTION	GAS	MAX INLET PRESSURE (bar)
9110300	Standard	Header IMSEMR right	Non-corrosive	300
9110301	Standard	Header IMSEML left	Non-corrosive	300
9110302	Standard	Header IMSEMR NRV right	Non-corrosive	300
9110303	Standard	Header IMSEML NRV left	Non-corrosive	300
9104570	High Flow	Header IMSHF	Non-corrosive	300

Standard extension



High Flow extension

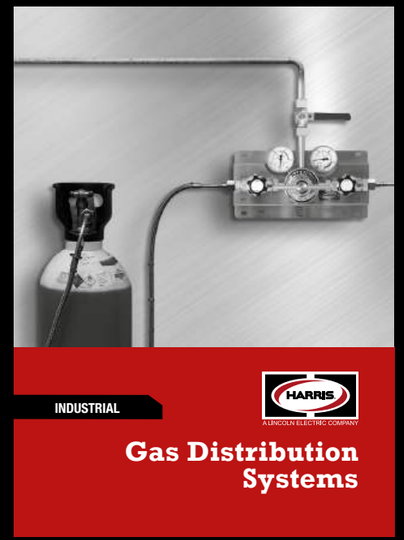


*non-return valve as an option

CHECK OUR OTHER CATALOGS:

Download our **Specialty Gas Equipment Catalog** up to 6.0 gas purity

Download our **Specialty Gas HPI904 Catalog** up to 5.0 gas purity



Download our **Gas Distribution Systems Catalog**

Download our **Brazing & Soldering Guide**

MPHF

MODEL

7 YEAR WARRANTY LIMITED

HIGH FLOW PIPELINE REGULATOR

MODEL SHOWN:
MPHF 1/2” NPT

APPLICATIONS:

- Medium Pressure High Flow regulator is engineered for superior performance in the most demanding applications. With a robust 40 bar (550 psi) high-pressure delivery and a precision threaded bonnet (for ½” only), it offers unparalleled stability and control.
  The integrated internal debris filter ensures clean operation, minimizing maintenance needs and prolonging the life of your equipment. Designed with high-flow capabilities and durability, the MPHF is the ideal choice for a wide range of industrial gas systems.

FEATURES:

- ½” 40 bar (550 psi): HIGH PRESSURE DELIVERY
- Internal debris filter
- ½” NPT threaded bonnet
- Balanced seat: maintains constant PSI delivery
- High flow 5+ Cv on 1” NPT model
- 4 gas port brass body: 1 inlet with 180° outlet matched
- NPT and two ¼” FNPT ports on the downstream side
- Works with gas temperature -40°C to +74°C (-40°F to +74°F)
- Brass bonnet as standard
- Compliance with new ISO 22073-1
- Maximum inlet pressure 60 bar (870 psi)

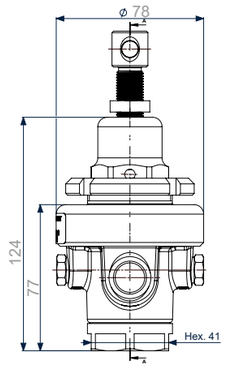
TECHNICAL DATA

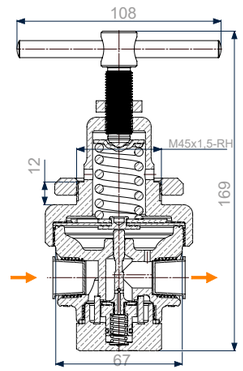
Model no.	Connection size	Max inlet pressure	Delivery pressure	Max (air) flow	Delivery pressure gauge
3005531	½”	60 bar (870 psi)	4 bar (58 psi)	300 m3/h (~10500 SCFH)	0 – 6 bar (87 psi)
3005532	½”	60 bar (870 psi)	10 bar (145 psi)	550 m3/h (~19000 SCFH)	0 – 16 bar (232 psi)
3005533	½”	60 bar (870 psi)	15 bar (217 psi)	>600 m3/h (>21000 SCHF)	0 – 25 bar (363 psi)
3005538	½”	60 bar (870 psi)	25 bar (363 psi)	>600 m3/h (>21000 SCHF)	0 – 40 bar (580 psi)
3005534	1”	60 bar (870 psi)	40 bar (580 psi)	>600 m3/h (>21000 SCFH)	0 – 60 bar (870 psi)
3005535	1”	60 bar (870 psi)	4 bar (58 psi)	300 m3/h (~10500 SCFH)	0 – 6 bar (87 psi)
3005536	1”	60 bar (870 psi)	10 bar (145 psi)	550 m3/h (~19000)	0 – 16 bar (232 psi)
3005537	1”	60 bar (870 psi)	20 bar (290 psi)	>600 m3/h (>21000 SCFH)	0 – 40 bar (580 psi)

