

## Steering - arm flap - SPECIFICATION



TAG-No. : **UK 15011/016/021/026** Piece : **4**

Denomination : Electro-pneumatically controlled Steering lever flap

Type	: PKIII	DN	700	PN	10
Publication	: B 0119	Inst. lenght	: 700 mm		
Testing	: Works certificate	Flanges	: DIN2632-C		
		placement	: horizontal		

### Operating data

Flow medium	: AIR	Allwd. oper. pressure	: 10 (static)	bar
Inlet pressure	: 5,62	Allwd. oper. temp.	: 220	°C
Opening pressure	: 0,1 - 0,3	Allwd. ambient temp.	: - 15 + 60	°C
Medium temerature	: 23	Control air pressure	: 3,5 - 8	bar
Control voltage	: 24			

**Set -Function** : Function 1: Valve without pneum. energy – hold in the position  
 Function 2: Valve without electrical energy – 5/2 Way solenoid valve without electrical energy – flap valve opened.  
 The opening time and closing time can be adjusted with the throttle valves.

**Materials** : Body / flap disk : ☒ welded steel construction WAZ n. DIN 50049 3.1B  
 shaft and actuating bolt : stainless steel **1.4057**  
 flap disk gasket : ☒ **Silicon red**  
 shaft sealing : Double sealing by O - Ring with test connection G 1/8 ,  
 shaft bearing: Maintenance-free PTFE friction bearings  
 Shaft bearing and bolt bearing sealing by O-Ring against dust on the inside  
 seat ring : stainless steel

**Actuator** : Piston **double acting** piston diameter **200** mm  
 Cylinder-pipe from steel, chem. nickel plated.

**other components included** : Presure reducing station with back- pressure manometer  
 : Range of adjustment 0-8 barü

1	Pcs	5/2-Way-Solenoid valve G 1/4	Type : 9710535.0763	Make : Herion	
		Protection class : <input checked="" type="checkbox"/> IP65, <input type="checkbox"/> Ex	Power consump. : 2,2	W/WA	
		Special features : External control air connection			
	Pcs	Quick exhaust valve	Type :	Make :	
2	Pcs	Limit switches <input checked="" type="checkbox"/> On <input checked="" type="checkbox"/> Off	Mechanical <input checked="" type="checkbox"/>	Inductive <input type="checkbox"/>	Ex <input type="checkbox"/>
		Type : NJ6-22-SN-G	Make : P&F	Protective class <input checked="" type="checkbox"/> IP68	
		Special features :			
		Contr. connections with : <input checked="" type="checkbox"/> Air bottle <input checked="" type="checkbox"/> Connector han,	2x Needle valve	G 1/4	
		Cabling : <input type="checkbox"/> Without <input type="checkbox"/> Connector han,	Terminal box IP65,	<input type="checkbox"/> Ex	
		<input type="checkbox"/> Only limit switch	Limit switch & solenoid valve		
		Control-connections : <input checked="" type="checkbox"/> Standard : Flexible hoses	<input checked="" type="checkbox"/> Fittings stainless steel		
		<input type="checkbox"/> Complete stainless steel 1.4571	<input type="checkbox"/> Customers specification		
		Painting : <input checked="" type="checkbox"/> Kühme-standard			

### Notes

: Cleaned, oil and grease free  
 Isolation = 100 mm  
 Attention: UK 15011/021 Steering lever flap from inside with protective coating for body; flap disk and all lever

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH				<b>Specification</b> Control Valves				TAG - No.: <b>UK15011</b>			
				<b>ASU No. 9 KOSICE</b>				Project No.: <b>K70101</b>			
<input type="checkbox"/> Globe <input checked="" type="checkbox"/> Butterfly <input type="checkbox"/> Cock <input type="checkbox"/> Gate				Designation: <b>INLET ADSORBER A</b>				Page:                      of: Combination with TAG-No.:			

