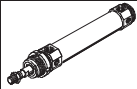
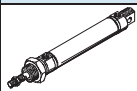
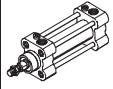
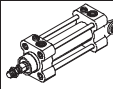


## Corrosion resistant cylinders - Inch Series



- Corrosion-resistant in aggressive environmental conditions
- Easy to clean design
- Wide choice of variants
- Comprehensive range of accessories

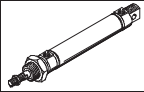

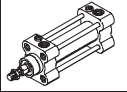
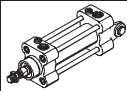
Product range overview										
Function	Version	Type	Piston Ø [in]	Stroke [in]	Force [lbf]	Variants				
						A	P	PPV	S6	S2
Double-acting	Round cylinders									
		CRDSW	1-1/4, 1-5/8, 2, 2-1/2	0.4 ... 20	108 ... 420	■	■	-	-	-
	Standard cylinders									
		CRDSNU	1/2, 5/8	0.4 ... 8	12 ... 60	■	■	-	-	■
			3/4	0.4 ... 13						
	1		0.4 ... 19.7							
	CRDNG	1-1/4, 1-5/8, 2, 2-1/2, 3, 4, 5	0.4 ... 78	108 ... 1,654	■	-	■	■	■	
Standard cylinders with swivel bearing at rear										
	CRDNGS	1-1/4, 1-5/8, 2, 2-1/2, 3, 4, 5	0.4 ... 78	108 ... 1,654	■	-	■	■	-	

Variants					
A	Magnet for position sensing	PPV	Adjustable air cushioning at both ends	S6	Heat-resistant seals up to 302 °F
P	Flexible cushioning rings at both ends			S2	Through piston rod

# Corrosion-resistant cylinders - Inch Series

Product range overview



Function	Design	Type	Piston Ø [in]	Standard stroke [in]	Magnet for position sensing  A	Cushioning		
						Non-adjustable at both ends P	Adjustable at both ends PPV	
Double-acting	<b>Round cylinders</b>							
		CRDSNU Piston rod at one end	1/2, 5/8	0.4 ... 8	■	■	-	
			3/4	0.4 ... 13				
			1	0.4 ... 19.7				
		CRDSNU- ... -S2 Through piston rod	1/2, 5/8	0.4 ... 8	■	■	-	
			3/4	0.4 ... 13				
			1	0.4 ... 19.7				
	<b>Tie rod cylinders</b>							
		CRDNG Piston rod at one end	1-1/4, 1-5/8, 2, 2-1/2, 3, 4, 5	0.4 ... 78	■	-	■	
			CRDNG- ... -S2 Through piston rod	1-1/4, 1-5/8, 2, 2-1/2, 3, 4, 5				0.4 ... 78
<b>Tie rod cylinders with swivel bearing at rear</b>								
	CRDNGS Piston rod at one end	1-1/4, 1-5/8, 2, 2-1/2, 3, 4, 5	0.4 ... 78	■	-	■		

# Round cylinders CRDSNU, corrosion-resistant - Inch Series



Technical data

Double-acting

- Through piston rod available (S2)



Diameter

1/2 ... 1 in

Stroke length

0.4 ... 19.7 in



General technical data					
Piston Ø	[in]	1/2	5/8	3/4	1
Pneumatic connection		10-32 UNF	10-32 UNF	1/8" NPT	1/8" NPT
Piston rod thread		1/4-20 UNC	1/4-20 UNC	5/16-24 UNF	3/8-24 UNF
Constructional design		Piston			
		Piston rod			
		Cylinder barrel			
Cushioning		Flexible cushioning rings at both ends			
Magnet for position sensing <sup>1)</sup>		Standard			

1) Position sensing via magnetic proximity sensor (ordered separately, see accessories).

Operating and environmental conditions					
Piston Ø	[in]	1/2	5/8	3/4	1
Operating medium		Filtered compressed air, lubricated or unlubricated			
Operating pressure	[psi]	15 ... 150			
Ambient temperature <sup>2)</sup>	[°F]	-4 ... +176			
Corrosion resistance class CRC <sup>3)</sup>		4			

2) Note operating range of proximity sensors

3) Corrosion resistance class 4 according to Festo standard 940 070.

Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

Forces [lbf] and impact energy [ft-lbf]					
Piston Ø	[in]	1/2	5/8	3/4	1
Theoretical force at 90 psi, advancing		12.4	23.4	37.1	60
Theoretical force at 90 psi, retracting		8.5	19.6	31.5	49.5
Max. impact energy at end positions		0.05	0.11	0.15	0.22

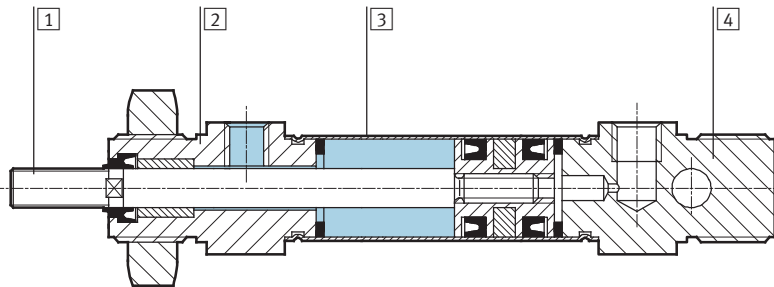
Weights [oz]					
Piston Ø	[in]	1/2	5/8	3/4	1
Basic weight at 0 inch stroke		4.2	5.3	11.3	15.9
Additional weight per 1 inch stroke		0.38	0.43	0.65	0.9

# Round cylinders CRDSNU, corrosion-resistant - Inch Series

Technical data

## Materials

Sectional view



## Cylinder

1	Piston rod	High-alloy stainless steel
2	Bearing cap	High-alloy stainless steel
3	Cylinder barrel	High-alloy stainless steel
4	End cap	High-alloy stainless steel
-	Seals	Polyurethane

# Round cylinders CRDSNU, corrosion-resistant - Inch Series



Technical data

**Dimensions** Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Basic version

+ plus stroke length

S2 – Through piston rod

+ plus stroke length  
++ plus 2 stroke lengths

∅ [in]	AM	B	BE	BF	CD	D	D4	EE	EW	G	KK	KV
1/2	0.6	0.6	M16x1.5	0.7	0.2	0.8	0.5	10-32 UNF	0.5	0.4	1/4-20 UNC	0.9
5/8	0.6	0.6	M16x1.5	0.7	0.2	0.8	0.7	10-32 UNF	0.5	0.4	1/4-20 UNC	0.9
3/4	0.8	0.9	M22x1.5	0.8	0.3	1.2	0.8	1/8" NPT	0.6	0.6	5/16-24 UNF	1.3
1	0.9	0.9	M22x1.5	0.9	0.3	1.2	1.0	1/8" NPT	0.6	0.6	3/8-24 UNF	1.3

∅ [in]	KW	MM	L	L2	L5	PL	VD	WF	XC	ZJ	ZM	∅1 [mm]
1/2	0.3	0.2	0.4	2.0	0.6	0.2	0.1	0.9	3.0	2.8	3.7	5
5/8	0.3	0.2	0.4	2.2	0.6	0.2	0.1	0.9	3.2	3.1	3.9	5
3/4	0.4	0.3	0.5	2.7	0.7	0.3	0.1	0.9	3.7	3.6	4.6	7
1	0.4	0.4	0.5	2.7	0.8	0.3	0.1	1.1	4.1	3.8	4.9	9

Dimensions are in inches, unless otherwise noted.

