

## Plastic flow indicators

PN 1

**Materials:** Body: Polycarbonate, impeller: Polypropylene, filter: Polypropylene 70 to 130  $\mu$ m  
**Temperature range:** 0°C to max. +55°C  
**Installation position:** Arbitrarily, flow direction, only into one direction  
**Media:** Water

✓ **Advantages:** • In-built, back flushable filters, economical price, also indicates the lowest flow rates

Type	Thread	Installation length	Diameter
DMA 14 K	G 1/4"	58	24

## Impeller flow indicators

up to 30 bar

**Materials:** Body: Brass nickel-plated, impeller: PA 66, inspection glass: Pyrex  
**Temperature range:** Up to max. +90°C  
**Installation position and flow direction:** Arbitrary  
**Media:** Aqueous, non-aggressive liquids

Type	Flow H <sub>2</sub> O [l/min]	Thread internal	Length	Width	Operating pressure	Replace. inspection glass
DMA 14 MSV	0.6 - 3	G 1/4"	66	37	30 bar	DMA 14 REP
DMA 38 MSV	1.1 - 5.5	G 3/8"	94	58	30 bar	DMA 38 REP
DMA 12 MSV	1.3 - 6.3	G 1/2"	94	58	30 bar	DMA 12 REP
DMA 34 MSV	1.6 - 17	G 3/4"	105	67	30 bar	DMA 34 REP
DMA 10 MSV	2.2 - 27	G 1"	105	67	30 bar	DMA 10 REP
DMA 114 MSV	9 - 55	G 1 1/4"	156	80	15 bar	DMA 114 REP
DMA 112 MSV	11 - 60	G 1 1/2"	156	80	15 bar	DMA 112 REP

## Viscosity compensating flow meters

PN 16

**Application:** Flow meters measure the flow quantity at a specific point in a machine or a system. It is read out directly from the device.

**Materials:** Body: Polysulphone, spring: AISI 301, seal: NBR (for oil: klingerit-Oilit)

**Temperature range:** 0°C to max. +120°C

**Connection:** G 1" MT

**Measurement principle:** Spring-loaded, float, **installation position:** Arbitrary

✓ **Advantages:** • Scale does not have to be adjusted to medium and pressure.

Type for water as medium	Display range	Type for oil as medium (100 cSt)	Display range
DM 20 K	2 - 20 l/min.	DM 18 K	1 - 18 l/min.
DM 35 K	5 - 35 l/min.	DM 30 K	2 - 30 l/min.
DM 50 K	5 - 50 l/min.	DM 45 K	5 - 45 l/min.
DM 80 K	10 - 80 l/min.	DM 75 K	10 - 75 l/min.
DM 100 K	20 - 100 l/min.		

## Air consumption meter (compressed air meter)

PN 16

**Function:** With the compressed air meter, the consumption volume, flow volume, velocity of flow and average temperature of compressed air can be obtained and evaluated effectively. Each unit is fitted with two switching outputs, each of which can be programmed as an analogue or pulse output for external recording of the readings. The following readings can be directly read from the device: Peak consumption, total consumption, instantaneous consumption. The display and units can be switched between l/min and m<sup>3</sup>/min (at STP).

**Operating voltage:** 18-30V DC

**Display unit/measuring unit:** NI/min or Nm<sup>3</sup>/h

**Response time:** <100 ms

**Measurement error:** Air class 141:  $\pm$  3% of reading or + 0.3% of the measuring range end value,

air class 344:  $\pm$  6% of reading or + 0.6% of the measuring range end value

**Current loading capacity/power input:** 2 x 250 mA / <100 mA

**Analogue output:** 4-20 mA, max. 500 Ohm

**Pulse output:** 1 NI or 1 Nm<sup>3</sup> per impulse (impulse length 2 or 100 ms adjustable)

**Outputs:** QUT1: Control output (NC contact/NO contact) PNP, programmable hysteresis or switching range, IO-Link,

QUT2: Control output (NC contact/NO contact) PNP, programmable hysteresis or switching range or analogue

(4-20 mA) or pulse output (2 or 100 ms pulse duration)

**Display:** 4 digit LED display

**Protection class:** IP 65, protection class III

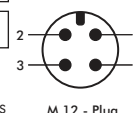
**Electrical connection:** M12 push-in connector (4-pin)

✓ **Advantages:** • Lower purchase price, therefore the counter can be firmly installed on the consumer  
 • Smallest leaks are identified and can be eliminated early  
 • Air consumption quantities can be allocated to production units  
 • Display for total consumption or current consumption on site  
 • Switch, pulse or analogue output for external further processing  
 • Maintenance intervals can be specified depending on use  
 • Pressure loss-free measurement using special design of the sensor  
 • Response time in milliseconds  
 • Precise measurement regardless of the pressure and temperature (max. +60°C)  
 • Reading and saving of current process values and changing of parameter settings via IO-Link possible

Type	Thread	DN	Length	Height (incl. tube)	Measuring range Nm <sup>3</sup> /h	Measuring range NI/min
LVM 12	R 1/2"	15	300	77	0.25 - 75	4 - 1250
LVM 10	R 1"	25	475	89	0.75 - 225	12.5 - 3750
LVM 112	R 1 1/2"	40	475	120	1.3 - 410	22.2 - 6830
LVM 20	R 2"	50	475	133	2.3 - 700	39 - 11670
<b>Accessories</b>						
LVM NETZ	Power supply for air consumption meter (optional to use with LVM without control outputs)					

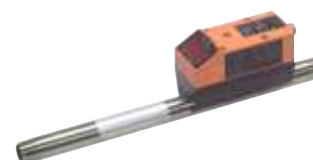
All data are considered to be unbinding reference values. We accept no liability for data selection that is not confirmed in writing. Pressure data refer, if not otherwise indicated, to liquids of Group II at +20°C.

*Especially good value!*



IO-Link

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Gardena flow meter on page 181



PU, PA, PTFE and PE hoses from page 192



Push-in fittings  $\varnothing$  3 - 32 mm from page 24