

Electric Drives
and Controls

Hydraulics

Linear Motion and
Assembly Technologies

Pneumatics

Service

Rexroth
Bosch Group

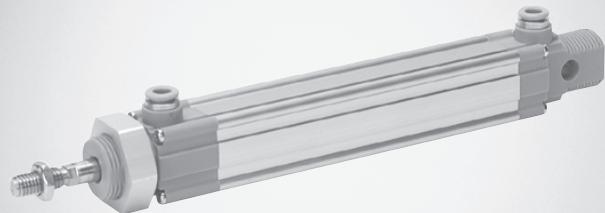


Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

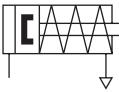
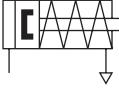
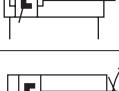
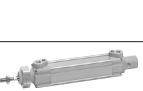
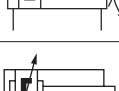
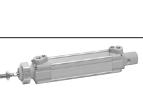
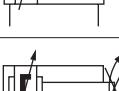
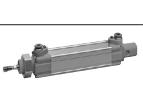
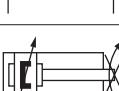
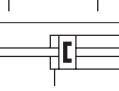
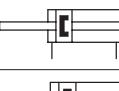
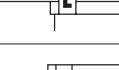
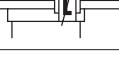
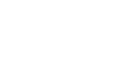
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Brochure

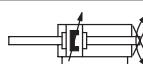
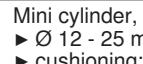
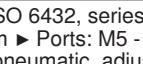
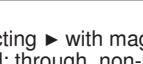
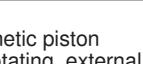


Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

		Mini cylinder, ISO 6432, series OCT ► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: external thread	5
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Piston rod cylinders → Standard cylinders
ISO 6432, series OCT

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piston rod mountings

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Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

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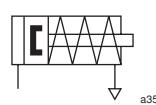
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Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston
- cushioning: elastic ► with integrated rear eye ► piston rod: external thread



Standards
Compressed air connection

ISO 6432
internal thread

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	10	12	16	20	25
Extending piston force	[N]	46	63	119	184	292
Spring force min. - max.	[N]	1 - 3	3.5 - 8	3.5 - 8	5.5 - 14	9 - 17
Impact energy	[J]	0.04	0.07	0.14	0.23	0.35
Weight	0 mm stroke	[kg]	0.04	0.06	0.07	0.12
	+10 mm stroke	[kg]	0.004	0.007	0.007	0.009
Stroke max.	[mm]	40	50	50	50	50

	Piston Ø Piston rod thread Ports Cylinder outer thread	10	12	16	20	25
		M4	M6	M6	M8	M10x1,25 G 1/8 M22x1,5
	Stroke 10	R412006654	R480052777	R412003641	R412003645	R412003649
	25	R412006655	R480052780	R412003642	R412003646	R412003650
	40	R412006656	R480052783	R412003643	R412003647	R412003651
	50	-	R480052785	R412003644	R412003648	R412003652

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

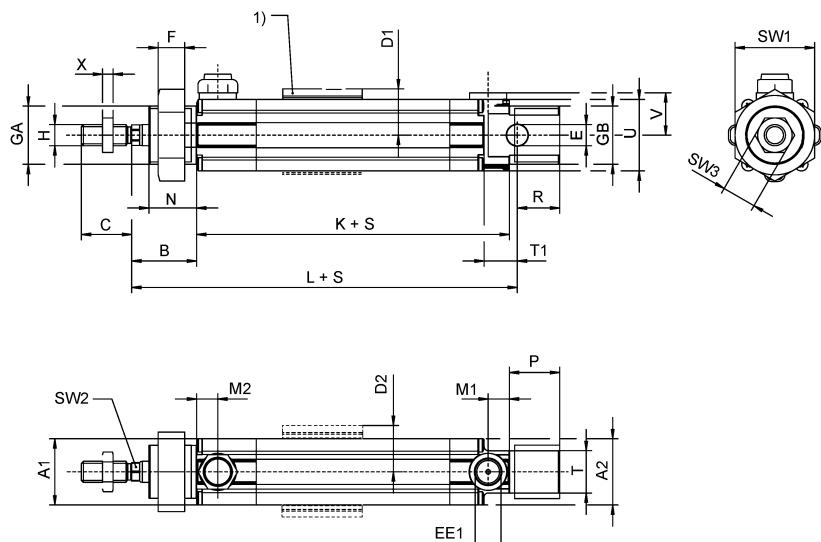
- Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston
- cushioning: elastic ► with integrated rear eye ► piston rod: external thread

Configurable product



This product is configurable. Please use our Internet configurator at www.boschrexroth.com/pneumatics or contact the nearest Bosch Rexroth sales office.