# Round cylinders CRDSNU, corrosion-resistant - Inch Series



Ordering Data

M Mandatory data					O Options
Function	Piston Ø [in]	Stroke	Cushioning	Magnet for position sensing	Type of piston rod
CRDSNU	1/2 5/8 3/4 1	0.04 ... 19.7	P	A	S2
<b>CRDSNU</b>	- <b>1</b>	- <b>6</b>	- <b>P</b>	- <b>A</b>	-

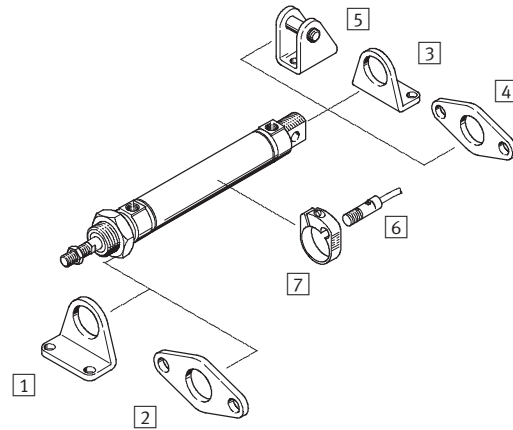
Ordering table						
Size	1/2	5/8	3/4	1	Code	Enter code
M Function	Standard cylinders				<b>CRDSNU</b>	CRDSNU
Piston Ø [in]	1/2	5/8	3/4	1	-...	
Stroke [in]	0.04 ... 19.7				-...	
Cushioning	Flexible cushioning rings at both ends				<b>-P</b>	-P
Magnet for position sensing	For use with magnetic proximity sensors				<b>-A</b>	-A
O Type of piston rod	Through piston rod				<b>-S2</b>	

Transfer order code

- 
  - 
  - 
  - 
  -

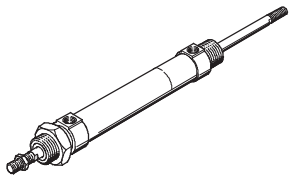
# Round cylinders CRDSNU, corrosion-resistant - Inch Series

Accessories overview



## Variant

CRDSNU-S2



Mounting attachments and accessories		Description
3	Foot mounting CRHBN	For bearing and end cap
4	Flange mounting CRFBN	For bearing or end cap
5	Clevis foot CRLBN	For direct mounting on end cap
6	Proximity sensor CRSMEO-4	With LED for operating status indication
7	Mounting kit CRSMBR	For proximity sensor CRSMEO-4

# Tie rod cylinders CRDNG, corrosion resistant - Inch Series

Technical data

Double-acting

- Through piston rod available (S2)

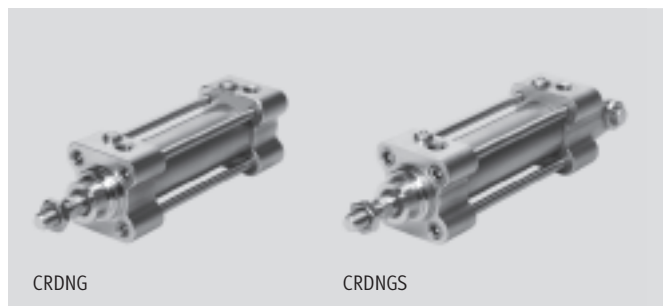


Diameter

1-1/4 ... 5

Stroke length

0.4 ... 78



CRDNG

CRDNBS

General technical data								
Piston Ø	[in]	1-1/4	1-5/8	2	2-1/2	3	4	5
Pneumatic connection		1/8" NPT	1/4" NPT	3/8" NPT		1/2" NPT		
Piston rod thread		3/8-24 UNF-2A	1/2-20 UNF-2A	5/8-18 UNF-2A		3/4 -16 UNF-2A		1-12 UNF-2A
Constructional design		Piston						
		Piston rod						
		Cylinder barrel						
Cushioning		Adjustable air cushioning at both ends						
Cushioning length	[in]	0.79	0.79	0.91	0.91	1.18	1.18	1.57
Magnet for position sensing <sup>1)</sup>		Standard						

1) Position sensing via magnetic proximity sensor (ordered separately, see accessories).

Operating and environmental conditions	
CRDNG/CRDNBS	
Operating medium	Filtered compressed air, lubricated or unlubricated
Operating pressure	9 ... 150 psi
Ambient temperature <sup>2)</sup>	[°F] -4 ... +176
Corrosion resistance class CRC <sup>3)</sup>	4

2) Note operating range of proximity sensors

3) Corrosion resistance class 4 according to Festo standard 940 070.

Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

Forces [lbf]								
Piston Ø	[in]	1-1/4	1-5/8	2	2-1/2	3	4	5
Theoretical force at 90 psi, advancing		108	170	265	420	678	1059	1654
Theoretical force at 90 psi, retracting		93	142	223	378	612	993	1547



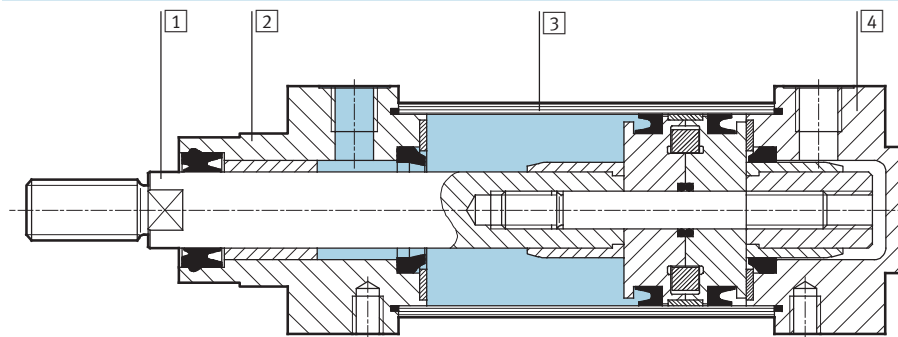
# Tie rod cylinders CRDNG, corrosion resistant - Inch Series

Technical data

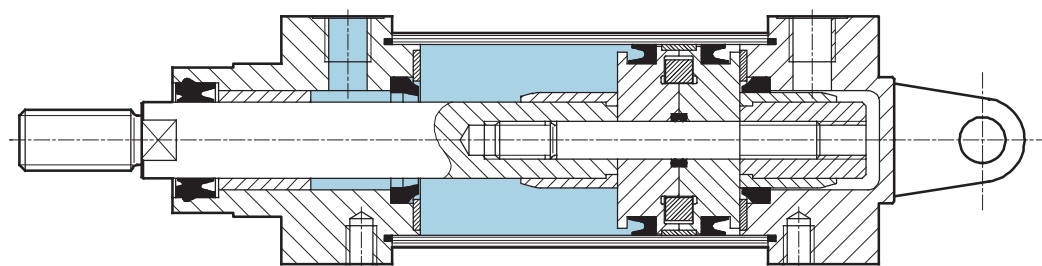
Weights [oz]								
Piston Ø	[in]	1-1/4	1-5/8	2	2-1/2	3	4	5
CRDNG								
Basic weight at 0 inch stroke		36.9	48.0	76.2	121.9	209.4	284.7	
Additional weight per 1 inch stroke		1.8	2.7	5.4	5.4	9.0	9.9	
CRDNGS								
Basic weight at 0 inch stroke		37.7	51.5	82.2				
Additional weight per 1 inch stroke		1.8	2.7	5.4				

