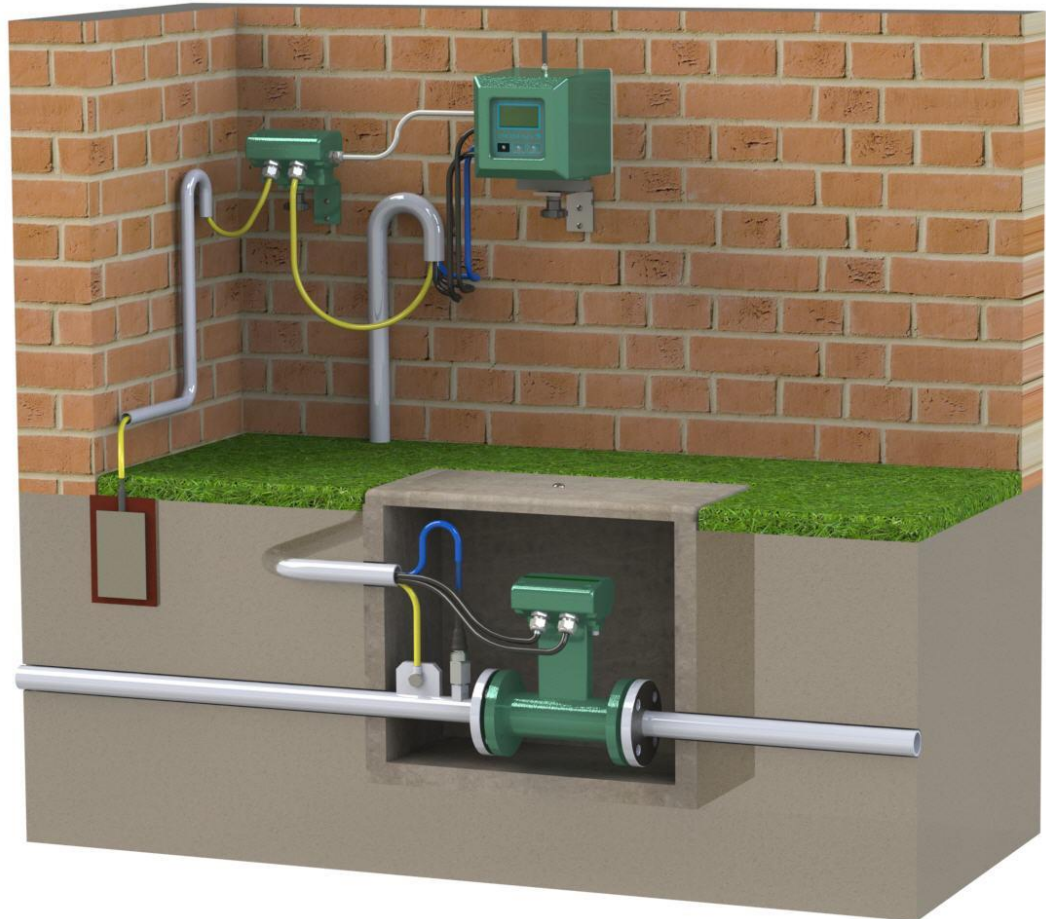# ISOMAG™
The friendly magmeter

CPM
Cathodic Protection Monitoring
(Add on module for Flowiz's Family)

ISOIL
INDUSTRIA
The solutions that count

I N D E X

GENERAL DESCRIPTION

The CPM scheme is showed here below :

TO FLOWIZ™

WIRE TO REFERENCE ELECTRODE

WIRE TO PIPE
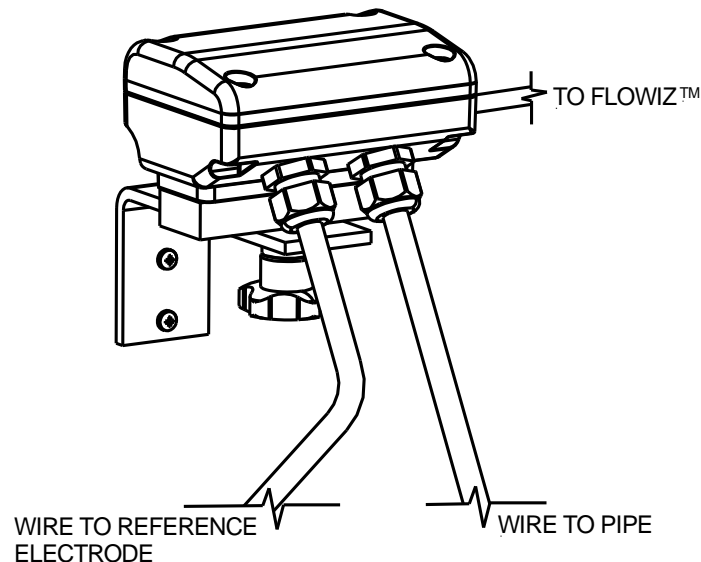
The CPM module, combined with the ISOMAG converters of Flowiz™ serie's, measures the electrical potential between a metallic pipeline and a suitable reference electrode.

