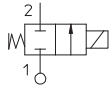
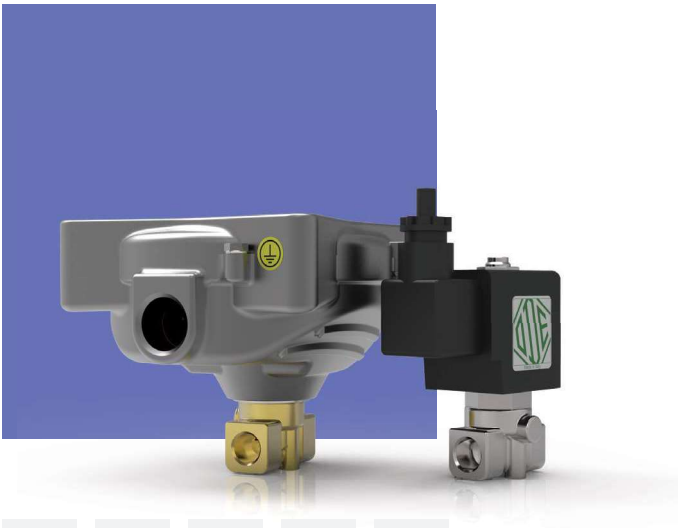


# 21A - 21L SERIES

## Solenoid Valves, 2-way, Direct acting

**21A** and **21L** are direct acting solenoid valves. The fixed core and armature tube are welded together to enhance pressure resistance and leak-tightness. A large selection of seal materials provides wide chemical compatibility.



### TECHNICAL DATA

<b>PORT CONNECTION</b>	G 1/4 ÷ G 1/8	
<b>SEALING MATERIALS</b>	FKM	HNBR
<b>FLUID TEMPERATURE</b>	-10°C +80°C	-30°C +80°C
<b>FLUIDS</b>	air, inert gases, water, oils, gasoline, diesel	air, inert gases, water, R134a, R404a
<b>VISCOSITY</b>	12 cSt up to orifice 1.5 mm, 37 cSt for orifice 2.0 mm, 53 cSt for orifice 2.5 mm and above	
<b>TUBE Ø - COIL WIDTH - SERIES</b>	Ex mb	ø 14 mm - 36 mm TNA (class F)
	Ex d	ø 13 mm - 30 mm BDV08 (class H)
<b>INSTALLATION</b>	as required, preferably with actuator upright	
<b>PROTECTION DEGREE</b>	Ex mb	IP65 EN 60529 (DIN 40050)
	Ex d	IP67 EN 60529 (DIN 40050) with cable gland IP67 or higher

### MATERIALS

<b>BODY</b>	Brass UNI EN 12165 CW617N or stainless steel AISI 316
<b>ORIFICE</b>	Stainless steel AISI series 300 for brass body AISI 316 for stainless steel body
<b>ARMATURE TUBE</b>	Stainless steel AISI Series 300
<b>FIXED CORE</b>	Stainless steel AISI Series 400
<b>PLUNGER</b>	Stainless steel AISI Series 400
<b>PHASE DISPLACEMENT RING</b>	Copper (Cu 99,9%) or gold plated copper
<b>SPRING</b>	Stainless steel AISI Series 300
<b>SEALING</b>	V=FKM, F=HNBR

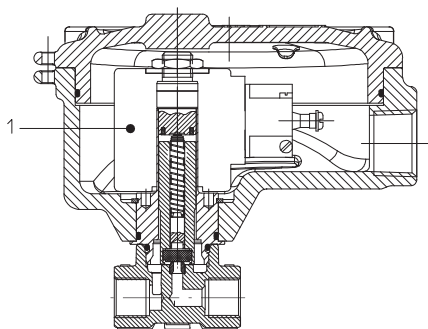
- **CE**
  - 2014/35/EU (LVD)
  - 2014/30/EU (EMC)
  - 2014/68/EU (PED) art. 4.3 up to 1"
  - 2014/34/EU (ATEX). Refer to next pages for the complete marking

- **INDUSTRIAL OXYGEN**
  - Special versions suitable for contact with industrial oxygen are available.
  - Please refer to codification options.

