UNDERGROUND MODULES

MIC Series - MIR/65 - MI/150



TARTARINI™

EMERSON™

MIC Series - MIR/65 - MI/150 Underground Modules

Underground Modules

Underground Modules are designed to reduce environmental impact that is not provided by traditional cabinet installations or masonry structures.

This solution reduces noise pollution and environmental impact, provides protection against impact and damage due to acts of vandalism or accidents.

The module consists of two main parts:

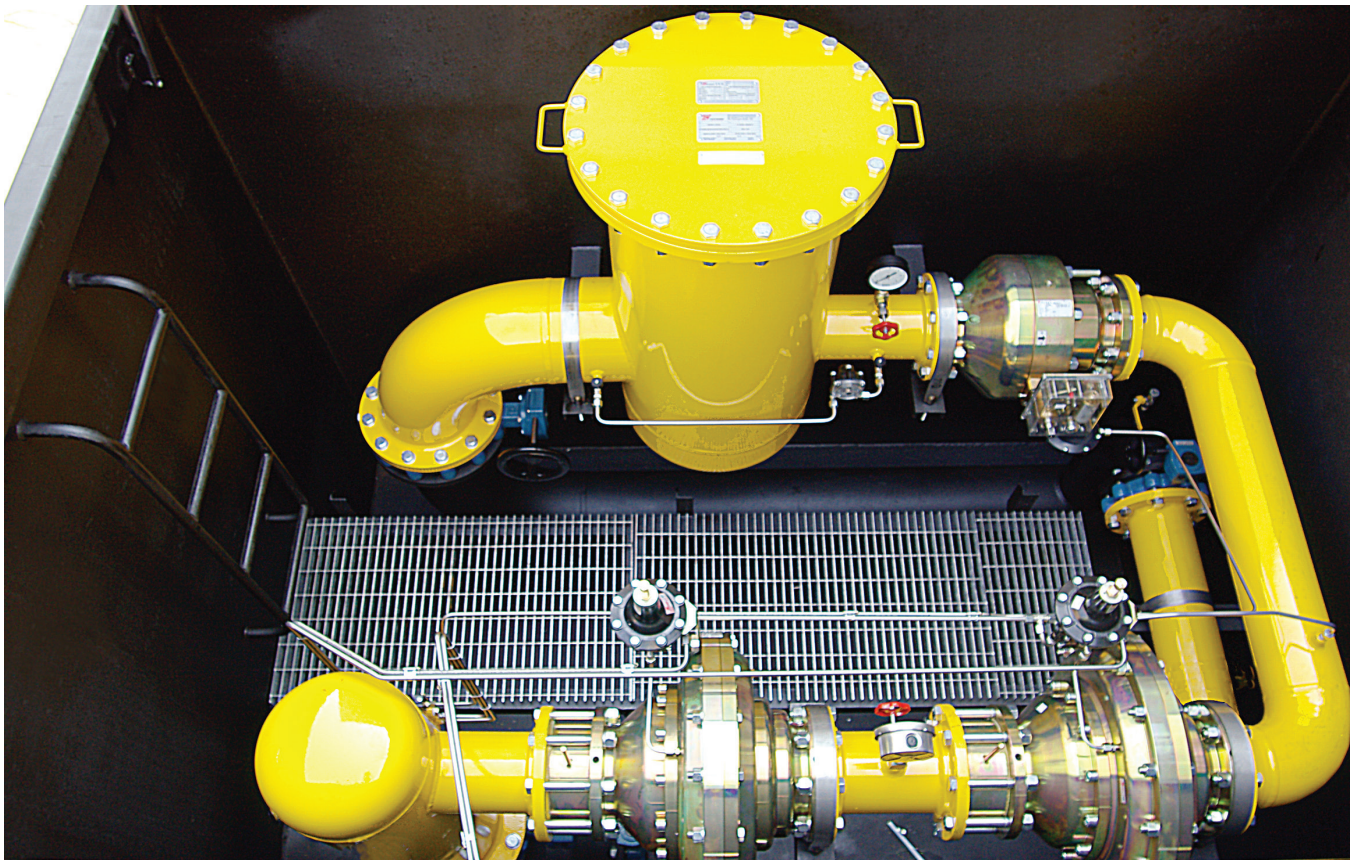
- Metal underground container
- Gas control unit

The metal container is a non-pressurized type and supplies with connections suitable for direct welding to inlet and outlet piping.

