



Pulse Adapter AEW36x.2

The pulse adapter acquires and processes the pulses from one or two consumption meters with pulse output and transmits the data to a readout system. The pulse adapter is equipped with an optical interface for parameter setting.

Application

Pulse adapters of the type AEW36.2 are part of the Q AMR system, pulse adapters of the type AEW366.2 are part of the Q walk-by system. Both variants are used where consumption meters with pulse output are available, the data of which are to be recorded within one of these systems.

Functions

- ~ Acquisition of the pulses delivered by the connected consumption meters
- ~ Monitoring of the connection cable in the case of meters with NAMUR circuitry
- ~ Processing the pulses and storage of consumption data and due date values

AEW36.2

- ~ Transmission of data via radio six times per day to the network node WT..16.. of the Q AMR system

AEW366.2

- ~ Readout via radio and transmission of the consumption values to a mobile data collector without direct access to the device
- ~ The transmission period is always given as CET (winter time) the whole year round

Stored data

- ~ Current consumption value
- ~ Due date value
- ~ Due date
- ~ 13 monthly values
- ~ Error code
- ~ Error date

Parameter setting possibilities when using the service software

AEW36.2

AEW366.2

- ~ Due date
- ~ Meter count
- ~ Pulse generator medium
- ~ Device number

AEW366.2

- ~ Time delay (offset) in days to the readout day
- ~ Weekdays without telegram transmission
- ~ Transmission time within one day (e.g. 8 am – 6 pm CET)
- ~ Changing parameter setting for use in Q AMR system (not reversible)

The pulse adapter transmits status information several times a day the whole year round independently of the readout time set.

Type summary

Order number		System
AEW36.2/...	Pulse adapter	Q AMR
AEW366.2/...	Pulse adapter	Q walk-by

Ordering

The complete order number must be given for the order.

When devices are delivered ex factory, the following parameters are pre-set as default:

- ~ Due date 31.12.
- ~ Meter count 0.00 m³
- ~ Medium cold water (channel 1), hot water (channel 2)

As to walk-by, the AEW366.2 is set to:

- ~ Annual readout
- ~ Time delay to readout day 0 days
- ~ Daily transmission time from 8 am to 6 pm
- ~ No telegram transmission on Sundays

Device combination

During installation, the pulse adapter must be programmed with the data record provided by the parameter setting software for the meter to be connected. If meters are to be connected that are not contained in the meter database, a new data record must be requested from:

QUNDIS GMBH

Sales Support
 Sonnentor 2
 99098 Erfurt / Germany

Tel.: +49 361 26 280-0
 Fax: +49 361 26 280-175
 E-Mail: info@qundis.com

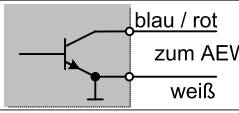
With the correct data record, the following meter types can be connected:

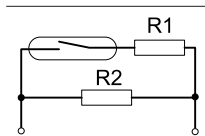
- ~ Water meter with pulse output
- ~ Heat meter, heat/cold meter with pulse output
- ~ Gas meter with pulse output
- ~ Steam meter with pulse output
- ~ Oil meter with pulse output
- ~ Electricity meter with S0 interface

Please note: Additional pulse converter (e.g. IC-2 from Nordwestdeutsche Zählerrevision Ing. Aug. Knemeyer GmbH & Co. KG, Heideweg 33, 49196 Bad Laer) required!