Rev.			Line - No.	700A-13001-AA10C1W					Rev.			Manufact.			Type	digital									
			Equipment - No.										max. allow. air pressure (g)		6 bar										
		Location	DN	700	PN	10	Material	St 37					Input signal	open	20	mA	bar								
			Flanges	DIN		Gasket	Form C						Input signal	close	4	mA	bar								
			Taps			Material							<input type="checkbox"/> Explosion proof	Load	< 400		Ω								
		Medium	Medium		AIR (humid)								Enclosure class of all accessory devices					IP 65 / NEMA 4X							
			Composition										Manufact.	P&F	Type	NJ6-22-SN-G									
			Normal density	kg/m³	1,293									Position	<input checked="" type="checkbox"/> open	<input checked="" type="checkbox"/> close									
		Service conditions	State inlet	<input type="checkbox"/> liquid <input checked="" type="checkbox"/> gaseous <input type="checkbox"/> vaporous									Switch type	<input type="checkbox"/> contact	<input checked="" type="checkbox"/> inductive	<input type="checkbox"/> pneumatic									
			State outlet	<input checked="" type="checkbox"/> eq. inlet <input type="checkbox"/> % vaporization									State at end position	<input type="checkbox"/> on/alive		<input type="checkbox"/> off/dead									
			Operation case	case 1	case 2	case 3								Enclosure class of all accessory devices					IP 65 / NEMA 4X						
		Design	Flow	Nm³/h	72579	96400	96954								<input type="checkbox"/> See specification solenoid valve										
			P <sub>1</sub> (abs.)	bar	5,500	5,820	5,720								Manufact.	Herion	Type	2636097.0763							
			P <sub>2</sub> (abs.)	bar	5,495	5,815	5,715								Power supply	24 VDC	Hz	bar							
			Temperature t <sub>i</sub>	°C	15,5	13,9	14,6								without power	<input type="checkbox"/> deaerated <input type="checkbox"/> aerated									
			Operat. density	kg/m³	6,65	7,07	6,94								<input type="checkbox"/> Explosion proof	Power consumption	< 7		W						
		Armature	Border case		min	max									Enclosure class of all accessory devices					IP 65 / NEMA 4X					
			Allowed op. press.	bar (a)			7									<input checked="" type="checkbox"/> Pressure reducing station					Fisher 67CFR				
			Allowed op. temp.	°C	-25		35									Air connections	G1/4" tube fittings, stainl. steel								
			Ambient temp.	°C	-25		35									Air tube material	stainl. steel								
			Manufact.	Kühme	Type	PK III									<input type="checkbox"/> Volume booster	Type									
		Accessories	Design		steering arm flap								<input type="checkbox"/> Electric actuator					<input type="checkbox"/> Level <input type="checkbox"/> Push drive							
			K <sub>V</sub> calculated	16456,1 / 21521,8	K <sub>VS</sub>	30000,00									Rated torque					Nm Moving time		s			
			Leak quantity	acc. EN 12266-1 leak rate A												<input type="checkbox"/> Capacitor connection device					<input type="checkbox"/> Tacho sensor				
			Seat φ	mm	Actuator ratio K <sub>VS</sub> /K <sub>VR</sub>												<input type="checkbox"/> Feedback transm					4-20 mA <input type="checkbox"/> 2-wire <input type="checkbox"/> 4-wire			
			DN	700	PN	10	Material	CS									Power supply					V 50 Hz			
			Flanges	DIN		Gasket	Form C									<input type="checkbox"/> with cold box hood acc. spec. SP01DE02									
			Inst. length	700					mm									Enclosure class of all accessory devices					IP 65 / NEMA 4X		