Piston Ø 10 - 25



D528_441

1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides, Ø 10 mm at 2 sides) possible
S = stroke

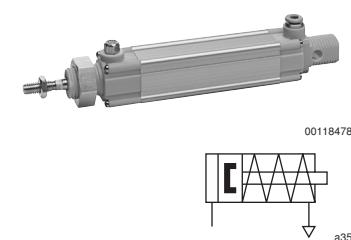
Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1	F	GA/GB	H	K	L	M1/M2	N
10	15	16	11	12,55	4	M5	7	M12x1,25	M4	46	64	9	12
12	19	22	15	14.5	6	M5	8	M16x1,5	M6	46	75	8	17
16	21	22	15	15.5	6	M5	8	M16x1,5	M6	56	82	6	16
20	25	24	19	17.5	8	G 1/8	10	M22x1,5	M8	68	95	8	18
25	28.5	28	21	19.25	8	G 1/8	10	M22x1,5	M10x1,25	70	104	8	21

Piston Ø	P	R	T d13	T1	U	V	X	SW1	SW2	SW3			
10	12	10	8	6	18	12	2.2	17	3	7			
12	17	10	12	9	19	14	3.2	22	5	10			
16	17	13	12	9	23	13.5	3	22	5	10			
20	19	16	16	12.5	27	17.5	4	30	7	13			
25	21	15	16	12.5	30	18	5	30	9	17			

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► Single-acting, retracted without pressure ► with magnetic piston
- cushioning: elastic ► with integrated rear eye ► piston rod: external thread



Standards
Compressed air connection

ISO 6432
push-in fitting

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	10	12	16	20	25
Extending piston force	[N]	46	63	119	184	292
Spring force min. - max.	[N]	1 - 3	3.5 - 8	3.5 - 8	5.5 - 14	9 - 17
Impact energy	[J]	0.04	0.07	0.14	0.23	0.35
Weight	0 mm stroke [kg]	0.04	0.06	0.07	0.12	0.17
	+10 mm stroke [kg]	0.004	0.007	0.006	0.009	0.012
Stroke max.	[mm]	40	50	50	50	50

	Piston Ø Piston rod thread Ports Cylinder outer thread	10 M4 Ø 4 M12x1,25	12 M6 Ø 4 M16x1,5	16 M6 Ø 4 M16x1,5	20 M8 Ø 6 M22x1,5	25 M10x1,25 Ø 6 M22x1,5
	Stroke 10	R412006662	R480052788	R412003629	R412003633	R412003637
	25	R412006661	R480052791	R412003630	R412003634	R412003638
	40	R412006660	R480052794	R412003631	R412003635	R412003639
	50	-	R480052796	R412003632	R412003636	R412003640

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

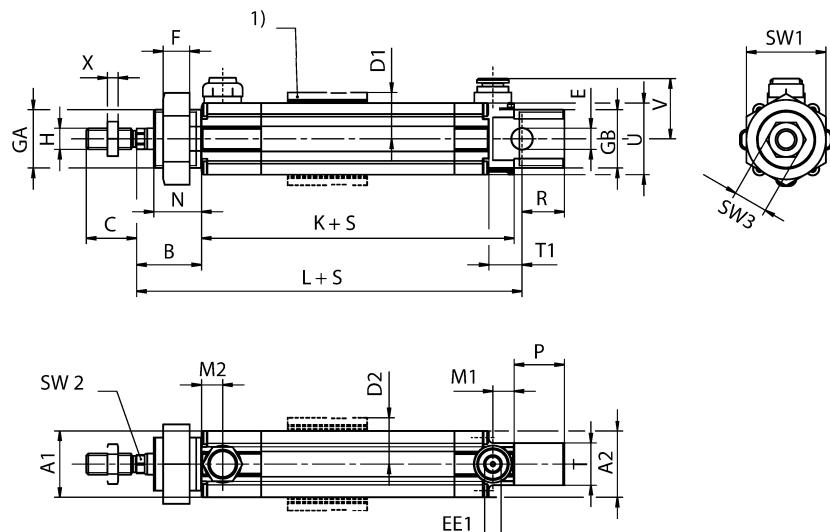
- Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► Single-acting, retracted without pressure ► with magnetic piston
- cushioning: elastic ► with integrated rear eye ► piston rod: external thread

Configurable product



This product is configurable. Please use our Internet configurator at www.boschrexroth.com/pneumatics or contact the nearest Bosch Rexroth sales office.

Piston Ø 10 - 25



D528_440

1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides, Ø 10 mm at 2 sides) possible
S = stroke

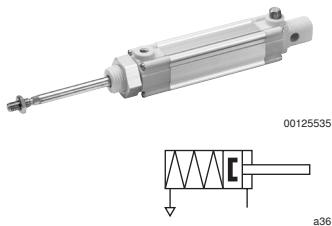
Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1	F	GA/GB	H	K	L	M1/M2	N
10	15	16	11	12.55	4	Ø 4	7	M12x1,25	M4	46	64	9	12
12	19	22	15	14.5	6	Ø 4	8	M16x1,5	M6	46	75	8	17
16	21	22	15	15.5	6	Ø 4	8	M16x1,5	M6	56	82	6	16
20	25	24	19	17.5	8	Ø 6	10	M22x1,5	M8	68	95	8	18
25	28.5	28	21	19.25	8	Ø 6	10	M22x1,5	M10x1,25	70	104	8	21

Piston Ø	P	R	T d13	T1	U	V	X	SW1	SW2	SW3			
10	12	10	8	6	18	18.7	2.2	17	3	7			
12	17	10	12	9	19	19.2	3.2	22	5	10			
16	17	13	12	9	23	20.5	3	22	5	10			
20	19	16	16	12.5	27	22.7	4	30	7	13			
25	21	15	16	12.5	30	24	5	30	9	17			

Piston rod cylinders → Standard cylinders

Mini cylinder, Series OCT

- Ø 16 - 25 mm ► Ports: M5 - G 1/8 ► Single-acting, extended without pressure ► with magnetic piston
- cushioning: elastic ► with integrated rear eye ► piston rod: external thread