The CPM is a powerful tool for monitoring corrosion potential of a pipe line and alarming in real-time. In addition, a full set of relevant pipe line data is available on the same platform (including flow rate and pressure). This is a unique and powerful tool for comprehensive pipe line management.

Inside the CPM housing's there are :

- The signal module that allows you to select from 4 measuring ranges directly in the field
- Suitable protection against electromagnetic interference
- Terminal block for cables from reference electrode and from pipe cable (up to 8.5mm²).
- The CPM module is delivered with a pack of bi-components resin so that the module can be potted once the cable connections have been made

The Corrosion Potential signal is measured and filtered by the CPM circuits and is sent to the ML155 or ML255 module through the connection cable. The CP value is recorded digitally to a resolution of 0.1%

The Corrosion Potential is logged by the Flowiz™ converter at the same time interval that other site parameters such as flow rate and line pressure are measured and logged, typically at 15 minute intervals. This data is saved into the Flowiz™ micro-SD memory card with a capacity of 2GBytes which at 15 minute sampling intervals will hold more than 2 year's data

The CP measurements can be downloaded in the field through Flowiz™ interface (Isocon); alternatively the data is sent by GPRS/E-mail to your computer for storage, analysis and display.

The Flowiz™ incorporates high and low alarms for the CP value. An alarm condition will generate an SMS.
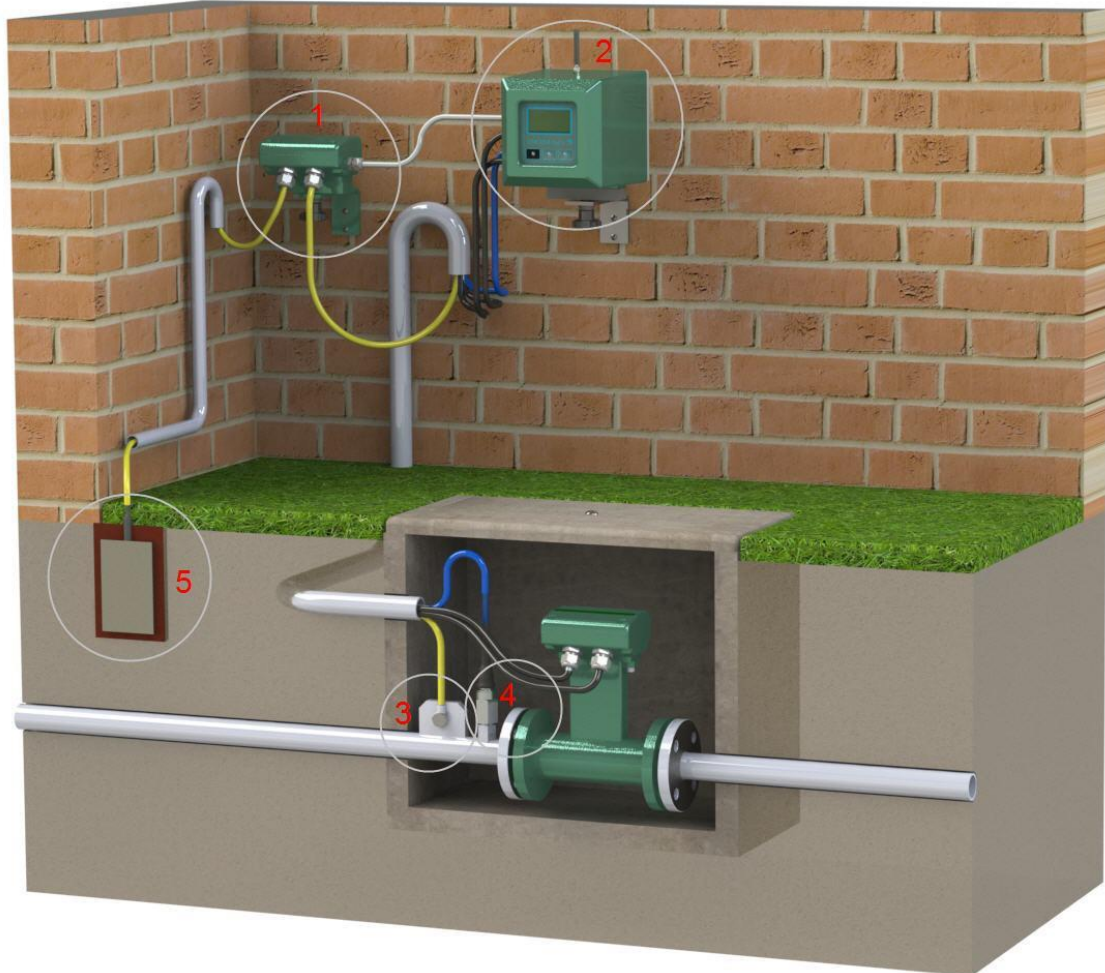
ISOMAG

CPM : TECHNICAL DATA

STANDARD FEATURES	
Housing materials	❑ **Painted Aluminium die casting**
Protection Rate	❑ **IP 68 (potted)**
Differential Analog Inputs	❑ **For each inut, there are 4 fields selectable by DIP SWITCH** ➢ **± 5 V** ➢ **± 10 V** ➢ **± 20 V** ➢ **± 50 V**
Input Surge Protection	❑ **Present**
Measurements tolerance	❑ **0,5 %**
Ambient Temperature	❑ **-20… +60°C / -4… +140 °F**
CE Certification	❑ **Yes**

