

# ORvent

## Pressure Balance Elements...



### Pressure equalization elements. The reasons and the need for Why the high tightness of the boxes not always well?

Sealed enclosures are protected against dust and moisture from the outside, but can not be prevented the formation of condensation inside the product due to the temperature differences. During the working process the pressure and temperature level of inside of the box increases. When it cools down the pressure is reduced and the air starts to be sucked out. Upon reaching the "dew point" the condensation is come out which causes oxidation of the internal parts. In addition, due to sudden temperature changes leads microcracks on the walls of the boxes.

### What makes matter worse...?

The contact tracks of the PCB, solder wires and where the lamp components starts to be oxidized. As a result, the durability of the life of the products (lamps or boxes) could decrease and extra service costs should be spent.

To drill a hole for ventilation not the best solution, because of the water and dust threat is increased with rainy or windy weather conditions.

Changes in weather conditions have a direct impact on the state of hermetic housings of street devices. When there is thunderstorms or moving from cold night to hot day the internal pressure of the boxes can increase up to 1000mbar. As a result, microscopic cracks can occur which may cause losing of IP feature of the products. Besides this problem, the oxidation of the internal parts of electrical equipment increases and accelerates failure.

### There is so effective solution to avoid such problems... Let's get rid of such problems with ORvent ventilation glands & plugs.

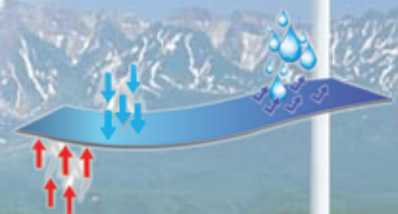
This vicious circle can be broken with the pressure equalization parts thanks to its main feature of which hydrophobic, oleophobic membrane of special composition. Air passes through but block dust and water. The ORvent ventilation glands or plugs allows hot air to go outside and controls the temperature of the lamps or boxes while keeping its waterproof feature. The principle of operation is simple: the gland or plug is mounted in the body (typically – near the cable inlet), a nut is fixed, where is not threaded entry on the inner side and provides ventilation to your devices.

The pressure equalization parts has a degree of protection IP68. After installations, it protects against your product ingress of unwanted elements. At the same time it ensures the circulation of air while maintaining the tightness. Equalized pressure and the negative effect in the form of condensation does not occur. This is especially crucial in the different regions where the air temperature is unsteady.

### Metal or plastic:

The materials of ORvent products are Plastic PA6, Brass nickel plated or Stainless steel which is appropriate to be used for both indoor and outdoor applications.

The test results have shown that ORvent pressure equalization parts is able to withstand an overload of up to 5 bar with strong water pressure.



### ORTACLAR ELEKTRİK SANAYİ TIC. LTD. ŞTİ.

Address: Karaagac Mah. Hadimkoy Istanbul Cad.

No:10/A Büyükçekmece / İSTANBUL

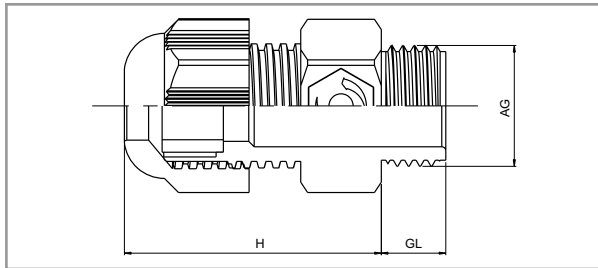
Phone: +90 (212) 858 19 00 pbx

Fax: +90 (212) 858 19 59

E-mail: sales@ortacler.com.tr



# ORvent



## VENTILATION GLANDS PLASTIC

### TECHNICAL DETAILS

#### Material

Cap nut	: Polyamide PA6 V2
Sealing ring	: TPV
Gland body	: Polyamide PA6 V2
O-ring	: NBR / EPDM
Vent Part	: Acrylic Co-Polymer on Nylon Support (Hydrophobic-Oleophobic)
<b>Connection thread</b>	: Metric (EN 60423), PG (DIN 40430)
<b>Protection class</b>	: IP68
<b>Temperature range</b>	: -20 °C +100 °C -30 +150 °C (short term)