Compressed air connection

internal thread

Working pressure min./max.
Ambient temperature min./max.
Medium temperature min./max.
Medium
Max. particle size
Oil content of compressed air
Pressure for determining piston forces

2 bar / 10 bar
-20 °C / +75 °C
-20 °C / +75 °C
Compressed air
50 µm
0 mg/m³ - 5 mg/m³
6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel, hardened
Piston	Polyarylamide Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary
- Note: Basic length K does not comply with the ISO standard

Piston Ø	[mm]	16	20	25		
Retracting piston force	[N]	104	157	242		
Spring force min. - max.	[N]	3 - 5	5 - 9	9.5 - 18		
Impact energy	[J]	0.14	0.23	0.35		
Weight	0 mm stroke	[kg]	0.07	0.12	0.17	
	+10 mm stroke	[kg]	0.007	0.009	0.012	
Stroke max.	[mm]	50	50	50		

Piston Ø Piston rod thread Ports Piston rod Ø Cylinder outer thread	16 M6 M5 6 M16x1,5	20 M8 G 1/8 8 M22x1,5	25 M10x1,25 G 1/8 10 M22x1,5		
Stroke 10 25 50	R480063647 R480066527 R480065626	R480078883 R480063369 R480069103	R480065654 R480063370 R480063845		

Piston rod cylinders → Standard cylinders

Mini cylinder, Series OCT

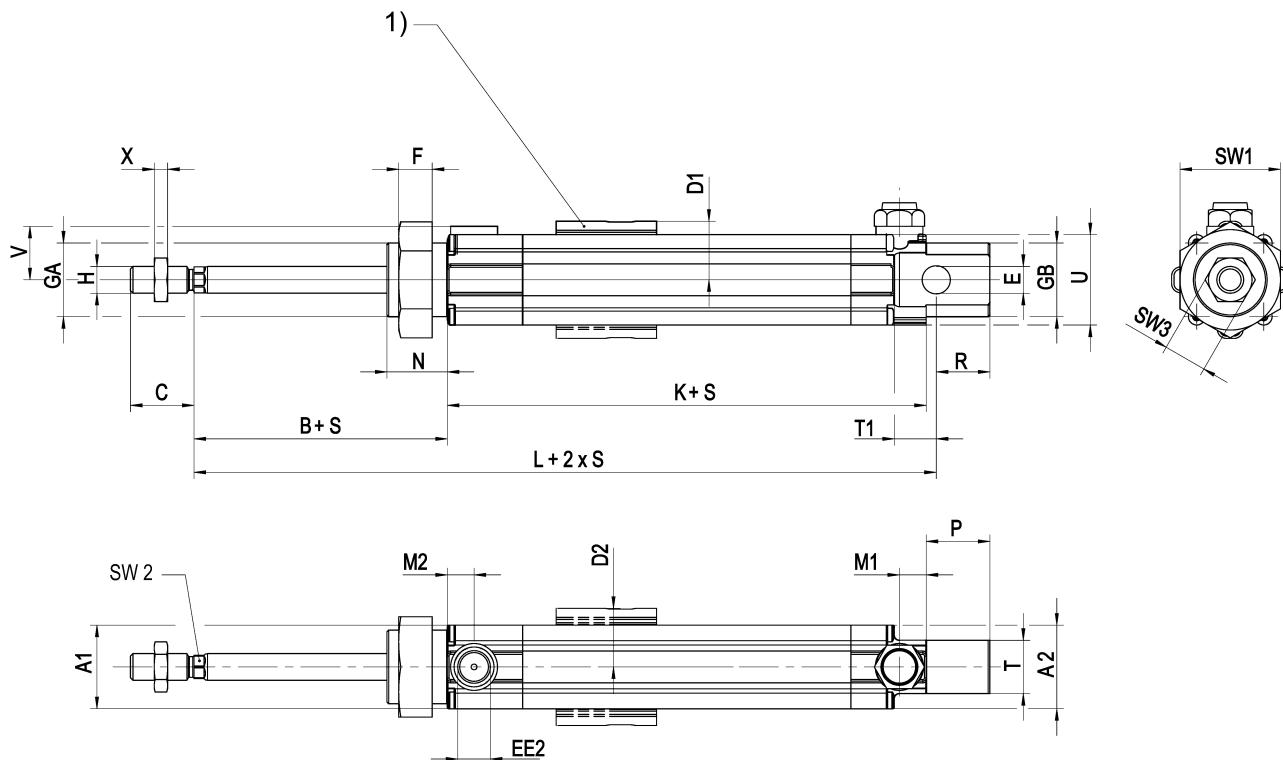
- Ø 16 - 25 mm ► Ports: M5 - G 1/8 ► Single-acting, extended without pressure ► with magnetic piston
- cushioning: elastic ► with integrated rear eye ► piston rod: external thread

Configurable product



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Dimensions



1) Clamp for sensor - installation at all 4 cylinder sides possible
S = stroke

Piston Ø	A1/A2	B	C -2	D1/D2	E H9	EE2	F	GA/GB	H	K 2)	L	M1/M2
16	21	22	15	15.5	6	M5	8	M16x1,5	M6	78	104	6
20	25	24	19	17.5	8	G 1/8	10	M22x1,5	M8	93	120	8
25	28.5	28	21	19.25	8	G 1/8	10	M22x1,5	M10x1,25	95	129	8