## Materials

Sectional view CRDNG



Sectional view CRDNGS



CRDNG/CRDNGS		
1	Piston rod	High-alloy stainless steel
2	Bearing cap	Stainless steel casting
3	Cylinder barrel	High-alloy stainless steel
4	End cap	Stainless steel casting
-	Tie rod	High-alloy stainless steel
-	Seals	Polyurethane, nitrile rubber

# Tie rod cylinders CRDNG, corrosion resistant - Inch Series

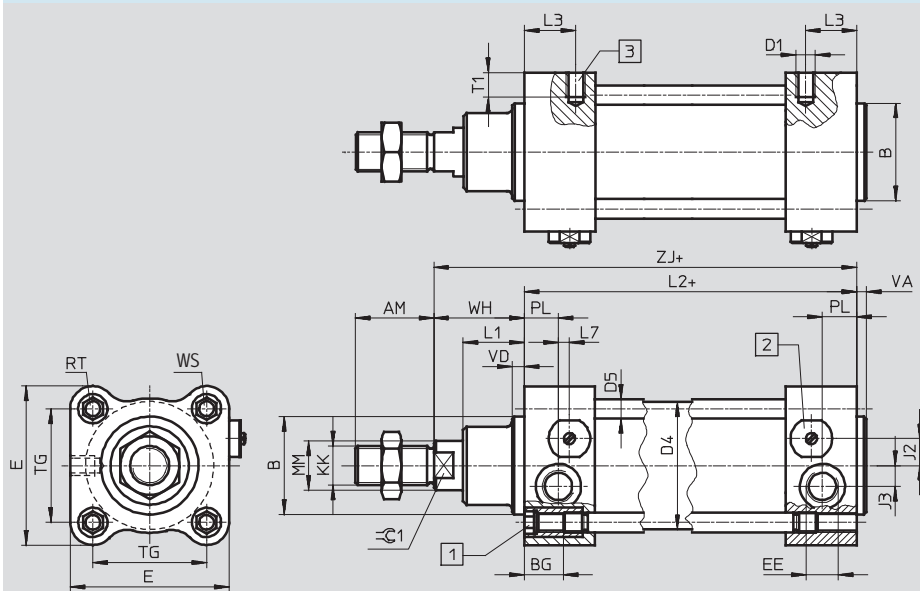
Technical data



## Dimensions

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

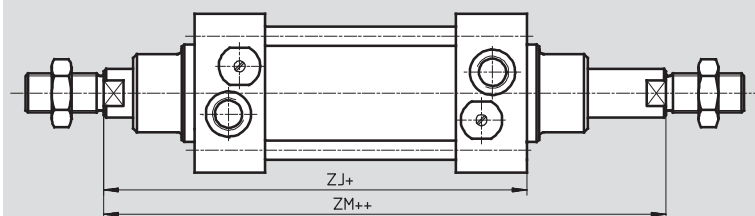
CRDNG



- 1 Socket head screw with female thread
- 2 Cover for adjustable end-position cushioning
- 3 Threaded hole for direct mounting

+ plus stroke length

## S2 – Through piston rod



- + plus stroke length
- ++ plus 2 stroke lengths

∅ [in]	AM	B ∅	BG	D1	D4 ∅	D5 ∅	E	EE	J2	J3	KK	L1	L2
1-1/4	0.9	1.2	0.6	M6	1.3	0.2	2.0	1/8" NPT	0.3	0.2	3/8-24 UNF-2A	0.6	3.7
1-5/8	0.9	1.4	0.6	M6	1.6	0.2	2.2	1/4" NPT	0.4	0.3	1/2-20UNF-2A	0.7	4.1
2	1.3	1.6	0.6	M8	2.1	0.3	2.6	1/4" NPT	0.5	0.3	5/8-18UNF-2A	1.0	4.2
2-1/2	1.3	1.8	0.6	M10	2.6	0.3	3.0	3/8" NPT	0.6	0.5	5/8-18UNF-2A	1.0	4.8
3	1.6	1.8	0.9	M10	3.3	0.4	3.9	3/8" NPT	0.6	0.5	3/4-16UNF-2A	1.2	5.0
4	1.6	2.2	0.9	M12	4.0	0.4	4.7	1/2" NPT	0.9	0.6	3/4-16UNF-2A	1.4	5.4
5	2.1	2.4	0.9	M12	5.1	0.5	5.7	1/2" NPT	1.1	0.3	1-12UNF-2A	1.2	6.3

∅ [in]	L3	L7	MM ∅	PL	RT	T1	TG	VA	VD	WH	ZJ	ZM	⊖C1 [mm]	WS [mm]
1-1/4	0.5	0.2	0.5	0.5	M6	0.4	1.3	0.2	0.2	1.0	4.7	5.8	0.4	HEX 6
1-5/8	0.6	0.1	0.6	0.6	M6	0.4	1.5	0.2	0.2	1.2	5.3	6.6	0.5	HEX 6
2	0.8	0.2	0.8	0.6	M8	0.4	1.8	0.2	0.2	1.5	5.6	7.2	0.7	HEX 8
2-1/2	0.9	0.2	0.8	0.7	M8	0.5	2.2	0.2	0.2	1.5	6.2	7.8	0.7	HEX 8
3	0.9	0.2	1.0	0.7	M10	0.6	2.8	0.2	0.2	1.8	6.9	8.7	0.9	HEX 10
4	0.9	0.4	1.0	0.7	M10	0.7	3.5	0.2	0.2	2.0	7.4	9.4	0.9	HEX 10
5	0.9	0.2	1.3	1.1	M12	0.7	4.3	0.2	0.2	2.6	8.9	11.5	1.1	HEX 12

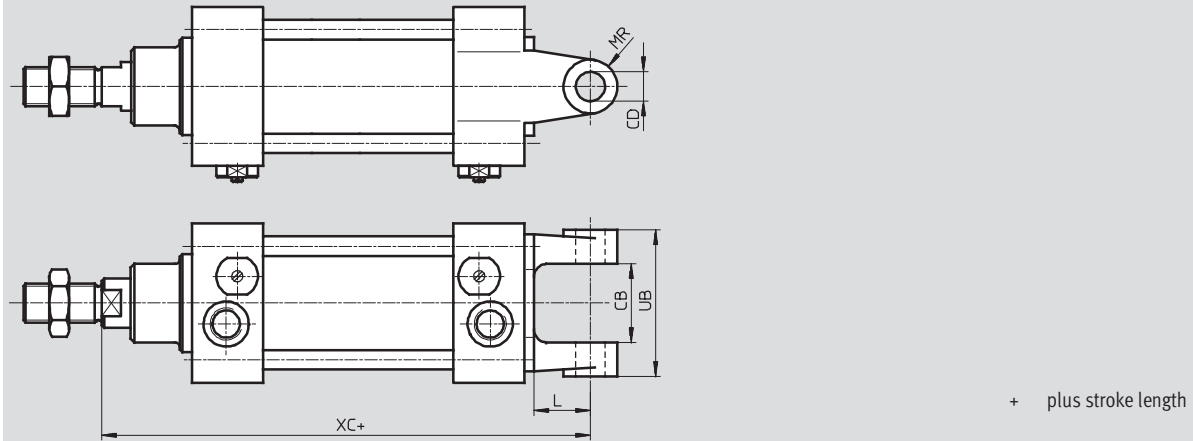
Dimensions are in inches, unless otherwise noted.