			Charact.	<input type="checkbox"/> VDI/DE 2176 <input type="checkbox"/> linear <input type="checkbox"/> qu.-% <input checked="" type="checkbox"/> op./cl.												Cable glands					M20				
			Seat type	<input type="checkbox"/> single <input type="checkbox"/> double <input type="checkbox"/> three way												<input checked="" type="checkbox"/> Cleaned, oil and grease free acc. Standard 06401									
			Plug type	disk												<input type="checkbox"/> Cleaned, oil and grease free acc. manufacturer's standard									
		Certificates	Gasket	<input type="checkbox"/> metallic <input checked="" type="checkbox"/> soft					Material	sili.-kaut.									<input checked="" type="checkbox"/> max. sound power level L <sub>W</sub> acc. VDMA 24422					85 dB(A)	
			Seat material	1.4571					<input type="checkbox"/> Plating										<input type="checkbox"/> Indication of L <sub>W</sub> in octave spectrum acc. VDMA 24422						
			Plug material						<input type="checkbox"/> Plating										<input type="checkbox"/> AD 2000-leaflet						
			Plating material															<input type="checkbox"/> Material certificate EN 10204 - 3.1.B							
			Kind of plating	<input type="checkbox"/> chamfe <input type="checkbox"/> surface <input type="checkbox"/> full														<input checked="" type="checkbox"/> EN 558/1 bzw. EN 12982 (Inst. Length)							
			Stuffing box	<input checked="" type="checkbox"/> self adjusting <input type="checkbox"/> adjustable														<input checked="" type="checkbox"/> EN 12266/1, DIN 3230/5 (Leak Test)							
			Stuffing box packing	PTFE														<input checked="" type="checkbox"/> UVV-Gase							
			<input type="checkbox"/> Bellows <input type="checkbox"/> Extension	A =					mm									<input type="checkbox"/> UVV-Sauerstoff							
			<input type="checkbox"/> Cooling fins <input type="checkbox"/> Seal gas connection															<input checked="" type="checkbox"/> Packed acc. Standard 06271							
			<input type="checkbox"/> Install. position	(spindle axis to horizontal)														<input checked="" type="checkbox"/> Indication of TAG - Nr. on the type plate							
		Remarks	Manufact.	Kühme	Type	piston									- actuator opens against diff. pressure of 0,1...0,3 bar  - control acc. HU_V13										
			<input checked="" type="checkbox"/> pn. <input type="checkbox"/> el. <input type="checkbox"/> hydr.	Diaphragm area		cm²																			
			Air supply	3,5 bar(g)	Travel	mm																			
			Valve without pneum. energy	<input type="checkbox"/> open <input checked="" type="checkbox"/> hold <input type="checkbox"/> close																					
			Valve without electr. energy	<input checked="" type="checkbox"/> open <input type="checkbox"/> hold <input type="checkbox"/> close																					
			Open way of 3 way valve without energy																						
			Spring rate	<input type="checkbox"/> 0,2-1 bar <input type="checkbox"/> 0,4-2 bar																					
			<input type="checkbox"/> Hand operate <input type="checkbox"/> top <input type="checkbox"/> lateral																						
			Operation cycles																						
			Moving time																						
		Valve seals at both pressure directions																							
		at ΔPmax =	bar																						