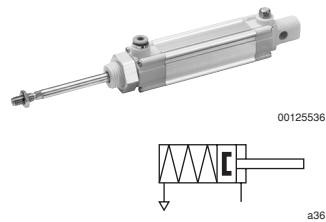
Piston Ø	N	P	R	T d13	T1	U	V	X	SW1	SW2	SW3	
16	16	17	13	12	9	23	13.5	3	22	5	10	
20	18	19	16	16	12.5	27	17.5	4	30	7	13	
25	21	21	15	16	12.5	30	18	5	30	9	17	

2) The basic length is longer than the ISO standard

Piston rod cylinders → Standard cylinders

Mini cylinder, Series OCT

- Ø 16 - 25 mm ► Ports: Ø 4 - Ø 6 ► Single-acting, extended without pressure ► with magnetic piston
- cushioning: elastic ► with integrated rear eye ► piston rod: external thread



Compressed air connection

push-in fitting

Working pressure min./max.

2 bar / 10 bar

Ambient temperature min./max.

-20 °C / +75 °C

Medium temperature min./max.

-20 °C / +75 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube

Aluminum, anodized

Piston rod

Stainless steel, hardened

Piston

Polyarylamide Aluminum

Front cover

Polyarylamide

End cover

Polyarylamide

Seal

Polyurethane

Nut for cylinder mounting

Aluminum, anodized

Nut for piston rod

Stainless steel

Scraper

Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary
- Note: Basic length K does not comply with the ISO standard

Piston Ø	[mm]	16	20	25		
Retracting piston force	[N]	104	157	242		
Spring force min. - max.	[N]	3 - 5	5 - 9	9.5 - 18		
Impact energy	[J]	0.14	0.23	0.35		
Weight	0 mm stroke	[kg]	0.07	0.12	0.17	
	+10 mm stroke	[kg]	0.007	0.009	0.012	
Stroke max.	[mm]	50	50	50		

Piston Ø Piston rod thread Ports Piston rod Ø Cylinder outer thread	16 M6 Ø 4 6 M16x1,5	20 M8 Ø 6 8 M22x1,5	25 M10x1,25 Ø 6 10 M22x1,5		
Stroke 10 25 50	R480158011 R480143584 R480147171	R480158008 R480158009 R480066666	R480158007 R480078018 R480143476		

Piston rod cylinders → Standard cylinders

Mini cylinder, Series OCT

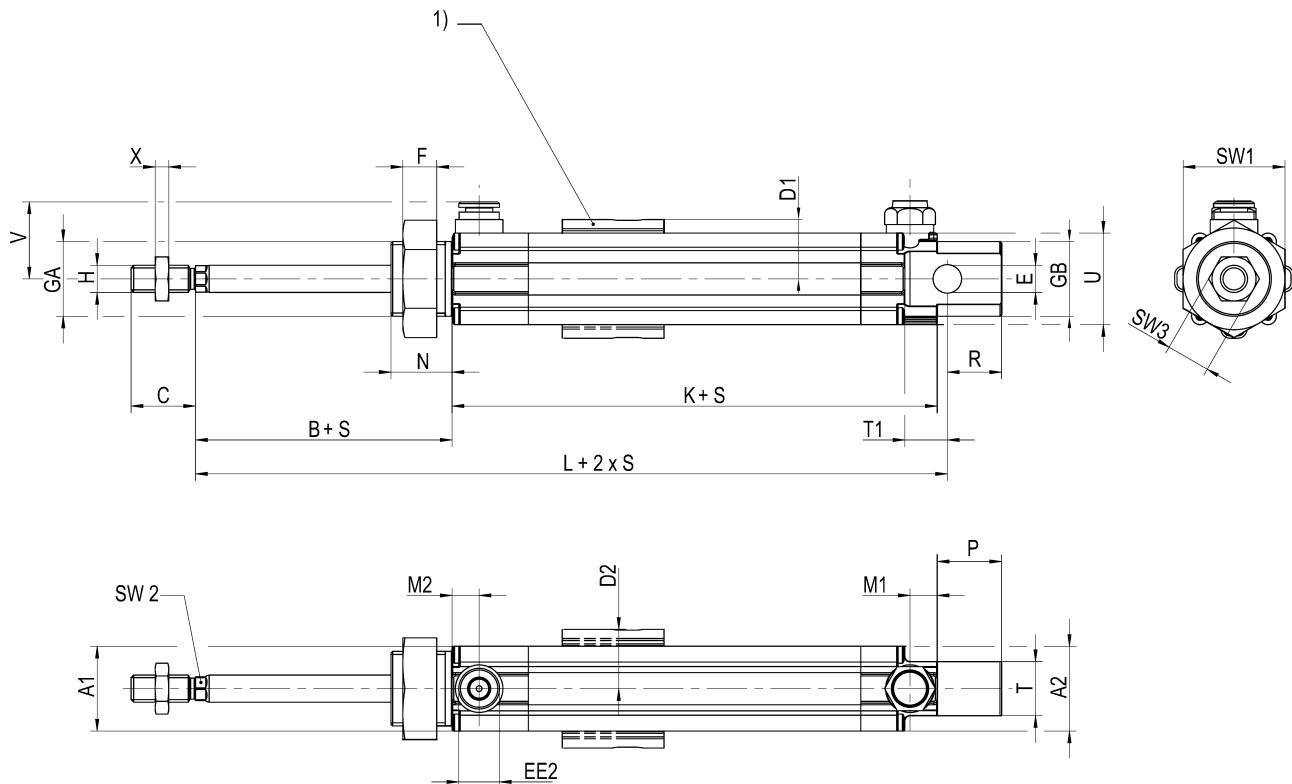
- Ø 16 - 25 mm ► Ports: Ø 4 - Ø 6 ► Single-acting, extended without pressure ► with magnetic piston
- cushioning: elastic ► with integrated rear eye ► piston rod: external thread

Configurable product



This product is configurable. Please use our Internet configurator at www.boschrexroth.com/pneumatics or contact the nearest Bosch Rexroth sales office.

