



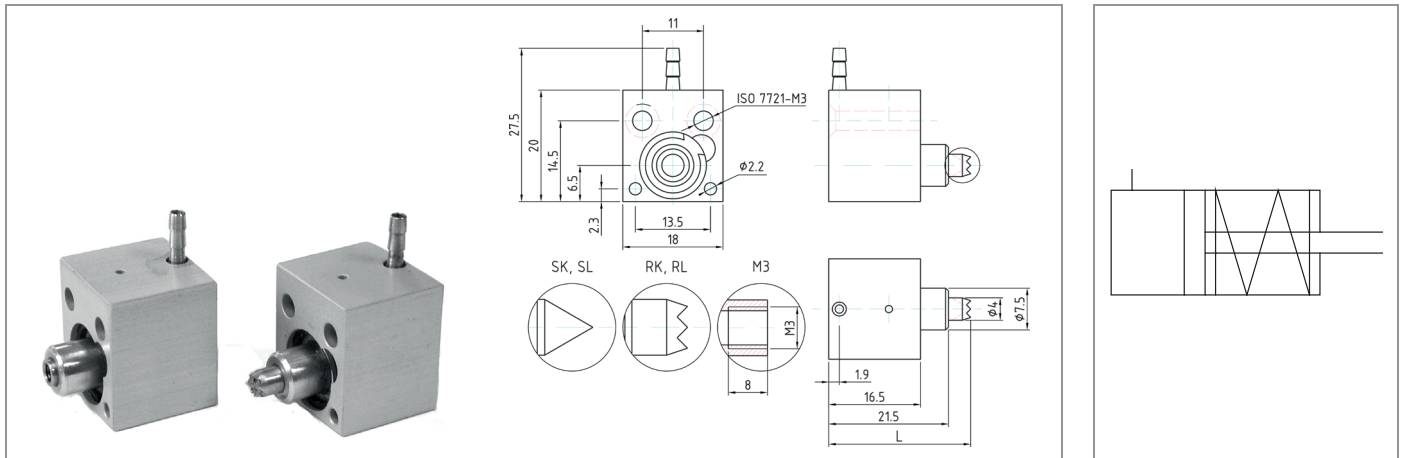
Cylinder

Version: 10/2021



Compact cylinder 12mm diameter

type AA12S-04-... , single acting



SPECIFICATION																	
general																	
construction	compact cylinder, pneumatic, single acting, spring return, end plate secured by C-clip																
bore	12 mm piston diameter																
stroke lengths	4 mm																
operation	pneumatic, with spring return																
connections	hose tails for PA or PU 2 mm ID																
ambient temperature	-20°C to +80°C																
fluid temperature	-20°C to +80°C																
materials	<table border="0"> <tr> <td>body:</td> <td>anodised aluminium</td> <td>spring:</td> <td>steel</td> </tr> <tr> <td>piston:</td> <td>brass (Ms58)</td> <td>seals:</td> <td>perbunan (NBR)</td> </tr> <tr> <td>cover:</td> <td>brass (Ms58)</td> <td>hose tail:</td> <td>brass (Ms58)</td> </tr> <tr> <td>piston rod:</td> <td>stainless steel</td> <td></td> <td></td> </tr> </table>	body:	anodised aluminium	spring:	steel	piston:	brass (Ms58)	seals:	perbunan (NBR)	cover:	brass (Ms58)	hose tail:	brass (Ms58)	piston rod:	stainless steel		
body:	anodised aluminium	spring:	steel														
piston:	brass (Ms58)	seals:	perbunan (NBR)														
cover:	brass (Ms58)	hose tail:	brass (Ms58)														
piston rod:	stainless steel																
cushioning	none																
mounting	fixing holes in body																
installation position	in any position																
magnetic sensors	none																
pneumatic																	
air	filtered, lubricated or non lubricated																
pressure range	3 to 10 bar																
attainable force	38 N at 6 bar																
spring Return force	F1= 13 N, F2= 25 N (friction not taken into account)																

