



Pulse Counter Output for MeterSIT Domusnext 2.0 U16 - U25 – U40 User Manual



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Cert. N° 12164A - A



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Pulse counter output for MeteRSit meters U16 - U25 – U40

Copyright and Liability

The material and information contained in the following document are property of MeteRSit s.r.l., all rights are reserved. However, users may share the information for personal use.

The document contains all the information necessary for the installation of the MeteRSit pulse counter device.

The information has been summarized to facilitate understanding. MeteRSit s.r.l. invites the user, in case of doubt, to contact technical assistance. MeteRSit s.r.l. does not insure any guarantee as to completeness or content.

MeteRSit s.r.l. declines all responsibility if the instrument is used incorrectly or by inadequately trained personnel.

The warranty of the instrument is void if it is used improperly or if modifications are made to it.

Description

Domusnext® 2.0 U16-U25-U40 meters have a pulse counter output inside the battery compartment.

This output is not directly accessible from the outside and it is not active.

It is possible to equip the meter with a special battery door with cable gland equipped with a female DIN connector that allows the impulsive signal to be brought outside preserving the IP 66 protection degree of the meter. A cable with male DIN connector should be used to interface count pulser output with data logger device. A Zener Barrier must be placed between cable and data logger to preserve Atex certification.

Datalogger Maximum Ratings

Pulse counter signal characteristics are

Pulse length	$\geq 50\text{msec}$
Maximum Frequency	$\leq 10\text{Hz}$
Ratings Voltage	$5\div 15\text{ Volt}$
Maximum Current	$< 10\text{mA}$
Resistenza equivalente di ON	$\leq 2V_{cc} / 1\text{mA} = 2\text{Kohm @ } 1\text{mA}$
Resistenza equivalente di OFF	$\geq 100\text{Kohm @ } 15V_{cc}$
Maximum ratings	$(10 \div 26) V_{cc} @ I_{cc} \leq 50\text{mA}$

Data logger must necessarily comply with the above specifications and be able to acquire an ON-OFF signal (pulse counter is an electronic switch).

Binder installation must be carried out by qualified personnel by scrupulously following the instructions in this manual. MeteRSit s.r.l. will not be liable for non-compliant installations.



Technical characteristic

Mother Board connector

There's on the motherboard a standard connector with pulse counter output. This connector has the following characteristics

Builder: JST

P / N: SM02B-SRSS-TB

Description: JST SR SMD Connector, pitch 1mm 50V, 700mA

Following picture shows connection between binder and JST connector



Installation procedure

- Remove battery compartment door (if present)
- Remove the battery
- Connect binder cable to JST connector
- Connect the battery behind binder cable
- Close the battery door with a screwdriver
- Put the seal



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Activation

Pulse counter is disabled by default.

The first step is to get a connection with optical port using MeterSIT Maintenance Tool Software.

In the maintenance tab insert the value of liter for pulse desired (1 pulse each 1K liters in the example).

Click "Send" button.



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MeterSIT MT - build 1.0.4.2019 - COM4

Disconnect Linked OK Refresh 500 COM settings

General info Diagnostics Maintenance Consumption curve Prev. period data

Set date/time: 17:31:10 08/02/21
 Rendez-vous: 17:43:04 08/02/2021
 every 140
 Set
 Get

