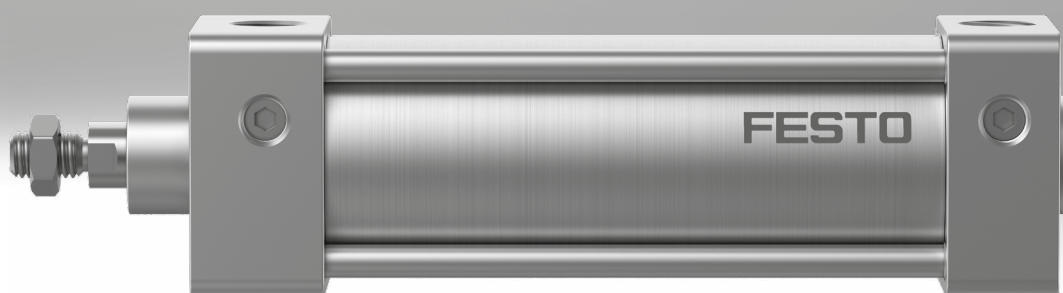


Standards-based cylinders DSNA

FESTO



Key features

At a glance

- Double-acting standards-based cylinder
- With piston rod at one end or through piston rod
- With adjustable cushioning at both ends
- Range of mounting options
- The variants can be configured according to individual needs using a modular product system

System of units

[N] Imperial

Piston rod type

[] At one end



- The piston rod can be used for connection at one end of the standards-based cylinder

Piston rod type

[T] Through piston rod



- The piston rod can be used for connection at both ends of the standards-based cylinder
- Identical forces in the forward and return stroke

Piston rod thread type

[] Male thread



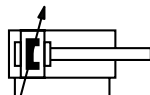
Piston rod thread type

[F] Female thread



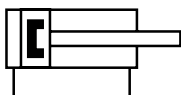
Cushioning

[PPV] Pneumatic cushioning, adjustable at both ends



Position sensing

[A] For proximity switch



Standard

[N5] Conforms to ANSI/NFPA

- The standards-based cylinder conforms to ANSI/NFPA standards T3.6.7 R3-2009 T3, Section 8.3 "Pneumatic cylinders"

Temperature range

[] Standard

- The standards-based cylinder can be used at an ambient temperature of $-5 \dots +60^{\circ}\text{C}$

Temperature range

[T23] $-5 \dots +80^{\circ}\text{C}$

- The standards-based cylinder can be used at an ambient temperature of $-5 \dots +80^{\circ}\text{C}$

Piston rod thread

[U12] 1/2-20 UNF-2A

Piston rod thread

[U1S] 1-14 UNS

Piston rod thread

[U58] 5/8-18 UNF-2A

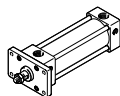
Piston rod thread

[U78] 7/8-14 UNF-2A

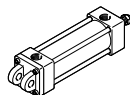
Key features

Type of mounting

[MF1] Flange plate, bearing cap

**Type of mounting**

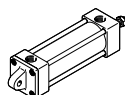
[MP1] Swivel bearing



- Cannot be combined with through piston rod

Type of mounting

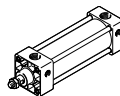
[MP4] Swivelling rod eye mounting



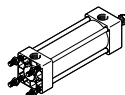
- Cannot be combined with through piston rod

Type of mounting

[MS4] Direct mounting

**Type of mounting**

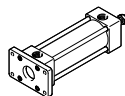
[MX2] Threaded rod, end cap



- Cannot be combined with through piston rod

Type of mounting

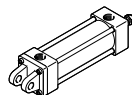
[MF2] Flange plate, end cap



- Cannot be combined with through piston rod

Type of mounting

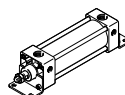
[MP2] Swivel mounting



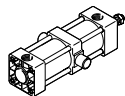
- Cannot be combined with through piston rod

Type of mounting

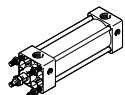
[MS1] Foot mounting

**Type of mounting**

[MT4] Central swivel mounting

**Type of mounting**

[MX3] Threaded rod, bearing cap



Type codes

001	Series	
DSNA	Standards-based cylinder	

002	System of units	
N	Imperial	

003	Piston diameter [„]	
1 1/2“	1 1/2“	
2“	2“	
2 1/2“	2 1/2“	
3 1/4“	3 1/4“	
4“	4“	

004	Stroke range [„]	
...	0.25 ... 48	

005	Function	
	Double-acting	

006	Piston rod type	
	At one end	
T	Through piston rod	

007	Cushioning	
PPV	Pneumatic cushioning, adjustable at both ends	

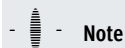
008	Position sensing	
A	For proximity sensor	

009	Standard	
N5	In accordance with ANSI/NFPA	

010	Temperature range	
	Standard	
T23	-5 ... +80°C	

011	Piston rod thread	
	Standard	
U12	1/2-20 UNF	
U58	5/8-18 UNF	
U1S	1-14 UNS	
U78	7/8-14 UNF-2A	

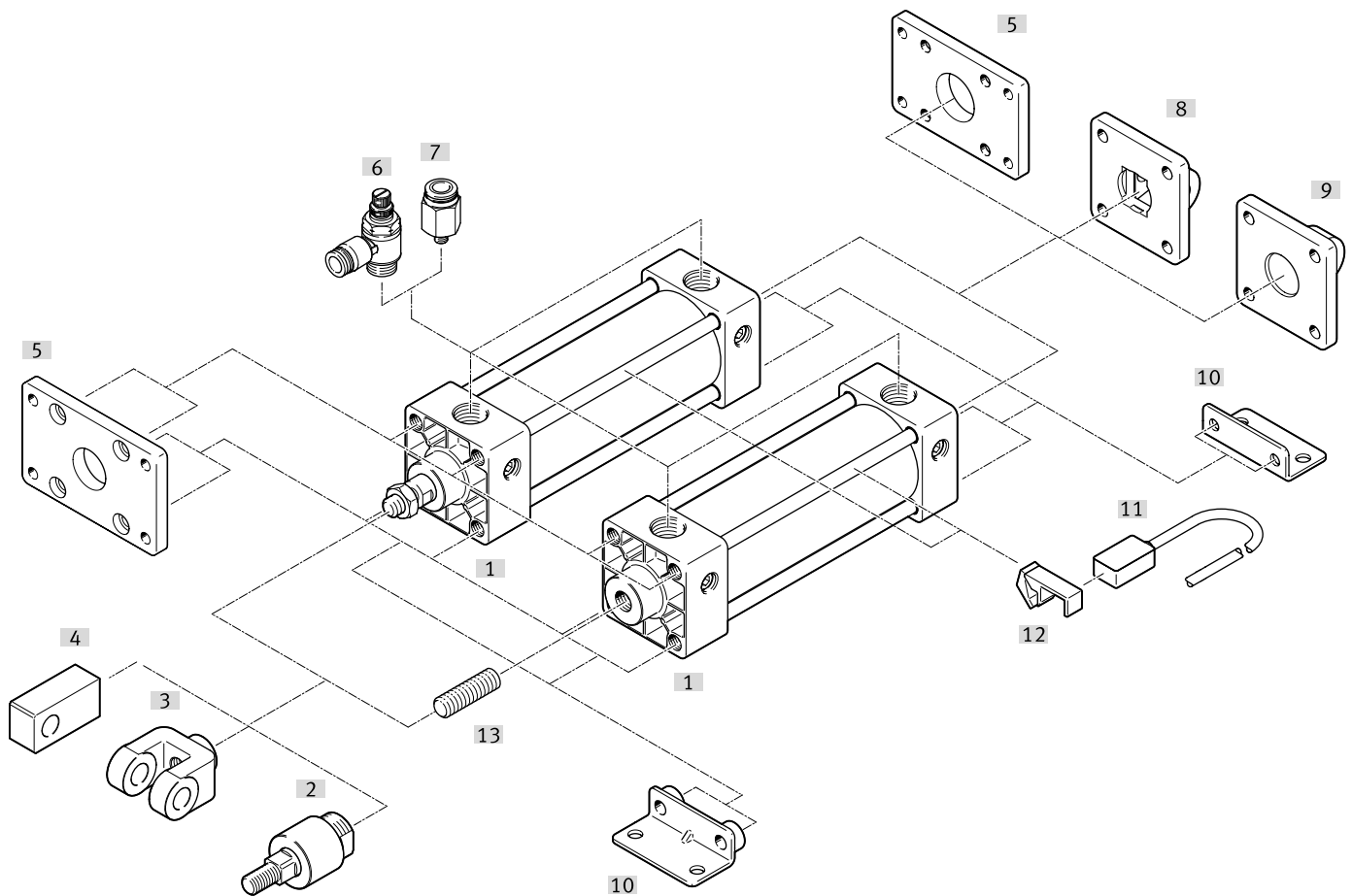
012	Type of mounting	
MF1	Flange plate, bearing cap	
MF2	Flange plate end cap	
MP1	Swivel bearing	
MP2	Swivel mounting	
MP4	Swivelling rod eye mounting	
MS1	Foot mounting	
MS4	Direct mounting	
MT4	Central swivel mounting	
MX2	Threaded rod, end cap	
MX3	Threaded rod, bearing cap	



Note

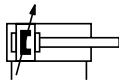
The strokes are available in increments of 0.25 inches.