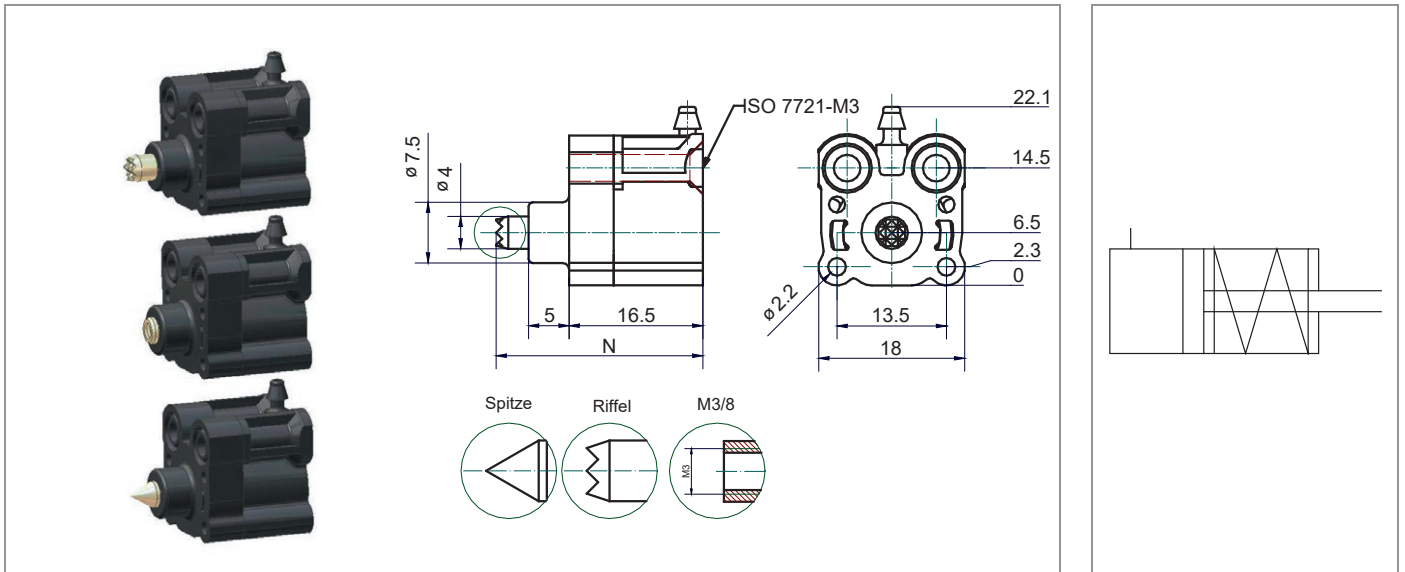
type	article-nr.	piston rod	L	weight (approx. g)
AA12S-04-SK	90 000 197	pointed short	21.5	19
AA12S-04-SL	90 000 198	pointed long	25.5	19
AA12S-04-RK	90 000 195	serrated short	21.5	19
AA12S-04-RL	90 000 196	serrated long	25.5	19
AA12S-04-M3	90 000 199	M3 female thread	22.5	19

NB: It is not possible to handle heavy external objects with this product type

Compact cylinder 12mm diameter

technopolymer

type AA12S-04-.. , single acting



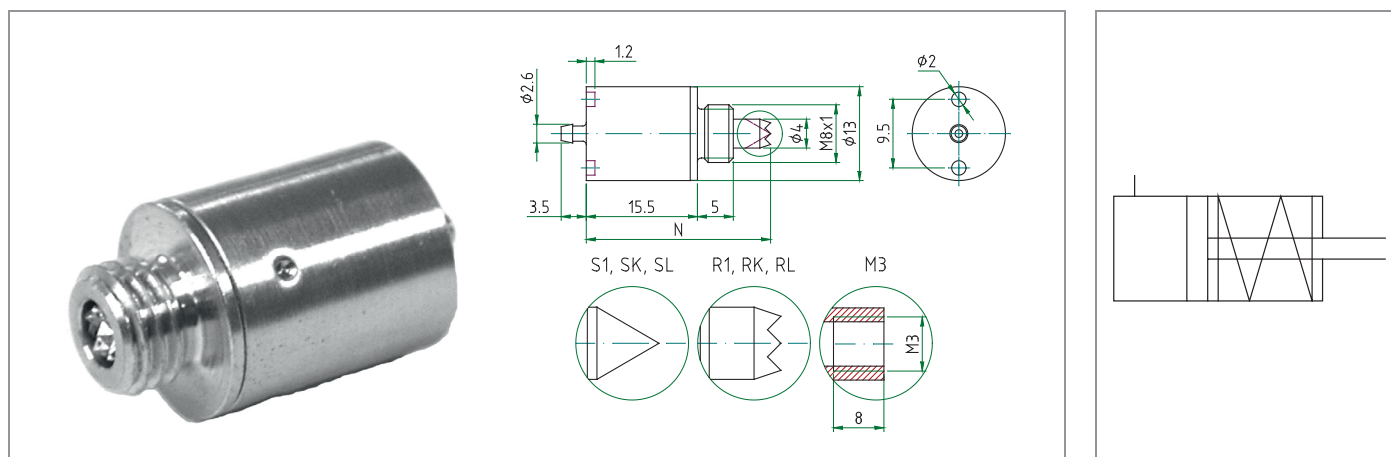
SPECIFICATION		
general		
construction	compact cylinder, single acting, spring return	
bore	12mm piston diameter	
stroke lengths	4mm	
operation	pneumatic	
return	mechanical spring	
connections	hose tails for PA or PU with 2mm ID	
ambient temperature	-20°C to +60°C	
fluid temperature	-20°C to +60°C	
materials	body: thermoplastic cover: thermoplastic piston: brass (Ms58)	piston rod: stainless steel springs: steel seals: perbunan (NBR)
cushioning	none	
mounting	fixing holes in body	
installation position	as required	
magnetic sensor	non	
pneumatic		
air	filtered, lubricated or non lubricated	
pressure range	3 to 8 bar	
attainable force	39 N at 6 bar	
spring return force	F1= 12 N, F2= 24 N (friction not taken into account)	