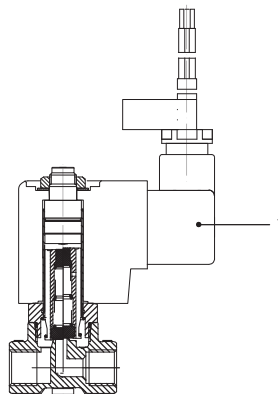
- **UL** recognized and **VDE** approved coils are available for this series, please refer to coil section.

- The fluids listed in the "technical data" tables should be considered as a recommendation. Please check the chemical compatibility of the fluids with the materials of the valve at RFQ stage.
- For spare parts list, please refer to the dedicated chapter.

NC, Ex d

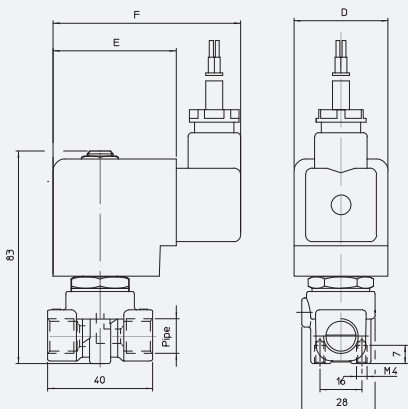


NC, Ex mb

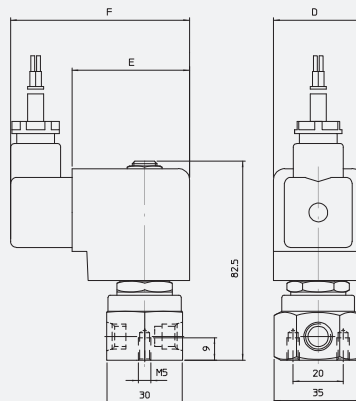


Atex ■ Solenoid Valves ■ 2-way ■ Direct acting ■ 21A 21L SERIES

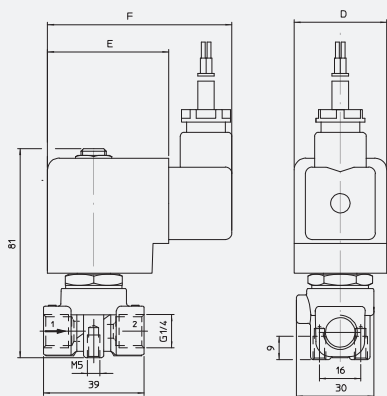
DRAWING 1



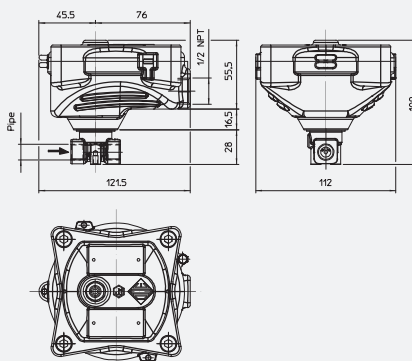
DRAWING 2



DRAWING 3



DRAWING 4



PIPE	DIMENSIONS [mm]		
	D	E	F
ISO 228/1			
G1/8	36	47	76
G1/4			

PIPE	ORIFICE SIZE	Kv	COIL SERIES	PRESSURE [bar]				CODE		DRAWING REFERENCE
				MIN	MOPD		PS	BRASS	STAINLESS STEEL	
					AC	DC				
ISO 228/1	Ø [mm]	[l/min]								
G1/8	1,5	1,4	TNA	0	16	16	40	21A3QDV15	-	1
	2	2	TNA	0	16	16	40	21A3QDV20	-	1
	2,5	3,2	TNA	0	14	9	40	21A3QDV25	-	1
								-	21L1QDV25	2
	3	4	TNA	0	10	6	40	21A3QDV30	-	1
								-	21L1QDV30	2
4	5	TNA	0	6	1,7	40	-	21L1QDV40	2	
4,5	6,5	TNA	0	5	2	40	21A3QDV45	-	1	
G1/4	1,5	1,4	TNA	0	16	16	40	21A2QDV15	-	1
	2	2	TNA	0	16	16	40	21A2QDV20	-	1
	2,5	3,2	TNA	0	14	9	40	21A2QDV25	-	1
								-	21L2QDV25	3
	3	4	TNA	0	10	6	40	21A2QDV30	-	1
								-	21L2QDV30	3
	4	5	TNA	0	6	1,7	40	-	21L2QDV40	3
4,5	6,5	TNA	0	5	2	40	21A2QDV45	-	1	
5,5	9	TNA	0	3	1	40	21A2QDV55	-	1	
				3,5	1	40	-	21L2QDV55	3	



