

# OPTO Pulsers

For WP/Dynamic Turbine Meters



## Special Features

- For cold & hot water meters WP/Dynamic
- Simple installation
- Pulsers can be retrofitted to the meter without breaking the meter seal
- Opto OD with forward/reverse identification

## Applications

- Opto OD-01 and OD-03 for cold water meters to 122°F / 50°C
- Opto OD-02 and OD-04 for hot water meters to 256°F / 130°C
- For flow indication and flow control  
Opto OD-01 and OD-03
- For remote counters and batching systems:  
Opto OD-03 and OD-04
- Opto OD-02/EX for explosive/hazardous areas
- Opto OD-07 for Data Logging

## Available Models

Pulser	Maximum Temperature	Part Number
Opto OD-01	122°F / 50°C	117806
Opto OD--02	256°F / 130°C	117807
Opto OD-02/EX	256°F / 130°C	117808
Opto OD-03	122°F / 50°C	117809
Opto OD-04	256°F / 130°C	117810
Opto OD-07L	122°F / 50°C	182062
Opto OD-07-24V	122°F / 50°C	182063
Opto OD-07-24S	122°F / 50°C	182064
Opto OD AM	256°F / 130°C	182082



**MEINECKE**  
<http://www.MeineckeMeters.com>

## Technical Data - Opto OD-01, 02, 03, 04, AM

<b>Sensor Principle</b>	IR– Reflex light barrier acc. To DIN 19234, plug type		
<b>Specification</b>	supply voltage: 8.2 V DC current with reflection: < 1.2mA current without reflection: > 2.1 Ma		
	forward/reverse identification integrated by an additional current barrier at 1.5mA		
<b>Pulse Duration</b>	Opto OD-01, 02, 03, 04—dependant on flow in meter; at meter stop, continuous pulse is possible	OPTO OD AM: Closing Time: 7 ms	
<b>Protection</b>	IP 68 (DIN 40050)		
<b>Temperature range</b>	Opto OD 01, 03	ambient temperature $t_{amb}$	$\leq 158^{\circ}\text{F} / 70^{\circ}\text{C}$
		medium temperature $t_m$	$\leq 122^{\circ}\text{F} / 50^{\circ}\text{C}$
	Opto OD 02, 04, AM	ambient temperature $t_{amb}$	$\leq 158^{\circ}\text{F} / 70^{\circ}\text{C}$
		medium temperature $t_m$	$\leq 302^{\circ}\text{F} / 150^{\circ}\text{C}$
<b>Connection Cable</b>	$\varnothing$ 4.1 mm, 2 x 0.14 mm <sup>2</sup> , end splice, length: 3 meters (9 feet, 10 inches)		

## Technical Data Opto OD 07 24 V/S

- Opto OD 07-24 V with 1 pulse output-forward and 1 pulse output-reverse
- Opto OD 07-24 S with pulse output and flow direction signal

