



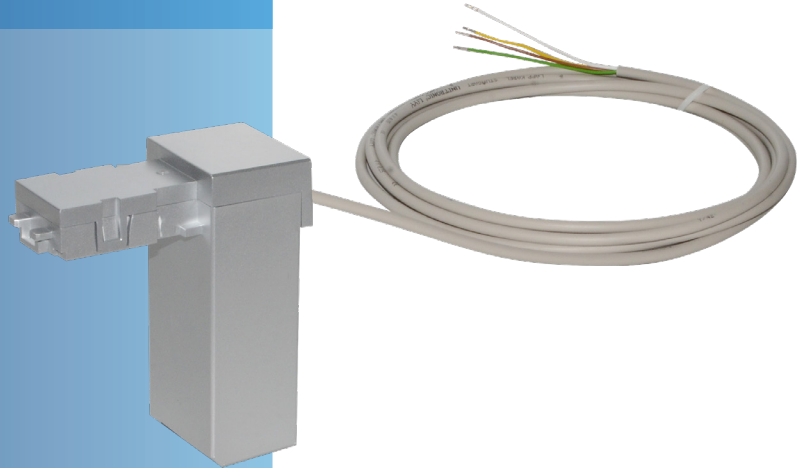
Water

GWF

GWF4D technology®

# PULSE MODULE

Sonico®  
NFC-Communication module



## Your benefits

- > High-resolution:  
**Pulse output with water flow direction detection**
- > High flexibility:  
**2 Pulse modules can operate simultaneously with different pulse values e.g. 1 l and 1000 l**
- > Water proof design:  
**Sealed housing (IP68)**
- > Plug & Play:  
**Easy and fast on-site installation with auto NFC interface-detection**
- > Electrical Isolation:  
**Meter and pulse module are galvanically separated**
- > No switch bounce:  
**Stable electronic pulses**

## Features

- > Snap-in NFC module slots – no connectors or cables needed
- > Continuous and tamper-proof connection, thoroughly reliable results
- > Can be factory fitted or retrofitted at installation site without breaking metrological seal
- > Provides a high-resolution pulse output of 0.1 l up to max. flow
- > Compatible with all versions of Sonico® meters
- > Communication settings between meter and pulse module over encrypted IR interface
- > NFC port – Data security via AES-128-bit end-to-end encryption
- > Infrared configuration interface – Data security via AES-128-bit end-to-end encryption
- > **CE** Approval

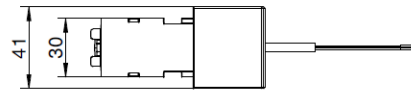
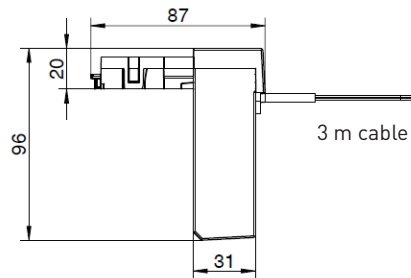
## Applications

- > Data logging in combination with various data loggers
- > SCADA system
- > Building management system
- > Industrial control applications
- > IoT modules
- > Installation in harsh and flooded environment

## Modes

Operating modes		
Mode 1	Channel 1 (white): Balanced forward pulses	Channel 2 (yellow): Error (empty pipe)
Mode 2	Channel 1 (white): Forward pulses	Channel 2 (yellow): Reverse pulses
Mode 3	Channel 1 (white): Forward or reverse pulses	Channel 2 (yellow): Flow direction: Signal high: Forward Signal low: Reverse

## Dimensions (mm)



## Technical data

Specifications	
Compliance with standard	EN 300 220
Approval	CE
Protection class	IP68
Cable length/ Supplied	3 m including cable joint for cable extension
Weight	approx. 243 g

Power supply	
Voltage	24 V DC +20 % / -10 % (19.2 – 26.4 V DC) No battery included
Current	200 mA

Pulse output	
Max. switching capacity	4 W
Max. current	0.2 A
Max. voltage	48 V DC

Conditions	
Operational temperature	-10 to +60 °C
Storage temperature	-10 to +70 °C
Relative humidity	0 to 100 % (IP68)

# OUTPUT + CONNECTION → PULSE MODULE

## Table of pulse length in relation to pulse value and meter sizes

Pulse weight	(l)	0.1 l		1 l					10 l					100 l					1000 l								
Pulse length	(ms)	1	2	1	2	4	8	16	4	8	16	32	64	128	8	16	32	64	128	256	512	16	32	64	128	256	512
Meter size [mm]	DN 50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	DN 80	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	DN 100			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	DN 150			X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	DN 200			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	DN 300			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

