



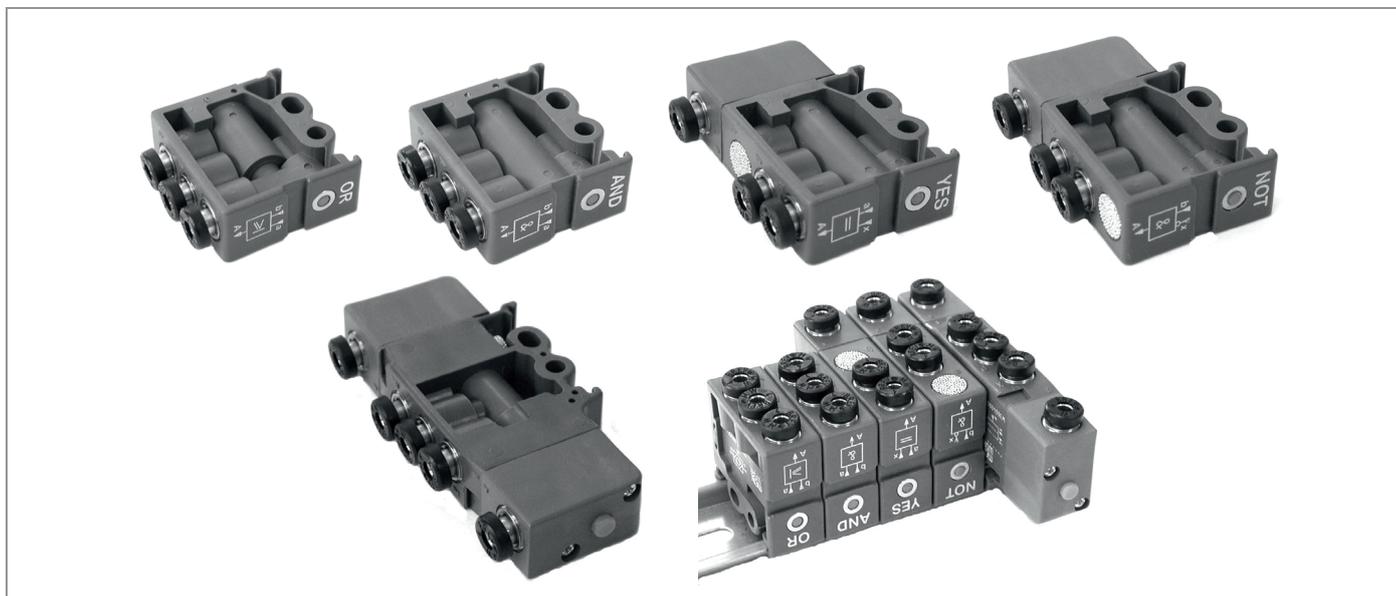
Logic elements

Version: 10/2021



Logic elements

type OR, AND, NOT, YES, MEMORY

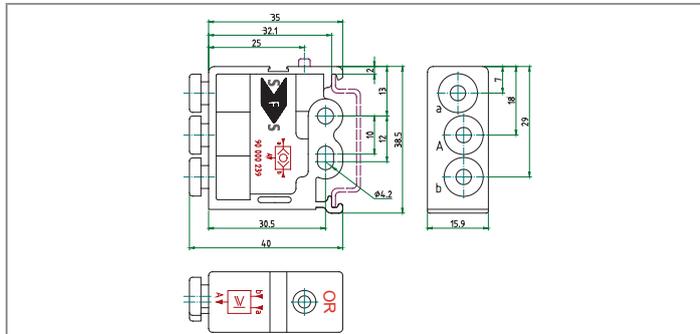


SPECIFICATION													
general													
construction	MEMORY spool valve, OR, AND, YES, NOT poppet valve with pressure indicator												
operation	pneumatic												
return	pneumatic, mechanical spring												
connections	push in for PA-, PE-, PU-tubes, 4 mm outside diameter												
ambient temperature	-10°C to 50°C												
fluid temperature	-10°C to 50°C												
humidity	0 - 100% rH												
materials	<table border="0"> <tr> <td>body:</td> <td>POM</td> </tr> <tr> <td>raccords (push in connectors):</td> <td>brass</td> </tr> <tr> <td>silencer:</td> <td>sinterbronce</td> </tr> <tr> <td>internal parts:</td> <td>POM, aluminium anodised, brass</td> </tr> <tr> <td>seals:</td> <td>perbunan (NBR)</td> </tr> <tr> <td>springs:</td> <td>stainless steel</td> </tr> </table>	body:	POM	raccords (push in connectors):	brass	silencer:	sinterbronce	internal parts:	POM, aluminium anodised, brass	seals:	perbunan (NBR)	springs:	stainless steel
body:	POM												
raccords (push in connectors):	brass												
silencer:	sinterbronce												
internal parts:	POM, aluminium anodised, brass												
