Flow regulators



- Threaded ports from M5 to 1/2" NPT
- In-line or panel mounting
- Version for precision regulation



Materials <u>Body</u>: aluminium 11S <u>Spring</u>: stainless steel <u>Seals</u>: NBR <u>Internal parts</u>: brass OT58

Uni-directional flow regulators

Model		RFU M5	USRFU 1/8.1	USRFU 1/8.2 USRFUM 1/8	USRFU 1/8.3	USRFU 1/4 USRFUM 1/4	USRFU 3/8	USRFU 1/2	USRFP 1/8.2
Ports		M5	1/8″ NPT	1/8″ NPT	1/8″ NPT	1/4" NPT	3/8″ NPT	1/2″ NPT	1/8″ NPT
Nominal diameter	1-2 2-1	1.2 mm 2.2 mm	1.2 mm 4.2 mm	2 mm 4.2 mm	3.2 mm 4.2 mm	3.5 mm 6.5 mm	7 mm 10 mm	7 mm 11 mm	2 mm 4.2 mm
Nominal flow rate at 6 bar (87 PSI)	1-2 2-1	60 NI/min (0.06 Cv) 130 NI/min (0.14 Cv)	60 NI/min (0.06 Cv) 450 NI/min (0.48 Cv)	120 NI/min (0.13 Cv) 450 NI/min (0.48 Cv)	210 NI/min (0.22 Cv) 450 NI/min (0.48 Cv)	300 NI/min (0.32 Cv) 600 NI/min (0.63 Cv)	600 NI/min (0.63 Cv) 1100 NI/min (1.16 Cv)	600 NI/min (0.63 Cv) 1400 NI/min (1.48 Cv)	120 NI/min (0.13 Cv) 450 NI/min (0.48 Cv)
Temperature range	-15+60°C (5-140°F)								
Working pressure		2 10 bar (30 145 PSI) 0.2 1 MPa					0.5 10 bar (7 145 PSI) 0.05 1 MPa		
Fluid 50 μ filtered, lubricated or non lubricated air									

Bi-directional flow regulators

Model	RFB M5	USRFB 1/8	USRFB 1/4	USRFB 3/8	USRFB 1/2	
Ports	M5	1/8″ NPT	1/4″ NPT	3/8″ NPT	1/2″ NPT	
Nominal diameter	1.2 mm	3.2 mm	3.5 mm	7 mm	7 mm	
Nominal flow rate at 6 bar (87 PSI)	60 NI/min (0.06 Cv)	210 NI/min (0.22 Cv)	300 NI/min (0.32 Cv)	500 NI/min (0.53 Cv)	500 NI/min (0.53 Cv)	
Temperature range	-15+60°C (5-140°F)					
Operating pressure	max 10 bar (145 PSI) max 1 MPa					
Fluid	50 μ filtered, lubricated or non lubricated air					





RFU M5











Model	A	В	C	D	E	F	G	H	J	К
USRFU 1/8.1 USRFU 1/8.2 USRFU 1/8.3	32	23	16.8	22	13	ø4.5	35	15	M12x0.75	1/8″ NPT
USRFU 1/4	40	30	22	32	22	ø4.5	35	15	M12x0.75	1/4″ NPT
USRFU 3/8	56	43	27	42	27	ø6.5	43	24	M18x1	3/8″ NPT
USRFU 1/2	56	43	27	42	27	ø6.5	43	24	M18x1	1/2″ NPT



M5

USRFB M5









Model	A	В	C	D	E	F	G	H	J	К
USRFB 1/8	32	23	16.8	22	13	ø4.5	35	15	M12x0.75	1/8″ NPT
USRFB 1/4	40	30	22	32	22	ø4.5	35	15	M12x0.75	1/4″ NPT
USRFB 3/8	56	43	27	42	27	ø6.5	43	24	M18x1	3/8″ NPT
USRFB 1/2	56	43	27	42	27	ø6.5	43	24	M18x1	1/2″ NPT