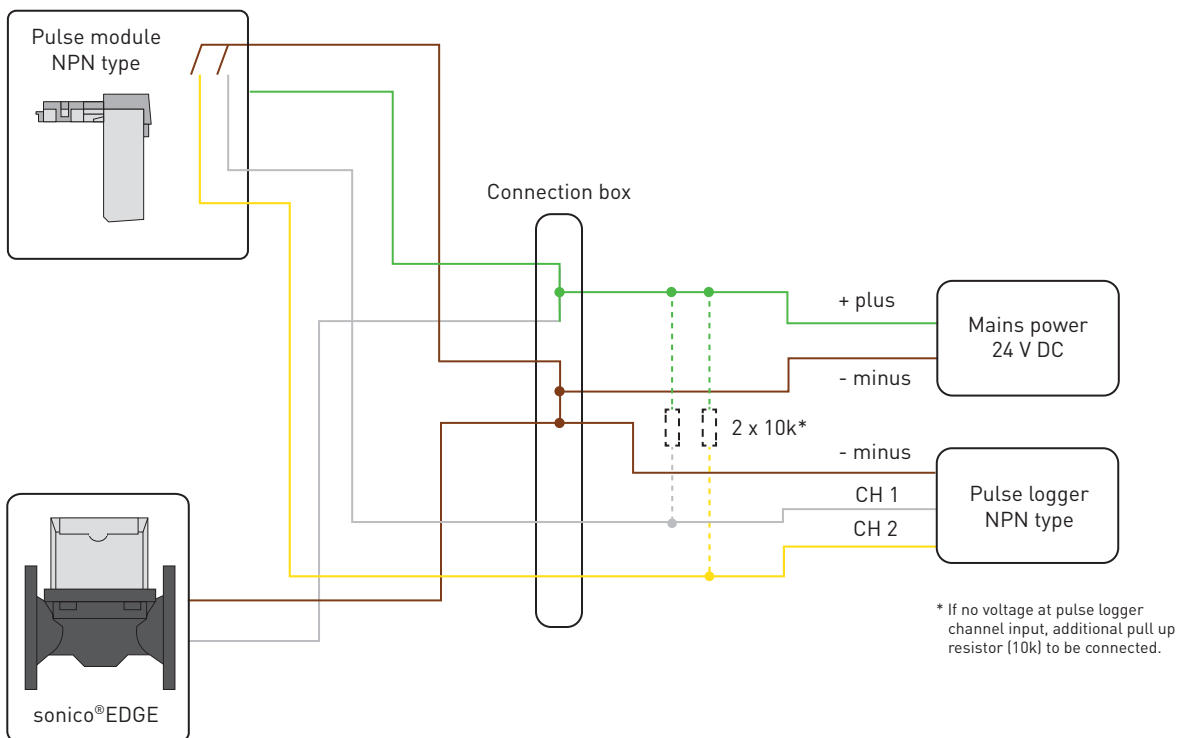
■ Test mode pulses

■ Factory set pulses

X = other possible pulses

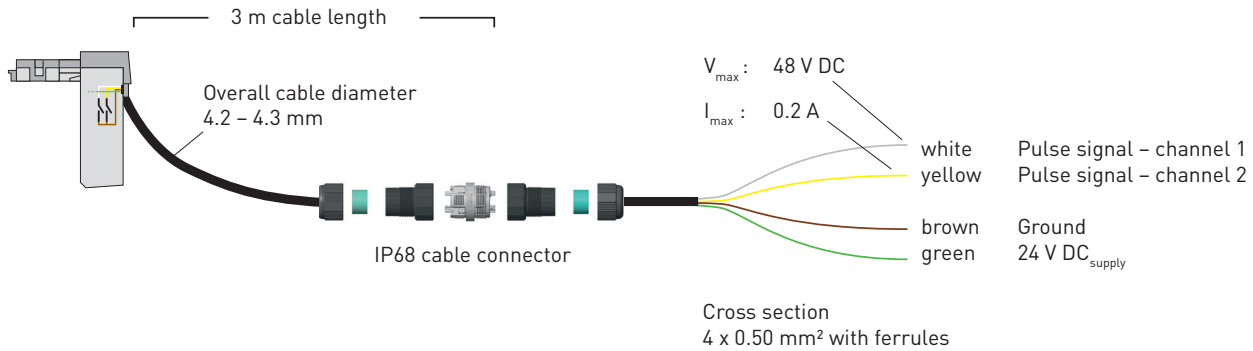
## NPN pulse output type

The output of the Sonico® pulse module is of NPN passive type.



# OUTPUT + CONNECTION → PULSE MODULE

## Pulse module cable connection



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