ORDERING CONFIGURATION

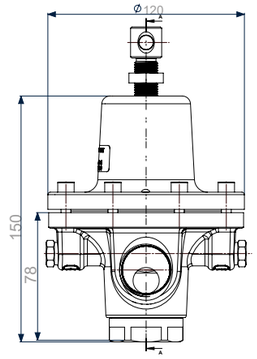
Model	Connection Size		Outlet pressure (bar)	Seals/Diaphragm		Options		Filter Material	
MPHF	1/2 inch	005	4	Pur/Nitrile	PN	No gauge	A	AISI 316	1
	1 inch	010	10	Pur/PTFE	PP	With gauge	B	AISI 304	2
			15	Pur/Stainless Steel	PS	Hex adjustment screw	H	Bronze	3
			20			Panel mount	P	Monel	4
			25						
			40						

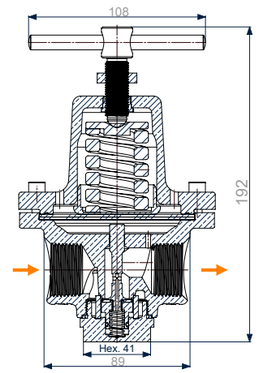
TECHNICAL DRAWINGS





Model shown: MPHF 1/2”

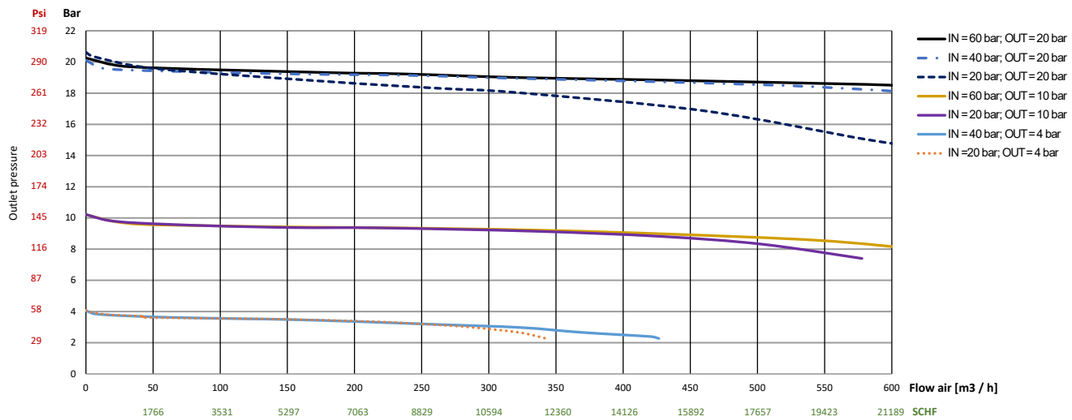




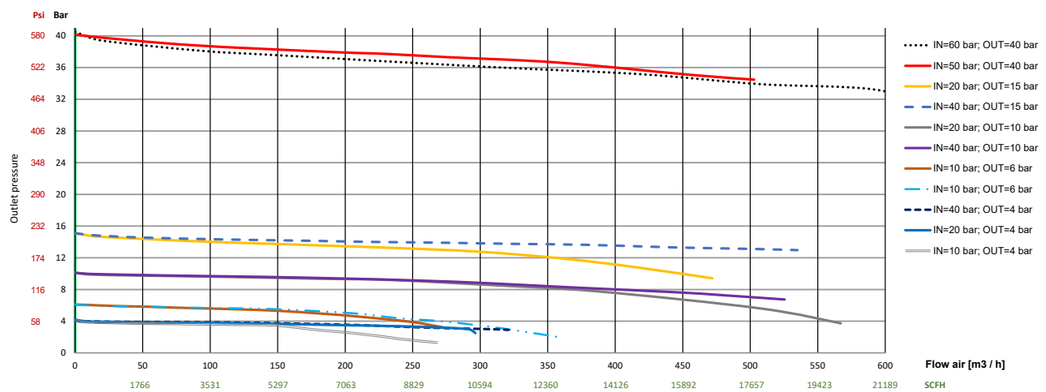
Model shown: MPHF 1”