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Rev.	Date	Name	Checked	Change	Rev.	Date	Name	Checked	Change

				Specification Control Valves				TAG - No.: <b>UK15016</b>			
								Project No.: <b>K70101</b>			
Air Liquide AGS GmbH				Project: <b>ASU No. 9 KOSICE</b>				Page:                      of:			
<input type="checkbox"/> Globe <input checked="" type="checkbox"/> Butterfly <input type="checkbox"/> Cock <input type="checkbox"/> Gate				Designation: <b>OUTLET ADSORBER A</b>				Combination with TAG-No.:			

Rev.							Rev.									
		Line - No.	700A-15001-AA10C1W						<input type="checkbox"/> Manufact.		Type	digital				
		Equipment - No.								max. allow. air pressure (g)			6 bar			
		DN	700	PN	10	Material	St 37			Input signal	open	20	mA	bar		
		Flanges	DIN		Gasket	Form C				Input signal	close	4	mA	bar		
		Taps			Material					<input type="checkbox"/> Explosion proof	Load	< 400		Ω		
		Medium	AIR (dry)							Enclosure class of all accessory devices				IP 65 / NEMA 4X		
		Composition							<input checked="" type="checkbox"/> Manufact.	P&F	Type	NJ6-22-SN-G				
		Normal density	kg/m³		1,293					Position	<input checked="" type="checkbox"/> open	<input checked="" type="checkbox"/> close				
		State inlet	<input type="checkbox"/> liquid		<input checked="" type="checkbox"/> gaseous		<input type="checkbox"/> vaporous			Switch type	<input type="checkbox"/> contact	<input checked="" type="checkbox"/> inductive	<input type="checkbox"/> pneumatic			
		State outlet	<input checked="" type="checkbox"/> eq. inlet		<input type="checkbox"/> % vaporization					State at end position	<input type="checkbox"/> on/alive		<input type="checkbox"/> off/dead			
		Operation case	case 1	case 2	case 3					Enclosure class of all accessory devices				IP 65 / NEMA 4X		
		Flow	Nm³/h	72579	96400	96954					<input type="checkbox"/> See specification solenoid valve					
		P <sub>1</sub> (abs.)	bar	5,360	5,620	5,540					Manufact.	Herion	Type	2636097.0763		
		P <sub>2</sub> (abs.)	bar	5,355	5,615	5,535					Power supply	24 VDC	Hz	bar		
		Temperature t <sub>i</sub>	°C	23,0	23,0	23,0					without power	<input type="checkbox"/> deaerated		<input type="checkbox"/> aerated		
		Operat. density	kg/m³	6,31	6,62	6,53					<input type="checkbox"/> Explosion proof	Power consumption			< 7 W	
		Border case	min		max						Enclosure class of all accessory devices				IP 65 / NEMA 4X	
		Allowed op. press.	bar (a)			7					<input checked="" type="checkbox"/> Pressure reducing station				Fisher 67CFR	
		Allowed op. temp.	°C			-25					Air connections	G1/4" tube fittings, stainl. steel				
		Ambient temp.	°C			-25					Air tube material	stainl. steel				
		Manufact.	Kühme	Type	PK III					<input type="checkbox"/> Volume booster	Type					
		Design	steering arm flap							<input type="checkbox"/> Electric actuator				<input type="checkbox"/> Level	<input type="checkbox"/> Push drive	
		K <sub>v</sub> calculated	16885,0 / 22185,9		K <sub>vs</sub>	30000,00					Rated torque		Nm	Moving time	s	
		Leak quantity	acc. EN 12266-1 leak rate A								<input type="checkbox"/> Capacitor connection device		<input type="checkbox"/> Tacho sensor			
		Seat φ	mm		Actuator ratio K <sub>vs</sub> /K <sub>vR</sub>						<input type="checkbox"/> Feedback transm.		4-20 mA		<input type="checkbox"/> 2-wire	<input type="checkbox"/> 4-wire