- From M5 to 1/4" NPT
- Nickel plated valve body on request
- Viton seals for higher temperatures

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Materials Body: brass OT58 Spring: stainless steel Seals: NBR Internal parts: brass OT58

Model	USVNR 1/8 FF	USVNR 1/4 FF	VNR M5 FF			
Ports	1/8″ NPT	1/4″ NPT	M5			
Nominal orifice	5.2 mm	7 mm	2.2 mm			
Nominal flow rate at 6 bar (87 PSI)	500 NI/min (0.53 Cv)	900 NI/min (0.95 Cv)	100 NI/min (0.10 Cv)			
Temperature range	- 15+60°C (5-140°F) VITON: max +110°C (230°F)					
Operating pressure	2 10 bar (30 145 PSI) 0.2 1 MPa					
Fluid	50 μ filtered, lubricated or non lubricated air					

M5

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М5



VNR M5 FF

check valve female-female M5



USVNR 1/8 FF

check valve female-female 1/8" NPT



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1/8"	-	
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Available versions

code	description
11.010.4	standard: valve body in brass, seals in NBR
11.011.4	valve body in brass, seals in NBR, without spring
11.024.4	valve body in nickel plated brass, seals in NBR
11.046.4	valve body in brass, seals in VITON
11.050.4	valve body in nickel plated brass, seals in VITON

Available versions

code	description
US11.000.4	standard: valve body in brass, seals in NBR
US11.002.4	valve body in brass, seals in VITON
US11.004.4	valve body in nickel plated brass, seals in NBR
US11.009.4	valve body in brass, seals in SILICON
US11.027.4	valve body in brass, seals in NBR, without spring
US11.031.4	valve body in nickel plated brass, seals in VITON
US11.035.4	valve body in brass, seals in NBR, light duty spring
US11.034.4	valve body in brass, seals in VITON, light duty spring

USVNR 1/4 FF

non-return valve female-female 1/4" NPT





code	description
US11.001.4	standard: valve body in brass, seals in NBR
US11.003.4	valve body in brass, seals in VITON
US11.005.4	valve body in nickel plated brass, seals in NBR
US11.030.4	valve body in nickel plated brass, seals in VITON
US11.028.4	valve body in brass, seals in NBR, without spring
US11.037.4	valve body in brass, seals in VITON, without spring
US11.036.4	valve body in brass, seals in NBR, light duty spring
US11.033.4	valve body in brass, seals in VITON, light duty spring
US11.040.4	valve body in brass, seals in VITON, heavy duty spring

Available versions



- Wide range
- Small dimensions
- Mountable on bracket
- M5 threaded ports or push-in fittings for 5/32" or ø4 tube



Materials <u>Body</u>: aluminium 11S <u>Springs</u>: stainless steel <u>Seals</u>: NBR <u>Internal parts</u>: brass OT58

Nominal diameter	2.5 mm (0.1 in)
Nominal flow rate at 6 bar (87 PSI)	100 NI/min (0.10 Cv)
Temperature range	-15 +60°C (5-140°F)
Operating pressure	2 10 bar (30 145 PSI) 0.2 1 MPa
Fluid	50 μ filtered, lubricated or non lubricated air



08.021.4 - OR FOR LOGIC

OR element, push-in fittings for 5/32" or ø4 tube, mountable on bracket

08.025.4 - AND FOR LOGIC

AND element, push-in fittings for 5/32" or ø4 tube, mountable on bracket



08.022.4 - OR SINGLE M5

OR element, M5 threaded ports **08.026.4 - AND SINGLE M5**

AND element, M5 threaded ports







Model	A	В	C
08.022.4	5.2	19.6	M5
08.026.4	5.2	19.6	M5





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08.039.4 - NOT FOR LOGIC

NOT element, push-in fittings for 5/32" or ø4 tube, mountable on bracket

08.049.4 - YES FOR LOGIC

YES element, push-in fittings for 5/32" or ø4 tube, mountable on bracket

Actuating pressure at 6 bar (87 PSI)