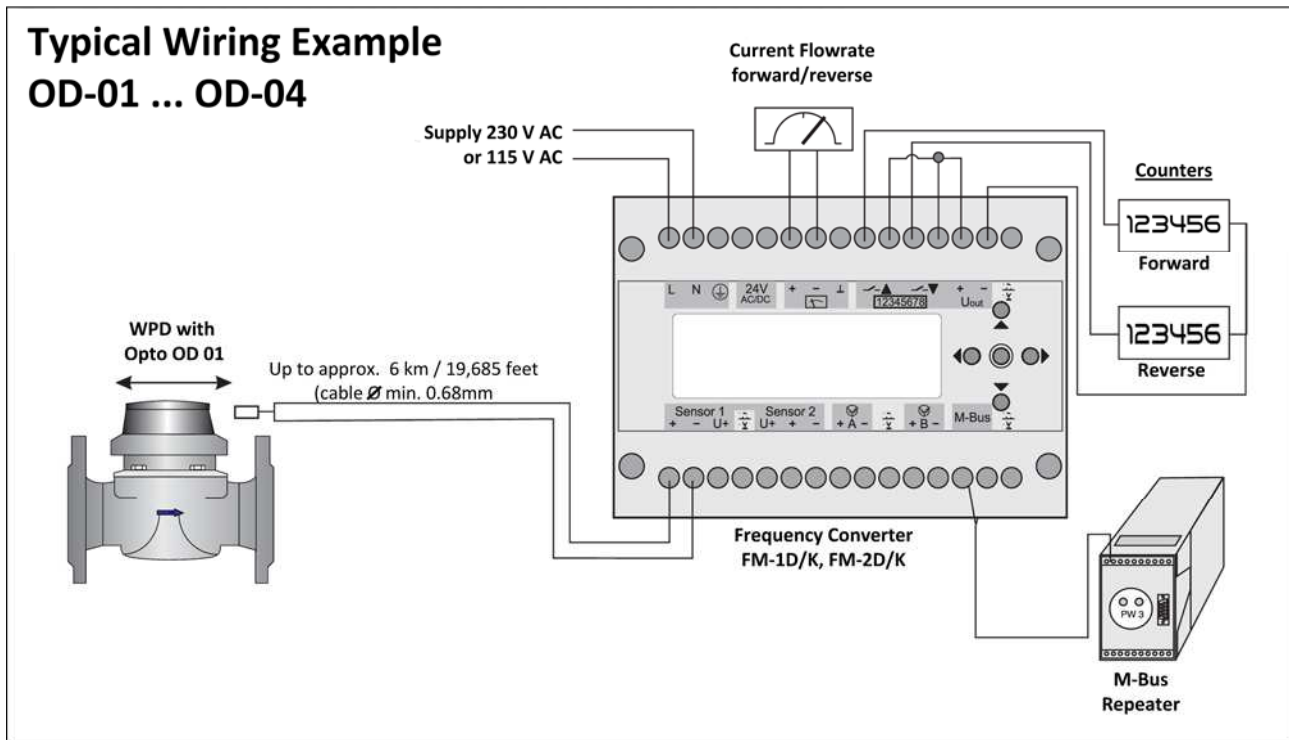
<b>Sensor Principle</b>	IR-Reflex light barrier, bi-directional
<b>Specification</b>	all voltages are relative to ground (-)
	supply voltage (+): +5 VDC - 30 VDC supply current: typical 230 $\mu\text{A}$ , max 250 $\mu\text{A}$ output signal: open collector (NPN Darlington with 150 Ohm series resistance and polarity protection output voltage: Sig relative to ground (-): 0 V to Supply Voltage output current: 0 to +40 mA
<b>Pulse Duration</b>	dependant on flow in meter; at meter stop, continuous pulse is possible
<b>Temperature Range</b>	Operation Temperatures: Medium 32 <sup>°</sup> F/0 <sup>°</sup> C to 122 <sup>°</sup> F / 50 <sup>°</sup> C, Cable Housing: 32 <sup>°</sup> F/0 <sup>°</sup> C to 158 <sup>°</sup> F / 70 <sup>°</sup> C, Storage Temperature: -13 <sup>°</sup> F/-25 <sup>°</sup> C to +167 <sup>°</sup> F/75 <sup>°</sup> C
<b>Changed Polarity Short Circuit</b>	Once at a maximum 1 second at 32 <sup>°</sup> F/0 <sup>°</sup> C to 77 <sup>°</sup> F / 25 <sup>°</sup> C
<b>Connection Cable</b>	$\varnothing$ 4.1 mm, 2 x 0.14 mm <sup>2</sup> , end splice, length: 3 meters (9 feet, 10 inches)