# Tie rod cylinders CRDNG, corrosion resistant - Inch Series

Technical data

## Dimensions

CRDNGS



∅ [in]	CB	CD ∅	L	MR	UB	XC
1-1/4	1.0	0.4	0.7	0.4	1.8	5.6
1-5/8	1.1	0.5	0.8	0.4	2.0	6.3
2	1.3	0.5	0.9	0.4	2.4	6.7
2-1/2	1.6	0.6	1.1	0.5	2.8	7.5
3	2.0	0.6	1.3	0.5	3.5	8.3
4	2.4	0.8	1.5	0.7	4.3	9.1
5	2.8	1.0	1.7	0.9	5.1	10.9

Dimensions are in inches, unless otherwise noted.

# Tie rod cylinders CRDNG, corrosion-resistant - Inch Series



Ordering Data

M Mandatory data					O Options
Function	Piston Ø [in]	Stroke	Cushioning	Magnet for position sensing	Type of piston rod
CRDNG CRDNGS	1 1/4 1 5/8 2 2 1/2 3 4	0.4 ... 78	PPV	A	S2
<b>CRDNG</b>	- <b>2</b>	- <b>6</b>	- <b>PPV</b>	- <b>A</b>	-

Ordering table									
Size	1 1/4	1 5/8	2	2 1/2	3	4	Code	Enter code	
M Function	Tie rod cylinders, corrosion resistant						CRDNG		
	Tie rod cylinders, corrosion resistant, rear swivel flange						CRDNGS		
	Piston Ø [in]	1 1/4	1 5/8	2	2 1/2	3	4	-...	
	Stroke [in]	0.4 ... 78						-...	
	Cushioning	Adjustable air cushioning at both ends						-PPV	-PPV
Magnet for position sensing <sup>1)</sup>	Standard						-A	-A	
O Type of piston rod	Through piston rod <sup>2)</sup>						-S2		

1) Position sensing via magnetic proximity sensor (ordered separately, see accessories).

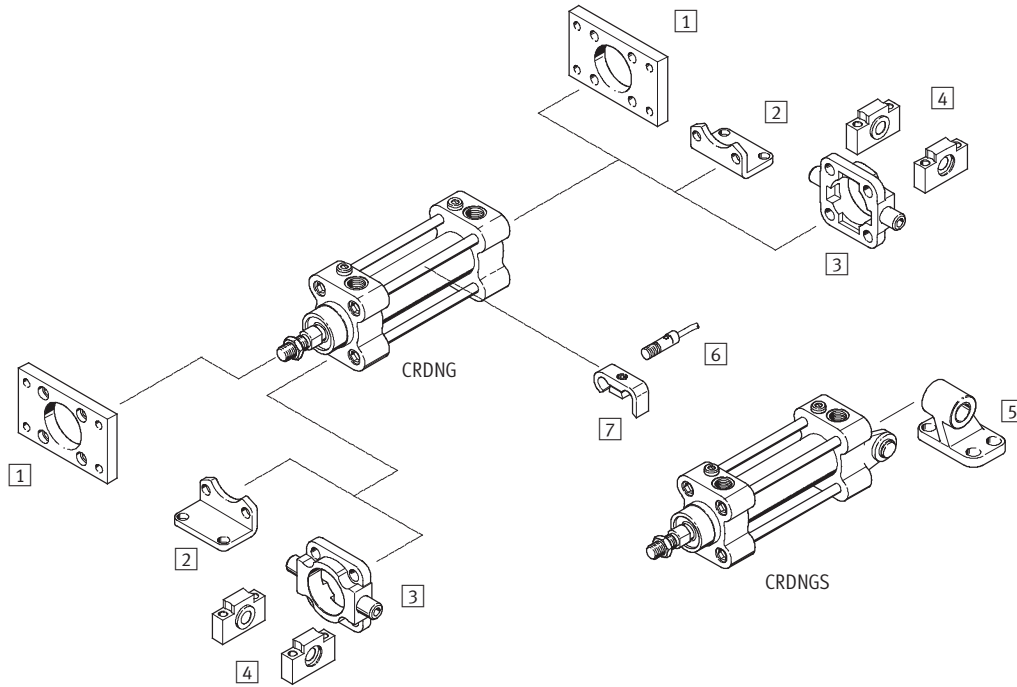
2) Through piston rod, -S2, is not available with CRDNGS (swivel flange).

Transfer order code

- 
  - 
  - 
  - 
  -

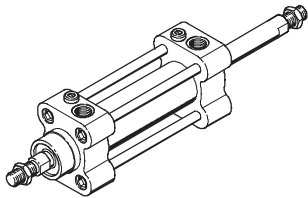
# Tie rod cylinders CRDNG, corrosion resistant - Inch Series

Accessories overview



## Variant

CRDNG-S2



Mounting attachments and accessories		CRDNG	CRDNGS	
1	Flange mounting CRFNG	For bearing or end cap	■	-
4	Foot mounting CRHNC	For bearing and end cap	■	-
5	Trunnion flange CRZNG	For bearing and end cap in combination with trunnion supports CRLNZG	■	-
6	Trunnion support CRLNZG	For supporting trunnion flange CRZNG	■	-
7	Clevis foot CRLNG	For variant with swivel flange	-	■
8	Proximity sensor CRSMEO-4	With LED for operating status indication	■	■
9	Mounting kit CRSMB	For proximity sensor CRSMEO-4	■	■

# Corrosion-resistant cylinders – Inch Series

Accessories



## Foot mounting CRHBN

Scope of delivery:

CRHBN-... x1: 1 foot

CRHBN-... x2: 2 feet, 1 nut

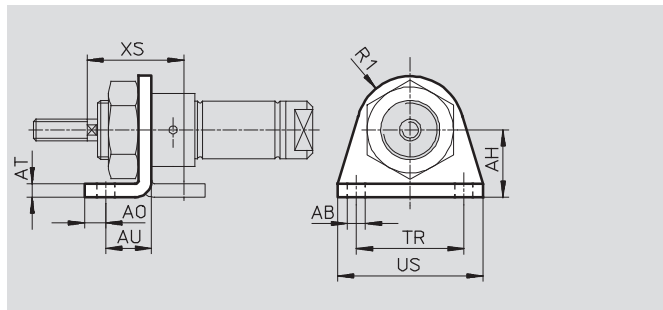
Material:

High-alloy steel

Free of copper, PTFE and silicone



CRHBN-... x2



Dimensions and ordering data													
For $\varnothing$	AB	AH	AO	AT	AU	R1	TR	US	XS	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]	$\varnothing$										[oz]		
1/2	0.2	0.8	0.2	0.2	0.5	0.5	1.3	1.7	1.3	4	1.4	161866	CRHBN-12/16x1
5/8	0.2	0.8	0.2	0.2	0.5	0.5	1.3	1.7	1.3	4	3.4	162999	CRHBN-12/16x2
3/4	0.3	1.0	0.3	0.2	0.6	0.8	1.6	2.1	1.4	4	1.9	161867	CRHBN-20/25x1
1	0.3	1.0	0.3	0.2	0.6	0.8	1.6	2.1	1.6	4	3.5	162998	CRHBN-20/25x2

1) Corrosion resistance class 4 according to Festo standard 940 070.