FLOW CHARTS

ALL MPHF 1" NPT



ALL MPHF HARRIS 1/2" NPT



HARRIS POINT-OF-USE FEATURES:

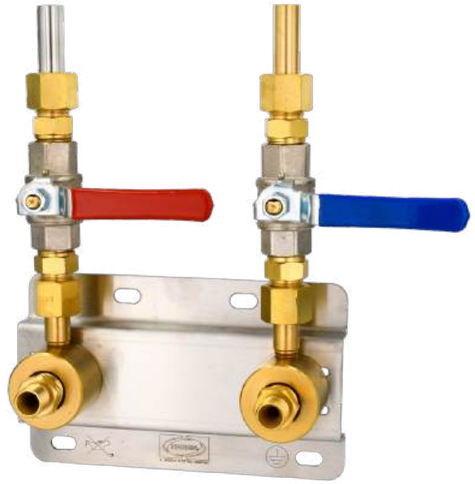
- Compact and reliable design to end your pipeline installation for Acetylene, Oxygen and highly compressed non-corrosive gases
- Operating pressure 2.5 bar for Acetylene and up to 60 bar for all other gases
- G1/2" ball shutoff valve with pipeline adapter included for 12 mm pipeline connection
- Brass Outlet ½" FNPT
- Stainless steel bracket to wall
- Multiple points in one station under request

NOMINAL GAS FLOW:

- Acetylene up to 15 Nm³/h
- Propane up to 10 Nm³/h
- Oxygen up to 200 Nm³/h

COMPONENTS:

- Connection body, ball valve, brazed nipple and union nut can be assembled corresponding to the type of gas.



ORDERING CONFIGURATION

Model	Gas		Lever Color	
POU845	Fuel Gas	FG	Red	RD
POU846	Inert Gas	IG	Yellow	YW
POU847	Oxygen	OX	Blue	BE
POU653			Black	BK
POU353			Grey	GY
POUH47			Green	GN
POUH47L				

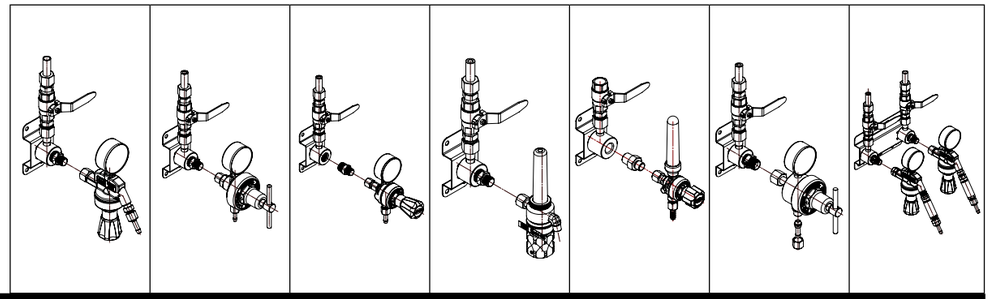
Ordering configuration example:
POU845-FG-RD
POU653-IG-BK
Other options upon request. Please contact us.
If you need more details, ask our Team to provide Technical Datasheets for Point Of Use devices.

