

# Air Purge Unit

# Series: LSP-compact

# Type: EJG-2



# **Technical Information**

02/2021



# THE EXPERT IN LEVEL AND FLOW

# Air Purge Unit LSP-compact

#### Advantages

- easy handling and installation
- simple design (small number of components)
- easy triggering

## **Description**

In order to achieve an optimal measurement result in the case of flow measurement of impure media, until now, the flow sensor had to be pulled out and cleaned in repeated time intervals or, as a second option, a more complicated air purge unit had to be installed.

The air purge unit LSP-compact offers a lower priced alternative.

Due to the compact design (small number of components) the LSP-compact is very trouble-free and easy to install. (s. fig. above).

Complicated control box installation can be avoided and possible storage of spare parts will be reduced.

In general, the LSP-compact is a 2/2-way directly controlled valve. Therefore the LSP-compact can be triggered by the user via relay or SPS.

Also it is possible to trigger the LSP through the related option of the DigiFlow. In that case the air purge cycle time, clean time and settle time can be programmed freely according to the process. At the same time, the DigiFlow saves the last measured value prior to the air purging.

#### Recommended application

On the following solid contents (here: dust) in the fluid (here: gaseous medium) the application of an Air Purge Unit is recommended:

Solid content	
_in mg/m³	Recommendation
< 140	No Air Purge Unit needed
140 280	Air Purge Unit <b>recommended</b>
> 280	Air Purge Unit <u>needed</u>

**Doubts?**: Please ask our consultants for a recommendation.

# View from purge air connection side:



# View from vent/drain connection side:



# View from transmitter mounting side



(All dimensions in mm)

## <u>Design</u>



## **Installation**

The air purge block has to be mounted directly to the differential pressure transmitter by using the delivered screws. On the opposite side of you have to connect the pressure lines. This guarantees that both instruments – sensor and transmitter – will be purged and cleaned. On the side of the purging block there is the connection for purging air. (standard flexible tube  $\emptyset$  6 mm). The magnetic valves MV1 and MV2 are powered by 220 V AC (other kinds of power supply on request).

# Technische Daten:

## Standard version, without Ex-protection

article-no.	:	EJG-21
valve type	:	2/2 way, direct controlled
medium	:	air
function	:	In rest position closed
pipe connection	:	1/4" NPT
fitting position	:	random
nominal width	:	3 mm
Kv – flow rate	:	approx 0.23 m³/h
operating pressure	:	max. 6 bar
nominal stroke	:	1 mm
Leakage rate		no bubble tracking
temperature of medium	:	-10 + 90 °C
ambient temperature		max. 55 °C
material of valve body	:	Anodized aluminium or ST ST
	:	
material of parts inside	÷	ST ST
material of seals	•	FPM
nominal voltage	:	AC: 24 V, 110 V or 220 V / 50 Hz
		DC: 24 V
protection class	:	without
make time	:	100%
type of protection	:	IP 65
electrical connection	:	acc. DIN 43650
power consumption	:	21 VA AC (start up)
		12 VA/ 8 W (during working)
weight	:	approx. 2.7 kg
	•	
EEx ed-version		
article-no.		EJG-22
valve tvne	:	
valve type	:	2/2 way, direct controlled
medium	:	2/2 way, direct controlled air
medium function	:	2/2 way, direct controlled air In rest position closed
medium function pipe connection	:	2/2 way, direct controlled air In rest position closed 1/4" NPT
medium function pipe connection fitting position		2/2 way, direct controlled air In rest position closed 1/4" NPT random
medium function pipe connection fitting position nominal width		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm
medium function pipe connection fitting position nominal width Kv - flow rate		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m³/h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for single mounting)
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for <u>single mounting</u> ) max. 135 °C
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for <u>single mounting</u> ) max. 135 °C Anodized aluminium or ST ST
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body material of parts inside		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for <u>single mounting</u> ) max. 135 °C Anodized aluminium or ST ST ST ST
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m³/h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for single mounting) max. 135 °C Anodized aluminium or ST ST ST ST FPM
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body material of parts inside		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for <u>single mounting</u> ) max. 135 °C Anodized aluminium or ST ST ST ST
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body material of parts inside material of seals		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m³/h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for single mounting) max. 135 °C Anodized aluminium or ST ST ST ST FPM
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body material of parts inside material of seals nominal voltage		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for single mounting) max. 135 °C Anodized aluminium or ST ST ST ST FPM UC: 230V / 50Hz EEx M II 2G/D T4 ; EEx EM II 2G/D T4
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body material of parts inside material of seals nominal voltage protection class		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for <u>single mounting</u> ) max. 135 °C Anodized aluminium or ST ST ST ST FPM UC: 230V / 50Hz
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body material of parts inside material of seals nominal voltage protection class make time		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for single mounting) max. 135 °C Anodized aluminium or ST ST ST ST FPM UC: 230V / 50Hz EEx M II 2G/D T4 ; EEx EM II 2G/D T4 (PTB 00 ATEX 2129X) 100%
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body material of parts inside material of seals nominal voltage protection class make time type of protection		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for single mounting) max. 135 °C Anodized aluminium or ST ST ST ST FPM UC: 230V / 50Hz EEx M II 2G/D T4 ; EEx EM II 2G/D T4 (PTB 00 ATEX 2129X) 100% IP 65
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body material of parts inside material of seals nominal voltage protection class make time type of protection electrical connection		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for single mounting) max. 135 °C Anodized aluminium or ST ST ST ST FPM UC: 230V / 50Hz EEx M II 2G/D T4 ; EEx EM II 2G/D T4 (PTB 00 ATEX 2129X) 100% IP 65 Pressed-in cable (3000 mm)
medium function pipe connection fitting position nominal width Kv - flow rate operating pressure nominal stroke Leakage rate temperature of medium ambient temperature material of valve body material of parts inside material of seals nominal voltage protection class make time type of protection		2/2 way, direct controlled air In rest position closed 1/4" NPT random 2 mm approx. 0.23 m <sup>3</sup> /h max. 5 bar 1 mm no bubble tracking -10 + 100 °C for temperature class T6 -30 + 60 °C (for single mounting) max. 135 °C Anodized aluminium or ST ST ST ST FPM UC: 230V / 50Hz EEx M II 2G/D T4 ; EEx EM II 2G/D T4 (PTB 00 ATEX 2129X) 100% IP 65

Besides the products covered by this brochure, Intra-Automation GmbH also manufactures other highquality and high precision instruments for industrial measurement tasks. For more information, please contact us (contact details on the backside of this brochure).



Itabar®-Flow Sensor

#### Flow measurement



IntraSonic IS210 Ultrasonic Flow Meter

#### Level measurement



ITA-mag. Level Gauge

MAGLINK Level Indicator





**INTRA-AUTOMATION GmbH** 



MESS- UND REGELINSTRUMENTE

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