#### Benefits

- Balance the pressure inside and outside of your systems
- Prevents corrosion and water condensation inside the enclosure
- It gives advantage to be used as cable gland and venting element
- Extend the life time of your product
- Highest air flow level
- Anti-vibration protection
- UV resistance
- Easy to assemble
- Halogen Free
- High strain relief and chemical resistance

#### Applications

- Industrial and electronic applications
- Wind & Solar applications
- Lighting Industry
- Automotive & Automation technology
- Railway industry

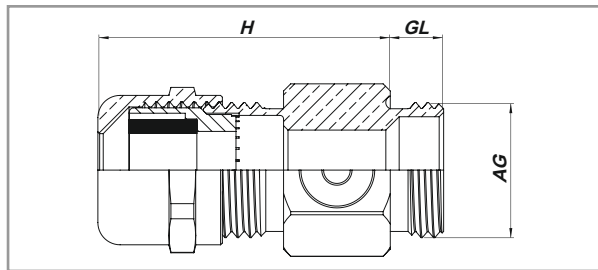
### METRIC/PG THREAD VENTILATION GLANDS

AG Thread	L.Gray Code RAL 7035	Black Code RAL 9005	H mm	GL mm	 mm	 mm	Hole Diameter mm	Average Air Flow l/H	Water Intrusion bar
M 12 x 1,5	OMVGL01	OMVGB01	29	8	19	4-6,5	12,3	70	0,1
M 16 x 1,5	OMVGL02	OMVGB02	33	8	19	4-8	16,3	70	0,1
M 16 x 1,5	OMVGL03	OMVGB03	34	10	22	5-10	16,3	70	0,1
M 20 x 1,5	OMVGL04	OMVGB04	40,5	10	24	6-12	20,3	70	0,1
PG7	OPVGL01	OPVGB01	29	8	19	4-8	13	70	0,1
PG9	OPVGL02	OPVGB02	33	8	19	4-8	15,5	70	0,1
PG11	OPVGL03	OPVGB03	34	10	22	5-10	19	70	0,1
PG13,5	OPVGL04	OPVGB04	34	10	24	6-12	21	70	0,1

ORTAC VENTILATION ELEMENTS



# ORvent



## VENTILATION GLANDS BRASS / STAINLESS STEEL

### TECHNICAL DETAILS

#### Material

Cap nut : Brass nickel plated, Stainless steel (AISI303/316L)  
 Sealing ring : TPV  
 Gland body : Brass nickel plated, Stainless steel (AISI303/316L)  
 Cable holder : Polyamide PA6 V2  
 O-ring : NBR / EPDM  
 Vent Part : Acrylic Co-Polymer on Nylon Support  
 (Hydrophobic-Oleophobic)

**Connection thread** : Metric (EN 60423), PG (DIN 40430)

**Protection class** : IP68

**Temperature range** : -20 °C +100 °C -30 +150 °C (short term)

#### Benefits


- Balance the pressure inside and outside of your systems
- Prevents corrosion and water condensation inside the enclosure
- It gives advantage to be used as cable gland and venting element
- Extend the life time of your product
- Highest air flow level
- Anti-vibration protection
- Easy to assemble
- High strain relief and chemical resistance
- Various sizes

#### Applications

- Industrial and electronic applications
- Wind & Solar applications
- Lighting Industry, Food & Beverage Industry
- Automotive & Automation technology
- Railway industry