Peripherals overview

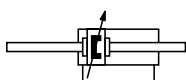


Accessories			
Type/order code	Description	→ Page/Internet	
[1] Standards-based cylinder DSNA	Double-acting	6	
[2] Self-aligning rod coupler DARP-C7	For connection to the piston rod	24	
[3] Rod clevis DARC-C7	Permits a swivelling movement in one plane	22	
[4] Rod eye DARC-C7B	Permits a swivelling movement in one plane	23	
[5] Flange plate DAMF-C7	For bearing or end caps	17	
[6] One-way flow control valve GRLA	For regulating speed	27	
[7] Push-in fitting QB/QBL	For connecting tubing with standard O.D.	27	
[8] Swivel flange DAMS-C7-...-D/DS	For end caps	18	
[9] Swivel flange DAMS-C7-...-C	For end caps	19	
- Swivel mounting DAMC-C7-...-C/-D	For rod eye, rod clevis and swivel flange	21	
[10] Foot mounting DAMH-C7	For bearing or end caps	16	
[11] Proximity switch SDBF-FCR/SDBF-FCS	Can be integrated into sensor bracket SAMH-FC-SH	26	
[12] Sensor bracket SAMH-FC-SH	For proximity switches SDBF-FCR/SDBF-FCS	26	
[13] Threaded bolt DARA-...-M	For connection to the cylinder	25	
- Pivot pin DADG-B-C7/-AS	For rod eye, rod clevis, swivel flange and swivel mounting	24	

Datasheet

Function
DSNA-N

DSNA-N-...T



-  - Diameter
1 1/2 ... 4 inch
-  - Stroke length
0.25 ... 48 inch



General technical data					
Piston Ø	1 1/2	2	2 1/2	3 1/4	4
Design	Piston				
	Piston rod				
	Tie rod				
	Cylinder barrel				
Operating mode	Double-acting				
Pneumatic connection	3/8 NPT	3/8 NPT	3/8 NPT	1/2 NPT	1/2 NPT
Piston rod end	Male thread				
	Female thread				
Piston rod thread					
Standard	7/16-20 UNF-2A			3/4-16 UNF-2A	
[F]	7/16-20 UNF-2B			3/4-16 UNF-2B	
U[U12] ²⁾	1/2-20 UNF-2A			–	
U[U58] ²⁾	5/8-18 UNF-2A			–	
U[U78] ²⁾	–			7/8-14 UNF-2A	
[U1S] ²⁾	–			1-14 UNS	
Stroke ¹⁾	[in]	0.25 ... 48			
Cushioning	Pneumatic cushioning, adjustable at both ends				
Position sensing	Via proximity switch				
Type of mounting	Direct mounting via thread				
	With accessories				
Mounting position	Any				

1) The strokes are available in increments of 0.25 inches.

2) Cannot be combined with piston rod thread type: female thread [F]

Operating and environmental conditions					
Piston Ø	1 1/2	2	2 1/2	3 1/4	4
Conforms to standard	NFPA				
	T3.6.7				
Operating pressure					
	[MPa]	0.089 ... 0.965		0.048 ... 0.965	
	[psi]	13 ... 140		7 ... 140	
	[bar]	0.89 ... 9.65		0.48 ... 9.65	
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]			
Note on the operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)			
Ambient temperature ¹⁾					
Standard	[°C]	−5 ... +60			
	[°F]	+23 ... +140			
Temperature range [T23]	[°C]	−5 ... +80			
	[°F]	+23 ... +176			
Corrosion resistance class CRC ²⁾		1			

1) Note operating range of proximity switches

2) More information: www.festo.com/x/topic/crc

Datasheet

Forces [lb] at 80 psi					
Piston Ø	1 1/2	2	2 1/2	3 1/4	4
Theoretical force, advancing	156	243.2	386.4	623.2	973.6
Theoretical force, retracting	131.2	218.4	361.6	560.8	911.2

Weight [lb] based on the type of mounting ¹⁾					
Piston Ø	1 1/2	2	2 1/2	3 1/4	4
Basic weight with 0 inch stroke					
[MS4]/[T-MS4]	1.49/2.12	2.16/2.80	2.94/3.64	5.53/6.82	7.28/9.29
[MT4]/[T-MT4]	2.71/3.34	3.58/4.22	4.79/5.49	7.95/9.24	10.48/12.49
[MS1]/[T-MS1]	1.84/2.47	2.69/3.33	3.60/4.30	6.93/8.22	9.39/11.40
[MF1]/[T-MF1]	2.03/2.62	3.05/3.63	4.21/4.79	8.63/9.69	11.72/13.30
[MF2]/[T-MF2]					
[MP1]					
[MP2]					
[MP4]	2.13	3.13	4.23	8.79	11.68
[MX2]					
[MX3]					
[MX2]	1.55	2.26	3.04	5.70	7.45
[MX3]	3.34	4.22	5.49	9.24	12.49
Additional weight per 1 inch stroke					
[MS4]/[T-MS4]	0.17/0.26	0.21/0.30	0.22/0.37	0.44/0.66	0.49/0.71
[MT4]/[T-MT4]					
[MS1]/[T-MS1]					
[MF1]/[T-MF1]					
[MF2]/[T-MF2]	0.17	0.21	0.22	0.44	0.49
[MP1]					
[MP2]					
[MP4]					
[MX2]					
[MX3]					

1) Types of mounting

[MS4]/[T-MS4]	Direct mounting/through piston rod and direct mounting
[MT4]/[T-MT4]	Central swivel mounting/through piston rod and central swivel mounting
[MS1]/[T-MS1]	Foot mounting/through piston rod and foot mounting
[MF1]/[T-MF1]	Flange plate, bearing cap/through piston rod and flange plate, bearing cap
[MF2]/[T-MF2]	Flange plate, end cap/through piston rod and flange plate, end cap
[MP1]	Swivel bearing
[MP2]	Swivel mounting
[MP4]	Swivelling rod eye mounting
[MX2]	Threaded rod, end cap
[MX3]	Threaded rod, bearing cap

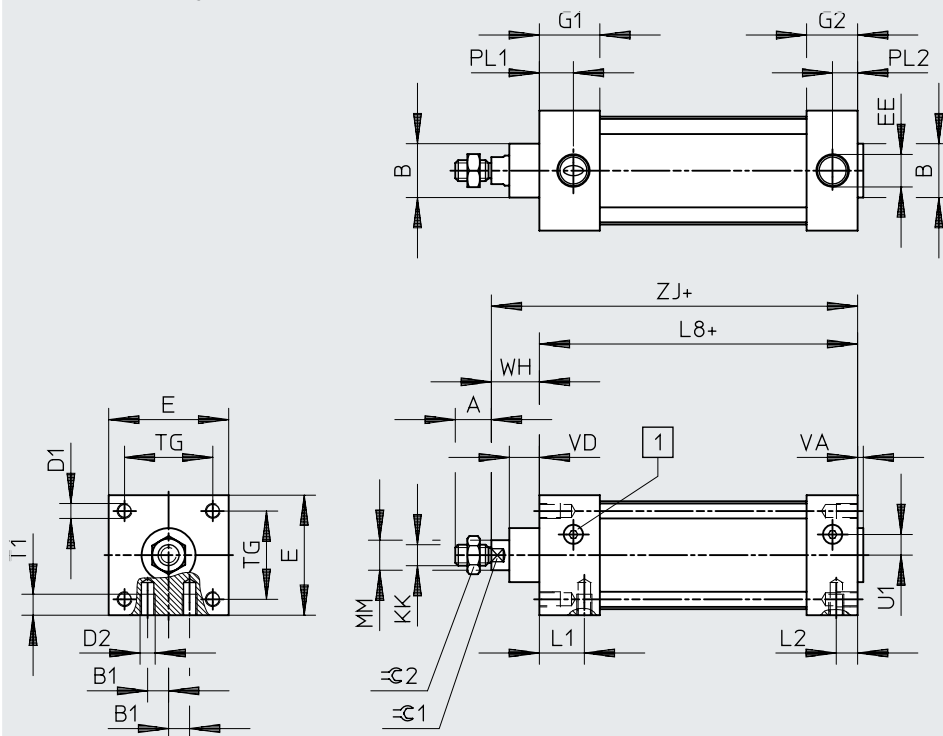
Materials					
Piston Ø	1 1/2	2	2 1/2	3 1/4	4
Cover material	Coated die-cast aluminium				
Sealing material	FPM				
	NBR				
Piston rod material	High-alloy stainless steel				
Cylinder barrel material	Smooth-anodised wrought aluminium alloy				
Note on materials	Contains paint-wetting impairment substances				
	RoHS-compliant				

Datasheet

Dimensions

Download CAD data → www.festo.com

[MS4] Direct mounting



[1] Adjusting screw for adjustable end-position cushioning

+ = plus stroke length

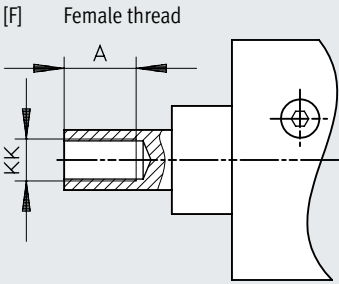
ø [in]	A	B ø	B1	D1	D2	KK				
							[U12]	[U58]	[U78]	[U1S]
1 1/2	0.75	1.13	0.31	1/4-28	1/4-20	7/16-20 UNF-2A	1/2-20 UNF-2A	5/8-18 UNF-2A	–	–
2	0.75	1.13	0.44	5/16-24	5/16-18	7/16-20 UNF-2A	1/2-20 UNF-2A	5/8-18 UNF-2A	–	–
2 1/2	0.75	1.13	0.63	5/16-24	3/8-16	7/16-20 UNF-2A	1/2-20 UNF-2A	5/8-18 UNF-2A	–	–
3 1/4	1.13	1.5	0.75	3/8-24	1/2-13	3/4-16 UNF-2A	–	–	7/8-14 UNF-2A	1-14 UNS
4	1.13	1.5	1.03	3/8-24	1/2-13	3/4-16 UNF-2A	–	–	7/8-14 UNF-2A	1-14 UNS

ø [in]	E	EE	G1	G2	L1	L2	L8	MM ø	PL1	PL2	T1	TG	VA	VD	WH	ZJ	≈C1	≈C2
1 1/2	2	3/8	1.26	1.01	0.94	0.44	3.63	0.63	0.71	0.56	0.28	1.43	0.12	0.63	1	4.63	0.56	0.69
2	2.5	3/8	1.26	1.06	0.94	0.44	3.63	0.63	0.71	0.52	0.44	1.84	0.12	0.63	1	4.63	0.56	0.69
2 1/2	3	3/8	1.30	1.06	0.94	0.44	3.75	0.63	0.75	0.52	0.59	2.19	0.13	0.63	1	4.75	0.56	0.69
3 1/4	3.75	1/2	1.57	1.18	1.06	0.56	4.25	1	0.97	0.57	0.63	2.76	0.21	0.88	1.38	5.63	0.88	1.12
4	4.5	1/2	1.57	1.18	1.06	0.56	4.25	1	0.97	0.57	0.63	3.32	0.21	0.88	1.38	5.63	0.88	1.12