The gas control unit is contained inside the metal container, consisting of a regulating line complete with by-pass (MIR/ series excluded) assembled with standard version equipment. The gas control unit is easily accessible for maintenance or replacement purposes.

Main advantages compared to traditional installations:

- ***Only ventilation ducts installed above-ground***
- ***Environmental impact reduction***
- ***Noise pollution reduction***
- ***Protection against impact and damage***
- ***Reduced administrative installation procedures***



MIC Series - MIR/65 - MI/150 Underground Modules

Available Models

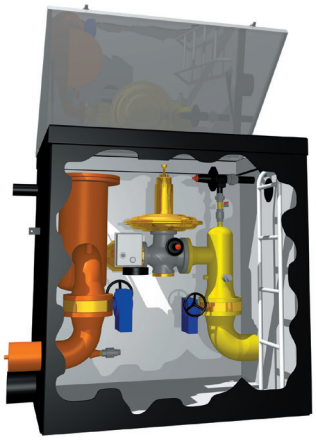
In order to offer a very versatile product, we have designed three series of underground module available in different models according to the flow rate required:



MIC Series

This series is composed by three models MIC/25, MIC/50 and MIC/80, employs pilot operated pressure regulators type Cronos with regulator, monitor and slam-shut functions.

Inlet and outlet valves together with the regulating line system by-pass and the relief valve are placed inside the container.



MIR/65

The model MIR/65 employs spring loaded pressure regulators type MBN/ and slam shut valve type BM5/.

Inlet and outlet valves together with the relief valve are placed inside the container.



MI/150

The model MI/150 employs pilot operated pressure regulators type FL-BP in monitor and regulator configuration, and slam shut valve type BM5/.

Inlet and outlet valves together with the regulating line system by-pass and the relief valve are placed inside the container.

MIC Series - MIR/65 - MI/150 Underground Modules

MIC Series



Technical Features

Permissible inlet pressure	$P_{u,max}$: 6 bar
Design temperature	: -10 °C +60 °C
Min. operating differential pressure	: 0.3 bar
Accuracy class	AC : up to 2.5
Lock-up pressure class	SG : up to 10

Construction Features

Parts	MIC/25	MIC/50	MIC/80
Inlet pipe	DN 50	DN 100	DN 150
Inlet valve	DN 50	DN 100	DN 150
Filter cartridge	G 1	G 2	G 3
Regulator, monitor and slam-shut	Cronos CCB/25	Cronos CCB/50	Cronos CCB/80
Outlet valve	DN 80	DN 150	DN 250
Outlet pipe	DN 80	DN 150	DN 250
By-pass*	DN 25	DN 50	DN 80
Relief valve	1"	1"	1"

(*) Second reducing line available on request.

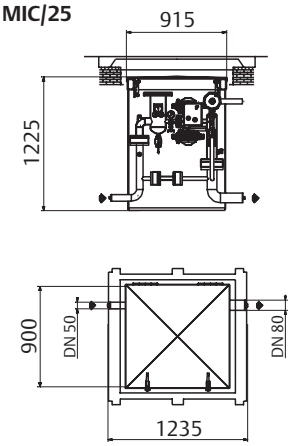
Flow Rate Table (Stm³/h)

Pd ▼ / Pu ►	MIC/25			MIC/50			MIC/80		
	0.5	1.5	5	0.5	1.5	5	0.5	1.5	5
0.02	345	390	390	1300	1300	1300	2900	3750	3750
0.15	320	415	415	1300	1430	1430	2900	3960	3960
1	-	450	700	-	1700	2600	-	4100	5850
3	-	-	700	-	-	2750	-	-	7500

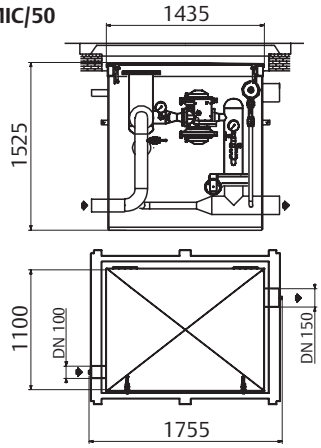
Pu= Inlet pressure bar - Pd= Outlet pressure bar