seals:	perbunan (NBR)												
springs:	stainless steel												
mounting	pick up to Ω -rail according to DIN 50022 or 2 holes for M4 screws												
installation position	as required												
pneumatic													
function	OR, AND, YES, NOT, MEMORY												
fluid	filtered, lubricated or non lubricated air												
pressure range	OR, AND: 1.5 to 8 bar YES, NOT: 0 to 8 bar MEMORY: 0 to 8 bar NOT: pressure drop point 0.4 bar at 6 bar working pressure												
control pressure range	YES: 1 to 8 bar (minimal 3 bar at 8 bar working pressure) NOT: 1 to 8 bar MEMORY: 1.5 to 8 bar												
nominal flow	Q _{Nn} : 100NI/min (p ₁ =6bar, Δp =1bar)												
nominal diameter	DN 2.7 mm												
frequency	≤10/sec												
special solutions	seals of FPM or NBR												

Logic elements

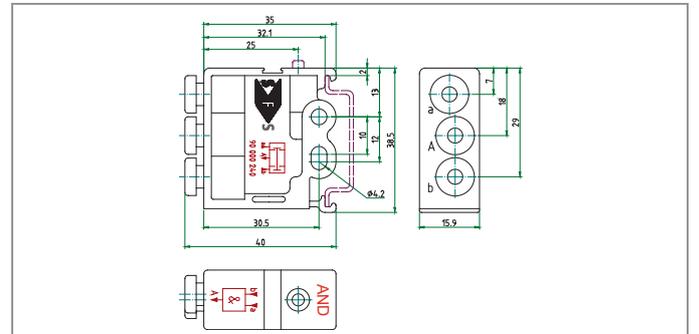
type OR, AND, NOT, YES, MEMORY

OR - element



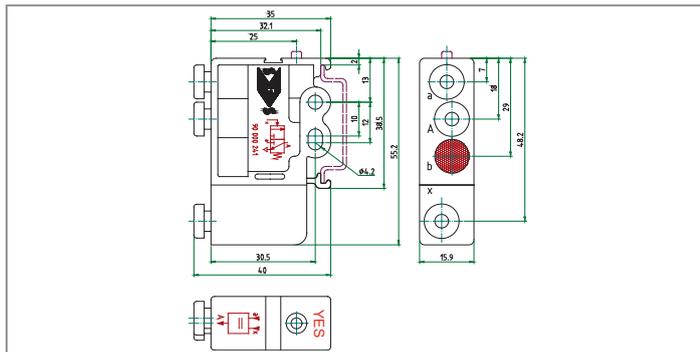
type	symbol	article-nr.	weight
OR - A		90 000 239	approx. 25g

AND - element



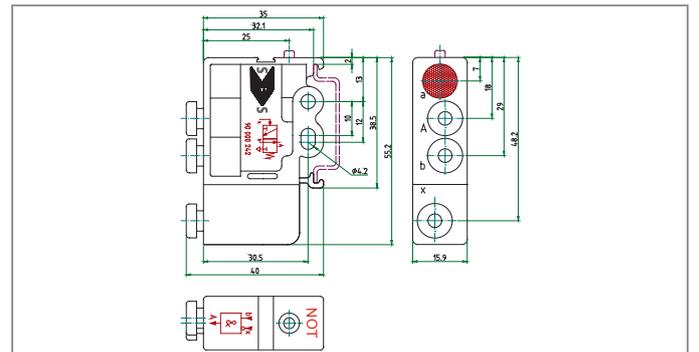
type	symbol	article-nr.	weight
AND - A		90 000 240	approx. 25g

YES- element



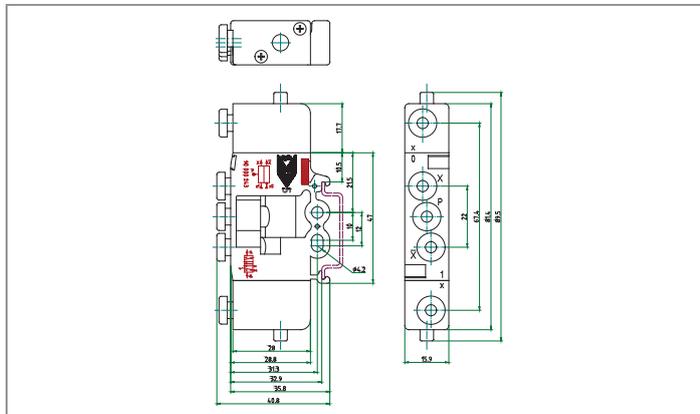
type	symbol	article-nr.	weight
YES - A		90 000 241	approx. 37g