Datasheet

Dimensions

Download CAD data → www.festo.com



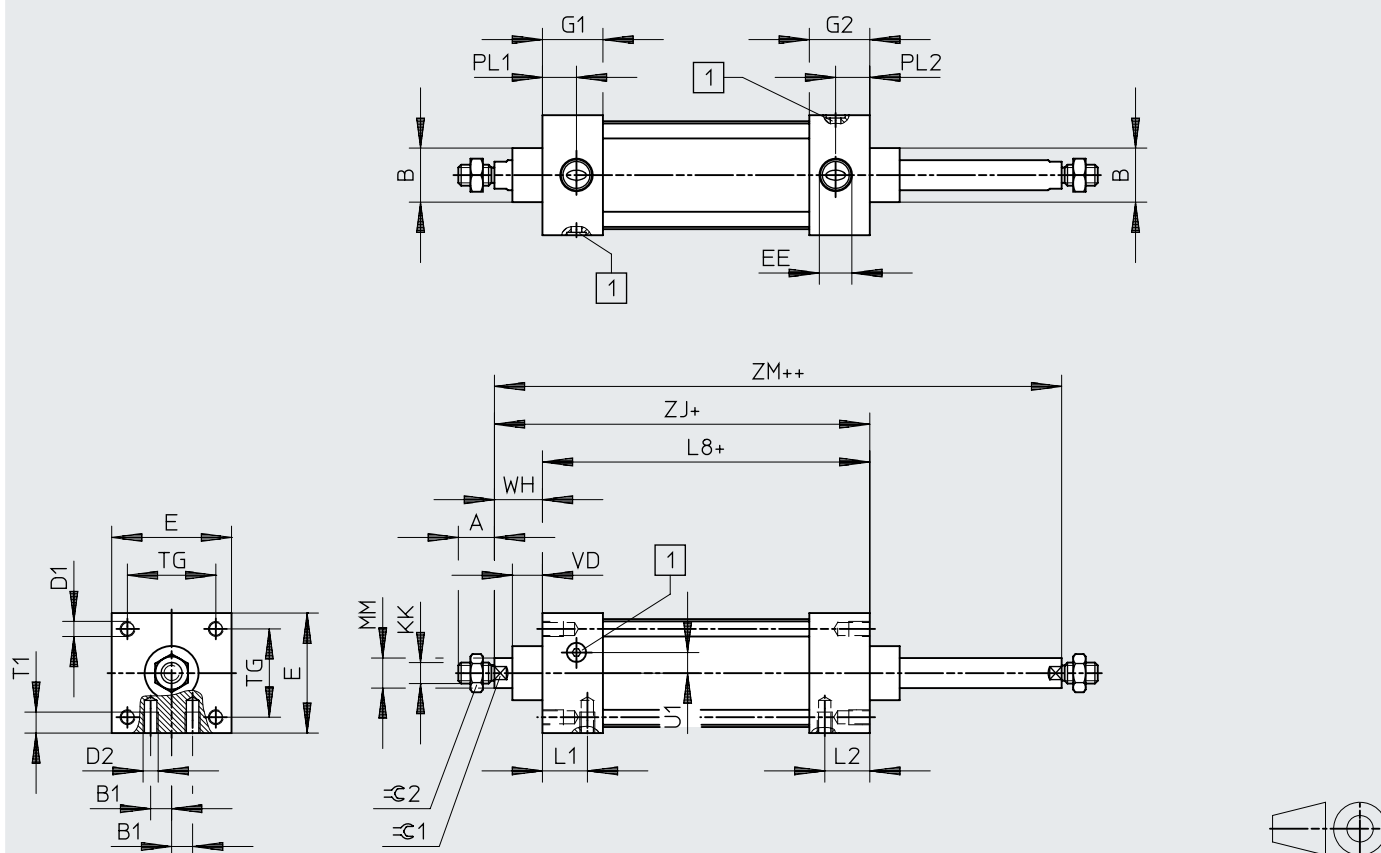
Ø	A	KK
[in]		
1 1/2	0.75	7/16-20 UNF-2B
2	0.75	7/16-20 UNF-2B
2 1/2	0.75	7/16-20 UNF-2B
3 1/4	1.13	3/4-16 UNF-2B
4	1.13	3/4-16 UNF-2B

Datasheet

Dimensions

Download CAD data → www.festo.com

[T] Through piston rod



[1] Adjusting screw for adjustable end-position cushioning

+ = plus stroke length

++ = plus 2x stroke length

∅	A	B ∅	B1	D1	D2	KK				
[in]							[U12]	[U58]	[U78]	[U1S]
1 1/2	0.75	1.13	0.31	1/4-28	1/4-20	7/16-20 UNF-2A	1/2-20 UNF-2A	5/8-18 UNF-2A	–	–
2	0.75	1.13	0.444	5/16-24	5/16-18	7/16-20 UNF-2A	1/2-20 UNF-2A	5/8-18 UNF-2A	–	–
2 1/2	0.75	1.13	0.63	5/16-24	3/8-16	7/16-20 UNF-2A	1/2-20 UNF-2A	5/8-18 UNF-2A	–	–
3 1/4	1.13	1.5	0.75	3/8-24	1/2-13	3/4-16 UNF-2A	–	–	7/8-14 UNF-2A	1-14 UNS
4	1.13	1.5	1.03	3/8-24	1/2-13	3/4-16 UNF-2A	–	–	7/8-14 UNF-2A	1-14 UNS

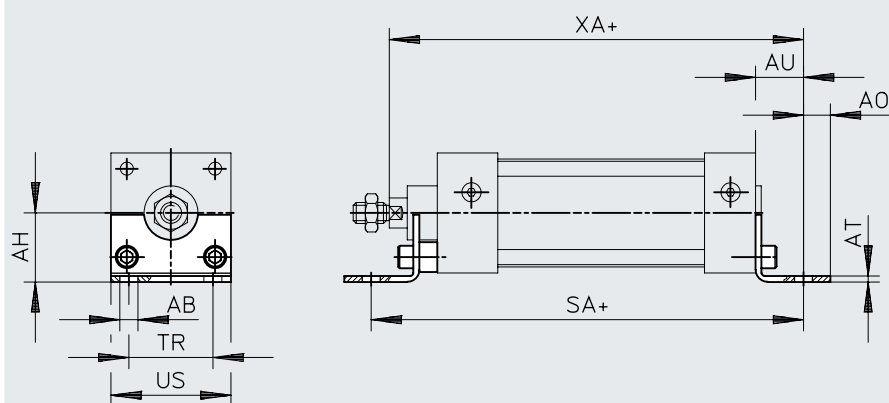
∅	E	EE	G1	G2	L1	L2	L8	MM ∅	PL1	PL2	T1	TG	VD	WH	ZJ	ZM	⌀G1	⌀G2
[in]																		
1 1/2	2	3/8	1.26	1.26	0.94	0.94	3.78	0.63	0.71	0.71	0.28	1.43	0.63	1	4.78	5.78	0.56	0.69
2	2.5	3/8	1.26	1.26	0.94	0.94	3.82	0.63	0.71	0.71	0.44	1.84	0.63	1	4.82	5.82	0.56	0.69
2 1/2	3	3/8	1.30	1.30	0.94	0.94	3.98	0.63	0.75	0.75	0.59	2.19	0.63	1	4.98	5.98	0.56	0.69
3 1/4	3.75	1/2	1.57	1.57	1.06	1.06	4.64	1	0.97	0.96	0.63	2.76	0.88	1.38	6.02	7.40	0.88	1.12
4	4.5	1/2	1.57	1.57	1.06	1.06	4.64	1	0.97	0.96	0.63	3.32	0.88	1.38	6.02	7.40	0.88	1.12

Datasheet

Dimensions

Download CAD data → www.festo.com

[MS1] Foot mounting



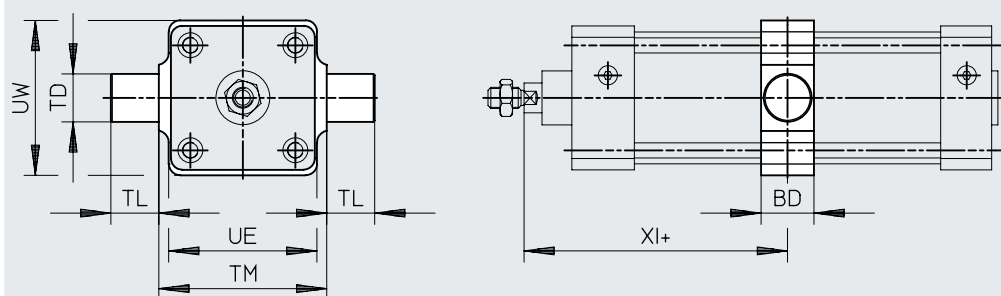
+ = plus stroke length

∅	AB ∅	AH	AO	AT	AU	SA	TR	US	XA	XS
[in]										
1 1/2	0.38	1.19	0.44	0.13	1	6	1.25	2	5.63	1.38
2	0.38	1.44	0.56	0.13	1	6	1.75	2.5	5.63	1.38
2 1/2	0.38	1.63	0.56	0.13	1	6.13	2.25	3	5.75	1.38
3 1/4	0.5	1.94	0.75	0.17	1.26	7.38	2.75	3.75	6.88	1.76
4	0.5	2.25	0.75	0.23	1.26	7.38	3.50	4.5	6.88	1.76