Model shown:
POU845-1-A-100X-C-D

Model shown:
POU845-3-A-100X-C-1,5AC-B-15FN2-C-DBN

POINT-OF-USE KITS & REGULATORS

You can order a ready to use Point Of Use kit with your favorite regulator



GAS TYPE / POU REG	POU 846	POU 847	POU 845	POU 653	POU 353	POU H47*	DUAL POU 846
Acetylene	POU-RD-846-1.5-G3/8"LH-AC	POU-RD-847-1.5-ABNT218.2-AC	POU-RD-845-1.5-9/16"LH-AC				DUAL POU-RD--846-1.5-FBA--G3/8"LH-AC/OX
	POU-YW-846-1.5-G3/8"LH-AC	POU-RD-847-1.5-XXXX-AC					
	POU-RD-846-1.5-FBA-G3/8"L-H-AC						
Oxygen	POU-BE-846-4-G3/8"RH-OX	POU-GN--847-10-AB-NT218.1-OX	POU-BE-845-10-9/16"RH-OX			POU-BE-H-47-15-XXXX-IG	
	POU-BE-846-10-G3/8"RH-OX	POU-GN--847-15-AB-NT218.1-OX				POU-BE-H-47-25-XXXX-IG	
		POU-BE-847-10-XXXXX-OX				POU-BE-H-47-40-XXXX-IG	
		POU-BE-847-15-XXXXX-OX					
Propane	POU-RD--846-4-G3/8"L-H-PR	POU-RD--847-4-ABNT218.2-PR	POU-RD--845-4-9/16"L-H-PR				
		POU-RD--847-4-XXXXX-PR					
Argon/CO_2	POU-BK-846-10--G3/8"RH-IG	POU-GY-847-50L--ABNT218.1-IG	POU-BK-845-30L--G1/4'RH-IG	POU-BK-653-30L--G1/4"RH-IG	POU-BK-353-30L--XXX-IG	POU-BK-H-47-15-XXXX-IG	
	POU-BK-846-15L--G3/8"RH-IG	POU-GY-847-50L--ABNT218.1-IG		POU-BK-653-30L--G1/4"RH-LOCK-IG		POU-BK-H-47-25-XXXX-IG	
	POU-BK-846-30L--G3/8"RH-IG	POU-BK--847-15-XXXXX-IG				POU-BK-H-47-40-XXXX-IG	
	POU-BK-846-50L--G3/8"RH-IG	POU-BK-847-15L--XXXXX-IG					
Forming Gas	POU-RD-846-30L--XXXX-FG	POU-BK-847-30L--XXXXX-FG					
		POU-BK-847-50L--XXXXX-FG					

* also available with lateral inlet/outlet as POU H47L version

353 MODEL

ECONOMICAL PIPELINE REGULATOR

MODEL SHOWN: **353-30FLAR**

APPLICATIONS:

- Designed for light duty welding from industrial pipeline points

FEATURES:

- Built smart and priced economically
- Compact design, forged brass body for maximum strength
- Design is more resistant to CO_2 freeze-up and gauge damage than typical flow control devices
- Saves gas - operates at pressures lower than typical
- Maximum inlet pressure 10 bar
- Flowmeter with easy-to-read polycarbonate outer tube cover for strength and 360° visibility
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Lockable version available
- 7 year warranty

Lockable version

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	FLOWMETER (lpm)
353-30FLAR	Argon / CO_2	10	0 - 30	0 - 30
353-30FLAR LOCKABLE	Argon / CO_2	10	0 - 30	0 - 30

653 MODEL

PIPELINE FLOWMETER WITH SHIELDING GAS SAVING FEATURE

MODEL SHOWN: **653-30FLAR**

APPLICATIONS:

- All types of welding
- Designed to deliver high accuracy gas flow and to reduce the consumption of shielding gas

FEATURES:

- Forged brass body for maximum strength
- Pipeline gas supplied
- Inlet filter to protect against contamination
- Precise gas flow control
- Strong flowmeter resistant to mechanical damages
- Polycarbonate outer tube cover with good 360° visibility
- Side entry
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Lockable version available
- 7 year warranty

Lockable version

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
653-30FLAR	Argon / CO_2	10	0 - 30	-	0 - 34
653-30FLAR LOCKABLE	Argon / CO_2	10	0 - 30	-	0 - 34

* Teflon® is a registered trademark of The Chemours Company.