NOT - element



type	symbol	article-nr.	weight
NOT - A		90 000 242	approx. 37g

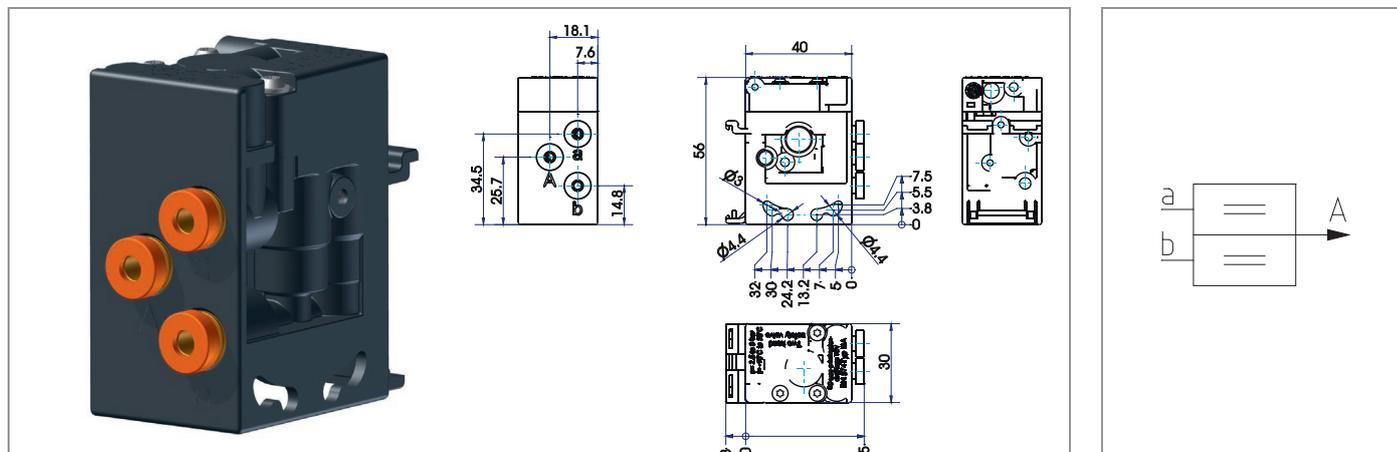
MEMORY - element



type	symbol	article-nr.	weight
MEMORY - A		90 000 243	approx. 52g

Two-hand-safety valve, EN 574 type IIIA

type ZH-A



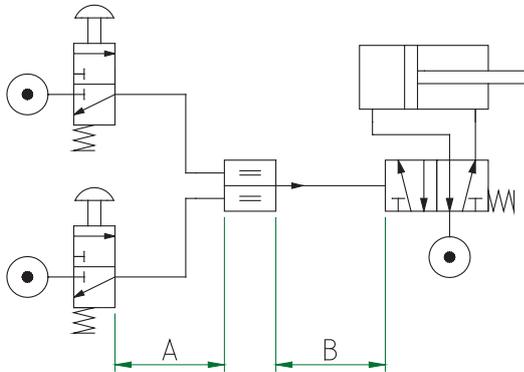
SPECIFICATION	
general	
construction	poppet valve
operator	pneumatic
return	mechanical spring
connection	push-in connection for calibrated plastic tubes with 4 mm outside diameter
ambient temperature	-10°C to +50°C
fluid temperature	-10°C to +50°C
humidity	0 – 100% r.H.
material	body: POM inner parts: brass, POM seals: perbunan (NBR) springs: stainless steel
mounting	mounting on a Ω -rail according to EN 60715 or with M4 screws
installation position	any position
items supplied	valve incl. mounting and service instruction
pneumatic	
fluid	dried, filtered (50 μ m), non lubricated , compressed air
operating pressure	2.5 – 8 bar
nominal flow	Q _N = 85 NI/min ($p_1 = 6\text{bar}$, $\Delta p = 1\text{ bar}$)
nominal diameter	NW (DN) 2.7mm
max. signal delay	0.4 seconds
response time	see attached chart
minimal nominal diameter of operating device	DN 2.5mm
EC-type-examination-certificate TÜV	TÜV-A-MHF/MG/13-05260 A

type	article-nr.	description	weight (approx. g)
ZH-A	90 000 682	two-hand-safety valve according EN ISO 13851 Typ IIIA	85