Dimensions

Download CAD data → www.festo.com

[MT4] Trunnion mounting



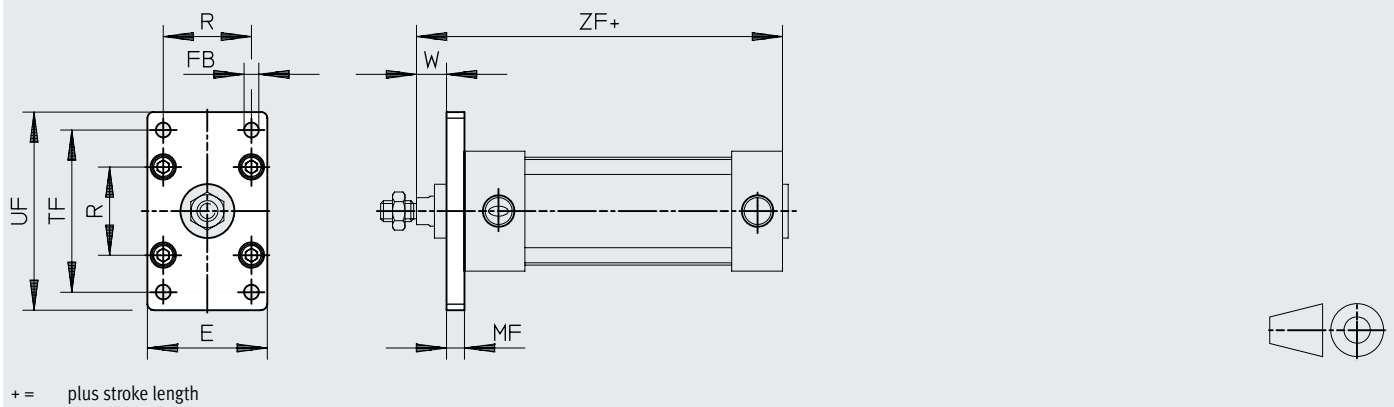
+ = plus 1/2x stroke length

∅	BD	TD	TL	TM	UE	UW	XI
[in]		±0.001					±0.08
1 1/2	1.04	1	1	2.5	2.11	2.28	2.28
2	1.04	1	1	3	2.6	2.6	2.6
2 1/2	1.1	1	1	3.5	3.09	3.23	3.23
3 1/4	1.18	1	1	4.5	3.7	4.17	4.17
4	1.22	1	1	5.25	4.49	4.96	4.96

Datasheet

Dimensions Download CAD data → www.festo.com

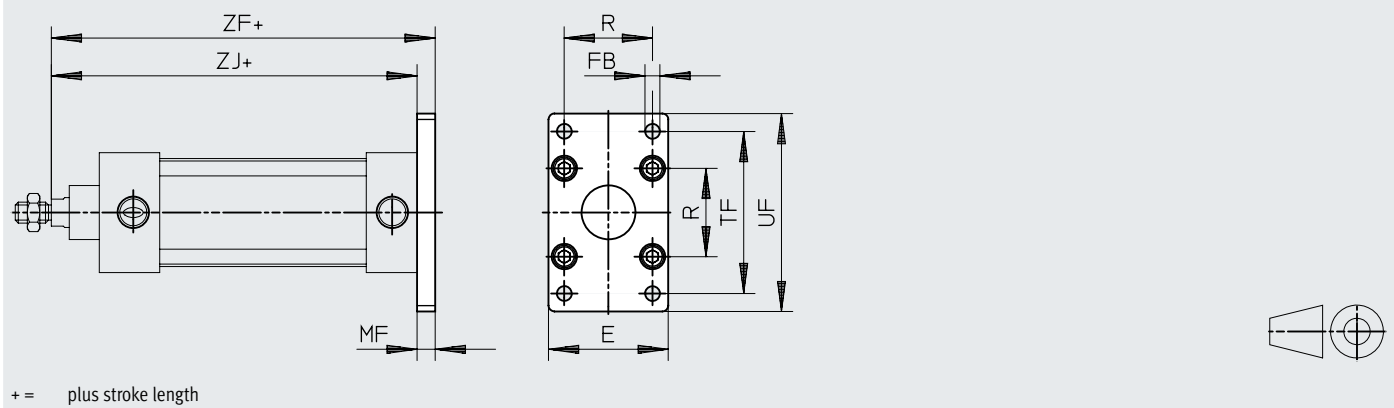
[MF1] Flange plate, bearing cap



∅	E	FB ∅	MF	R	TF	UF	W	ZF
[in]								
1 1/2	2	0.25	0.38	1.43	2.75	3.38	0.63	4.63
2	2.5	0.31	0.38	1.84	3.38	4.13	0.63	4.63
2 1/2	3	0.31	0.38	2.19	3.88	4.63	0.63	4.75
3 1/4	3.75	0.38	0.63	2.76	4.68	5.50	0.75	5.63
4	4.5	0.38	0.63	3.32	5.44	6.25	0.75	5.63

Dimensions Download CAD data → www.festo.com

[MF2] Flange plate, end cap



∅	E	FB ∅	MF	R	TF	UF	ZF	ZJ
[in]								
1 1/2	2	0.25	0.38	1.43	2.75	3.38	5	4.63
2	2.5	0.31	0.38	1.84	3.38	4.13	5	4.63
2 1/2	3	0.31	0.38	2.19	3.88	4.63	5.13	4.75
3 1/4	3.75	0.38	0.63	2.76	4.68	5.50	6.25	5.63
4	4.5	0.38	0.63	3.32	5.44	6.25	6.25	5.63

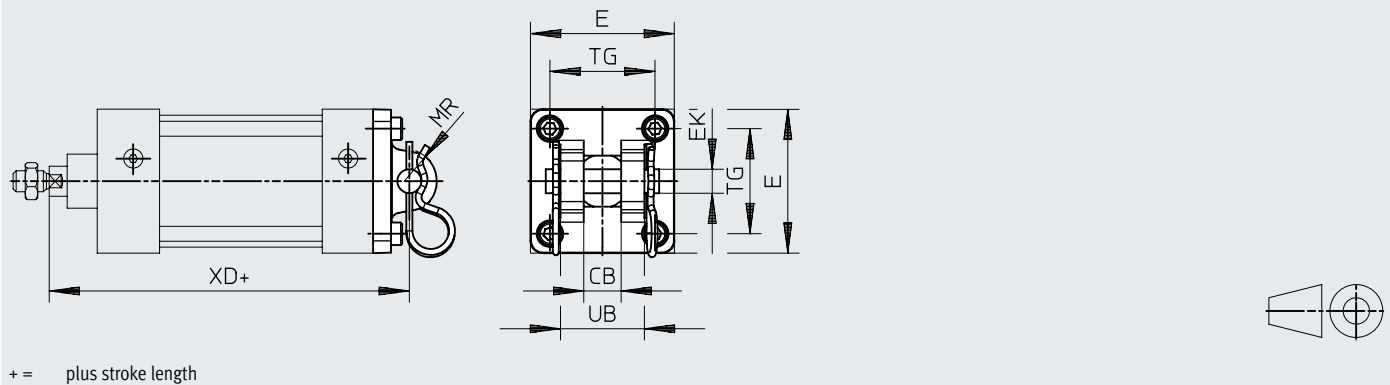
Datasheet

Dimensions

Download CAD data → www.festo.com

[MP1] Swivel bearing

[MP2] Swivel mounting



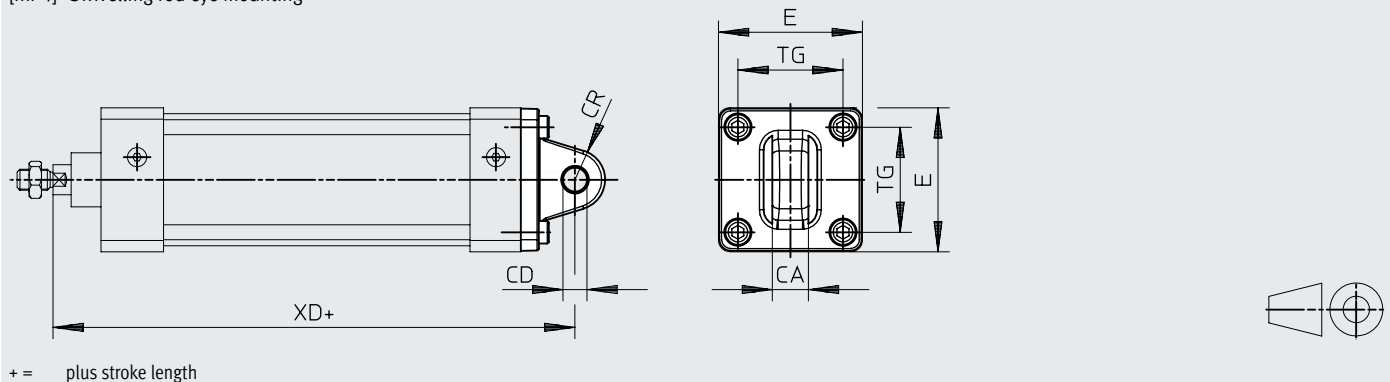
+ = plus stroke length

∅	CB	E	EK ∅	MR ∅	TG	UB	XD+	
[in]							[MP1]	[MP2]
1 1/2	0.78	2	0.50	1.24	1.43	1.75	5.38	5.75
2	0.78	2.5	0.50	1.24	1.84	1.75	5.38	5.75
2 1/2	0.78	3	0.50	1.24	2.19	1.75	5.50	5.88
3 1/4	1.13	3.75	0.75	1.88	2.76	2.50	6.88	7.50
4	1.13	4.5	0.75	1.88	3.32	2.50	6.88	7.50