### METRIC/PG THREAD VENTILATION GLANDS

PRODUCT RANGE OVERVIEW

AG Thread	Brass Code	Stainless Steel Code	H mm	GL mm	 mm	 mm	Hole Diameter mm	Average Air Flow l/H	Water Intrusion bar
M 12 x 1,5	OMBVG01	OMSVG01	31,5	6	17	4-8	12,3	70	0,1
M 12 x 1,5	OMBVG01L	OMSVG01L	31,5	8	17	4-8	12,3	70	0,1
M 16 x 1,5	OMBVG02R	OMSVG02R	31,5	6	17	4-8	16,3	70	0,1
M 16 x 1,5	OMBVG02RL	OMSVG02RL	31,5	8	17	4-8	16,3	70	0,1
M 16 x 1,5	OMBVG02	OMSVG02	33,5	6	20	5-10	16,3	70	0,1
M 16 x 1,5	OMBVG02L	OMSVG02L	33,5	8	20	5-10	16,3	70	0,1
M 20 x 1,5	OMBVG03	OMSVG03	35	8	22	6-12	20,3	70	0,1
PG7	OPBVG01	OPSVG01	31,5	6	17	4-8	13	70	0,1
PG7	OPBVG01L	OPSVG01L	31,5	8	17	4-8	13	70	0,1
PG9	OPBVG02	OPSVG02	31,5	6	17	4-8	15,5	70	0,1
PG9	OPBVG02L	OPSVG02L	31,5	8	17	4-8	15,5	70	0,1
PG11	OPBVG03	OPSVG03	33,5	6	20	5-10	19	70	0,1
PG11	OPBVG03L	OPSVG03L	33,5	8	20	5-10	19	70	0,1
PG13,5	OPBVG04	OPSVG04	35	6,5	22	6-12	21	70	0,1
PG13,5	OPBVG04L	OPSVG04L	35	8	22	6-12	21	70	0,1

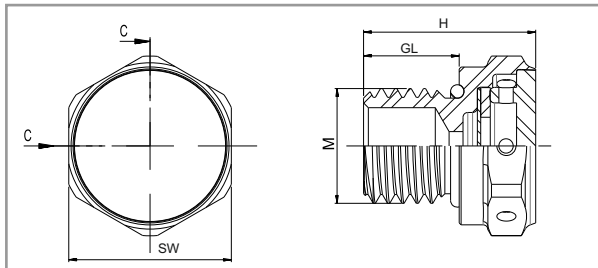
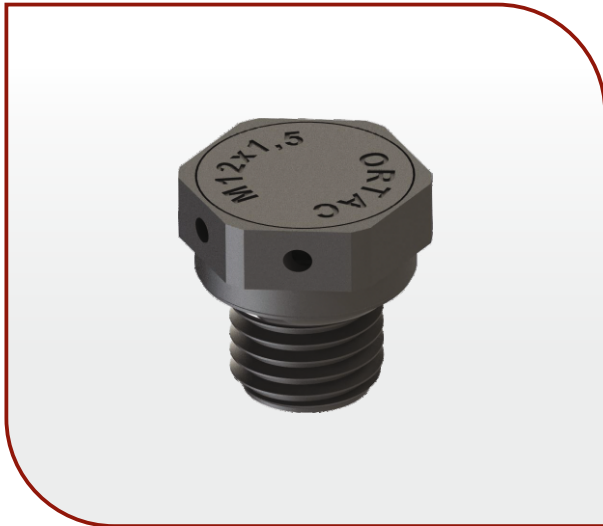
IP 68

Halogen free

ORTAC VENTILATION ELEMENTS



# ORvent



## VENTILATION PLUGS PLASTIC

### TECHNICAL DETAILS

**Material**

Cap & body : Polyamide PA6 V2  
 O-ring : NBR / EPDM  
 Vent Part : Acrylic Co-Polymer on Nylon Support (Hydrophobic-Oleophobic)

**Connection thread**

: Metric (EN 60423)

**Protection class**

: IP68

**Temperature range**

: -20 °C +100 °C -30 +150 °C (short term)

**Benefits**

- Balance the pressure inside and outside of your systems
- Prevents corrosion and water condensation inside the enclosure
- Extend the life time of your product
- Various air flows
- UV resistance
- Easy to assemble
- Halogen Free
- High chemical resistance

**Applications**

- Industrial and electronic applications
- Wind & Solar applications
- Lighting Industry
- Automotive & Automation technology
- Railway industry