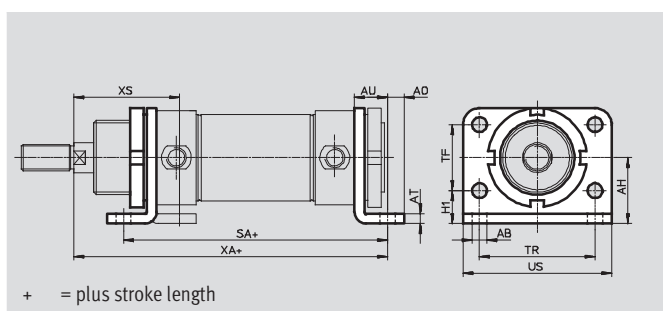
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

## Foot mounting CRH

Material:

High-alloy steel

Free of copper, PTFE and silicone



Dimensions and ordering data																
For $\varnothing$	AB	AH	AO	AT	AU	H1	SA	TF	TR	US	XA	XS	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]	$\varnothing$													[oz]		
1-1/4	0.3	1.1	0.3	0.2	0.6	0.6	4.9	1.1	2.0	2.6	5.8	1.9	4	8.4	162951	CRH-32
1-5/8	0.4	1.3	0.4	0.2	0.8	0.7	6.0	1.2	2.4	3.1	7.0	2.4	4	12.0	162952	CRH-40
2	0.4	1.6	0.4	0.2	0.8	0.8	6.3	1.6	2.8	3.5	7.5	2.5	4	19.7	162953	CRH-50
2-1/2	0.4	1.8	0.4	0.2	0.8	0.8	6.5	2.0	3.0	3.8	7.7	2.5	4	24.0	162954	CRH-63

1) Corrosion resistance class 4 according to Festo standard 940 070.

Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

Dimensions are in inches, unless otherwise noted.

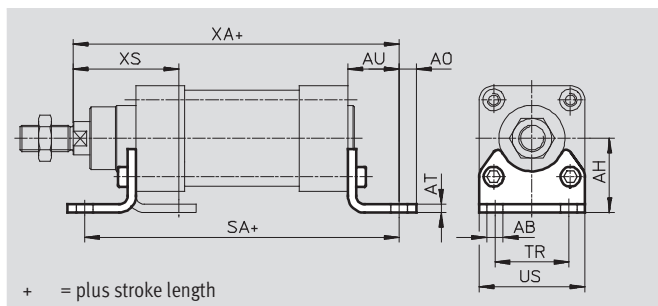
# Corrosion-resistant cylinders – Inch Series

Accessories



## Foot mounting CRHNC

Material:  
High-alloy steel  
Free of copper, PTFE and silicone

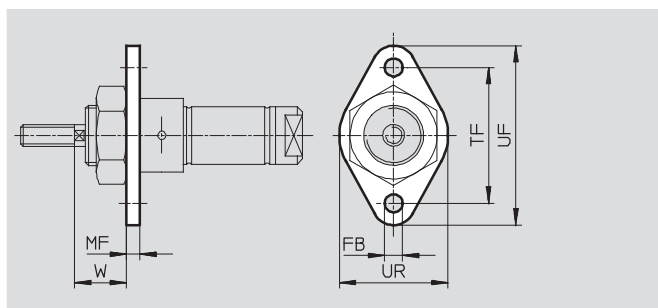


Dimensions and ordering data														
For Ø	AB	AH	AO	AT	AU	SA	TR	US	XA	XS	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]	Ø											[oz]		
1-1/4	0.3	1.3	0.3	0.2	0.9	5.6	1.3	1.8	5.7	1.8	4	4.8	176937	CRHNC-32
1-5/8	0.4	1.4	0.4	0.2	1.1	6.3	1.4	2.1	6.4	2.1	4	6.3	176938	CRHNC-40
2	0.4	1.8	0.4	0.2	1.2	6.6	1.8	2.5	6.9	2.5	4	11.5	176939	CRHNC-50
2-1/2	0.4	2.0	0.5	0.2	1.3	7.3	2.0	3.0	7.5	2.5	4	14.3	176940	CRHNC-63
3	0.5	2.5	0.6	0.2	1.6	8.3	2.5	3.7	8.5	3.2	4	28.9	176941	CRHNC-80
4	0.6	2.8	0.7	0.2	1.6	8.7	3.0	4.3	9.0	3.4	4	35.3	176942	CRHNC-100
5	0.6	3.5	0.9	0.3	1.8	9.8	3.5	5.2	10.6	4.0	4	64.9	176943	CRHNC-125

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

## Flange mounting CRFBN

Material:  
High-alloy steel  
Free of copper, PTFE and silicone



Dimensions and ordering data										
For Ø	FB	MF	TF	UF	UR	W	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]	Ø							[oz]		
1/2, 5/8	0.2	0.2	1.6	2.1	1.2	0.7	4	0.9	161864	CRFBN-12/16
3/4, 1	0.3	0.2	2.0	2.6	1.6	0.7	4	1.6	161865	CRFBN-20/25

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

Dimensions are in inches, unless otherwise noted.

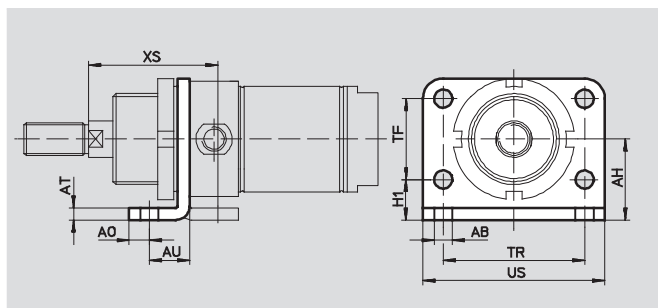
# Corrosion-resistant cylinders – Inch Series

Accessories



## Flange mounting CRFV

Material:  
High-alloy steel  
Free of copper, PTFE and silicone

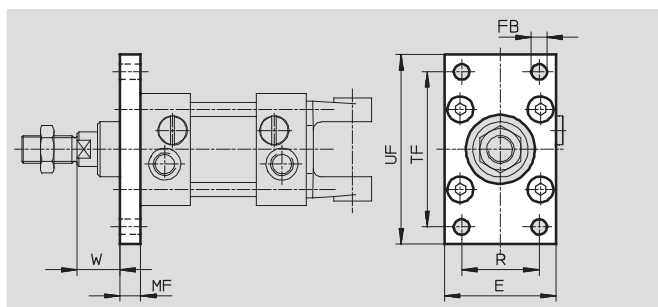
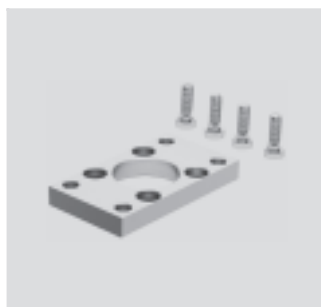


Dimensions and ordering data														
For $\varnothing$	AB $\varnothing$	AH	AO	AT	AU	H1	TF	TR	US	XS	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]												[oz]		
1-1/4	0.3	1.1	0.3	0.2	0.6	0.6	1.1	2.0	2.6	1.9	4	3.6	161858	CRFV-32
1-5/8	0.4	1.3	0.4	0.2	0.7	0.7	1.2	2.4	3.1	2.4	4	6.7	161859	CRFV-40
2	0.4	1.6	0.4	0.2	0.7	0.8	1.6	2.8	3.5	2.5	4	10.2	161860	CRFV-50
2-1/2	0.4	1.8	0.4	0.2	0.7	0.8	2.0	3.0	3.8	2.5	4	12.9	161861	CRFV-63