Dimensions

Download CAD data → www.festo.com

[MP4] Swivelling rod eye mounting



+ = plus stroke length

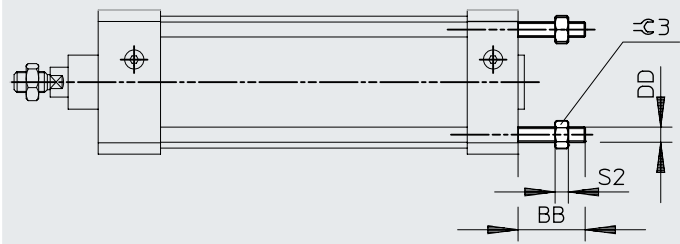
∅	CA	CD ∅	E	CR	TG	XD
[in]						±0.06
1 1/2	0.75	0.5	2	0.63	1.43	5.75
2	0.75	0.5	2.5	0.63	1.84	5.75
2 1/2	0.75	0.5	3	0.63	2.19	5.88
3 1/4	1.25	0.75	3.75	0.87	2.76	7.5
4	1.25	0.75	4.5	0.87	3.32	7.5

Datasheet

Dimensions

Download CAD data → www.festo.com

[MX2] Threaded rod, end cap

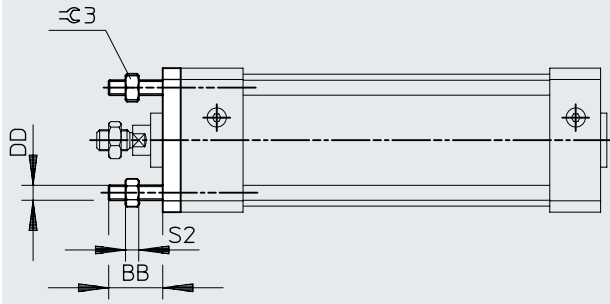


∅	BB	DD	S2	3
[in]				
1 1/2	1	1/4-28	0.22	0.44
2	1.13	5/16-24	0.27	0.5
2 1/2	1.13	5/16-24	0.27	0.5
3 1/4	1.38	3/8-24	0.33	0.56
4	1.38	3/8-24	0.33	0.56

Dimensions

Download CAD data → www.festo.com

[MX3] Threaded rod, bearing cap



∅	BB	DD	S2	3
[in]				
1 1/2	1	1/4-28	0.22	0.44
2	1.13	5/16-24	0.27	0.5
2 1/2	1.13	5/16-24	0.27	0.5
3 1/4	1.38	3/8-24	0.33	0.56
4	1.38	3/8-24	0.33	0.56

Ordering data – Modular product system

Ordering table									
Piston Ø	1 1/2	2	2 1/2	3 1/4	4	Conditions	Code		Enter code
Module no.	8117043	8117044	8117045	8117046	8117047				
Function	Standards-based cylinder, double-acting						DSNA		DSNA
System of units	Imperial						-N		-N
Piston Ø [in]	1 1/2	2	2 1/2	3 1/4	4		“...”		
Stroke [in]	0.25 ... 48						“...”		
Piston rod type	At one end								
	Through piston rod						-T		
Piston rod thread type	Male thread								
	Female thread						F		
Cushioning	Pneumatic cushioning, adjustable at both ends						-PPV		-PPV
Position sensing	Via proximity switch						A		A
Standard	Conforms to ANSI/NFPA						-N5		-N5
Temperature range [°C]	Standard								
	−5 ... +80						T23		
Piston rod thread	Standard								
	1/2-20 UNF-2A			–		[1]	-U12		
	–			5/8-18 UNF-2A		[1]	-U58		
	7/8-14 UNF-2A			–		[1]	-U78		
	–			1-14 UNS		[1]	-U1S		
Type of mounting	Flange plate, bearing cap						-MF1		
	Flange plate, end cap					[2]	-MF2		
	Swivel bearing					[2]	-MP1		
	Swivel mounting					[2]	-MP2		
	Swivelling rod eye mounting					[2]	-MP4		
	Foot mounting						-MS1		
	Direct mounting						-MS4		
	Central swivel mounting						-MT4		
	Threaded rod, end cap					[2]	-MX2		
	Threaded rod, bearing cap						-MX3		

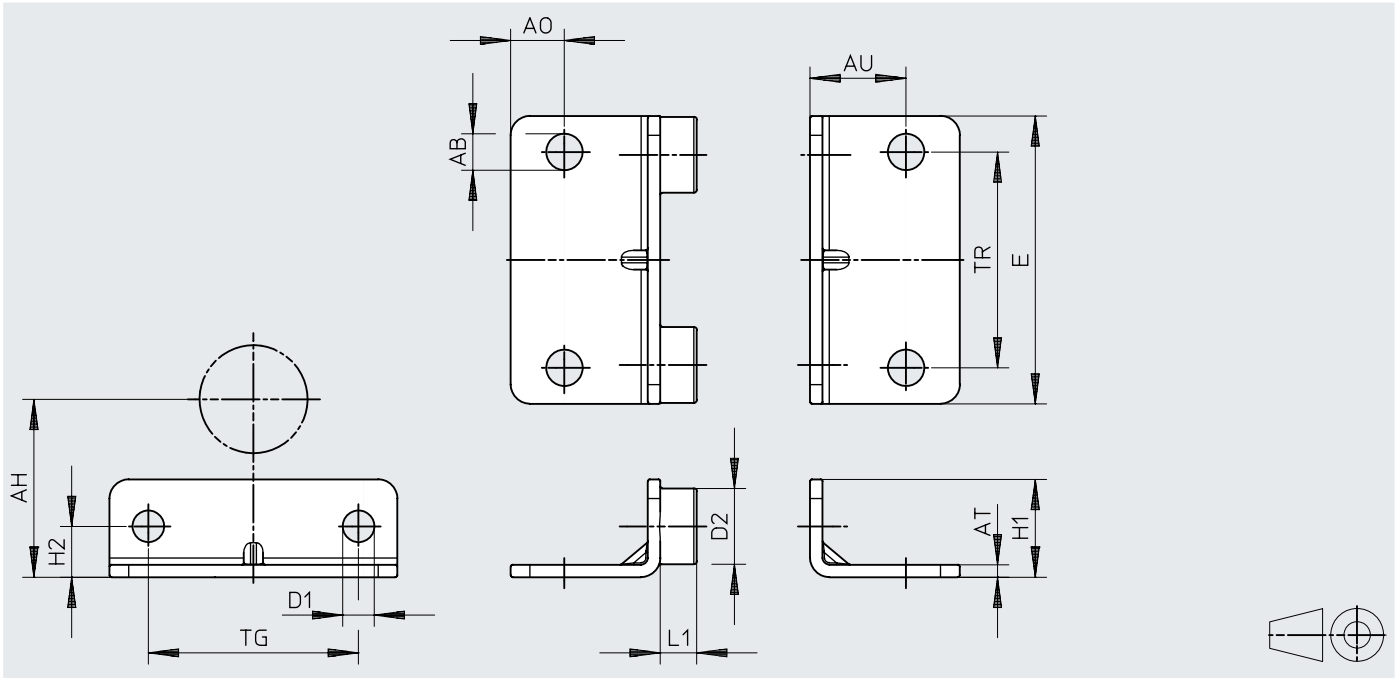
- [1] U12, U58, U78, U1S Not with piston rod thread type F, female thread
The mounting nut on the external piston rod thread is not included in the scope of delivery
- [2] MF2, MP1, MP2, MP4, MX2 Not with piston rod type T, through piston rod

Accessories

Foot mounting DAMH-C7

Material:
Bracket, sleeve: Nickel-plated steel
Screws: Steel

RoHS-compliant
Contains paint-wetting impairment
substances



Dimensions and ordering data															
For ø	AB	AH	AO	AT	AU	D1	D2	E	H1	H2	L1	TG	TR	Part no.	Type
[in]	ø					ø	ø								
1 1/2	0.38	1.19	0.44	0.13	1	0.27	0.55	2	0.87	0.47	0.38	1.43	1.25	8148942	DAMH-C7-1 1/2"
2	0.38	1.44	0.56	0.13	1	0.33	0.63	2.5	0.95	0.53	0.38	1.84	1.75	8148943	DAMH-C7-2"
2 1/2	0.38	1.63	0.56	0.13	1	0.33	0.79	3	1.02	0.53	0.38	2.19	2.25	8148944	DAMH-C7-2 1/2"
3 1/4	0.5	1.94	0.75	0.17	1.25	0.39	0.99	3.75	1.1	0.55	0.63	2.76	2.75	8148945	DAMH-C7-3 1/4"
4	0.5	2.25	0.75	0.23	1.25	0.39	1.16	4.5	1.18	0.59	0.63	3.32	3.5	8148946	DAMH-C7-4"

Accessories

Flange plate DAMF-C7

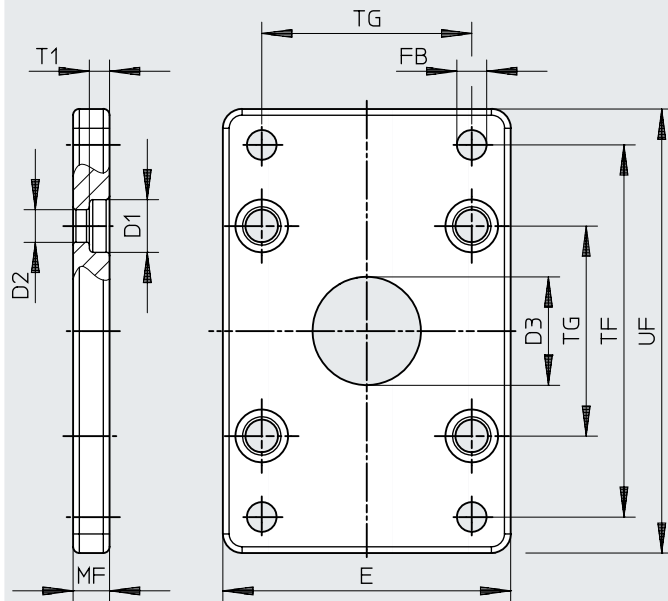
Material:

Flange: Painted cast steel

Screws: Steel

RoHS-compliant

Contains paint-wetting impairment substances



Dimensions and ordering data

For $\varnothing$ [in]	D1 $\varnothing$	D2 $\varnothing$	D3 $\varnothing$	E	FB $\varnothing$	MF	T1	TG	TF	UF	Part no.	Type
1 1/2	0.45	0.27	1.13	2	0.25	0.38	0.21	1.43	2.75	3.38	8148922	DAMF-C7-1 1/2"
2	0.55	0.34	1.13	2.5	0.31	0.38	0.21	1.84	3.38	4.13	8148923	DAMF-C7-2"
2 1/2	0.55	0.34	1.13	3	0.31	0.38	0.21	2.19	3.88	4.63	8148924	DAMF-C7-2 1/2"
3 1/4	0.67	0.39	1.51	3.75	0.38	0.63	0.3	2.76	4.68	5.5	8148925	DAMF-C7-3 1/4"
4	0.67	0.39	1.51	4.5	0.38	0.63	0.3	3.32	5.44	6.25	8148926	DAMF-C7-4"

Accessories

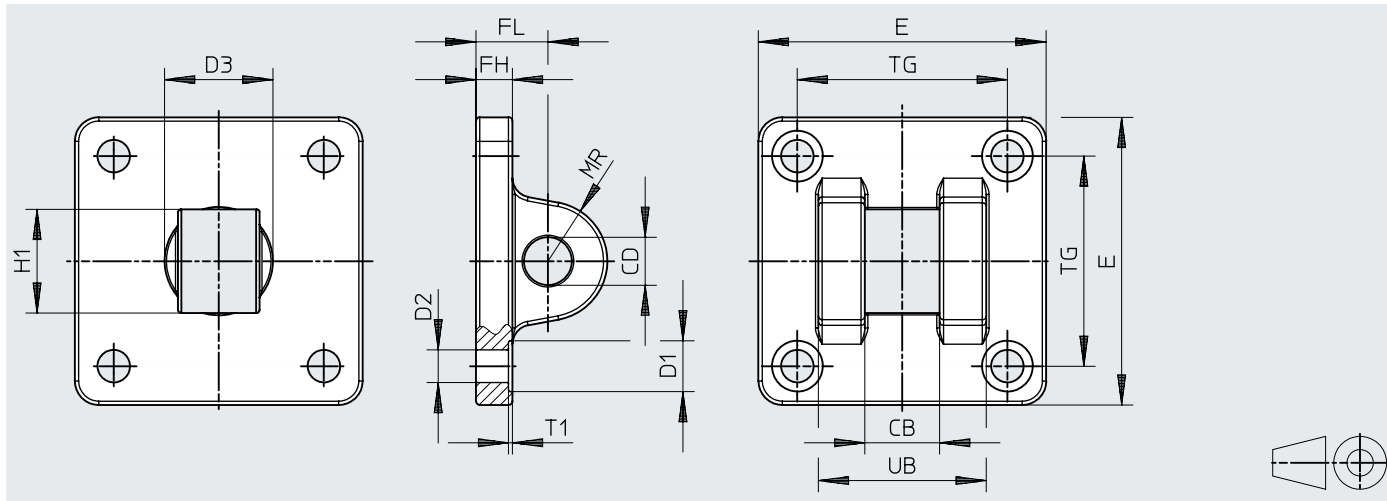
Swivel flange DAMS-C7-...-D
Swivel flange DAMS-C7-...-DS

Material:

Swivel flange: Painted cast steel

Bolts; cotter pins; screws: Steel

RoHS-compliant

Contains paint-wetting impairment
substances**Dimensions and ordering data**

For $\varnothing$ [in]	CB	CD $\varnothing$	D1 $\varnothing$	D2 $\varnothing$	D3 $\varnothing$	E	FH	FL	H1	MR	T1	TG	UB	Part no.	Type
1 1/2	0.78	0.5	0.41	0.28	1.13	2	0.38	1.13	–	0.5	0.08	1.43	1.75	8148932	DAMS-C7-1 1/2"-D
								0.75	1.02	1.24	0.04			8148927	DAMS-C7-1 1/2"-DS
2	0.78	0.5	0.53	0.34	1.13	2.5	0.38	1.13	–	0.5	0.08	1.84	1.75	8148933	DAMS-C7-2"-D
								0.75	1.08	1.24	0.08			8148928	DAMS-C7-2"-DS
2 1/2	0.78	0.5	0.53	0.34	1.13	3	0.38	1.13	–	0.5	0.08	2.19	1.75	8148934	DAMS-C7-2 1/2"-D
								0.75	1.08	1.24	0.04			8148929	DAMS-C7-2 1/2"-DS
3 1/4	1.28	0.75	0.65	0.39	1.51	3.75	0.63	1.88	–	0.75	0.09	2.76	2.5	8148935	DAMS-C7-3 1/4"-D
								1.25	1.53	1.88	0.04			8148930	DAMS-C7-3 1/4"-DS
4	1.28	0.75	0.65	0.39	1.51	4.5	0.63	1.88	–	0.75	0.09	3.32	2.5	8148936	DAMS-C7-4"-D
								1.25	1.53	1.88	0.04			8148931	DAMS-C7-4"-DS

Accessories

Swivel flange DAMS-C7-...-C

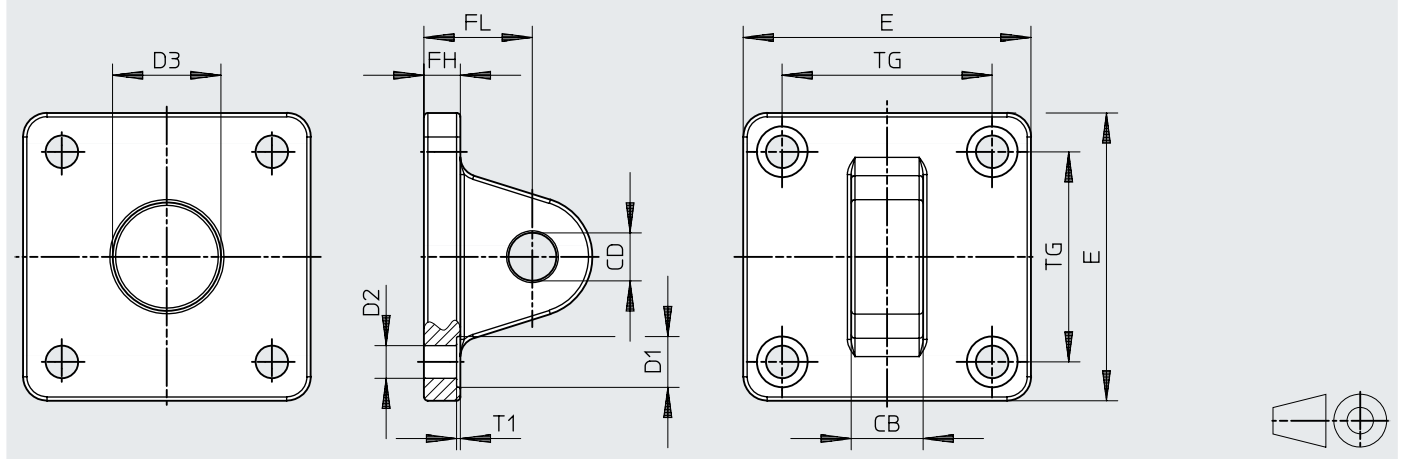
Material:

Swivel flange: Painted cast steel

Screws: Steel

RoHS-compliant

Contains paint-wetting impairment substances



Dimensions and ordering data

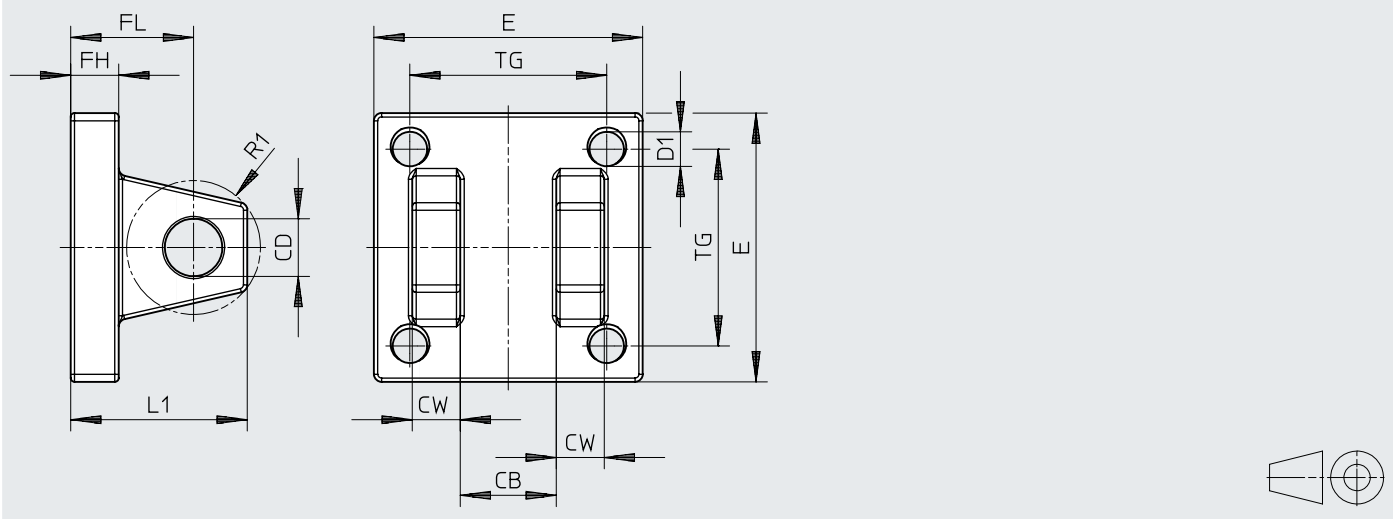
For $\varnothing$ [in]	CB	CD $\varnothing$	D1 $\varnothing$	D2 $\varnothing$	D3 $\varnothing$	E	FH	FL	MR	T1	TG	Part no.	Type
1 1/2	0.75	0.5	0.41	0.28	1.13	2	0.38	0.75	1.25	0.08	1.43	8148937	DAMS-C7-1 1/2"-C
2	0.75	0.5	0.53	0.34	1.13	2.5	0.38	0.75	1.25	0.08	1.84	8148938	DAMS-C7-2"-C
2 1/2	0.75	0.5	0.53	0.34	1.13	3	0.38	0.75	1.25	0.08	2.19	8148939	DAMS-C7-2 1/2"-C
3 1/4	1.25	0.75	0.65	0.39	1.51	3.75	0.63	1.25	1.75	0.09	2.76	8148940	DAMS-C7-3 1/4"-C
4	1.25	0.75	0.65	0.39	1.51	4.5	0.63	1.25	1.75	0.09	3.32	8148941	DAMS-C7-4"-C