POINT-OF-USE KITS & REGULATORS

H47 MODEL

HIGH FLOW PIPELINE REGULATOR

MODEL SHOWN: **H47AS-40-OX**

APPLICATIONS:

- Designed for high flow requirement for feeding industrial gas pipelines for plasma and laser cutting

FEATURES:

- Maximum inlet pressure 60 bar
- Rear inlet connection
- Air flow over 370 m^3/h
- Stainless steel diaphragm
- T- screw handle provides smooth turning action and long service life
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

H47L version

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)
H47DS-15**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	60	0 - 15	330	0 - 25
H47DS-25**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	60	0 - 25	350	0 - 40
H47AS-40**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	60	0 - 40	390	0 - 60
H47L	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	60	0 - 40	390	0 - 60

847 MODEL

PIPELINE REGULATOR

MODEL SHOWN: **847-50-L**

APPLICATIONS:

- Specially designed to allow high flow rate from industrial and laboratory pipeline points. Particularly suited to machine cutting where more than one torch is used. Also for heavy cutting and heating.

FEATURES:

- High flow and outlet pressure (up to 15 bar) line regulator
- Forged brass body for maximum strength
- Sintered alloy inlet filter to trap impurities
- Maximum inlet pressure 25 bar
- 15 lpm, 30 lpm and 50 lpm versions available for Argon and CO_2
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

Model 847 with a double flowmeter

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
847-1.5-AC	Acetylene	25	0 - 1,5	13	0 - 2,5	-
847-4-LP	Propane	25	0 - 4	76	0 - 6	-
847-10-OX	Oxygen	25	0 - 10	95	0 - 16	-
847-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	25	0 - 10	95	0 - 16	-
847-15-OX	Oxygen	25	0 - 15	135	0 - 25	-
847-15**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	25	0 - 15	135	0 - 25	-
847-15-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 15
847-30-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 30
847-50-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 50

* Teflon® is a registered trademark of The Chemours Company.
**The regulator is available for all the listed gases. When ordering always specify gas.

THE HARRIS PRODUCTS GROUP
www.harrisproductsgroup.eu

845 MODEL

PIPELINE REGULATOR

MODEL SHOWN:
845-30-L-AR

APPLICATIONS:

- Specially designed to allow high flow rate from industrial and laboratory pipeline points

FEATURES:

- High flow
- Outlet pressure up to 10 bar
- Forged brass body for maximum strength
- Maximum inlet pressure 25 bar
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
845-1.5-AC	Acetylene	25	0 - 1,5	13	0 - 2,5	-
845-4-LP	Propane	25	0 - 4	76	0 - 6	-
845-10-OX	Oxygen	25	0 - 10	95	0 - 16	-
845-10**	Argon, CO_2, Nitrogen, Air, Helium, Oxygen, Methane	25	0 - 10	95	0 - 16	-
845-15-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 15
845-30-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 30
845-50-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 50

846 MODEL

PIPELINE REGULATOR

MODEL SHOWN:
846-4-LP-GAS

APPLICATIONS:

- Specially designed to allow high flow rate from industrial and laboratory pipeline points

FEATURES:

- High flow and outlet pressure (up to 10 bar) line regulator
- Forged brass body for maximum strength
- Sintered alloy inlet filter to trap impurities
- Downward knob improves operator safety
- Maximum inlet pressure 25 bar
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
846-1.5-AC	Acetylene	25	0 - 1,5	13	0 - 2,5	-
846-4-LP	Propane	25	0 - 4	76	0 - 6	-
846-10-OX	Oxygen	25	0 - 10	95	0 - 16	-
846-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	25	0 - 10	95	0 - 16	-
846-15-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 15
846-30-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 30
846-50-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 50

* Teflon® is a registered trademark of The Chemours Company.
**The regulator is available for all the listed gases. When ordering always specify gas.

FLASHBACK ARRESTORS

- Prevent reverse flow of gases with built-in check valve
- Extinguish flashback fire with sintered metal filter
- Thermal cut-off which positively shuts off the gas in case of hose fire, burn or repeated flashbacks (only "T" version)
- Pressure operated cut-off which positively shuts off the gas when outlet pressure exceeds inlet pressure (only "3T" version)

