



# Gas Meter Tamper

## Introduction

Industrial and commercial customers represent more than half of the revenue of gas distributors. Given volumes of gas distributed, the monitoring of fraud is an important issue for suppliers.

In order to effectively combat gas consumption fraud, industrial and commercial gas meters generally have a dedicated output commonly called “tamper”. The monitoring of this output by an AMR device helps to alert and immediately report on suspicious behaviour. A central IT server receives alarms and then makes it available to the appropriate systems or personnel.



# Gas Meter Tamper

## Technology

Industrial and commercial meters are mostly diaphragm, turbine or rotary type meters. Most meters manufactured since 2000 support both pulse and tamper outputs. In addition of consumption recording, it is essential to monitor the tamper output.

The tamper output is a switch type. When the Automatic Meter Reading (AMR) device is connected to the meter output this switch is closed. When the AMR device is disconnected from the meter, the switch is opened; this triggers a change of state on the AMR device input which sends a 'tamper' alarm message to a central server. The received tamper alarm message may be due to either normal maintenance operation or an attempt of fraud. If there is no planned maintenance visit by the gas distributor, investigations are made to check for fraud activity.



Diaphragm type gas meter



Turbine type gas meter



Rotary type gas meter

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## Product Technical Matrix

	Cello 6S Gas
Service	Gas
Mode of Communication	2G / 3G
User Accessible SIM	Yes
User Replaceable Battery	Yes
Available Channels	2
Optional Pressure Inputs	N/A
Supported Pressure Recording Strategies	N/A
Optional Temperature (PT-100) Inputs	0
Available Digital Inputs	2
Available Analogue Inputs	0
Internal / External Supply	Internal
Powering of Third Party Sensors	No
WITS Compliance	No
Intrinsically Safe	Yes
Protection Class	IP 56
Level Monitoring Capability	No

Key: Pressure Recording Strategy ( I - Instantaneous / A - Average / S - Statistical / T - Transient )