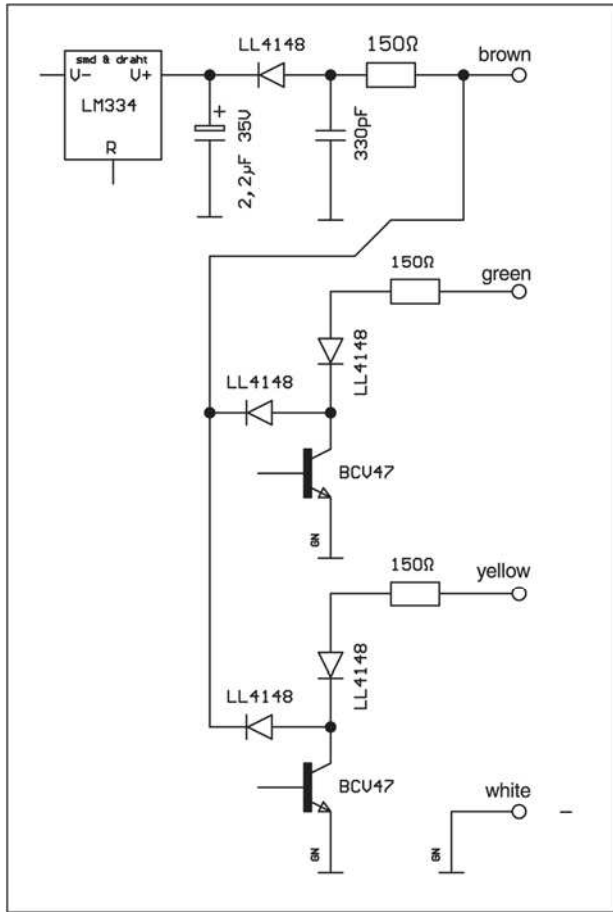
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### Pulse Values

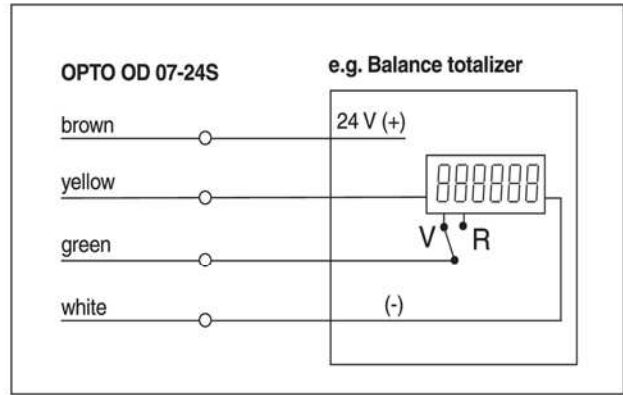
Size of Meter	Pulsar	1-1/2 inch to 4 inch 40mm to 100mm	6 inch to 12 inch 150mm to 300mm
Cold Water Meters	Opto OD 01, 07-L, 07024 V/S	0.1 USG 0.001 M <sup>3</sup>	1.0 USG 0.010 M <sup>3</sup>
	Opto OD 03	10 USG 0.010 M <sup>3</sup>	10 USG 0.100 M <sup>3</sup>
Hot Water Meters	Opto OD 02, o2 Ex, AM	0.1 USG 0.001 M <sup>3</sup>	1.0 USG 0.010 M <sup>3</sup>
	Opto OD 04	10 USG 0.010 M <sup>3</sup>	10 USG 0.100 M <sup>3</sup>



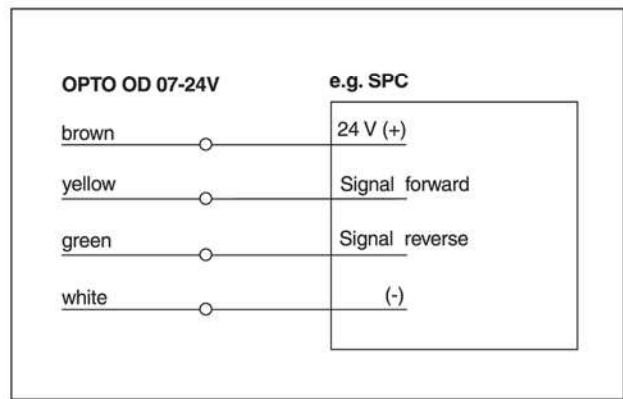
## Wiring Example Opto OD 07 24 V/S



Output circuit diagram of  
Opto OD 07 -24S and Opto OD 07-24V



Connection diagram Opto OD 07-24S



Connection Diagram  
Opto OD 07-24V

### Opto OD 07-24S:

- brown:** supply voltage (+)
- yellow:** pulses
- green:** open: forward  
closed: reverse
- white:** ground
- shield:** internally connected to (-)

### Opto OD 07-24V

- brown:** supply voltage (+)
- yellow:** pulses forward
- green:** pulses reverse
- white:** ground
- shield:** internally connected to (-)