Accessories

Swivel mounting
DAMC-C7-...-D

Material:
Swivel mounting: Cast steel

RoHS-compliant
Contains paint-wetting impairment
substances



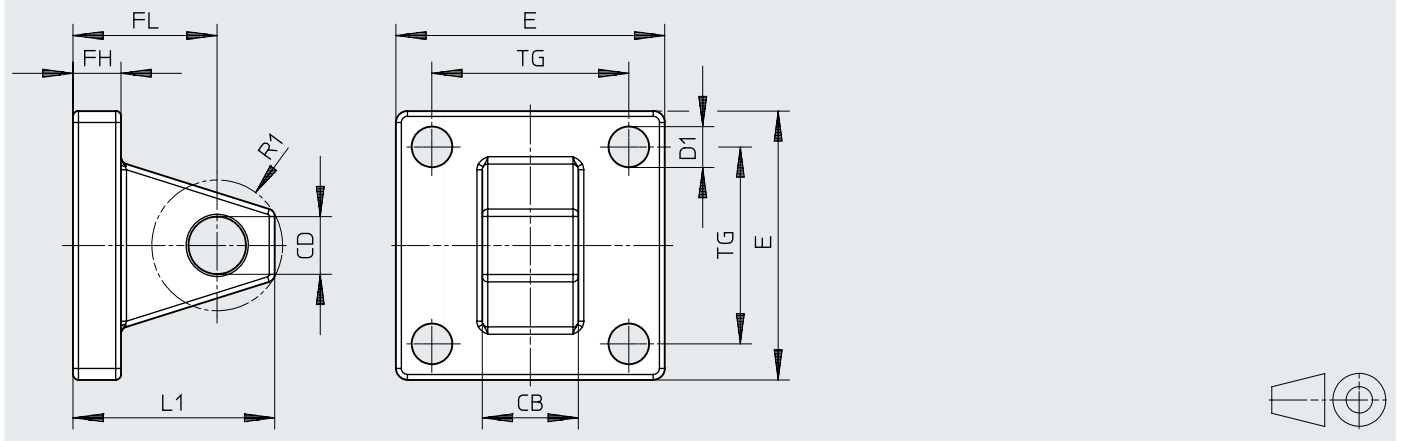
Dimensions and ordering data												
For ø	CB	CD	CW	D1	E	FH	FL	L1	R1	TG	Part no.	Type
[in]		ø										
1 1/2; 2; 2 1/2	0.75	0.5	0.5	3/8-24	2.5	0.38	1.13	0.88	0.5	1.63	8148947	DAMC-C7-1 1/2"-D
3 1/4; 4	1.25	0.75	0.63	1/2-20	3.5	0.63	1.88	1.38	1.06	2.56	8148948	DAMC-C7-3 1/4"-D

Accessories

Swivel mounting DAMC-C7-...-C

Material:
Swivel mounting: Painted cast steel

RoHS-compliant
Contains paint-wetting impairment
substances



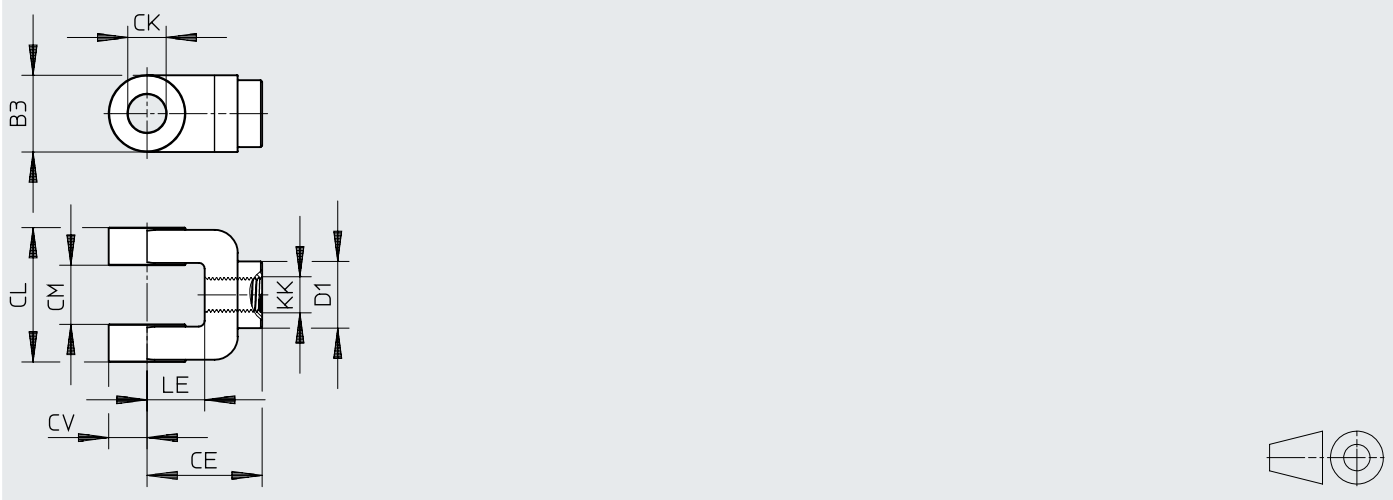
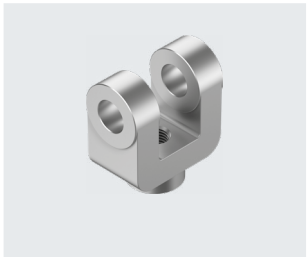
Dimensions and ordering data											
For $\varnothing$ [in]	CB	CD $\varnothing$	D1	E	FH	FL	L1	R1	TG	Part no.	Type
1 1/2; 2; 2 1/2	0.75	0.5	0.41	2.5	0.38	1.13	1.63	0.75	1.63	8148949	DAMC-C7-1 1/2"-C
3 1/4; 4	1.25	0.75	0.53	3.5	0.63	1.88	2.63	1.25	2.56	8148950	DAMC-C7-3 1/4"-C

Accessories

Rod clevis DARC-C7

Material:
Painted cast steel

RoHS-compliant
Contains paint-wetting impairment
substances



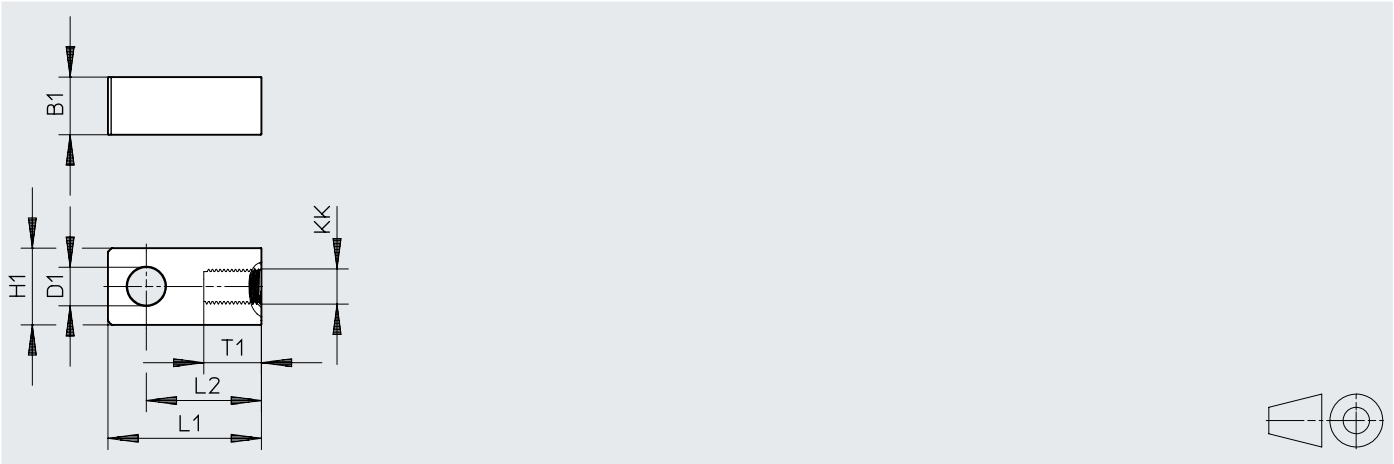
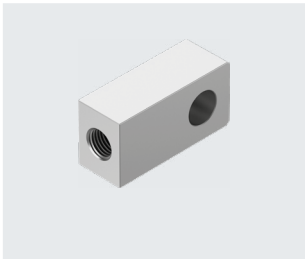
Dimensions and ordering data											
For ø	B3	CE	CK ø	CL	CM	CV	D1 ø	KK	LE	Part no.	Type
[in]											
1 1/2; 2; 2 1/2	1	1.5	0.5	1.75	0.77	0.5	0.87	7/16-20	0.75	8117048	DARC-C7-U716
3 1/4; 4	1.5	2.38	0.75	2.5	1.27	0.75	1.34	3/4-16	1.25	8117049	DARC-C7-U34