Dimensions



1) Clamp for sensor - installation at all 4 cylinder sides possible

S = stroke

Piston Ø	A1/A2	B	C -2	D1/D2	E H9	EE2	F	GA/GB	H	K 2)	L	M1/M2
16	21	22	15	15.5	6	Ø 4	8	M16x1,5	M6	78	104	6
20	25	24	19	17.5	8	Ø 6	10	M22x1,5	M8	93	120	8
25	28.5	28	21	19.25	8	Ø 6	10	M22x1,5	M10x1,25	95	129	8

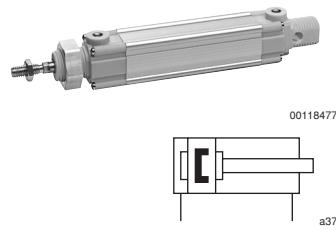
Piston Ø	N	P	R	T d13	T1	U	V	X	SW1	SW2	SW3	
16	16	17	13	12	9	23	20.5	3	22	5	10	
20	18	19	16	16	12.5	27	22.7	4	30	7	13	
25	21	21	15	16	12.5	30	24	5	30	9	17	

2) The basic length is longer than the ISO standard

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: external thread



Standards
Compressed air connection

ISO 6432
internal thread

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel, hardened
Piston	Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø		[mm]	10	12	16	20	25
Retracting piston force		[N]	48	64	130	195	259
Extending piston force		[N]	56	81	148	227	309
Impact energy		[J]	0.04	0.07	0.14	0.23	0.35
Weight	0 mm stroke	[kg]	0.045	0.058	0.07	0.122	0.168
	+10 mm stroke	[kg]	0.004	0.007	0.006	0.009	0.012
Stroke max.		[mm]	600	600	950	1100	1300

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: external thread

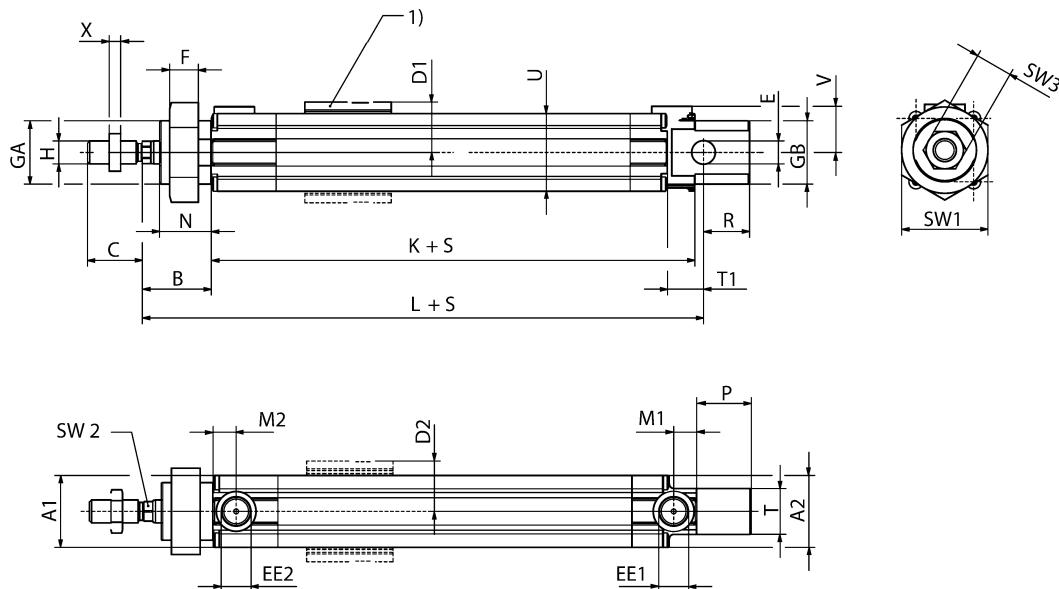
	Piston Ø Piston rod thread Ports Cylinder outer thread	10 M4 M5 M12x1,25	12 M6 M5 M16x1,5	16 M6 M5 M16x1,5	20 M8 G 1/8 M22x1,5	25 M10x1,25 G 1/8 M22x1,5
	Stroke 10	R480052297	R412003614	5283010020	5284010020	5285010020
	25	R480052298	R412003615	5283010050	5284010050	5285010050
	50	R480052299	R412003616	5283010100	5284010100	5285010100
	80	R480052300	R412003617	5283010160	5284010160	5285010160
	100	R480052301	R412003618	5283010200	5284010200	5285010200
	125	R480052302	R412003619	5283010250	5284010250	5285010250
	160	R480052303	R412003620	5283010320	5284010320	5285010320
	200	R480052304	R412003621	5283010400	5284010400	5285010400
	250	R480052305	R412003622	5283010500	5284010500	5285010500
	320	R480052306	R412003623	5283010640	5284010640	5285010640
	400	R480052307	R412003624	5283010800	5284010800	5285010800
	500	R480158035	R412003625	5283011000	5284011000	5285011000