Overall Dimensions (mm)

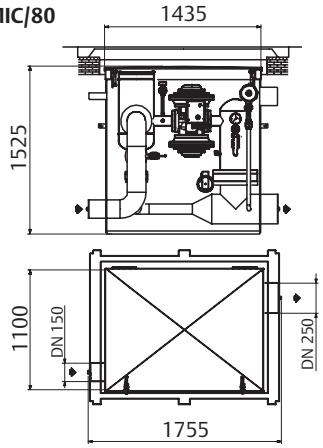
MIC/25



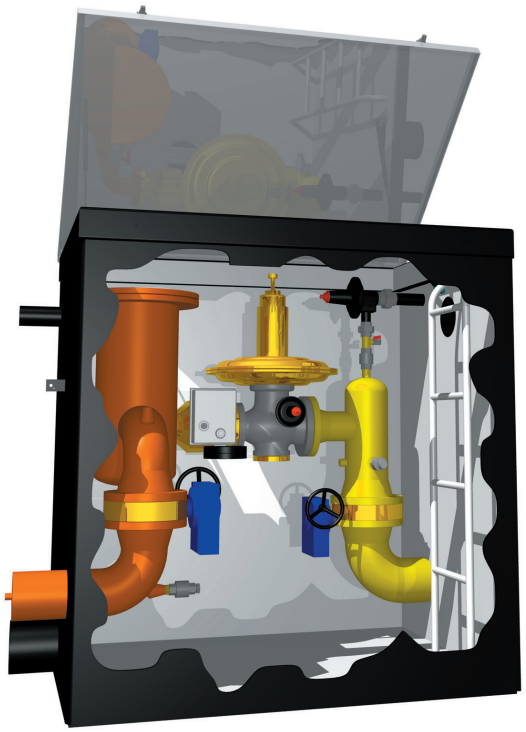
MIC/50



MIC/80



MIR Series



Technical Features

Permissible inlet pressure	$P_{u,max}$: 6 bar
Design temperature	: -10 °C +60 °C
Min. operating differential pressure	: 0.3 bar
Accuracy class	AC : up to 2.5
Lock-up pressure class	SG : up to 10

Construction Features

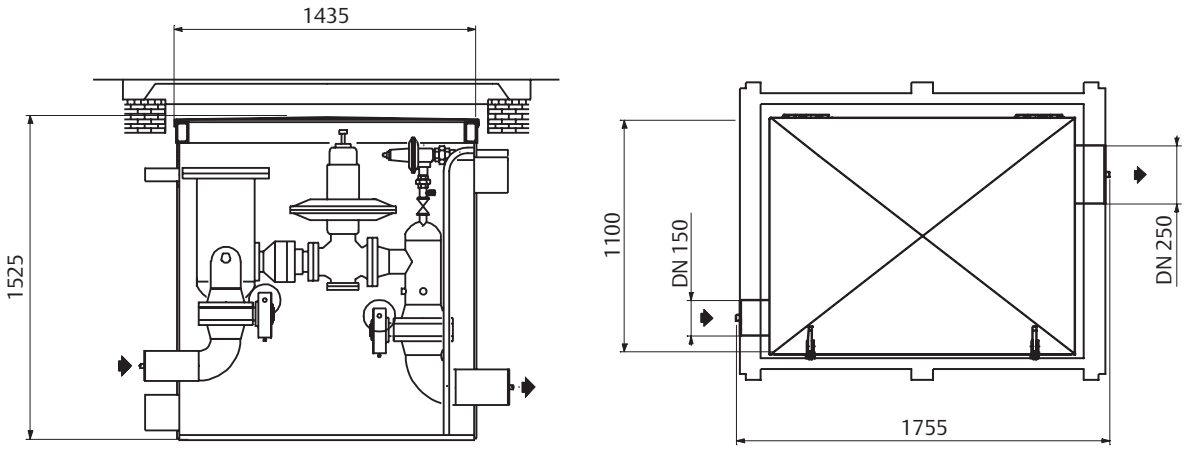
Parts	MIR/65
Inlet pipe	DN 125
Inlet valve	DN 125
Filter cartridge	G 2.5
Slam-shut valve	BM5/65
Regulator	MBN/65x100
Outlet valve	DN 150
Outlet pipe	DN 150
Relief valve	1"