type	article-nr.	piston rod	N	weight (approx. g)
AA12S-04-SK	90 000 380	pointed short	21.5	8
AA12S-04-SL	90 000 381	pointed long	25.5	9
AA12S-04-RK	90 000 378	serrated short	21.5	8
AA12S-04-RL	90 000 379	serrated long	25.5	9
AA12S-04-M3	90 000 382	M3 female thread	22.5	8

NB: It is not possible to handle heavy external objects with this product type

Round cylinder

type AB12S-03-... , single acting



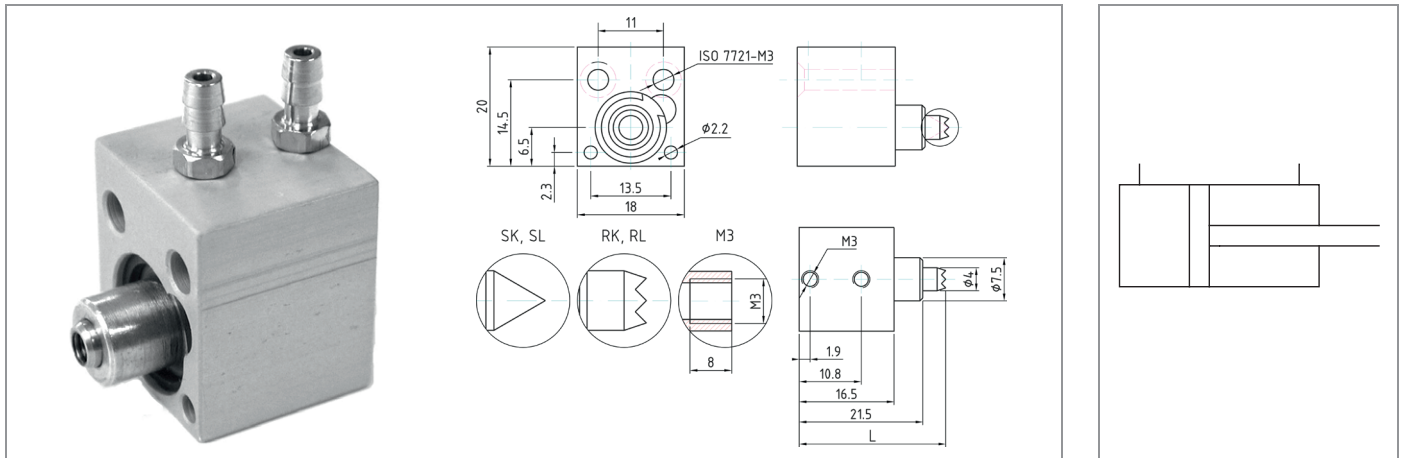
SPECIFICATION	
general	
construction	compact cylinder, pneumatic, single acting, spring return, press-fit end plate
bore	12 mm piston diameter
stroke length	3 mm
operation	pneumatic, with spring return
connections	hose tails for polyamide or polyurethane tubes, inside diameter 1.5 - 2 mm
ambient temperature	-20°C to +80°C
fluid temperature	-20°C to +80°C
materials	body: brass (Ms58) piston rod: stainless steel piston: brass (Ms58) spring: steel end plate: brass (Ms58) seals: perbunan (NBR)
cushioning	none
mounting	neck mounting thread M8x1
installation position	as required
magnetic sensors	none
pneumatic	
air	filtered, lubricated or non lubricated
pressure range	3 to 8 bar
attainable force	43 N at 6 bar
spring Return force	F1= 10N, F2= 20N (friction not taken into account)

type	article-nr.	piston rod	N	weight (approx. g)
AB12S-03-S1	90 000 209	pointed S1	20.5	13
AB12S-03-SK	90 000 282	pointed short	21.7	13
AB12S-03-SL	90 000 283	pointed long	25.7	13
AB12S-03-R1	90 000 210	serrated R1	20.5	13
AB12S-03-RK	90 000 284	serrated short	21.7	13
AB12S-03-RL	90 000 285	serrated long	25.7	13
AB12S-03-M3	90 000 286	M3 female thread	22.7	13