Configurable product



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Piston Ø 10 - 25



D528_403

1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides, Ø 10 mm at 2 sides) possible
S = stroke

Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1/EE2	F	GA/GB	H	K	L	M1/M2
10	15	16	11	12.55	4	M5	7	M12x1,25	M4	46	64	9
12	19	22	15	14.5	6	M5	8	M16x1,5	M6	46	75	8

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for detailed information
Pneumatics catalog, online PDF, as of 2010-02-02, © Bosch Rexroth AG, subject to change

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

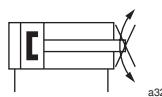
► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: external thread

Piston Ø	A1/A2	B	C -2	D1/D2	E H9	EE1/EE2	F	GA/GB	H	K	L	M1/M2
16	21	22	15	15.5	6	M5	8	M16x1,5	M6	56	82	6
20	25	24	19	17.5	8	G 1/8	10	M22x1,5	M8	68	95	8
25	28.5	28	21	19.25	8	G 1/8	10	M22x1,5	M10x1,25	70	104	8

Piston Ø	N	P	R	T d13	T1	U	V	X	SW1	SW2	SW3	
10	12	12	10	8	6	18	12	2.2	17	3	7	
12	17	17	10	12	9	19	14	3.2	22	5	10	
16	16	17	13	12	9	23	13.5	3	22	5	10	
20	18	19	16	16	12.5	27	17.5	4	30	7	13	
25	21	21	15	16	12.5	30	18	5	30	9	17	

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: non-rotating, external thread

**Standards**

Compressed air connection

ISO 6432

internal thread

Working pressure min./max.

1.5 bar / 10 bar

Ambient temperature min./max.

-20 °C / +75 °C

Medium temperature min./max.

-20 °C / +75 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	10	12	16	20	25
Retracting piston force	[N]	48	64	130	195	259
Extending piston force	[N]	56	81	148	227	309
Impact energy	[J]	0.04	0.07	0.14	0.23	0.35
Weight	0 mm stroke +10 mm stroke	[kg]	0.045 0.004	0.058 0.007	0.07 0.006	0.122 0.009
Stroke max.		[mm]	600	600	950	1100
						1300

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: non-rotating, external thread

	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	10 M4 M5 M12x1,25 0.07	12 M6 M5 M16x1,5 0.1	16 M6 M5 M16x1,5 0.15	16 M6 M5 M16x1,5	20 M8 G 1/8 M22x1,5 0.25
	Stroke 10 25 50 80 100 125 160 200 250 320 400 500	R480052323 R480052324 R480052325 R480052326 R480052327 R480052328 R480052329 R480052330 R480052331 R480052332 R480052333 R480158036	R412003916 R412003917 R412003918 R412003919 R412003920 R412003921 R412003923 R412003924 R412003925 R412003926 R412003927 R412003928	5283030020 5283030050 5283030100 5283030160 5283030200 5283030250 5283030320 5283030400 5283030500 5283030640 5283030800 5283031000	- - - - - - - - - - -	5284030020 5284030050 5284030100 5284030160 5284030200 5284030250 5284030320 5284030400 5284030500 5284030640 5284030800 5284031000
	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	25 M10x1,25 G 1/8 M22x1,5 0.4				
	Stroke 10 25 50 80 100 125 160 200 250 320 400 500	5285030020 5285030050 5285030100 5285030160 5285030200 5285030250 5285030320 5285030400 5285030500 5285030640 5285030800 5285031000				

Configurable product



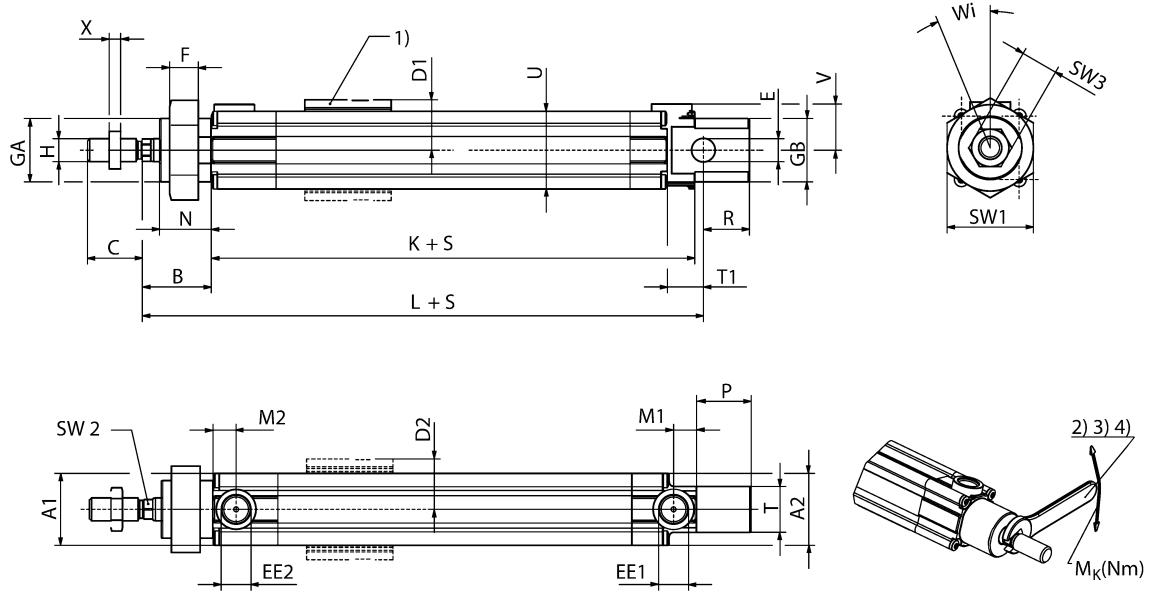
This product is configurable. Please use our Internet configurator at www.boschrexroth.com/pneumatics or contact the nearest Bosch Rexroth sales office.