		DN	700	PN	10	Material	CS				Power supply		V	50 Hz		
		Flanges	DIN		Gasket	Form C					<input type="checkbox"/> with cold box hood acc. spec. SP01DE02					
		Inst. length	700				mm				Enclosure class of all accessory devices				IP 65 / NEMA 4X	
		Charact.	<input type="checkbox"/> VDI/VDE 2176		<input type="checkbox"/> linear		<input type="checkbox"/> equ.-%	<input checked="" type="checkbox"/> op./cl.			Cable glands				M20	
		Seat type	<input type="checkbox"/> single		<input type="checkbox"/> double		<input type="checkbox"/> three way				<input checked="" type="checkbox"/> Cleaned, oil and grease free acc. Standard 06401					
		Plug type	disk								<input type="checkbox"/> Cleaned, oil and grease free acc. manufacturer's standard					
		Gasket	<input type="checkbox"/> metallic		<input checked="" type="checkbox"/> soft		Material	sili.-kaut.			<input checked="" type="checkbox"/> max. sound power level L <sub>W</sub> acc. VDMA 24422				85 dB(A)	
		Seat material	1.4571		<input type="checkbox"/> Plating							<input type="checkbox"/> Indication of L <sub>W</sub> in octave spectrum acc. VDMA 24422				
		Plug material			<input type="checkbox"/> Plating							<input type="checkbox"/> AD 2000-leaflet				
		Plating material									<input checked="" type="checkbox"/> Material certificate EN 10204 - 3.1.B					
		Kind of plating	<input type="checkbox"/> chamfe		<input type="checkbox"/> surface		<input type="checkbox"/> full				<input checked="" type="checkbox"/> EN 558/1 bzw. EN 12982 (Inst. Length)					
		Stuffing box	<input checked="" type="checkbox"/> self adjusting		<input type="checkbox"/> adjustable							<input checked="" type="checkbox"/> EN 12266/1, DIN 3230/5 (Leak Test)				
		Stuffing box packing	PTFE								<input checked="" type="checkbox"/> UVV-Gase					
		BelloWS	<input type="checkbox"/> Extension		A =		mm				<input type="checkbox"/> UVV-Sauerstoff					
		Cooling fins	<input type="checkbox"/> Seal gas connection								<input checked="" type="checkbox"/> Packed acc. Standard 06271					
		Install. position	(spindle axis to horizontal)								<input checked="" type="checkbox"/> Indication of TAG - Nr. on the type plate					
											<input checked="" type="checkbox"/> CE-marking and CE-conformity certificate					
		Manufact.	Kühme	Type	piston						<input checked="" type="checkbox"/> Design acc. Pressure Equipment Directive 97/23/EG					
		<input checked="" type="checkbox"/> pn.	<input type="checkbox"/> el.	<input type="checkbox"/> hydr.	Diaphragm area		cm²				- actuator opens against diff. pressure of 0,1...0,3 bar  - control acc. HU_V13					
		Air supply	3.5 bar(g)		Travel	mm										
		Valve without pneum. energy	<input type="checkbox"/> open		<input checked="" type="checkbox"/> hold		<input type="checkbox"/> close									
		Valve without electr. energy	<input checked="" type="checkbox"/> open		<input type="checkbox"/> hold		<input type="checkbox"/> close									
		Open way of 3 way valve without energy														
		Spring rate	<input type="checkbox"/> 0,2-1 bar		<input type="checkbox"/> 0,4-2 bar											
		<input type="checkbox"/> Hand operate	<input type="checkbox"/> top		<input type="checkbox"/> lateral											
		Operation cycles														
		Moving time														
		Valve seals at both pressure directions														
		at ΔPmax =	bar													