NB: It is not possible to handle heavy external objects with this product type

Compact cylinder 10mm diameter

type AC10D-04 .., double acting



SPECIFICATION	
general	
construction	compact cylinder, pneumatic, double acting, end plate secured by C-clip
bore	10 mm piston diameter
stroke length	4 mm
operation	pneumatic, both directions
connections	M3 female (optional hose tail to be ordered separately)
ambient temperature	-20°C to +80°C
fluid temperature	-20°C to +80°C
materials	body: anodised aluminium cover: brass (Ms58) hose tails: nickel-plated brass piston rod: stainless steel seals: NBR or polyurethane
cushioning	none
mounting	fixing holes in body
installation position	in any position
magnetic sensors	none
pneumatic	
air	filtered, lubricated or non lubricated
pressure range	1 to 10 bar
attainable force	at 6 bar: 42 N +, 34 N -

type	article-nr.	piston rod	L	weight (approx. g)
AC10D-04-SK	90 000 278	pointed short	21.5	20
AC10D-04-SL	90 000 279	pointed long	25.5	20
AC10D-04-RK	90 000 280	serrated short	21.5	20
AC10D-04-RL	90 000 281	serrated long	25.5	20
AC10D-04-M3	90 000 273	M3 female thread	22.5	20

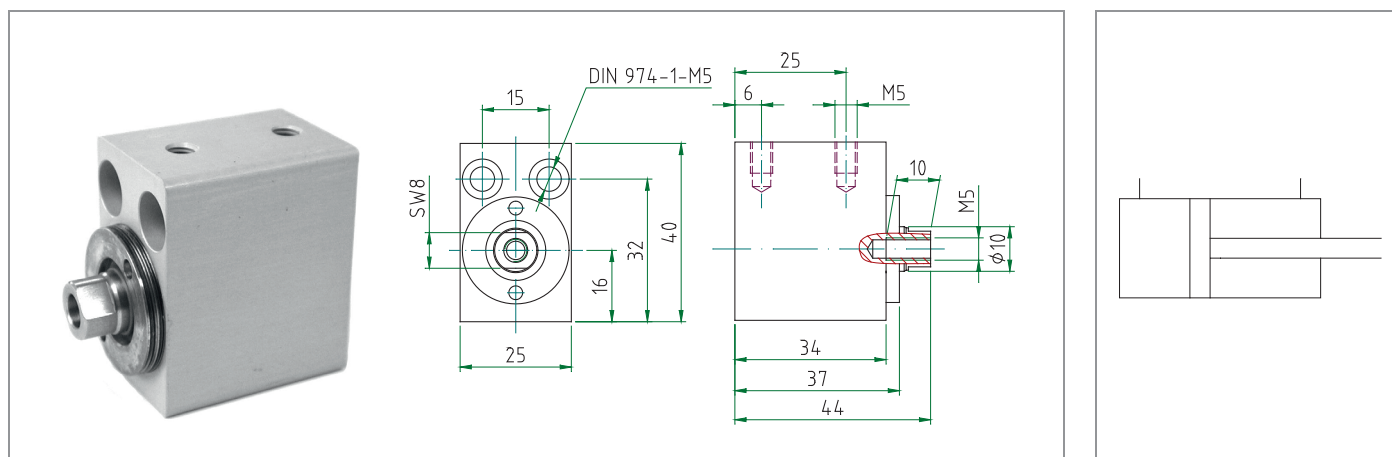
Accessories: hose tails M3 OD threads for **PA** or **PU**

hose tail for tube inside diameter	article-nr.	washer	article-nr.
1.5 bis 2mm	10 000 931	M3	10 000 934
2.5 bis 3mm	10 000 932		

NB: It is not possible to handle heavy external objects with this product type

Compact cylinder 20mm diameter

type AD20D-.. , double acting



SPECIFICATION	
general	
construction	compact cylinder, pneumatic, double acting, with threaded end plate
bore	20 mm piston diameter
stroke length	5.5 or 10 mm ± 0.05 mm
operation	pneumatic, with pneumatic return
port threads	M5 female
ambient temperature	-20°C to +80°C
fluid temperature	-20°C to +80°C
materials	body: anodised aluminium cover: brass (Ms58) piston rod: stainless steel seals: NBR or polyurethane
cushioning	none
mounting	fixing holes in body or piston rod.
installation position	as required
magnetic sensors	none
pneumatic	
air	filtered, lubricated or non lubricated
pressure range	1 to 8 bar
attainable force	at 6bar: 180 N +, 135 N -

type	article-nr.	stroke	weight (approx. g)
AD20D-05.5	90 000 136	5.5	120
AD20D-10	90 000 137	10	120

NB: It is not possible to handle heavy external objects with this product type