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

## Flange mounting CRFNG

Material:  
High-alloy steel  
Free of copper, PTFE and silicone



Dimensions and ordering data											
For $\varnothing$	E	FB $\varnothing$	MF	R	TF	UF	W	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]									[oz]		
1-1/4	1.8	0.3	0.4	1.3	2.5	3.1	0.6	4	8.5	161846	CRFNG-32
1-5/8	2.1	0.4	0.4	1.4	2.8	3.5	0.8	4	10.6	161847	CRFNG-40
2	2.6	0.4	0.5	1.8	3.5	4.3	1.0	4	19.4	161848	CRFNG-50
2-1/2	3.0	0.4	0.5	2.0	3.9	4.7	1.0	4	25.0	161849	CRFNG-63
3	3.7	0.5	0.6	2.5	5.0	5.9	1.2	4	59.3	161850	CRFNG-80
4	4.3	0.6	0.6	3.0	5.9	6.9	1.4	4	86.4	161851	CRFNG-100
5	5.2	0.6	0.8	3.5	7.1	8.3	1.8	4	129.1	185363	CRFNG-125

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

Dimensions are in inches, unless otherwise noted.



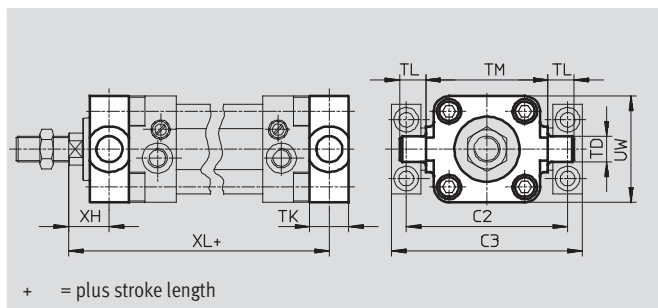
# Corrosion-resistant cylinders – Inch Series

Accessories



## Trunnion flange CRZNG

Material:  
High-alloy steel  
Free of copper, PTFE and silicone

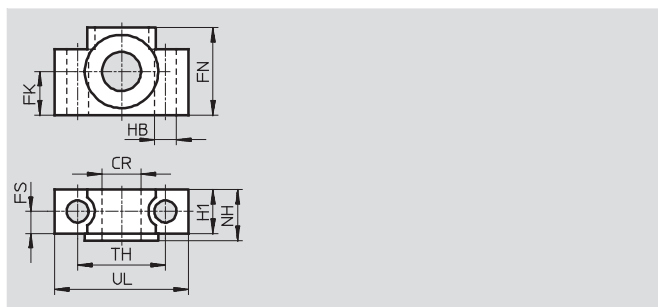


Dimensions and ordering data													
For Ø	C2	C3	TD	TK	TL	TM	UW	XH	XL	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]			Ø								[oz]		
1-1/4	2.8	3.4	0.5	0.6	0.5	2.0	2.0	0.7	5.0	4	5.3	161852	CRZNG-32
1-5/8	3.4	4.1	0.6	0.8	0.6	2.5	2.2	0.8	5.7	4	9.2	161853	CRZNG-40
2	3.9	4.6	0.6	0.9	0.6	3.0	2.6	1.0	6.1	4	15.2	161854	CRZNG-50
2-1/2	4.6	5.4	0.8	0.9	0.8	3.5	3.0	1.0	6.7	4	22.6	161855	CRZNG-63
3	5.4	6.1	0.8	1.1	0.8	4.3	3.9	1.3	7.4	4	45.9	161856	CRZNG-80
4	6.5	7.4	1.0	1.5	1.0	5.2	4.7	1.3	8.2	4	84.7	161857	CRZNG-100
5	7.6	8.5	1.0	2.0	1.0	6.3	5.9	1.6	9.8	4	127.0	185362	CRZNG-125

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

## Trunnion support CRLNZG

Material:  
High-alloy steel  
Free of copper, PTFE and silicone



Dimensions and ordering data													
For Ø	CR	FK	FN	FS	H1	HB	NH	TH	UL	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]	Ø	Ø				Ø					[oz]		
1-1/4	0.5	0.6	1.2	0.4	0.6	0.3	0.7	1.3	1.8	4	7.1	161874	CRLNZG-32
1-5/8, 2	0.6	0.7	1.4	0.5	0.7	0.4	0.8	1.4	2.2	4	11.6	161875	CRLNZG-40/50
2-1/2, 3	0.8	0.8	1.6	0.5	0.8	0.4	0.9	1.7	2.6	4	15.5	161876	CRLNZG-63/80
4/5	1.0	1.0	2.0	0.6	1.0	0.6	1.1	2.0	3.0	4	26.1	161877	CRLNZG-100/125

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

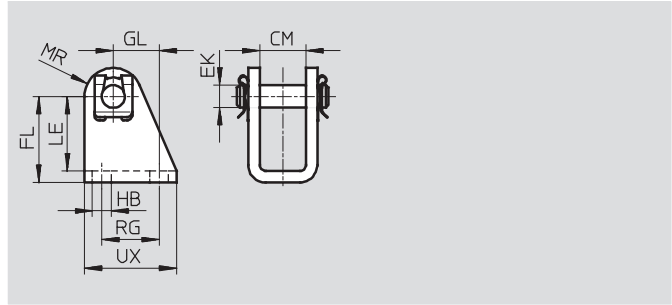
Dimensions are in inches, unless otherwise noted.

# Corrosion-resistant cylinders – Inch Series

Accessories

## Clevis foot CRLBN

Material:  
High-alloy steel  
Free of copper, PTFE and silicone

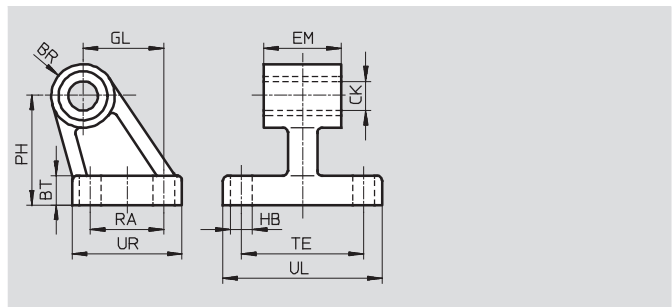


Dimensions and ordering data													
For Ø	CM	EK Ø	FL	GL	HB	LE	MR	RG	UX	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]											[oz]		
1/2, 5/8	0.5	0.2	1.1	0.5	0.2	0.9	0.3	0.6	1.0	4	1.9	161862	CRLBN-12/16
3/4, 1	0.6	0.3	1.2	0.6	0.3	1.0	0.4	0.8	1.3	4	2.2	161863	CRLBN-20/25
1-1/4	0.6	0.4	1.4	0.7	0.3	1.2	0.4	0.9	1.4	4	3.8	195866	CRLBN-32
1-5/8	0.7	0.5	1.6	1.0	0.4	1.4	0.5	1.2	1.8	4	6.5	195867	CRLBN-40
2, 2-1/2	0.8	0.6	1.8	1.1	0.4	1.5	0.6	1.3	2.0	4	10.2	195868	CRLBN-50/63