OVERALL DIMENSIONS

m m (i n c h)

159 mm (max)
(6.26")

118 mm
(4.64")

75 mm
(2.95")

142 mm
(5.59")

136 mm
(5.35")
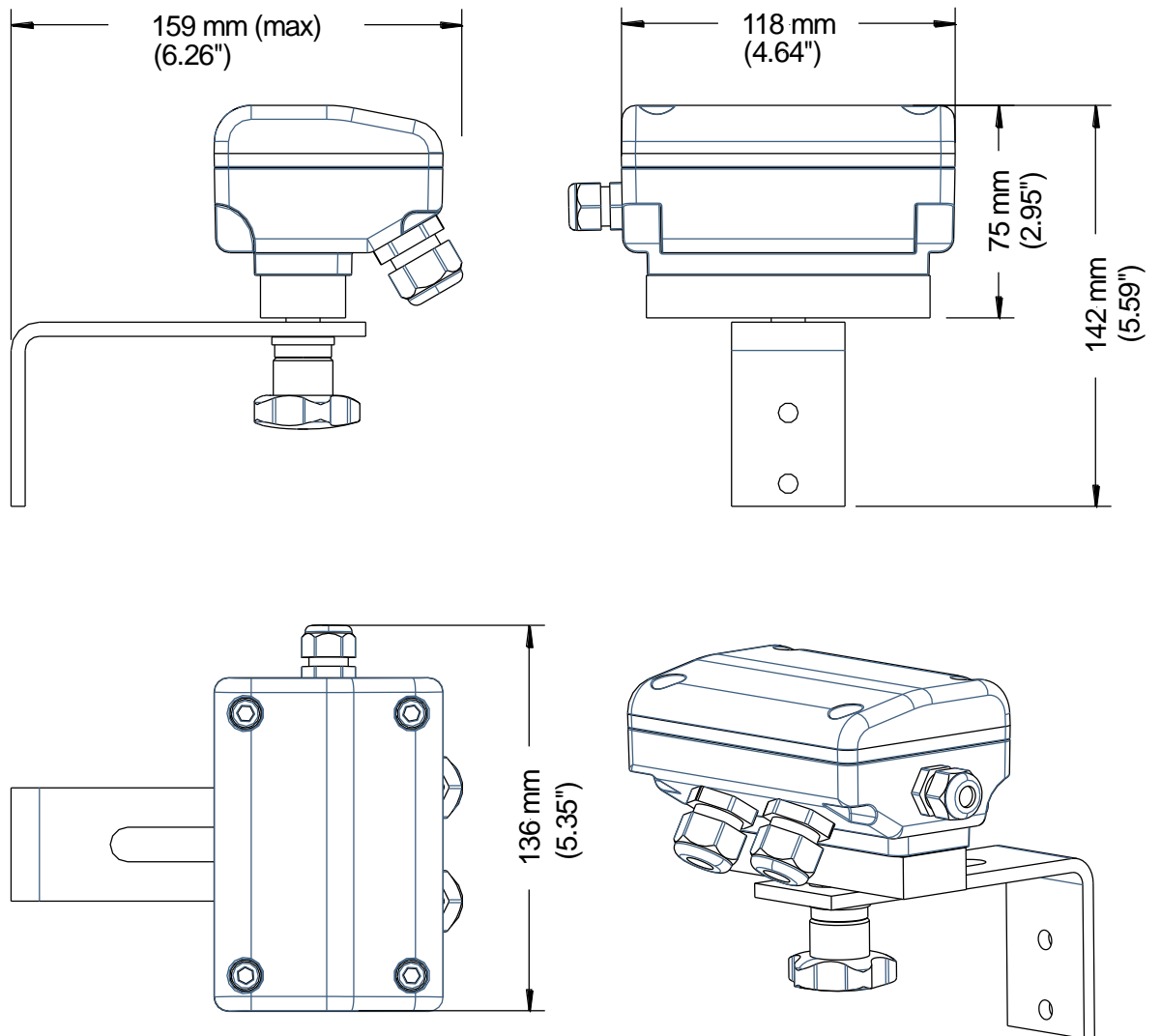
FLOWIZ^{TM} SYSTEM : OVERVIEW

1. CPM module
2. Isomag^{TM} flowmeter MS2500/ML255 (FlowizTM family)
3. Electrical connection to pipeline
4. Pressure probe
5. Reference electrode

HOW TO ORDER

CODE EXAMPLE	Housing	
A	**A**	Aluminum
	ANALOG INPUT	
0	**0**	With n° 1 Differential Analog Input
	CABLES between CPM and ML converter*	
A	**A**	without Cables
	B	With Cables (Lenght 5 m)
	SPECIAL FEATURES	
0	**0**	None

CPM-A0A0 (Complete code example for order)

* Scope of supply excludes the cables between the CP module and the reference electrode and the pipe