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: non-rotating, external thread

Piston Ø 10 - 25



1) Clamp for sensor - installation at all 4 cylinder sides (\varnothing 12 mm at 3 sides, \varnothing 10 mm at 2 sides) possible

2) Do not exceed the given max. torque M_K of the piston rod or else the non-rotating function may not work.

3) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.

4) View without hexagon nut on piston rod and cylinder front end cover

S = stroke

Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1/EE2	F	GA/GB	H	K	L	M1/M2
10	15	16	11	12.55	4	M5	7	M12x1,25	M4	46	64	9
12	19	22	15	14.5	6	M5	8	M16x1,5	M6	46	75	8
16	21	22	15	15.5	6	M5	8	M16x1,5	M6	56	82	6
20	25	24	19	17.5	8	G 1/8	10	M22x1,5	M8	68	95	8
25	28.5	28	21	19.25	8	G 1/8	10	M22x1,5	M10x1,25	70	104	8

Piston Ø	N	P	R	T d13	T1	U	V	X	SW1	SW2	SW3	MK	Wi
10	12	12	10	8	6	18	12	2.2	17	3	7	0,07	±4,0°
12	17	17	10	12	9	19	14	3.2	22	5	10	0,1	±3,9°
16	16	17	13	12	9	23	13.5	3	22	5	10	0,15	±3,2°
20	18	19	16	16	12.5	27	17.5	4	30	7	13	0,25	±2,5°
25	21	21	15	16	12.5	30	18	5	30	9	17	0,4	±2,2°

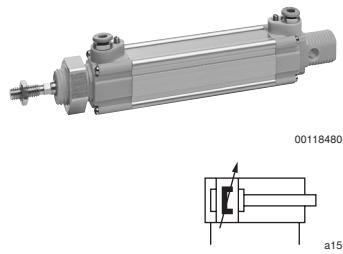
MK = max. torque at piston rod

Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm
- Ports: Ø 4 - Ø 6
- double-acting
- with magnetic piston
- cushioning: pneumatic, adjustable
- with integrated rear eye
- piston rod: external thread



Standards
Compressed air connection

ISO 6432
push-in fitting

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	12	16	20	25
Retracting piston force	[N]	64	130	195	259
Extending piston force	[N]	81	148	227	309
Cushioning length	[mm]	10	10	13	16
Cushioning energy	[J]	0.5	0.6	1.5	2.3
Weight	0 mm stroke [kg]	0.058	0.07	0.122	0.168
	+10 mm stroke [kg]	0.007	0.0067	0.009	0.012
Stroke max.	[mm]	600	950	1100	1300

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- with integrated rear eye ► piston rod: external thread

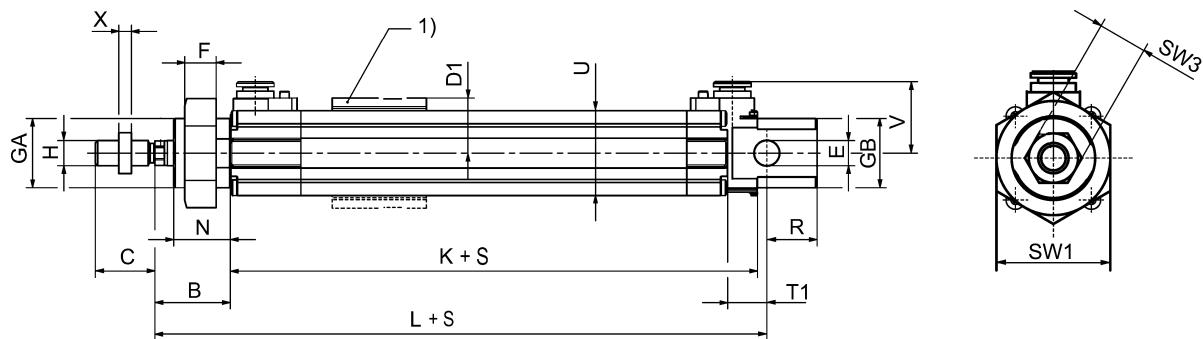
	Piston Ø Piston rod thread Ports Cylinder outer thread	12 M6 Ø 4 M16x1,5	16 M6 Ø 4 M16x1,5	20 M8 Ø 6 M22x1,5	25 M10x1,25 Ø 6 M22x1,5	
	Stroke 10	R480049564	5283100020	5284100020	5285100020	
	25	R480049567	5283100050	5284100050	5285100050	
	50	R480049570	5283100100	5284100100	5285100100	
	80	R480049574	5283100160	5284100160	5285100160	
	100	R480049575	5283100200	5284100200	5285100200	
	125	R480049576	5283100250	5284100250	5285100250	
	160	R480049578	5283100320	5284100320	5285100320	
	200	R480049579	5283100400	5284100400	5285100400	
	250	R480049580	5283100500	5284100500	5285100500	
	320	R480049582	5283100640	5284100640	5285100640	
	400	R480049583	5283100800	5284100800	5285100800	
	500	R480049584	5283101000	5284101000	5285101000	

