



Q pulse M-Bus

Pulse adapter

- › capturing and processing of pulses from up to two consumption meters with impulse output
- › data transmission via M-Bus telegram to the M-Bus master
- › simple parameter setting via the M-Bus interface
- › storage of consumption data and key date values
- › simple mounting and commissioning

Application

The pulse adapter captures and processes the pulses from up to two consumption meters and transmits the data to an M-Bus network. Consumption meters for water, heating/cooling, electricity, etc. can be connected.

Features

- › capturing of consumption values from up to two consumption meters
- › integration of manufacturer- and type-independent consumption meters
- › data transmission by M-Bus
- › parameter setting and readout via M-Bus interface

Addressing

The pulse adapter is normally addressed via the secondary address. If necessary, the primary address of the pulse adapter can be changed via the M-Bus interface.

M-Bus data telegrams

The following data is read from the M-Bus pulse adapter by the M-Bus control centre if required:

Short data telegram	Extended data telegram
meter reading	meter reading
current date with time	current date with time
last due date	last due date
value on last due date	value on last due date
next due date	next due date
manufacturer-specific block	manufacturer-specific block
	fabrication number
	15 monthly values (oldest value first)
	software version
	error flags
	manufacturer-specific block

Ordering data

Designation	Article number
Q pulse M-Bus	MPAH00R22000 00R00
Mounting set for wall mounting and/or if the consumption meter connection cable is missing consisting of: <ul style="list-style-type: none">1x connection cable (2-wire)2x screw Ø4x40mm2x dowels Ø4x30mm2x cable connector1x adhesive seal	RPAIW00 001
M-Bus configuration tool (incl. USB cable) for mobile programming of the Q pulse M-Bus	B99000902 0

The following parameters are preset as standard on delivery from the factory:

- 1 Due date: 01.01.
- 1 Pulse unit: 1 mWh per pulse
- 1 Medium: 00 h (Other)
- 1 Telegramm: short

Technical data

General



Relay GmbH hereby declares that the pulse adapter PadPuls M2 complies with directive 2011/65/EU (RoHS).

The full text of the declaration of conformity is available at the following internet address: <https://qundis.com/service/downloads-and-information/eu-declaration-of-conformity/#qr01>

Ambient conditions

Protection rating	up to IP65 according to EN 60529
Protection class	III according to EN 61140
Transport	-20 °C ... 70 °C, 10 ... 70 % relative humidity (without condensation)
Storage	-20 °C ... 70 °C, 10 ... 70 % relative humidity (without condensation)
Usage	-20 °C ... 55 °C, < 95 % relative humidity (without condensation)

M-Bus interface

Standards	EN13757-2, EN13757-3
Standard load	1 (max. 1,5 mA)
Readout cycle	as often as desired
Baud rate	300, 2400 and 9600 Baud with automatic detection
Addressing	<ul style="list-style-type: none"> ▶ primary (all channels are programmed to address 0 ex works) ▶ secondary with wildcard, one primary and one secondary address per input, programmable ▶ preset SN= 6-digit fabrication ID + 2-digit channel no.

Power supply

Principle	Remote power supply from the M-Bus system with automatic switchover to battery in the event of M-Bus system failure
Lithium battery	Nominal voltage 3 V
Battery capacity	230 mAh
Battery life	2.5 years without M-Bus power supply (contacts not closed) + 6 months storage

Technical data consumption meter

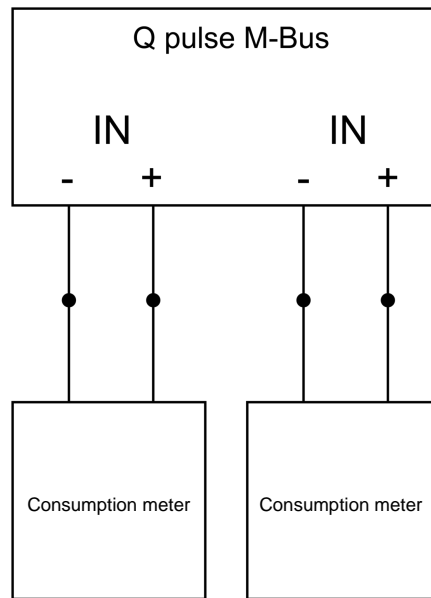
The following types of consumption meters can be connected, among others:

- › water meter
- › heat meter/cold meter
- › electricity meter

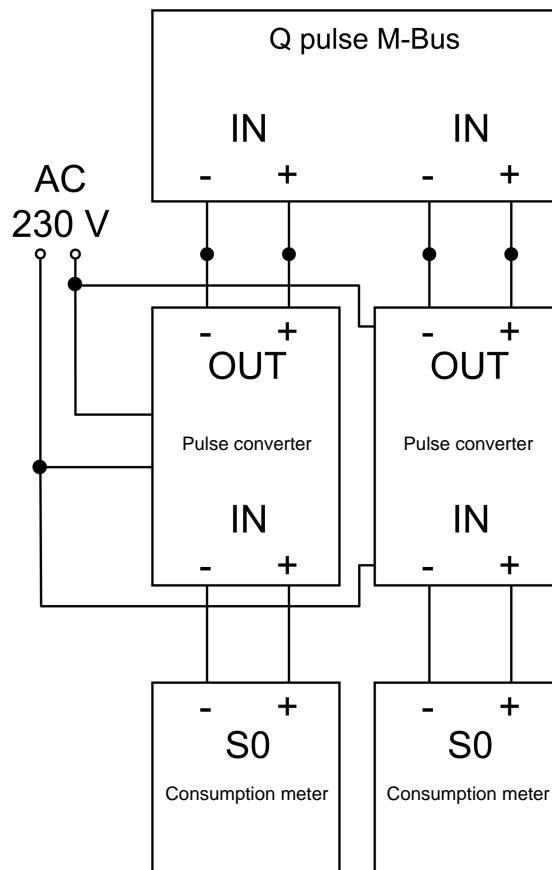
The consumption meters that are connected to the pulse adapter must have the following properties:

Consumption meter	
Contact voltage (dynamic scanning)	2,5 V ... 3,6 V
Maximum frequency	<18 Hz
Maximum bounce time	5 ms
Length pulse minimum	≥ 30 ms
Minimum pulse pause length	≥ 30 ms
Resistance	contact open: > 1 MΩ, contact closed: < 2 kΩ
Connection cable	max. 10 m
based on a reed switch or simulation of the function of a reed switch using electronic components	

Connection diagrams

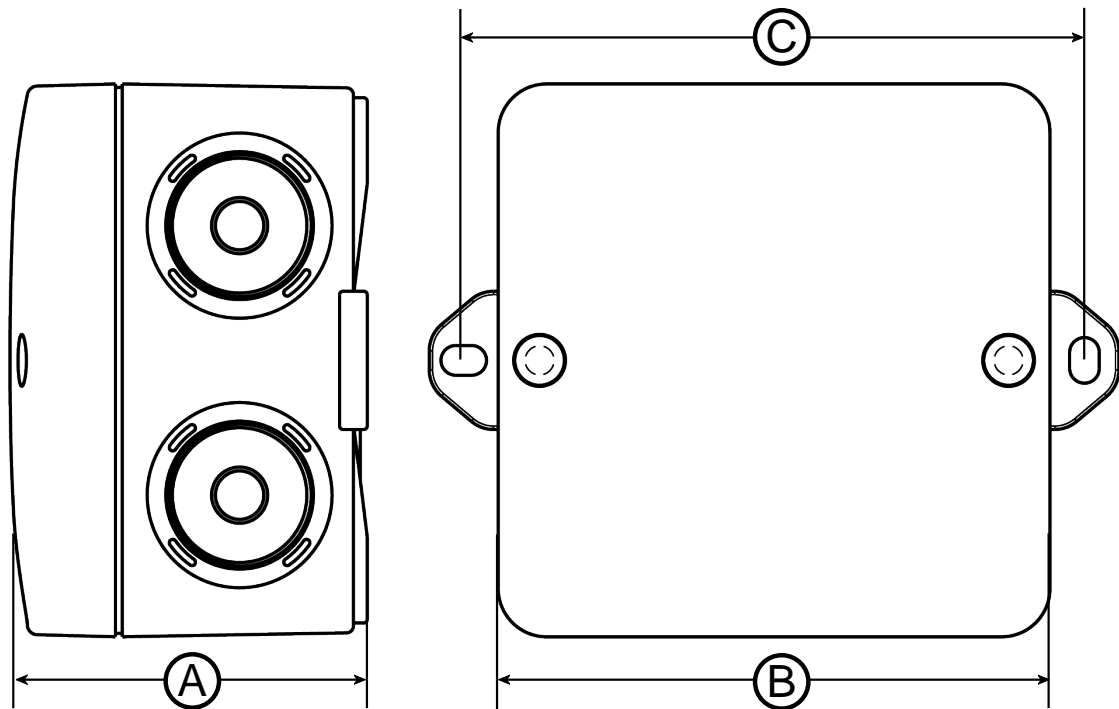


Connection diagram for all consumption meters



Connection diagram for consumption meters with S0 signal output using a pulse converter

Dimensional drawings



A	51,8 mm
B	80 mm
C	90 mm

QUNDIS GmbH

Sonnenor 2
 99098 Erfurt
 Germany
 Phone.: +49 (0) 361 26 280-0
 Fax: +49 (0) 361 26 280-175
 E mail: info@qundis.com
www.qundis.com

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noventic group

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