### VENTILATION PLUGS

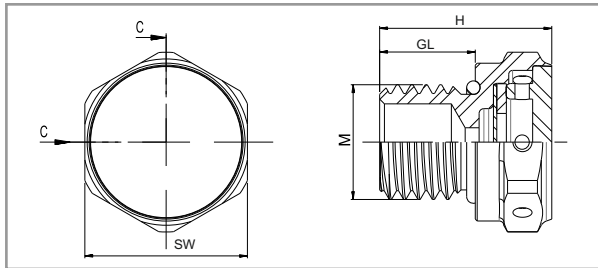
PRODUCT RANGE OVERVIEW

AG Thread	L.Gray Code RAL 7035	Black Code RAL 9005	H mm	GL mm	mm	Thread Diameter mm	Hole Diameter mm	Average Air Flow l/H	Water Intrusion bar
M 12 x 1,5	OMVPL01S	OMVPB01S	15	6	18	12	12,3	16	0,8
M 12 x 1,5	OMVPL01M	OMVPB01M	15	6	18	12	12,3	25	0,5
M 12 x 1,5	OMVPL01H	OMVPB01H	15	6	18	12	12,3	150	0,2
M 12 x 1,5	OMVPL01UH	OMVPB01UH	15	6	18	12	12,3	300	0,1
M 12 x 1,5	OMVPL01SL	OMVPB01SL	19	10	18	12	12,3	16	0,8
M 12 x 1,5	OMVPL01ML	OMVPB01ML	19	10	18	12	12,3	25	0,5
M 12 x 1,5	OMVPL01HL	OMVPB01HL	19	10	18	12	12,3	150	0,2
M 12 x 1,5	OMVPL01UHL	OMVPB01UHL	19	10	18	12	12,3	300	0,1

ORTAC METAL VENTILATION ELEMENTS



# ORvent



## VENTILATION PLUGS

### BRASS

#### TECHNICAL DETAILS

##### Material

Cap & body	: Brass nickel plated
O-ring	: NBR / EPDM
Vent Part	: Acrylic Co-Polymer on Nylon Support (Hydrophobic-Oleophobic)
Connection thread	: Metric (EN 60423)
Protection class	: IP68
Temperature range	: -20 °C +100 °C -30 +150 °C (short term)

##### Benefits

- Balance the pressure inside and outside of your systems
- Prevents corrosion and water condensation inside the enclosure
- Extend the life time of your product
- Various air flows
- Easy to assemble
- High chemical resistance

##### Applications

- Industrial and electronic applications
- Wind & Solar applications
- Lighting Industry
- Automotive & Automation technology
- Railway industry