Valve
 Open Close
 PGV:
 on open
 on close

Impulses (0 = OFF)
 I/tick: 1000 Send

State
 Not config
 Update

Mbus data
 channel
 Set

PoD
 0000000000000000
 Send

Operator
 Tim Apr: ibox.tim.it
 Vodafone User:
 Wind Pwd:
 APN file Pin: Send

SAC settings
 URL: 217.133.210.205
 Port: 5002
 SAC file Send

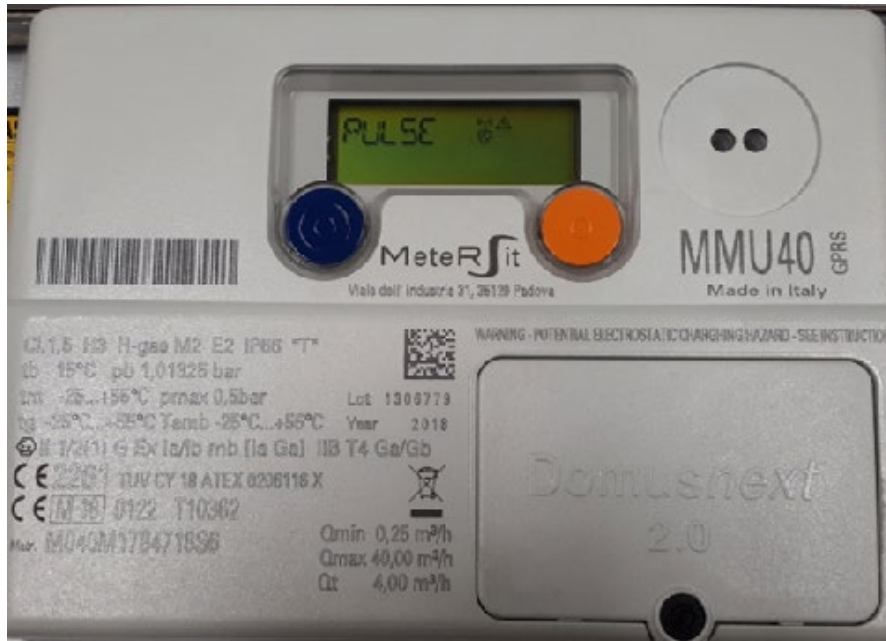
Push orange button for 4 time to see MPRN



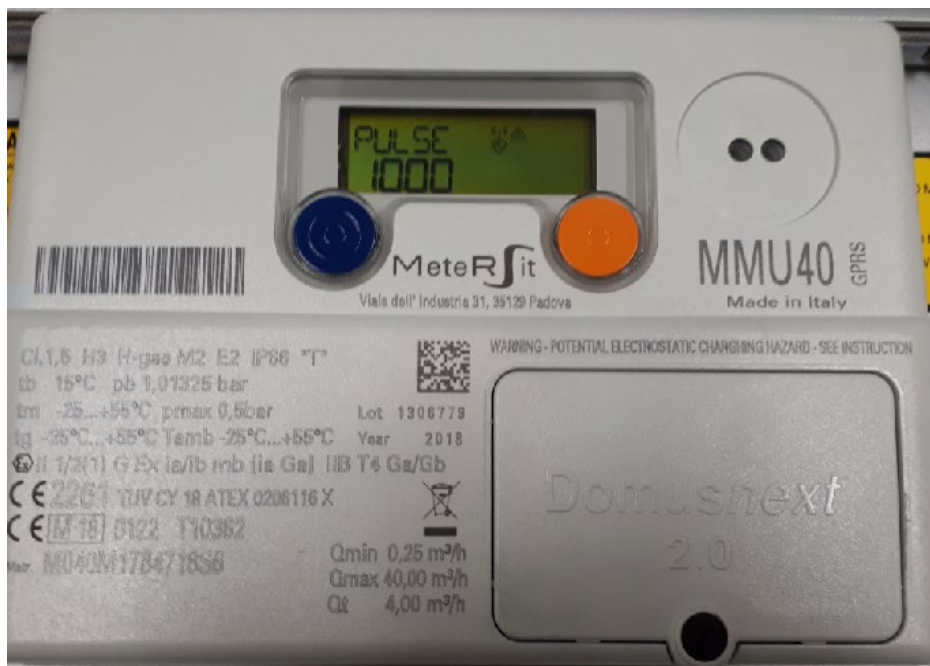


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Keep pushing orange button for 7 seconds until PULSE appears



Keep pushing orange button for 7 seconds to activate Count pulse output: liters for pulse value appears (must be the same configure with MT Tool)



To disable pulse counter output keep pushing orange button on Pulse display until liters for pulse value disappears.



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Warnings:

- Pulse counter activation increases current absorption and it can reduce battery lifetime
- For assembly refer to the essential safety requirements against the risk of explosion, in areas classified as at risk, as defined by the directives in force
- Take care to hermetically close the wired door, an incorrect closure could allow the entry of contaminants such as water or dust which could cause malfunctions and / or irreparable damage to the meter and compromise the safety of the system.