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Rev.	Date	Name	Checked	Change	Rev.	Date	Name	Checked	Change



<b>AIR LIQUIDE</b>		<b>Specification</b> Control Valves				TAG - No.: <b>UK15026</b>			
		<b>ASU No. 9 KOSICE</b>				Project No.: <b>K70101</b>			
<b>Air Liquide AGS GmbH</b>		Project:				Page:                      of:			
<input type="checkbox"/> Globe <input checked="" type="checkbox"/> Butterfly <input type="checkbox"/> Cock <input type="checkbox"/> Gate		Designation:				Combination with TAG-No.:			
		<b>OUTLET ADSORBER B</b>							

  

Rev.		Line - No.	700A-15003-AA10C1W	Rev.		Manufact.	Type	digital		
1	Location	Equipment - No		55	Positioner	max. allow. air pressure (g)		6 bar		
2		DN	700	PN		10	Material	St 37	Input signal open 20 mA bar	
3		Flanges		DIN		Gasket	Form C	Input signal close 4 mA bar		
4		Taps				Material		<input type="checkbox"/> Explosion proof    Load < 400 Ω		
5								Enclosure class of all accessory devices IP 65 / NEMA 4X		
6	Medium	Medium		AIR (dry)		60	Manufact.	P&F    Type NJ6-22-SN-G		
7		Composition				61	Position	<input checked="" type="checkbox"/> open <input checked="" type="checkbox"/> close		
8		Normal density	kg/m³	1,293		62	Switch type	<input type="checkbox"/> contact <input checked="" type="checkbox"/> inductive <input type="checkbox"/> pneumatic		
9		State inlet	<input type="checkbox"/> liquid <input checked="" type="checkbox"/> gaseous <input type="checkbox"/> vaporous			63	State at end position	<input type="checkbox"/> on/alive <input type="checkbox"/> off/dead		
10		State outlet	<input checked="" type="checkbox"/> eq. inlet <input type="checkbox"/> % vaporization			64	Enclosure class of all accessory devices IP 65 / NEMA 4X			
11	Service conditions	Operation case		case 1	case 2	case 3	65	<input type="checkbox"/> See specification solenoid valve		
12		Flow	Nm³/h	72579	96400	96954	66	<input checked="" type="checkbox"/> Manufact. Herion    Type 2636097.0763		
13		P <sub>1</sub> (abs.)	bar	5,360	5,620	5,540	67	Power supply 24 VDC    Hz    bar		
14		P <sub>2</sub> (abs.)	bar	5,355	5,615	5,535	68	without power <input type="checkbox"/> deaerated <input type="checkbox"/> aerated		
15		Temperature t <sub>i</sub>	°C	23,0	23,0	23,0	69	<input type="checkbox"/> Explosion proof    Power consumption < 7 W		
16		Operat. density	kg/m³	6,31	6,62	6,53	70	Enclosure class of all accessory devices IP 65 / NEMA 4X		
17	Design	Border case		min	max		71	<input checked="" type="checkbox"/> Pressure reducing station Fisher 67CFR		
18		Allowed op. press.	bar (a)		7		72	Air connections G1/4" tube fittings, stainl. steel		
19		Allowed op. temp.	°C	-25	35		73	Air tube material stainl. steel		
20		Ambient temp.	°C	-25	35		74	<input type="checkbox"/> Volume booster    Type		
21	Armature	Manufact.	Kühme	Type	PK III		75	Accessories		
22		Design	steering arm flap						76	
23		K <sub>v</sub> calculated	16885,0 / 22185,8	K <sub>VS</sub>	30000,00		77			
24		Leak quantity	acc. EN 12266-1 leak rate A						78	
25		Seat φ	mm	Actuator ratio K <sub>VS</sub> /K <sub>VR</sub>			79			
26		DN	700	PN	10	Material	CS		80	
27		Flanges	DIN		Gasket	Form C			81	
28		Inst. length	700 mm						82	
29		Charact.	<input type="checkbox"/> VDI/DE 2176 <input type="checkbox"/> linear <input type="checkbox"/> equ.-% <input checked="" type="checkbox"/> op./cl.						83	
30		Seat type	<input type="checkbox"/> single <input type="checkbox"/> double <input type="checkbox"/> three way						84	
31		Plug type	disk						85	
32		Gasket	<input type="checkbox"/> metallic <input checked="" type="checkbox"/> soft	Material	sili.-kaut.		86			
33		Seat material	1.4571		<input type="checkbox"/> Plating				87	
34		Plug material			<input type="checkbox"/> Plating				88	
35		Plating material							89	
36	Kind of plating	<input type="checkbox"/> chamfe <input type="checkbox"/> surface <input type="checkbox"/> full					90			
37	Stuffing box	<input checked="" type="checkbox"/> self adjusting <input type="checkbox"/> adjustable					91			
38	Stuffing box packing	PTFE					92			
39	<input type="checkbox"/> Bellows <input type="checkbox"/> Extension	A =		mm		93				
40	<input type="checkbox"/> Cooling fins <input type="checkbox"/> Seal gas connection						94			
41	<input type="checkbox"/> Install. position	(spindle axis to horizontal)					95			
42							96			
43	Actuator	Manufact.	Kühme	Type	piston		97	Certificates		
44		<input checked="" type="checkbox"/> pn. <input type="checkbox"/> el. <input type="checkbox"/> hydr.	Diaphragm area	cm²		98				
45		Air supply	3,5 bar(g)	Travel	mm		99			
46		Valve without pneum. energy	<input type="checkbox"/> open <input checked="" type="checkbox"/> hold <input type="checkbox"/> close				100			
47		Valve without electr. energy	<input checked="" type="checkbox"/> open <input type="checkbox"/> hold <input type="checkbox"/> close				101			
48		Open way of 3 way valve without energy							102	
49		Spring rate	<input type="checkbox"/> 0,2-1 bar <input type="checkbox"/> 0,4-2 bar				103			
50		<input type="checkbox"/> Hand operate <input type="checkbox"/> top <input type="checkbox"/> lateral							104	
51		Operation cycles							105	
52		Moving time							106	
53		Valve seals at both pressure directions							107	
54		at ΔPmax =	bar						108	
									Remarks	
- actuator opens against diff. pressure of 0,1...0,3 bar - control acc. HU_V13										

  

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Rev.	Date	Name	Checked	Change	Rev.	Date	Name	Checked	Change