Technology

The pulse adapter processes pulses with the following specifications:

	Pulse source	Limit values (with parameters set accordingly)
	Electronic outputs (open collector, open drain)	Residual voltage when switched < 0.7 V Maximum frequency < 17 Hz Minimum pulse width 30 ms
	Mechanical switches (Reed contact, relays)	Bounce time < 1 ms Maximum frequency < 2 Hz Minimum pulse width 260 ms
	Mechanical switches with NAMUR circuitry	Resistance R1 2.2 kOhm Resistance R2 5.6 kOhm



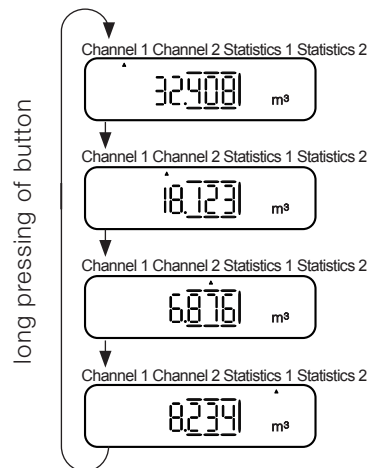
The inputs are protected against overvoltages. Open collector outputs must be connected with the correct polarities:
Channel 1: + blue, ground white
Channel 2: + red, ground white

Power supply

The pulse adapter has a non-replaceable lithium battery as an energy source.

Display

Display levels



The display has four display levels:

- ~ Channel 1
- ~ Channel 2
- ~ Statistics 1
- ~ Statistics 2

The current display level is indicated by a small arrow (▲) below the respective name of the level. Pressing the button briefly switches within the display, pressing the button longer switches from one display level to the next.

The first two display levels show current meter-related values; the other two display levels show 13 end-of-the-month values of the respective meter.

Display

Level Channel 1 / 2

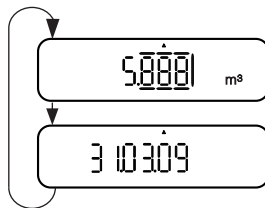
Channel 1	Channel 2	Statistics 1	Statistics 2	Display levels channel 1 and channel 2 are identical
				Standard display in the event of an error (serious permanent error alternating with date display).
				Display of the error code in the event of a temporary error alternating with blank display
				Current consumption value - standard display in normal mode
				Segment test (flashing)
				Consumption on due date alternating with due date itself (notation: dd.mm.)
				Set due date (if current due date and set due date differ)
				ID number of the meter connected (is entered during parameter setting)
				Data record number (describes the type of meter)
				Operating hours expired
				Primary address (keeping the button pressed > 2 seconds in this display step starts transmission of eight installation telegrams) / activated channel
				IrDA primary address
				Software version alternating with parameter setting variant: rF b Δ Parameter setting walk-by rF A Δ Parameter setting AMR rF S Δ Special parameter setting AMR
				Installation telegram transmission (figures show remaining telegrams for both channels)

Display

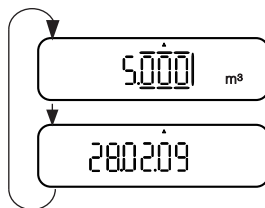
Level Statistics 1 / 2

The display levels three and four (statistics 1 and statistics 2) are identical. They show the consumption values and the date of this consumption for the past 13 months.

Channel 1 Channel 2 Statistics 1 Statistics 2



Alternates between consumption value and last day of the previous month (notation: dd.mm.jj)



Alternates between consumption value and last day of the month before last (notation: dd.mm.jj)

⋮

Displays continue for the last 13 months.

Error codes

Error code	Description of error
2	Operating time expired
6	Pulse acquisition channel 1 open-circuit
7	Pulse acquisition channel 1 short-circuit
8	Pulse acquisition channel 2 open-circuit
9	Pulse acquisition channel 2 short-circuit
B	Number of communications via IrDA exceeded
C	Number of communications via M-Bus exceeded
F	Device not initialised

Technical data

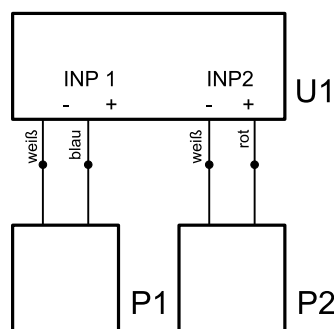
General device data

Rated voltage	DC 3 V
Service life	12 years + 12 months reserve
Data transmission according to	EN 13757/4
Frequency band	868.0 MHz to 868.6 MHz
Transmission power	Typically 5 dBm
Channel assignment	< 1 %
Weight	0.19 kg
Permissible ambient temperature	
during transport	-25 °C to +70 °C
during storage	- 5 °C to +55 °C
during operation	+ 5 °C to +65 °C