08.039.4 : 1.2 bar (17 PSI) 08.049.4 : 1 bar (14 PSI)



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04.003.4 - MEMORY C/M

mono-stable MEMORY element, push-in fittings for 5/32" ø4 tube

04.002.4 - MEMORY C/C

bi-stable MEMORY element, push-in fittings for 5/32" or ø4 tube





Actuating pressure at 6 bar (87 PSI)

04.002.4 : 1.5 bar (21 PSI) 04.003.4 : 2 bar (30 PSI)



12.5



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08.092.1 - MOUNTING BRACKET

mounting bracket for logic elements





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Logic elements for interface



- Wide range
- Small dimensions
- Mountable on sub-base (single or multiple)



Materials <u>Body</u>: aluminium 11S <u>Springs</u>: stainless steel <u>Seals</u>: NBR <u>Internal parts</u>: brass OT58

Nominal diameter	2.5 mm (0.1 in)
Nominal flow rate at 6 bar (87 PSI)	100 NI/min (0.1 Cv)
Temperature range	-15 +60°C (5-140°F)
Operating pressure	2 10 bar (30 145 PSI) 0.2 1 MPa
Actuating pressure at 6 bar (87 PSI) (NOT and YES)	1.5 bar (22 PSI) 0.15 MPa
Fluid	50 μ filtered, lubricated or non lubricated air



08.296.4 - OR FOR LOGIC CR

OR element, for assembling on sub-base





08.297.4 - AND FOR LOGIC CR

AND element, for assembling on sub-base









08.298.4 - NOT FOR LOGIC CR

NOT element, for assembling on sub-base





08.299.4 - YES FOR LOGIC CR

YES element, for assembling on sub-base









11.5 11.5

3.5



1 : air supply port 2 : exit port X : exhaust port







USA0.015.1



1/8"

08.039.3

Single sub-base for assembling of CR logic elements on omega profile **push-in fittings for 5/32'' or ø4 tube**



Distribution manifolds



- In-line manifolds with 1/8" NPT or 1/4" NPT user ports
- Four port manifolds
- Special manifolds on request
- Material: aluminium (anodize treatment)



In-line manifolds with 1/8" NPT user ports and 1/4" NPT feed ports



model	no. ports	A	В	C	
USAU.002.1	2	61	50	5.5	
USAU.003.1	3	91	30	30.5	
USAU.004.1	4	121 60		30.5	
USAU.005.1	5	151	90	30.5	
USAU.006.1	6	181	120	30.5	

In-line manifolds with 1/4" NPT user ports and 3/8" NPT feed ports



model	no. ports	A	В	C	
USAU.011.1	2	74	74 61		
US AU.013.1	3	110	36	37	
USAU.014.1	4	146	72	37	
USAU.015.1	5	182	108	37	
US AU.016.1	6	218	144	37	

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In-line double manifolds with 1/8" NPT user ports and 1/4" NPT feed ports



model	no. ports	A	В	C	
USAU.000.1	2	61	50	5.5	
USAU.001.1	3	91	30	30.5	
USAU.008.1	4	121	60	30.5	
USAU.009.1	5	151	90	30.5	

In-line double manifolds with 1/4" NPT user ports and 3/8" NPT feed ports



model	no. ports	A	В	C	
USAU.022.1	2	74	61	6.5	
USAU.023.1	3	110	36	37	
USAU.024.1	4	146 72		37	
USAU.025.1	5	182	108	37	
USAU.027.1	6	218	144	37	

Four Port Manifolds



model	A	В	C	D	E	F
AU.017.1	10	20	12	12	4.5	M5
USAU.018.1	16	30	23	22	4.5	1/8″ NPT
USAU.019.1	20	40	30	27	5.5	1/4″ NPT
USAU.021.1	25	50	38	39	6.5	3/8″ NPT
USAU.020.1	25	50	38	39	6.5	1/2″ NPT