**According to Directive 2014/34/EU ATEX**

II 2 G Ex mb IIC T4 Gb

II 2 D Ex mb tb IIIC T130°C Db

PIPE	ORIFICE SIZE	Kv	COIL SERIES	PRESSURE [bar]			CODE		DRAWING REFERENCE	
				MIN	MOPD		PS	BRASS		STAINLESS STEEL
					AC	DC				
G1/8	1,5	1,4	BDV08	0	30	18	40	21A3KIV15	-	4
	2	2	BDV08	0	22	16	40	21A3KIV20	-	4
	2,5	3,2	BDV08	0	14	9	40	21A3KIV25	-	4
	3	4	BDV08	0	10	6	40	21A3KIV30	-	4
G1/4	1,5	1,4	BDV08	0	30	18	40	21A2KIV15	-	4
	2	2	BDV08	0	22	16	40	21A2KIV20	-	4
	2,5	3,2	BDV08	0	14	9	40	21A2KIV25	21L2KIV25	4
	3	4	BDV08	0	10	6	40	21A2KIV30	21L2KIV30	4
	4	5	BDV08	0	6	1,7	40	-	21L2KIV40	4
	5,5	9	BDV08	0	3,5	1	40	-	21L2KIV55	4

Ex d - 2/2 NC

PIPE	ORIFICE SIZE	Kv	COIL SERIES	PRESSURE [bar]			CODE		DRAWING REFERENCE	
				MIN	MOPD		PS	BRASS		STAINLESS STEEL
					AC	DC				
G1/8	1,5	1,4	BDV08	0	25	25	40	21A3ZIV15D	-	4
	2	2	BDV08	0	20	20	40	21A3ZIV20D	-	4
	2,5	3,2	BDV08	0	14	14	40	21A3ZIV25D	-	4
	3	4	BDV08	0	10	10	40	21A3ZIV30D	-	4
G1/4	1,5	1,4	BDV08	0	25	25	40	21A2ZIV15D	-	4
	2	2	BDV08	0	20	20	40	21A2ZIV20D	-	4
	2,5	3,2	BDV08	0	14	14	40	21A2ZIV25D	-	4
	3	4	BDV08	0	10	10	40	21A2ZIV30D	-	4

Ex d - 2/2 NO



### According to Directive 2014/34/EU ATEX

II 2G Ex d IIC T6 o T5 Gb

II 2D Ex tb IIIC T80°C o T95°C Db IP67

I	II	III	IV	V	VI	VII	VIII	IX
2	1	A	2	QD	V	25		-

CODIFICATION

#### I. NUMBER OF WAYS

2 - 2-way

#### II. NUMBER OF ELEMENTS

1 - 1 element

#### III. SERIES

A - brass body, Ø13 mm core tube

L - StSt body, Ø13 mm core tube

#### IV. CONNECTIONS

for A series

3 - G1/8

2 - G1/4  
for L series

1 - G1/8

2 - G1/4

#### V. CORE TUBE TYPE

QD - 2/2 NC, 'mb' protection type

KI - 2/2 NC, 'd' protection type

ZI - 2/2 NO, 'd' protection type

#### VI. SEALING MATERIAL

V - FKM

F - HNBR

#### VII. ORIFICE Ø [mm] MULTIPLIED BY 10

#### VIII. COIL IDENTIFICATION

Blank - std. for NC

D - 8 W coil for NO, 'd' protection type

#### IX. OPTIONS

OX - degreasing for industrial oxygen use