Two-hand-safety valve, EN 574 type IIIA

type ZH-A

Installation of two-hand-safety valve



cable length A	cable length B	tube dimension
max. 10m	max. 10m	Ø2.7 x 4mm

Reaction time (p=6bar)

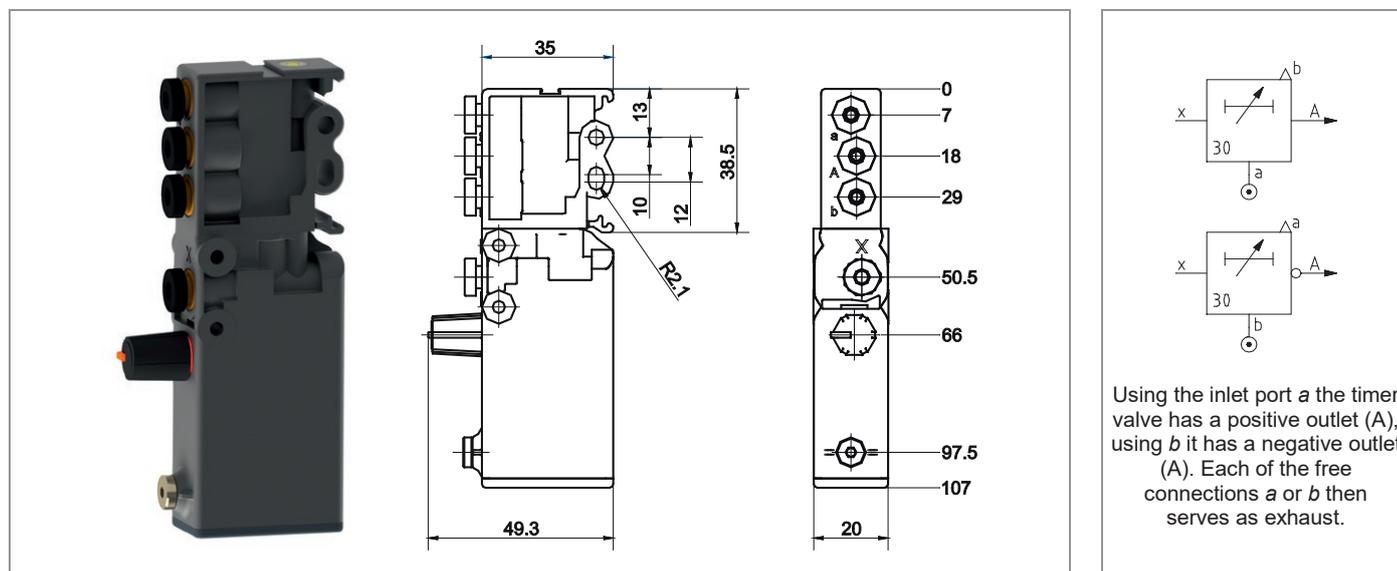
cable length A	cable length B	average reaction time
1m	1m	0.05s
1m	5m	0.20s
1m	10m	0.60s
5m	1m	0.10s
10m	1m	0.50s

Response time (definition): The time interval between the release of at least one of the control elements and the end of the output signal.

In the test procedure the end of the output signal was established by means of a pressure switch positioned at the end of the tube B. The operation of a control valve and associated cylinder (as shown in the schematic diagram) was not taken into account. The control valve in question had a 2.5mm orifice. The response time is dependent on the relevant configuration and must be determined accordingly in individual cases.

Time delay valve

type ZV-A, 3/2 NC or 3/2 NO



SPECIFICATION	
general	
construction	poppet valve
operator	pneumatic
return	mechanical spring
connection	push-in connection for calibrated tubes 4 mm diameter
ambient temperature	-10°C to +50°C
fluid temperature	-10°C to +50°C
humidity	0 – 100% r.H.
material	body: POM inner parts: brass, POM, Delrin, PMMA seals: perbunan (NBR) springs: stainless steel
mounting	snap on to Ω -rail according to DIN 50022 or 2 holes for M4 screws
installation position	any position
pneumatic	
function	usable with 3/2 NC or 3/2 NO-outlet, according to use of inlet pressure <i>a</i> or <i>b</i>
fluid	filtered (20 μ m), lubricated or non lubricated compressed air
operating pressure	2,5 to 8 bar
nominal flow	Q _N = 100 NI/min ($p_1 = 6$ bar, $\Delta p = 1$ bar)
nominal diameter	DN 2.7 mm
repeat interval	< 0.5 seconds
repeating accuracy	± 2%

type	article-nr.	description	time range (seconds)	colour button	weight (approx. g)
ZV-A30	90 000 461	time delay valve	0 - 30	orange	75
ZV-A10	90 000 747	time delay valve	0 - 10	orange	75