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

## Clevis foot mounting CRLNG

Material:  
High-alloy steel  
Free of copper, PTFE and silicone



Dimensions and ordering data																	
For Ø	BR	BT	CK Ø	EB Ø	EM	GL	HB Ø	OF	PH	RA	TE	UL	UR	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]															[oz]		
1-1/4	0.4	0.3	0.4	–	1.0	0.8	0.3	–	1.3	0.7	1.5	2.0	1.2	4	4.2	161840	CRLNG-32
1-5/8	0.4	0.4	0.5	–	1.1	0.9	0.3	–	1.4	0.9	1.6	2.1	1.4	4	5.6	161841	CRLNG-40
2	0.5	0.5	0.5	–	1.3	1.3	0.4	–	1.8	1.2	2.0	2.6	1.8	4	9.9	161842	CRLNG-50
2-1/2	0.6	0.5	0.6	0.6	1.6	1.5	0.4	0.4	2.0	1.4	2.0	2.6	2.0	4	13.2	161843	CRLNG-63
3	0.6	0.6	0.6	0.7	2.0	1.9	0.4	0.5	2.5	1.6	2.6	3.4	2.4	4	20.5	161844	CRLNG-80
4	0.7	0.6	0.8	0.7	2.4	2.2	0.4	0.5	2.8	2.0	3.0	3.8	2.8	4	33.0	161845	CRLNG-100
5	0.9	0.8	1.0	0.8	2.7	2.8	0.6	0.7	3.5	2.4	3.7	4.9	3.5	4	89.2	176951	CRLNG-125

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

Dimensions are in inches, unless otherwise noted.

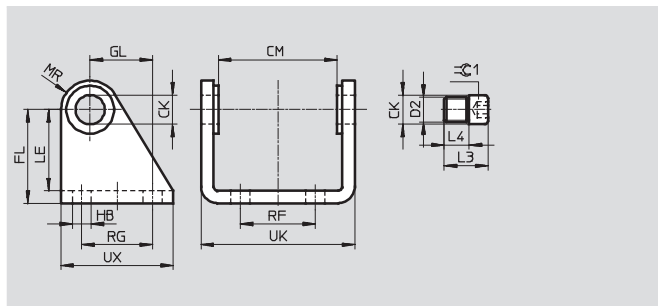
# Corrosion-resistant cylinders – Inch Series

Accessories



## Clevis foot CRSBS

Material:  
High-alloy steel



Dimensions and ordering data											
For Ø [in]	CK Ø	CM	D1 Ø	D2	FL	GL	H1	HB Ø	L3	L4	LE
1-1/4	0.4	1.5	0.6	M8x1	1.4	0.8	0.2	0.3	0.6	0.3	1.2
1-5/8	0.5	1.8	0.8	M10x1	1.6	1.1	0.2	0.4	0.7	0.4	1.4
2	0.6	2.2	0.9	M12x1.5	1.8	1.2	0.2	0.4	0.9	0.5	1.5
2-1/2	0.6	2.8	0.9	M14x1.5	2.0	1.3	0.2	0.4	1.1	0.6	1.7

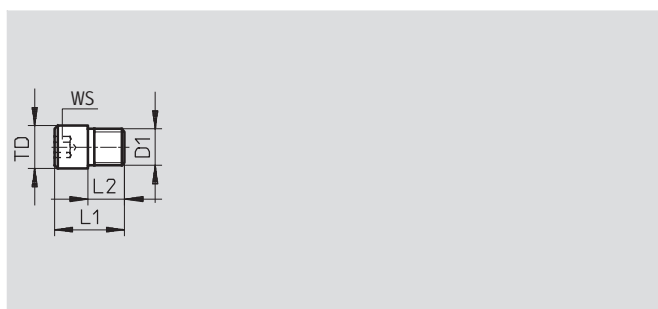
For Ø [in]	MR	RF	RG	UK	UX	∅C1 [mm]	CRC <sup>1)</sup>	Weight [oz]	Part No.	Type
1-1/4	0.5	0.8	0.9	2.0	1.6	5	4	4.6	162955	CRSBS-32
1-5/8	0.5	1.1	1.2	2.4	2.0	6	4	7.1	162956	CRSBS-40
2	0.6	1.4	1.3	2.9	2.1	6	4	10.9	162957	CRSBS-50
2-1/2	0.6	1.7	1.4	3.5	2.6	8	4	15.5	162958	CRSBS-63

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

## Pivot bolt CRGBS

For swivel mounting

Material:  
High-alloy steel  
Free of copper, PTFE and silicone



Dimensions and ordering data									
For Ø [in]	D1	L1	L2	TD Ø	WS [mm]	CRC <sup>1)</sup>	Weight [oz]	Part No.	Type
1-1/4	M8x1	0.6	0.3	0.4	HEX 5	4	0.4	163132	CRGBS-32
1-5/8	M10x1	0.7	0.4	0.5	HEX 6	4	0.7	163133	CRGBS-40
2	M12x1.5	0.9	0.5	0.6	HEX 6	4	1.4	163134	CRGBS-50
2-1/2	M14x1.5	1.1	0.6	0.6	HEX 8	4	2.3	163135	CRGBS-63

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

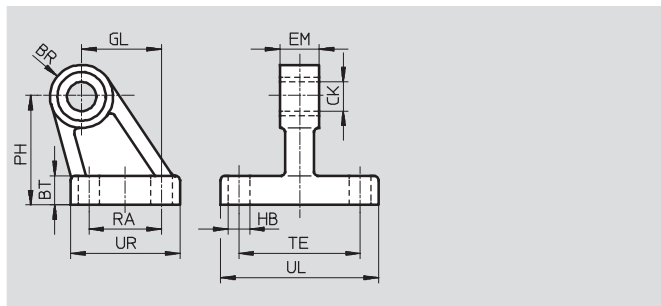
Dimensions are in inches, unless otherwise noted.

# Corrosion-resistant cylinders – Inch Series

Accessories

## Clevis foot CRLMC

Material:  
High-alloy steel  
Free of copper, PTFE and silicone

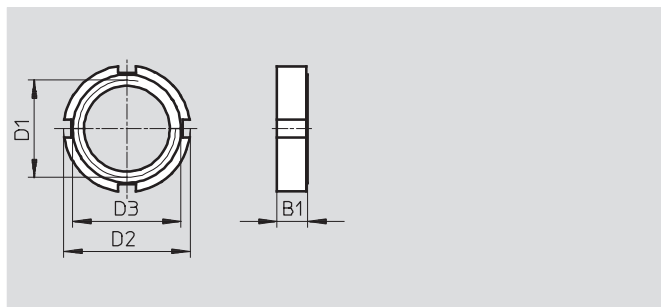
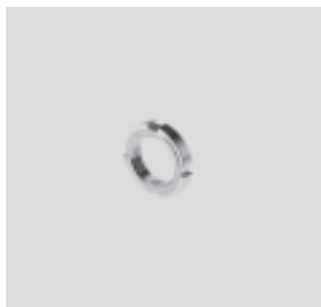