REGULATOR TYPE								
PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H_2		
188-L	Fuel gas	30 000	-	1,5	5	3,5	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-R	Ox	100 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-LGB	Fuel gas	30 000	-	1,5	5	3,5	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-RGB	Ox	100 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-2L	Fuel gas	60 000	-	1,5	5	4,0	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-2R	Ox	180 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-2AL	Fuel gas	60 000	-	1,5	5	4,0	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-2AR	Ox	180 000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-2LGB	Fuel gas	60 000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-2RGB	Ox	180 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-GL	Fuel gas	30 000	-	1,5	5	3,5	G 1/4"-LH-UNI ISO 228	G 1/4" A-LH-UNI ISO 228
188-GR	Ox	100 000	25	-	-	-	G 1/4"-RH-UNI ISO 228	G 1/4" A-RH-UNI ISO 228
188-FFL	Fuel gas	30 000	-	1,5	5	3,5	M16x1.5-6H-LH	M16x1.5-6g-LH
188-FFR	Ox	100 000	25	-	-	-	M16x1.5-6H-RH	M16x1.5-6g-RH

188- (L & R)

188-2 (L & R)

REGULATOR TYPE								
PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H_2		
188-TL	Fuel gas	30 000	-	1,5	5	3,5	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-TR	Ox	100 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-TAL	Fuel gas	30 000	-	1,5	5	3,5	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-TAR	Ox	100 000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-TLGB	Fuel gas	30 000	-	1,5	5	3,5	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-TRGB	Ox	100 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-2TAL	Fuel gas	60 000	-	1,5	5	4,0	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-2TAR	Ox	180 000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-2TL	Fuel gas	60 000	-	1,5	5	4,0	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-2TR	Ox	180 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-2TLGB	Fuel gas	60 000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-2TRGB	Ox	180 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228

188-T (L & R)

REGULATOR TYPE								
PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H_2		
188-3TLGB	Fuel gas	60 000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-3TRGB	Ox	180 000	15	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228

188-3T (LGB & RGB)

*1 bar=100 kPa

HIGH PRESSURE HOSES

APPLICATIONS:

- For connecting gas supply panels and gas cylinder

FEATURES:

- Three versions of hoses: stainless steel, PTFE and Polyamide
- High pressure: working pressure up to 300 bar (4350 psig)
- Length 1 m or 2 m
- Inner diameter 6 mm
- All hoses equipped with a stainless steel safety wires
- All types of couplings according to the customer's specification available
- Acetylene (AC) with standard check valve included

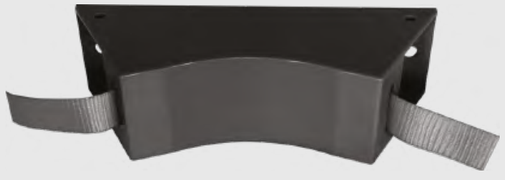
MODEL	MATERIAL		LENGTH		OUTLET (MANIFOLD CONNECTION)		INLET (CYLINDER CONNECTION)		OPTIONS	
IMS-FH	PTFE + aramid braid + 304 stainless steel wire braid	T	1 m	1000	1/4" NPT male	001	1/4" NPT male	001	Elbow inlet connection	000
	Corrugated stainless steel 316L + double AISI 304 stainless steel braid	S					1/4" NPT female	002	Elbow inlet and outlet connection	EE
	Polyamide + aramid fibre braid + steel wire braid + pinpricked polyurethane	AC	2 m	2000	1/4" NPT female	002	Please specify, e.g.:		Straight inlet connection	SC
							DIN 477-1 No. 10	D10	With check valve	CV
									Without check valve	W/O CV

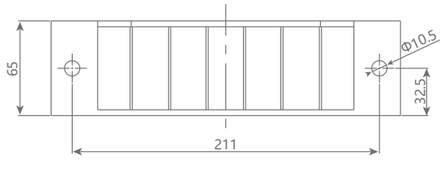
Example: IMS-FH-S-1000-001-D10-000-CV

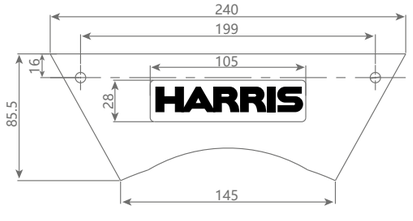
CYLINDER WALL BRACKET

DESCRIPTION:

- Special design for one cilinder
- Easy installation to a wall or construction
- Delivered with safety belt
- ABS material







PART NO.	DESCRIPTION	MATERIAL
9009506	Cylinder wall bracket	ABS

ALARM SYSTEM - HAS

FEATURES:

- Alarm box is used for monitoring low supply pressure gas source and inform user visually by LED light and acoustically by loud buzzer.
- Temporally silent snoozer for the buzzer
- Extra connection for external alarm
- Activated by external contact gauges
- Three version available 2, 6, 10 possible contact connection
- Readable LED light display
- 230V AC, 50 Hz; 110V AC, 60 Hz power supply (on request)

ORDERING INFORMATION:

4302085	HAS1, 1 connection
4302086	HAS2, 2 connections
4302087	HAS4 4 connections
4302088	HAS6, 6 connections
4302089	HAS10, 10 connections

CONTACT GAUGES

FEATURES:

- Contact pressure gauges with digital signal
- Set point adjustable over 10-90% of scale
- Double scale bar / psig
- c/w 2 meters of cable

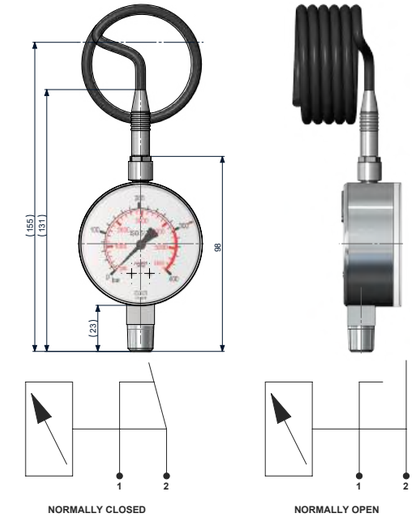
ORDERING INFORMATION:

9017491	Contact Gauge LP-NO-025 (0-25 bar, 0-362 psig)
9017639	Contact Gauge LP-NO-060 (0-60 bar, 0-870 psig)
9017640	Contact Gauge HP-NO-250 (0-250 bar, 0-3625 psi)
9017492	Contact Gauge HP-NO-400 (0-400 bar, 0-5800 psi)

TECHNICAL DATA:

Body material	316L
Workin Voltage	180/VDC/130/VDC
Max. Voltage	200VDC
Max ON/OFF amperage	0.5A
Contact Power	10 Watt
Contact Current (initial)	150 mΩ
Contact Capacitance	0.2pF
Insulation Resistance	$10^{12}\,\Omega$
Active Time	0.6msec (Max)
Release Time	0.2 msec (Max)
Frequency	5.2kHz
Working Temperature	-40°C ~ 125°C
Nominal Diameter	63 mm
Connection	¼" NPT (M)(bottom)
Lenght of cable	2 meters
Scale	bar/psig
Window	Laminated safety glass
Switching Accuracy	+/- 2.5% full scale
Weight	

DIMENSIONS:



HIGH PRESSURE DIAPHRAGM VALVE - DV300

FEATURES:

- Regulators shutoff valves / instrument valves
- Max. inlet pressure 300 bar (4350 psig)
- Very high sealing capacity
- Metal to metal sealing to atmosphere
- Made of 316L stainless steel for corrosive gases
- Made of chrome-plated brass for non-corrosive gases and mixture up to 6.0
- DV300K (knob version) - 1/2 turn
- DV300L (lever version) - 1/4 turn

Type A
1/2 Turn Instrument Valve
P/N: 9105190

Type B
1/4 Turn Instrument Valve
P/N: 9101389

TECHNICAL DATA:

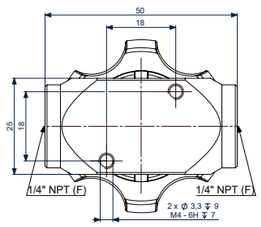
Purity	Up to 6.0
Inlet pressure	Max. 300 bar (4350 psig)
Inlet/outlet connection	1/4 FNPT x 1/4 FNPT and 1/4 MNPT x 1/4 FNPT
Oxygen use	Suitable

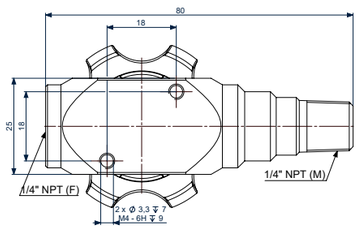
Type C
Regulator Valve
P/N: 9101383

Type D
1/4 Turn Regulator Valve
P/N: 9101386

MATERIAL SPECIFICATIONS:

Seal	Kel-F (CTFE)
Seal	Metal to metal SS 316L Stainless Steel
Leak rate	2,0 x 10^{-8} mbar l/s He
Flow capacity	Cv = 0,13





ORDERING INFORMATION:

TYPE	PART NO.	DESCRIPTION	INLET CONNECTION	OUTLET CONNECTION	BODY MATERIAL
A	9105190	DV300KC-1/2 turn	1/4" FNPT	1/4" FNPT	Nickel-plated brass
	9105191	DV300KS-1/2 turn	1/4" FNPT	1/4" FNPT	Stainless steel 316L
B	9101389	DV300LC-1/4 turn	1/4" FNPT	1/4" FNPT	Nickel-plated brass
	9101390	DV300LS-1/4 turn	1/4" FNPT	1/4" FNPT	Stainless steel 316L
C	9101383	DV300KC-MNPT-1/2 turn	1/4" MNPT	1/4" FNPT	Nickel-plated brass
	9101384	DV300KS-MNPT-1/2 turn	1/4" MNPT	1/4" FNPT	Stainless steel 316L
D	9101386	DV300LC-MNPT-1/4 turn	1/4" MNPT	1/4" FNPT	Nickel-plated brass
	9101387	DV300LS-MNPT-1/4 turn	1/4" MNPT	1/4" FNPT	Stainless steel 316L

TRANSDUCERS FOR TELEMETRY SYSTEM

APPLICATIONS:

- Industrial process control, testing and calibration systems
- Refrigeration, ventilation, air conditioning, hydraulics, pneumatics
- Food industry, sanitation
- Power generation and transmission

FEATURES:

- Customizable range, output signal, and connection
- Compact design in 316 stainless steel
- SMD electronics – high resistance to vibration
- Wide variety of process connections, seals, and flanges
- Option for sanitary process applications
- Low hysteresis and extended life span
- Immune to noise and electromagnetic interference
- Locally manufactured

TECHNICAL DATA:

- Ranges from vacuum (-1 to 0 BAR) up to 0 to 1000 BAR
- Output signal: 4-20 mA or 1-10 V; 0-5V; 0-10V DC
- Connection: 1/2" GAS, M12x1/4" NPT or BSP (others available upon request)
- Enclosure rating: IP65; IP68 (optional)
- Accuracy: ±0.5%; ±0.25%; or ±0.1% FS (optional)
- Power supply: 10 to 30 VDC
- Electrical connection: DIN43650, M12, cable gland (optional)
- Zero and span adjustment (optional)
- Enclosure and connection material: 316 stainless steel
- Piezoresistive sensor in 316 stainless steel

MGG-TP-IP65-060-1/4NPT
0-60 bar for line regulators

MGG-TP-IP65-0400-1/4NPT
0-400 bar for cylinder regulators

FEATURE	SPECIFICATION
Sensor Type	Piezoresistive
Measurement Range	1.0 BAR to 0...1000 BAR
Accuracy	±0.25% F.S. (including hysteresis and repeatability)
Stability	Measurement range > 2 BAR = 0.1...0.2%
Overpressure	F.S. / Measurement range > 2 BAR = 2...4 MBAR / 2 x F.S.
Diaphragm Material	Stainless Steel AISI-316L
Sensor Filling Oil	Standard silicone, others available
Fluid Temperature	-40°C to 180°C
Ambient Temperature	-20°C to 80°C
Enclosure Material	Stainless Steel AISI-316L
Protection Degree	IP65
Electrical Connection Type	DIN 43650
Communication Cable	Made of PVC (optional)
Connection Material	Stainless Steel AISI-316L
Process Connection	G1/4B SP / M12 x 1 / 7/16 UNF / NPT / PT / BSPT and others
Material in Contact with Process	Stainless Steel AISI-304L, O-ring FPM (fluorocarbon), other materials available
Output Signal	4…20 mA, 1…10 VDC, 3…5 VDC
Power Supply	10 to 30 VDC
Load Resistance	< (U - 10) / 0.02 A Ω
Frequency Limit	3 kHz
Power Consumption	Max: 24 mA
Response Time	< (90%) < ms
Electromagnetic Compatibility	EN61000-6-2:2005; EN61000-6-3:2007; EN61326:200

A LINCOLN ELECTRIC COMPANY

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