Register output for water meters

Arad

Arad water meters can be equipped with a pulse output for automatic measuring of flow with pulse. These pulses can then be read out remotely at, for example, the computer or the Arad display RRL-88. A distinction is made between the Reed contact (EV) and the photodiode pointer (EF-P).

APPLICATION
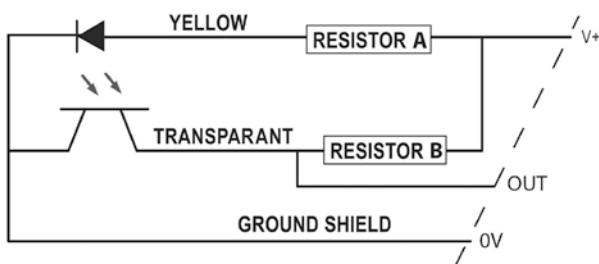Register output for the Arad Multi-Jet, WST and Dishnon

CHARACTERISTICS
Reed switch
- Magnetic Reed contact switch, acts as a 'dry' (voltage-free) contact
- Pulse head with disconnectable reed contact (bayonet fitting)

Photodiode pointer
- Photodiode switch based on the effect of light. Light from the IR light source is interrupted by the paddle wheel and received again by a light-emitting diode
- The photodiode is sealed in the pulse head and cannot be removed

Connection diagram

TECHNICAL DATA
Reed switch (EV)
Maximum switching current	: 50 mA
Maximum voltage	: 28 VDC
Frequency	: 1 pulse/revolution

Photodiode pointer (EF-P)
Diode current consumption	: 16 - 26 mA
Minimum switching current	: 1 mA
Maximum switching current	: 2 mA (26 VDC)
Maximum voltage	: depending on the resistor to be used
Frequency	: 10 pulses/revolution

Resistor A: values

Voltage (V+)	Resistance	
	Ω	w
5	220	0,25
6	330	0,25
9	470	0,25
12	600	0,5
24	1200	1

Resistor B (pull-up): values

Voltage (V+)	Resistance	
	kΩ	w
5	1	0,25
6	1,2	0,25
9	2,2	0,25
12	2,2	0,25
24	4,7	0,25

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Specifications

Water meter / Diameter			Type of register output and units of measure							
			1 pulse / ... litre					1 pulse / ... m³		
Type	Size	Model	0,05	0,1	1	10	100	1	10	100
Multi-Jet	½"	M15		EF-P	EV	EV	EV			
	¾"	M20		EF-P	EV	EV	EV			
	1"	M25/7		EF-P	EV	EV	EV			
	1¼"	M30			EV	EV	EV			
	1½"	MS40			EF-P	EV	EV	EV		
	2"	MS50			EF-P	EV	EV	EV		
WST Bayonet	2	WST50			EF-P	EV	EV	EV		
	2 ½"	WST65			EF-P	EV	EV	EV		
	3"	WST80			EF-P	EV	EV	EV		
	4"	WST100				EF-P*	EV	EV	EV	
	6"	WST150				EF-P	EV	EV	EV	
	8"	WST200					EF-P	EV	EV	EV
	10"	WST250					EF-P	EV	EV	EV
	12"	WST300					EF-P	EV	EV	EV
Dishnon	½"		EV	EV	EV					
SF	½"				EV					

EV = Reed switch   EF-P = photodiode pointer

* Also available in EV version, but with a maximum capacity of 100 m³/h. Compared to other models, the register of this water meter is not interchangeable with registers having different pulse ratios.

INSTALLATION & MAINTENANCE

Installation

- ✓ Read the enclosed operating instructions and installation instructions before installation.
- ✓ The photodiode is a very delicate contact. If incorrectly connected, the photodiode can be irreparably damaged.
- ✓ Netafim has test facilities to test photodiode output registers in case of malfunction.

Colour coding

The pointer (see picture) of the register shows what colour Reed contact (see picture) has to be used.

Pointer colour	Colour Reed switch	Type of water meter
Grey	Grey (70220-005300)	Multijet / WTII / WT / WMC / SF
Red/black	Blue (70220-005400)	Multijet / WST / WTII
Red - flat glass cover	Black with ring and lid (70220-081501)	WST Bayonet
n/a	Yellow	Dishnon

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