Standards and norms

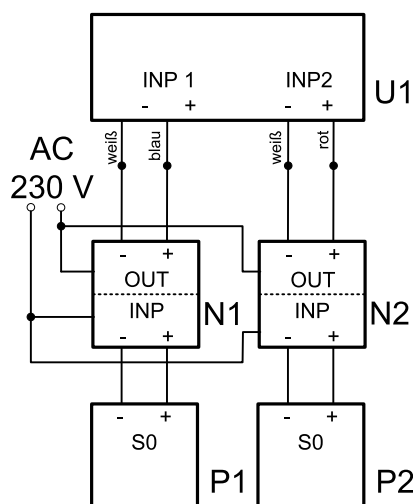
CE conformity	2004/108/EC (EMC Guideline) 1999/5/EC (R&TTE Guideline)
Protection rating	IP 54
Protection class	III
Electromagnetic compatibility	
Interference resistance	EN 301 489 EN 61000-6-2
Emitted interference	EN 300 220-2
Security of IT equipment	EN 60950

Circuit diagrams



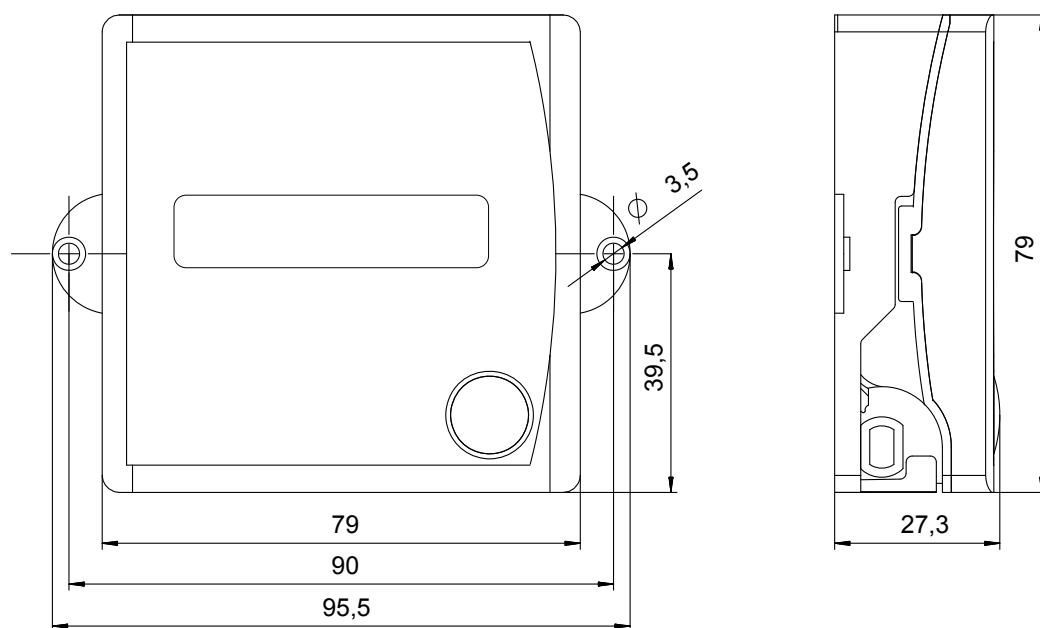
Connection of any type of meter with pulse output

U1 Pulse adapter AEW36x.2
P1, P2 Meter with pulse output



Connection of electricity meters with S0 interface

U1 Pulse adapter AEW36x.2
P1, P2 Electricity meter with pulse output
N1, N2 Pulse converter IC-2

Dimensional drawing

Dimensions in mm

The length of the connecting cable is 35 cm.

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