## VENTILATION PLUGS

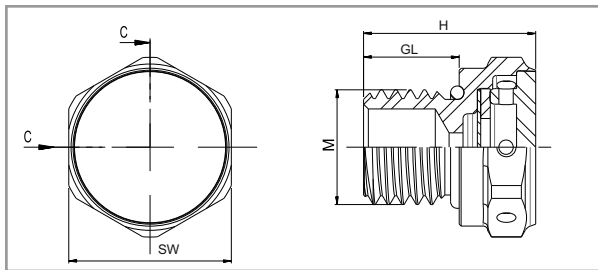
PRODUCT RANGE OVERVIEW

AG Thread	Code	H mm	GL mm	mm	Thread Diameter mm	Hole Diameter mm	Average Air Flow l/H	Water Intrusion bar
M 4 x 0,70	OMBVP4S	10	3	12	4	4,2	6	0,1
M 4 x 0,70	OMBVP4M	10	3	12	4	4,2	9	0,1
M 4 x 0,70	OMBVP4H	10	3	12	4	4,2	45	0,1
M 4 x 0,70	OMBVP4UH	10	3	12	4	4,2	105	0,1
M 8 x 1,25	OMBVP8S	13	6	12	8	8,2	6	0,1
M 8 x 1,25	OMBVP8M	13	6	12	8	8,2	9	0,1
M 8 x 1,25	OMBVP8H	13	6	12	8	8,2	45	0,1
M 8 x 1,25	OMBVP8UH	13	6	12	8	8,2	105	0,1
M 10 x 1,5	OMBVP10S	13	6	12	10	10,2	6	0,1
M 10 x 1,5	OMBVP10M	13	6	12	10	10,2	9	0,1
M 10 x 1,5	OMBVP10H	13	6	12	10	10,2	45	0,1
M 10 x 1,5	OMBVP10UH	13	6	12	10	10,2	105	0,1
M 12 x 1,5	OMBVP01S	14	6	17	12	12,3	16	0,8
M 12 x 1,5	OMBVP01M	14	6	17	12	12,3	25	0,5
M 12 x 1,5	OMBVP01H	14	6	17	12	12,3	150	0,2
M 12 x 1,5	OMBVP01UH	14	6	17	12	12,3	300	0,1
M 12 x 1,5	OMBVP01SL	18	10	17	12	12,3	16	0,8
M 12 x 1,5	OMBVP01ML	18	10	17	12	12,3	25	0,5
M 12 x 1,5	OMBVP01HL	18	10	17	12	12,3	150	0,2
M 12 x 1,5	OMBVP01UHL	18	10	17	12	12,3	300	0,1



**ORTAC VENTILATION ELEMENTS**


# ORvent



## VENTILATION PLUGS STAINLESS STEEL

### TECHNICAL DETAILS

#### Material

Cap & body

: Stainless Steel (ASISI 303/316L)

O-ring

: NBR / EPDM

Vent Part

: Acrylic Co-Polymer on Nylon Support  
(Hydrophobic-Oleophobic)

Connection thread

: Metric (EN 60423)

Protection class

: IP68

Temperature range

: -20 °C +100 °C -30 +150 °C (short term)

#### Benefits


- Balance the pressure inside and outside of your systems
- Prevents corrosion and water condensation inside the enclosure
- Extend the life time of your product
- Various air flows
- Easy to assemble
- High chemical resistance

#### Applications

- Industrial and electronic applications
- Wind & Solar applications
- Lighting Industry, Food & Beverage Industry
- Automotive & Automation technology
- Railway industry

### VENTILATION PLUGS

**PRODUCT RANGE OVERVIEW**

AG Thread	Code	H mm	GL mm		Thread Diameter mm	Hole Diameter mm	Average Air Flow l/H	Water Intrusion bar
M 4 x 0,70	OMSVP4S	10	3	12	4	4,2	6	0,1
M 4 x 0,70	OMSVP4M	10	3	12	4	4,2	9	0,1
M 4 x 0,70	OMSVP4H	10	3	12	4	4,2	45	0,1
M 4 x 0,70	OMSVP4UH	10	3	12	4	4,2	105	0,1
M 8 x 1,25	OMSVP8S	13	6	12	8	8,2	6	0,1
M 8 x 1,25	OMSVP8M	13	6	12	8	8,2	9	0,1
M 8 x 1,25	OMSVP8H	13	6	12	8	8,2	45	0,1
M 8 x 1,25	OMSVP8UH	13	6	12	8	8,2	105	0,1
M 10 x 1,5	OMSVP10S	13	6	12	10	10,2	6	0,1
M 10 x 1,5	OMSVP10M	13	6	12	10	10,2	9	0,1
M 10 x 1,5	OMSVP10H	13	6	12	10	10,2	45	0,1
M 10 x 1,5	OMSVP10UH	13	6	12	10	10,2	105	0,1
M 12 x 1,5	OMSVP01S	14	6	17	12	12,3	16	0,8
M 12 x 1,5	OMSVP01M	14	6	17	12	12,3	25	0,5
M 12 x 1,5	OMSVP01H	14	6	17	12	12,3	150	0,2
M 12 x 1,5	OMSVP01UH	14	6	17	12	12,3	300	0,1
M 12 x 1,5	OMSVP01SL	18	10	17	12	12,3	16	0,8
M 12 x 1,5	OMSVP01ML	18	10	17	12	12,3	25	0,5
M 12 x 1,5	OMSVP01HL	18	10	17	12	12,3	150	0,2
M 12 x 1,5	OMSVP01UHL	18	10	17	12	12,3	300	0,1