# M90 PLC Auto Change-over Manifold



The M90 range of auto change-over regulators are designed specifically for the situation where the primary gas supply is a liquid vessel (eg. PLC, FLC) and an emergency reserve supply is from one or more high pressure cylinders. When the gas supply in the vessel is exhausted, the cylinder supply automatically takes over supplying the pipeline system. Once the vessel is re-filled it automatically resets the regulator and takes over as the primary supply source. The vessel used with an M90 regulator must be of the regulated outlet pressure type.

The M90 features two inlet gauges indicating supply in gas cylinders at all times as well as a large easy to read pipeline pressure gauge. It also has a pressure relief valve on the primary regulators and a connection port for a change-over alarm.

Because of the large number of options and operating requirements for manifold systems, the information contained in this leaflet should be used as a guide only. Please contact Gascon Systems to confirm your selection details.

#### Specifications:

Max. Cylinder Inlet Pressure: 20,000 kPa @ 15°C

Vessel Inlet Pressure: 1250 kPa Minimum, 2500 kPa Maximum (Note: Vessel inlet pressure must be at least ??? kPa above desired outlet pressure)

Outlet Pressures: up to 800 kPa
Flow Capacity: see flow curves
Outlet Connection: 1/4" NPT female

Header Connections: 3/8" BSP RH for non flammable gases

Weight: 3.7 kg (basic model)

**Dimensions:** 210mm x 155mm x 195mm

### Materials:

**Body:** Chrome plated brass bar stock and diecast bonnets

Fittings: Brass and chrome plate brass

Diaphragms: Neoprene, PTFE coated neoprene, EPDM or

STST (according to model and gas)

Seats: PCTFE
Filters: Cupro Nickel

## ORDERING INFORMATION M90X - XXX - XXX - XXX - XXXX

	Model	Outlet Pressure	Gas	Supply Source	Options
M90R	Right Hand Vessel	Required Outlet	AIR (Air)	1xPLC 1 cylinder x 1 PLC	01 Change-over pressure switch
	Left Hand Cylinder	Pressure in kPa	AR (Argon)	2xPLC 2 cylinders x 1 PLC	<b>02</b> Line failure pressure switch
			CO2 (Carbon Dioxide)	<b>3xPLC</b> 3 cylinders x 1 PLC	04 Inlet purge valves
M90L	Left Hand Vessel		N2 (Nitrogen)	4xPLC 4 cylinders x 1 PLC	05 Inlet alarm contact gauges
	Right Hand Cylinder		N2O (Nitrous Oxide)	<b>5xPLC</b> 5 cylinders x 1 PLC	
			OXY (Oxygen)	1PxPLC 1 manpack x 1PLC	
			OTHERS by Symbol		

#### **Ordering examples**

M90R-600-N2-1xPLC M90L-800-OXY-2xPLC-01 Industrial change-over regulator for nitrogen, 600 kPa, 1 cylinders and 1 PLC on right hand side Industrial change-over regulator for oxygen, 800 kPa, 2 cylinders and 1 PLC on left hand side, with chang-over pressure switch