Dimensions and ordering data																	
For Ø	BR	BT	CK	EB	EM	GL	HB	OF	PH	RA	TE	UL	UR	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]			Ø	Ø			Ø								[oz]		
1-1/4	0.4	0.3	0.4	–	0.4	0.8	0.3	–	1.3	0.7	1.5	2.0	1.2	4	3.6	197320	CRLMC-32
1-5/8	0.4	0.4	0.5	–	0.5	0.9	0.3	–	1.4	0.9	1.6	2.1	1.4	4	4.9	197321	CRLMC-40
2	0.5	0.5	0.5	–	0.6	1.3	0.4	–	1.8	1.2	2.0	2.6	1.8	4	8.5	197322	CRLMC-50
2-1/2	0.6	0.5	0.6	0.6	0.6	1.5	0.4	0.4	2.0	1.4	2.0	2.6	2.0	4	10.7	197323	CRLMC-63
3	0.6	0.6	0.6	0.7	0.8	1.9	0.4	0.5	2.5	1.6	2.6	3.4	2.4	4	18.2	197324	CRLMC-80
4	0.7	0.6	0.8	0.7	0.8	2.2	0.4	0.5	2.8	2.0	3.0	3.8	2.8	4	26.8	197325	CRLMC-100

1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

## Ring nut CR

Material:  
High-alloy steel  
Free of copper, PTFE and silicone



Dimensions and ordering data								
For Ø	B1	D1	D2	D3	CRC <sup>1)</sup>	Weight	Part No.	Type
[in]						[oz]		
1-1/4	0.3	M30x1.5	1.7	1.4	4	1.4	197326	CR-M30x1.5
1-5/8	0.4	M38x1.5	2.0	1.9	4	2.2	197327	CR-M38x1.5
2, 2-1/2	0.4	M45x1.5	2.4	2.2	4	3.1	197328	CR-M45x1.5
3, 4	0.5	M50x2	3.0	2.6	4	8.0	197329	CR-M50x2


1) Corrosion resistance class 4 according to Festo standard 940 070.  
Components with higher corrosion resistance for use in environments subject to contact with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.



Dimensions are in inches, unless otherwise noted.


# Corrosion-resistant cylinders - Inch Series


Accessories



Ordering data – Proximity sensor, magnetic reed				
	Electrical connection	Cable length [ft]	Part No.	Type
	Cable			
	NO contact			
	Resistant to corrosion			
	3-wire	8.2	161775	CRSME0-4-K-LED-24

Ordering data – Mounting kit							
	For Ø [in]	Part No.	Type		For Ø [in]	Part No.	Type
Mounting kit CRSMBR				Mounting kit CRSMB			
	1/2	164581	CRSMBR-12		1-1/4	161763	CRSMB-32
	5/8	164582	CRSMBR-16		1-5/8	161764	CRSMB-40
	3/4	164583	CRSMBR-20		2	161765	CRSMB-50
	1	164584	CRSMBR-25		2-1/2	161766	CRSMB-63
	1-1/4	163888	CRSMBR-32		3	161767	CRSMB-80
	1-5/8	163889	CRSMBR-40		4	161768	CRSMB-100
	2	163890	CRSMBR-50		5	185365	CRSMB-125
2-1/2	163891	CRSMBR-63					

Ordering data – Proximity sensor, magneto-resistive					
	Switch output	Electrical connection	Cable length [ft]	Part No.	Type
		Cable			
	NO contact				
	PNP	3-wire	8.2	525563	CRSMT-8-PS-K2.5-LED-24
			16.4	525564	CRSMT-8-PS-K5-LED-24

Ordering data – Mounting kit			
		Part No.	Type
		525565	CRSMB-8-32/100

# Product Range and Company Overview

## A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



**Custom Automation Components**  
Complete custom engineered solutions



**Custom Control Cabinets**  
Comprehensive engineering support and on-site services



**Complete Systems**  
Shipment, stocking and storage services

## The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



**Electromechanical**  
Electromechanical actuators, motors, controllers & drives



**Pneumatics**  
Pneumatic linear and rotary actuators, valves, and air supply



**PLCs and I/O Devices**  
PLC's, operator interfaces, sensors and I/O devices

### Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

### Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



© Copyright 2008, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.



Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmentally friendly printing plant.

# Festo North America

## Festo Regional Contact Center

5300 Explorer Drive  
Mississauga, Ontario L4W 5G4  
Canada

### USA Customers:

For ordering assistance,  
**Call:** 1.800.99.FESTO (1.800.993.3786)  
**Fax:** 1.800.96.FESTO (1.800.963.3786)  
**Email:** customer.service@us.festo.com

For technical support,  
**Call:** 1.866.GO.FESTO (1.866.463.3786)  
**Fax:** 1.800.96.FESTO (1.800.963.3786)  
**Email:** product.support@us.festo.com

### Canadian Customers:

**Call:** 1.877.GO.FESTO (1.877.463.3786)  
**Fax:** 1.877.FX.FESTO (1.877.393.3786)  
**Email:** festo.canada@ca.festo.com

---

## USA Headquarters

Festo Corporation  
395 Moreland Road  
P.O. Box 18023  
Hauppauge, NY 11788, USA  
[www.festo.com/us](http://www.festo.com/us)

---

## USA Sales Offices

### Appleton

North 922 Tower View Drive, Suite N  
Greenville, WI 54942, USA

### Boston

120 Presidential Way, Suite 330  
Woburn, MA 01801, USA

### Chicago

1441 East Business Center Drive  
Mt. Prospect, IL 60056, USA

### Dallas

1825 Lakeway Drive, Suite 600  
Lewisville, TX 75057, USA

### Detroit – Automotive Engineering Center

2601 Cambridge Court, Suite 320  
Auburn Hills, MI 48326, USA

### New York

395 Moreland Road  
Hauppauge, NY 11788, USA

### Silicon Valley

4935 Southfront Road, Suite F  
Livermore, CA 94550, USA

---

## Central USA

Festo Corporation  
1441 East Business  
Center Drive  
Mt. Prospect, IL 60056, USA  
Phone: 1.847.759.2600  
Fax: 1.847.768.9480



## Western USA

Festo Corporation  
4935 Southfront Road,  
Suite F  
Livermore, CA 94550, USA  
Phone: 1.925.371.1099  
Fax: 1.925.245.1286



---

## Festo Worldwide

Argentina Australia Austria Belarus Belgium Brazil Bulgaria Canada Chile China Colombia Croatia Czech Republic Denmark  
Estonia Finland France Germany Great Britain Greece Hong Kong Hungary India Indonesia Iran Ireland Israel Italy Japan Latvia  
Lithuania Malaysia Mexico Netherlands New Zealand Norway Peru Philippines Poland Romania Russia Serbia Singapore  
Slovakia Slovenia South Africa South Korea Spain Sweden Switzerland Taiwan Thailand Turkey Ukraine United States Venezuela

[www.festo.com](http://www.festo.com)

## United States



**USA Headquarters, East:** Festo Corp., 395 Moreland Road, Hauppauge, NY 11788  
Phone: 1.631.435.0800; Fax: 1.631.435.8026;  
Email: [info@festo-usa.com](mailto:info@festo-usa.com) [www.festo.com/us](http://www.festo.com/us)

## Canada



**Headquarters:** Festo Inc., 5300 Explorer Drive, Mississauga, Ontario L4W 5G4  
Phone: 1.905.624.9000; Fax: 1.905.624.9001;  
Email: [festo.canada@ca.festo.com](mailto:festo.canada@ca.festo.com) [www.festo.ca](http://www.festo.ca)

## Mexico



**Headquarters:** Festo Pneumatic, S.A., Av. Ceylán 3, Col. Tequesquihuac,  
54020 Tlalneantla, Edo. de México  
Phone: 011 52 [55] 53 21 66 00; Fax: 011 52 [55] 53 21 66 65;  
Email: [festo.mexico@mx.festo.com](mailto:festo.mexico@mx.festo.com) [www.festo.com/mx](http://www.festo.com/mx)