Accessories

Rod eye DARC-C7B

Material:
Nickel-plated steel

RoHS-compliant
Contains paint-wetting impairment
substances



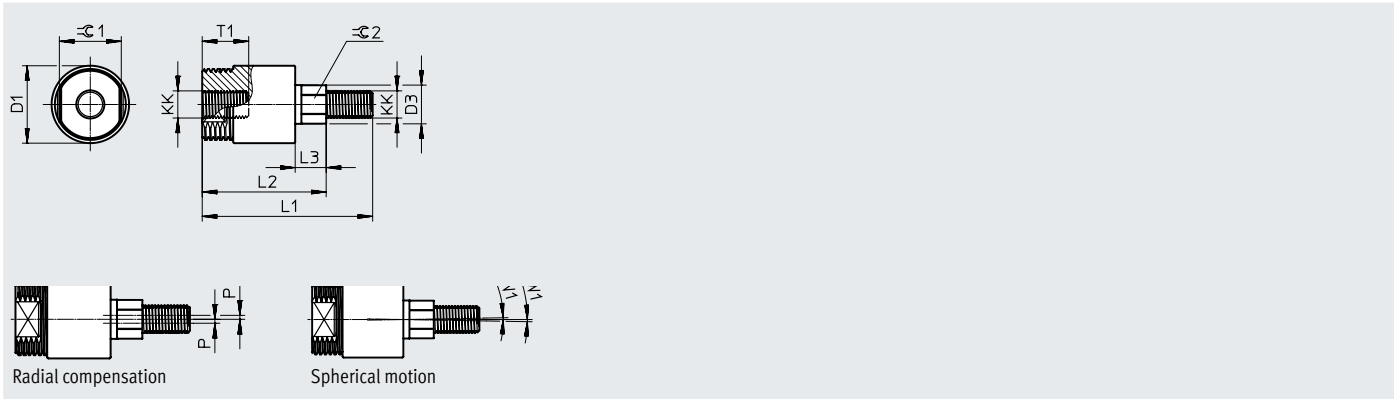
Dimensions and ordering data									
For $\varnothing$ [in]	B1	D1 $\varnothing$	H1	KK	L1	L2	T1	Part no.	Type
1 1/2; 2; 2 1/2	0.75	0.5	1	7/16-20	2	1.5	0.75	8117050	DARC-C7B-U716
3 1/4; 4	1.25	0.75	1.5	3/4-16	2.81	2.06	1.13	8117051	DARC-C7B-U34

Accessories

Self-aligning rod coupler DARP-C7

Material:
Housing; bushing; ball stud; spherical
washer: Oxidised steel

RoHS-compliant
Contains paint-wetting impairment
substances

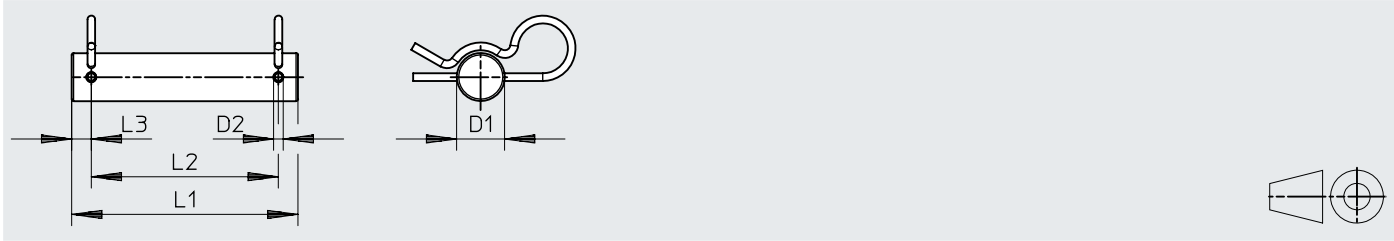


Dimensions and ordering data													
For $\varnothing$ [in]	D1 $\varnothing$	D3 $\varnothing$	KK	L1	L2	L3	T1	$\varnothing 1$	$\varnothing 2$	P	W1	Part no.	Type
1 1/2; 2; 2 1/2	1.25	0.63	7/16-20	2.75	2	0.5	0.75	1 1/8	9/16	0.0625	1°	8117054	DARP-C7-U716-F
3 1/4; 4	1.75	0.97	3/4-16	3.44	2.31	0.31	1.13	1 1/2	7/8	0.0625	1°	8117055	DARP-C7-U34-F

Pivot pin DADG-B-C7

Material:
Pin; clips: Steel

RoHS-compliant
Contains paint-wetting impairment
substances



Dimensions and ordering data							
For $\varnothing$ [in]	D1 $\varnothing$	D2 $\varnothing$	L1	L2	L3	Part no.	Type
1 1/2; 2; 2 1/2	0.5	0.16	2.36	1.95	0.2	8117052	DADG-B-C7-1/2"
3 1/4; 4	0.75	0.2	3.13	2.74	0.19	8117053	DADG-B-C7-3/4"

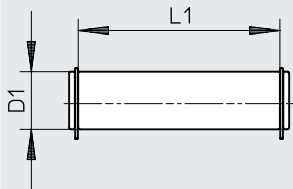
-  - **Note**
In addition to the R-clips shown, two straight cotter pins are also included in the scope of delivery of pivot pin DADG-B-C7.

Accessories

Pivot pin DADG-B-C7-AS

Material:
Pivot pin; guard ring: Steel

RoHS-compliant
Contains paint-wetting impairment
substances

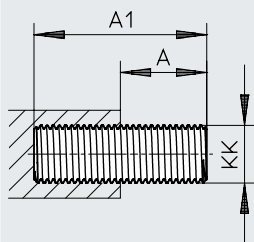


Dimensions and ordering data				
For Ø [in]	D1 Ø	L1	Part no.	Type
1 1/2; 2; 2 1/2	0.5	1.88	8148951	DADG-B-C7-1/2"-AS
3 1/4; 4	0.75	2.63	8148952	DADG-B-C7-3/4"-AS

Threaded bolt DARA-...-M

Material:
Threaded bolt: Steel

RoHS-compliant
Contains paint-wetting impairment
substances



Dimensions and ordering data				
For Ø [in]	A	A1	KK	Part no.
1 1/2; 2; 2 1/2	0.75	1.5	7/16-20 UNF-2B	8148953
3 1/4; 4	1.13	2.25	3/4-16 UNF-2B	8148954

Type: DARA-U716-M, DARA-U34-M

Accessories

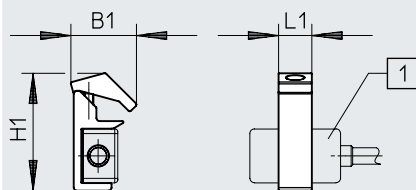
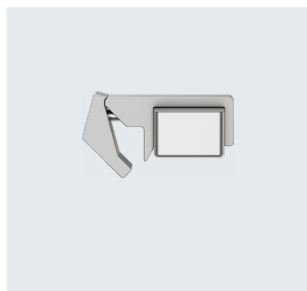
Sensor bracket SAMH-FC-SH

Material:

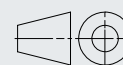
Mounting; screw: Steel (galvanised or nickel-plated)

RoHS-compliant

Contains paint-wetting impairment substances



[1] Proximity switch SDBF



Dimensions and ordering data

For Ø [in]	B1	H1	L1	Part no.	Type
1 1/2 ... 4	0.75	1.3	0.43	8117067	SAMH-FC-SH

Ordering data – Proximity switches

Datasheets → Internet: sdbf

	For Ø [in]	Type of mounting	Switching output	Electrical connection	Part no.	Type
	1 1/2 ... 4	Can be integrated into sensor bracket SAMH-FC-SH	PNP	Cable, 3-core	8117062	SDBF-FCS-1L-PU-K-9-N-LE
				M8 plug, 3-pin	8117065	SDBF-FCS-1L-PU-K-N-M8
			NPN	Cable, 3-core	8117063	SDBF-FCS-1L-NU-K-9-N-LE
				M8 plug, 3-pin	8117066	SDBF-FCS-1L-NU-K-N-M8

Connecting cables NEBA, straight

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M8x1 A-coded to EN 61076-2-104	Open end	3	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				5 m	8078224	NEBA-M8G3-U-5-N-LE3

Connecting cables NEBA, angled

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M8x1 A-coded to EN 61076-2-104	Open end	3	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3
				5 m	8078231	NEBA-M8W3-U-5-N-LE3

Accessories

Ordering data				
	For Ø [in]	Description	Part no.	Type
One-way flow control valve GRLA Datasheets → Internet: grla				
	1 1/2 ... 2 1/2	For regulating speed	534664	GRLA-3/8-QB-1/4-U
			534666	GRLA-3/8-QB-3/8-U
			534667	GRLA-3/8-QB-1/2-U
	3 1/4 ... 4		564846	GRLA-1/2-QB-3/8-U
			564847	GRLA-1/2-QB-1/2-U
Push-in fitting, straight Datasheets → Internet: qb				
	1 1/2 ... 2 1/2	For connecting tubing with standard O.D.	533279	QB-3/8-1/4-U
			533281	QB-3/8-3/8-U
			533282	QB-3/8-1/2-U
	3 1/4 ... 4		533283	QB-1/2-3/8-U
			533284	QB-1/2-1/2-U
Push-in fitting, angled Datasheets → Internet: qbl				
	1 1/2 ... 2 1/2	For connecting tubing with standard O.D.	533298	QBL-3/8-1/4-U
			533300	QBL-3/8-3/8-U
			533301	QBL-3/8-1/2-U
	3 1/4 ... 4		533302	QBL-1/2-3/8-U
			533303	QBL-1/2-1/2-U
Ordering data – Seal set Datasheets → Internet: dadg				
	Temperature range, standard: (−5 ... +60 °C)			
	1 1/2	Spare parts	8117056	DADG-SK-C7-1 1/2"
	2		8117057	DADG-SK-C7-2"
	2 1/2		8117058	DADG-SK-C7-2 1/2"
	3 1/4		8117059	DADG-SK-C7-3 1/4"
	4		8117060	DADG-SK-C7-4"
	Temperature range T23 (−5 ... +80 °C)			
	1 1/2		8148955	DADG-SK-C7-1 1/2"-T23
	2		8148956	DADG-SK-C7-2"-T23
	2 1/2		8148957	DADG-SK-C7-2 1/2"-T23
	3 1/4		8148958	DADG-SK-C7-3 1/4"-T23
	4		8148959	DADG-SK-C7-4"-T23