

- **Precise volume measurement**
- **Reliable process control**
- **High-grade materials**
- **Resistant to chemicals**
- **Not affected by changes in viscosity**
- **Direct connection to an EcoAdd or EMP E60<sup>PLUS</sup> is possible**
- **Pulse output**



The OGM<sup>PLUS</sup> is used for volumetric measurement of the rate of flow of pure and cleaned liquids (max. 1000 mPas, measuring method: Brookfield).

The fact that this is a volumetric meter means that surging and discontinuous ("intermittent") flows can also be measured.

This meter is therefore also extremely suitable for measurement of the volumetric flow of diaphragm pumps (e.g. EcoAdd or EMP-KKS, EMP II, EMP III, EMP IV) driven by means of electric motors.

The OGM<sup>PLUS</sup> features an automatic direction of flow detection system. Reverse volumetric flows are stored without transmission of pulses. Preceding reverse volumetric flows are subtracted from the next forward volumetric flow.

A further benefit of the OGM<sup>PLUS</sup> can be found in its calibration capability. This permits achievement of maximum possible accuracy, taking account of conditions of use.

The properties and characteristics of the OGM<sup>PLUS</sup> are optimally tailored to connection to an EcoAdd or EMP E60 series diaphragm metering pump.

**Attention: Appropriate only for unpolluted liquids (without suspended particles).**

**A non-return valve must be installed immediately upstream or downstream the meter in the metering line if correct measured data is to be obtained.**

**The meter should be installed in a rising metering line, in order to avoid inclusions of air.**

The advantages of this are:

- Direct connection to an EcoAdd or EMP E60<sup>PLUS</sup> (via dongle box or dongle-card).
- Operation with high-resolution measuring with 120 pulses per gear-wheel revolution.
- The rate of rotation of the oval gear wheels is proportional to flow.

Advantages in case of connection to a higher-level quantification or measuring system (PLC or similar):

- Adjustable pulse rate, either in pulses per revolution or pulses per liter / pulses per ml (default works setting: 2 pulses / revolution)\*
- The pulse output can be optionally switched between P-N-P or N-P-N. (default works settings of this output: P-N-P)\*

\* possible only with external hardware and software

**Technical Data:**

Oval gear meter type:		00112	00540	01200	02100	04500
<b>Recommended for metering pumps up to [l/h]</b>		<b>11.2</b>	<b>54</b>	<b>120</b>	<b>210</b>	<b>450</b>
Flow rate with use of an EcoAdd* metering pump [l/h]	min.	<b>0.5</b>	4.8	18	40	60
	max.	13.5	65	144	250	540
Flow rate (continuous flow) [l/h]	min.	1.25	12	45	100	150
	max.	33.75	160	360	625	1200
Allowable system pressure [bar]	max.	10				
Ambient / fluid temperature [°C]	max.	40				
Viscosity [mPas]	max.	1000				
Connecting thread		G 1/8"	G1/4"	G3/4"	G1 1/4"	G1 1/4"

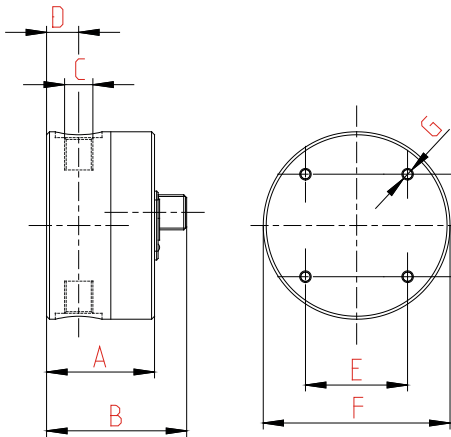
**NOTE** \* **A minimum flow of 1 l/h is necessary for metering control with EcoAdd.**

**Material:**

Housing	PVC grey
Cover	PVC (transparent)
Oval wheels	PVDF (for type 00110)
	PVC (for type 00110)
	PEEK (for types 00500, 01200, 02100, 04500)
O-rings	FPM (Viton B)
	optional EPDM
Axes	Ceramics