Flow Rate Table (Stm³/h)

Pd ▼ / Pu ►	MIR/65		
	0.5	1.5	5
0.02	1400	1600	1600
0.15	1300	1700	1700
1	-	2000	3200
3	-	-	4000

Pu= Inlet pressure bar - Pd= Outlet pressure bar

Overall Dimensions (mm)



MIC Series - MIR/65 - MI/150 Underground Modules

MI/150



Technical Features

Permissible inlet pressure	$P_{u,max}$: 19 bar
Design temperature	: -10 °C +60 °C
Min. operating differential pressure	: 0.3 bar
Accuracy class	AC : up to 2.5
Lock-up pressure class	SG : up to 10

Construction Features

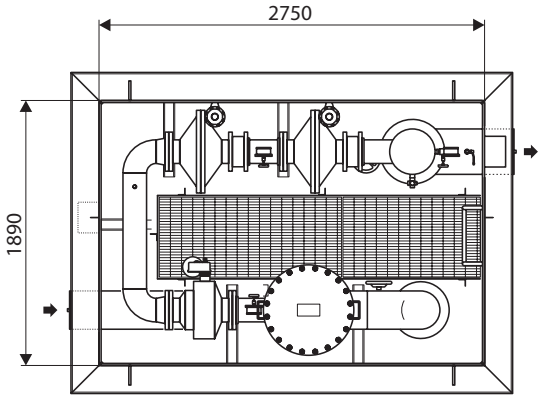
Parts	MI/150
Inlet pipe	DN 250
Inlet valve	DN 250
Filter cartridge	G 5
Slam-shut valve	BM5/150
Regulator	FL-BP/150
Monitor	FL-BP/150
Outlet valve	DN 300
Outlet pipe	DN 300
By-pass	DN 150
Relief valve	1"

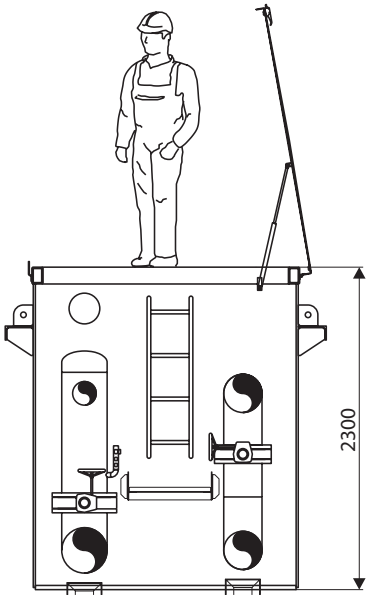
Flow Rate Table (Stm³/h)

Pd ▼ / Pu ►	MI/150		
	0,5	1,5	5
0,02	6600	6600	6600
0,15	7000	7400	7400
1	-	11100	13000
3	-	-	17500

Pu= Inlet pressure bar - Pd= Outlet pressure bar

Overall Dimensions (mm)



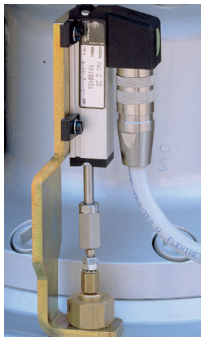


Accessories

Proportional travel indicator

In the series MIF/ and MIC/ like a regulator accessory, in order to communicate the valve position, a potentiometer-type straightaway position transmitter is used connected to the regulator travel indicator.

Thanks to this transducer, it is possible to know accurately the valve position and thus have correct information on the regulator operating condition.



Proximity Switch

In order to send the shut off or the regulator/monitor opening/closing signal, a proximity switch suitable for installation in hazardous area is used.

The use of this switch foresees the application of an intrinsic safety separation barrier which should be installed in safe area.

On request it is possible to supply the shut off device in the version with two proximity switches in order to indicate extreme positions of valve opening/closing.



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