## Dimensions:

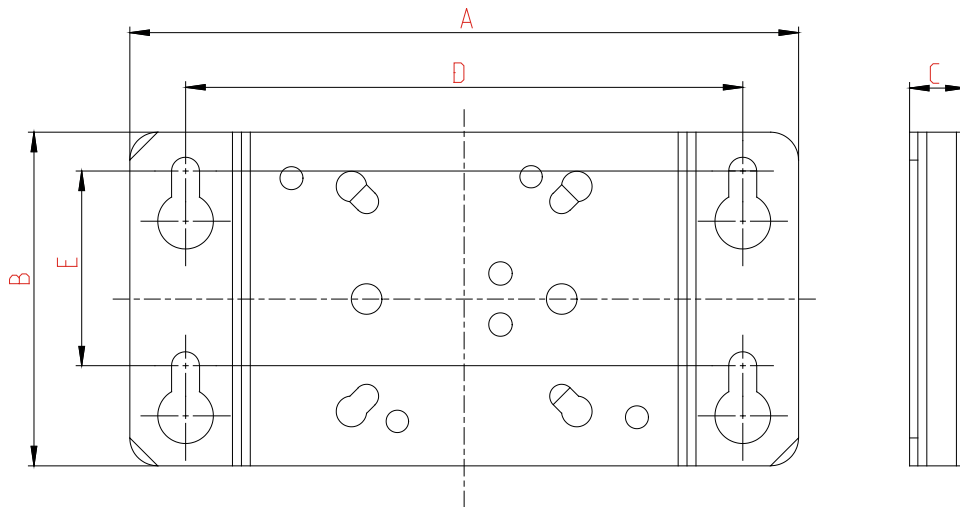
### OGM<sup>PLUS</sup>



Type	A	B*	C	D	E	F	G
00112	41	52 / 66	G 1/8"	13	35	64	M4
00540	45	56 / 74	G 1/4"	17.8	40	73	M5
01200	53	64 / 82	G 3/4"	19	40	80	M5
02100	76	88.7 / 106.7	G 1 1/4"	30.5	60	108	M8
04500	76	88.7 / 106.7	G 1 1/4"	30.5	60	108	M8

\* with / without elbow-type connector for connecting cable

## Bracket dimensions



Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
00112	120	60	10	100	35
00540/01200	120	60	10	100	35
02100/04500	150	80	10	135	55

## Ordering Data:

Article	Code	Material No.
Oval gear meter	OGM PLUS 00112 VC FP PV KE-G1/8i-99-0001m-P	280141
	OGM PLUS 00112 VC EP VC KE-G1/8i-99-0001m-P	280151
	OGM PLUS 00540 VC FP PK KE-G1/4i-99-0005m-P	280043
	OGM PLUS 00540 VC EP PK KE-G1/4i-99-0005m-P	280073
	OGM PLUS 01200 VC FP PK KE-G3/4i-99-0010m-P	280044
	OGM PLUS 01200 VC EP PK KE-G3/4i-99-0010m-P	280074
	OGM PLUS 02100 VC FP PK KE-G5/4i-99-0020m-P	280045
	OGM PLUS 02100 VC EP PK KE-G5/4i-99-0020m-P	280077
	OGM PLUS 04500 VC FP PK KE-G5/4i-99-0050m-P	280046
	OGM PLUS 04500 VC EP PK KE-G5/4i-99-0050m-P	280078

**Extent of supply:** Oval gear meter, with integrated flow rate sensor  
operating instructions

**Required accessories:** Connection cable  
Wall-mounting bracket (excepting for panel fixing)  
Connecting adapter (for adaption)  
Connecting set

OGM code:

OGM PLUS	01200	VC	FP	PK	KE	G3/4	99	0010m	P
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-----	<b>1. Designation</b>
-----	OGM PLUS
-----	<b>2. Type</b>
-----	00112 = for pump 5/11 l/h
-----	00540 = for pump 30/50 l/h
-----	<u>01200</u> = for pump 120 l/h
-----	02100 = for pump 210 l/h
-----	04500 = for pump 450 l/h
-----	<b>3. Housing Material</b>
-----	<u>VC</u> = PVC
-----	<b>4. Sealing Material</b>
-----	<u>FP</u> = Viton B
-----	EP = EPDM
-----	<b>5. Oval Wheel Material</b>
-----	PV = PVDF (only for type 00112)
-----	VC = PVC (only for type 00112)
-----	<u>PK</u> = PEEK (type 00540 - 04500)
-----	<b>6. Axes Material</b>
-----	<u>KE</u> = Ceramics
-----	<b>7. Connecting thread</b>
-----	G1/8, G1/4, <u>G3/4</u> , G5/4
-----	<b>8. Connecting</b>
-----	<u>99</u> = without connection
-----	<b>9. Pulse rate</b>
-----	0001m = 1 ml/pulse
-----	0005m = 5 ml/pulse
-----	<u>0010m</u> = 10 ml/pulse
-----	0020m = 20 ml/pulse
-----	0050m = 50 ml/pulse
-----	other possible pulse rates:
-----	2600p = 2600 pulses/l
-----	0820p = 820 pulses/l
-----	0450p = 450 pulses/l
-----	0300p = 300 pulses/l
-----	0075p = 75 pulses/l
-----	<b>10. Halbleiterübergang</b>
-----	<u>P</u> = PNP (N = NPN)