Configurable product



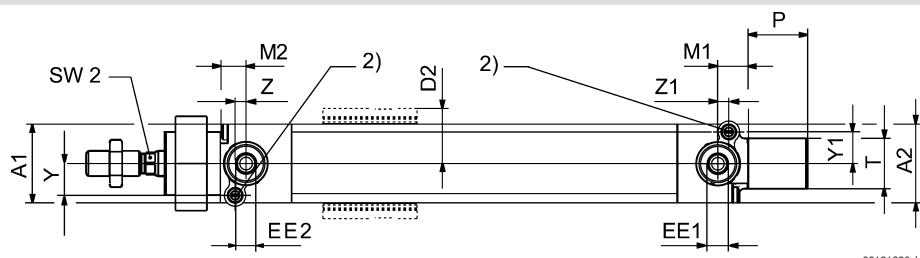
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Piston Ø 12 - 25



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Piston Ø 12



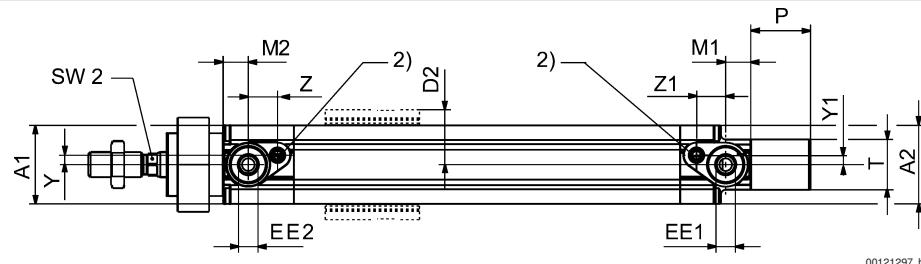
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Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- with integrated rear eye ► piston rod: external thread

Piston Ø 16 - 25



1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides) possible

2) Slot for cushioning screw 0.8 mm

S = stroke

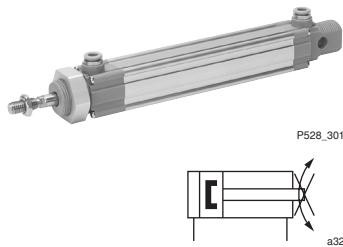
Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1/EE2	F	GA/GB	H	K	L	M1/M2
12	19	22	15	14.5	6	Ø 4	8	M16x1,5	M6	46	75	8
16	21	22	15	15.5	6	Ø 4	8	M16x1,5	M6	56	82	6
20	25	24	19	17.5	8	Ø 6	10	M22x1,5	M8	68	95	8
25	28.5	28	21	19.25	8	Ø 6	10	M22x1,5	M10x1,25	70	104	8

Piston Ø	N	P	R	T d13	T1	U	V	X	SW1	SW2	SW3	Z/Z1	Y/Y1
12	17	17	10	12	9	19	19.2	3.2	22	5	10	2.5	7
16	16	17	13	12	9	23	20.5	3	22	5	10	6.6	2.4
20	18	19	16	16	12.5	27	22.7	4	30	7	13	9.3	3
25	21	21	15	16	12.5	30	24	5	30	9	17	9.3	3

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: non-rotating, external thread



Standards

Compressed air connection

ISO 6432

push-in fitting

Working pressure min./max.

1.5 bar / 10 bar

Ambient temperature min./max.

-20 °C / +75 °C

Medium temperature min./max.

-20 °C / +75 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube

Aluminum, anodized

Piston rod

Stainless steel, hardened

Piston

Aluminum

Front cover

Polyarylamide

End cover

Polyarylamide

Seal

Polyurethane

Nut for cylinder mounting

Aluminum, anodized

Nut for piston rod

Stainless steel

Scraper

Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	10	12	16	20	25
Retracting piston force	[N]	48	64	130	195	259
Extending piston force	[N]	56	81	148	227	309
Impact energy	[J]	0.04	0.07	0.14	0.23	0.35
Weight	0 mm stroke +10 mm stroke	[kg] [kg]	0.045 0.004	0.058 0.006	0.07 0.006	0.122 0.006
Stroke max.		[mm]	600	600	950	1100
						1300

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: non-rotating, external thread

	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	10 M4 Ø 4 M12x1,25 0.07	12 M6 Ø 4 M16x1,5 0.1	16 M6 Ø 4 M16x1,5 0.15	20 M8 Ø 6 M22x1,5 0.25	25 M10x1,25 Ø 6 M22x1,5 0.4
	Stroke 10	R480052335	R412003904	5283020020	5284020020	5285020020
	25	R480052336	R412003905	5283020050	5284020050	5285020050
	50	R480052337	R412003906	5283020100	5284020100	5285020100
	80	R480052338	R412003907	5283020160	5284020160	5285020160
	100	R480052339	R412003908	5283020200	5284020200	5285020200
	125	R480052340	R412003909	5283020250	5284020250	5285020250
	160	R480052341	R412003910	5283020320	5284020320	5285020320
	200	R480052342	R412003911	5283020400	5284020400	5285020400
	250	R480052343	R412003912	5283020500	5284020500	5285020500
	320	R480052344	R412003913	5283020640	5284020640	5285020640
	400	R480052345	R412003914	5283020800	5284020800	5285020800
	500	R480158038	R412003915	5283021000	5284021000	5285021000

Configurable product



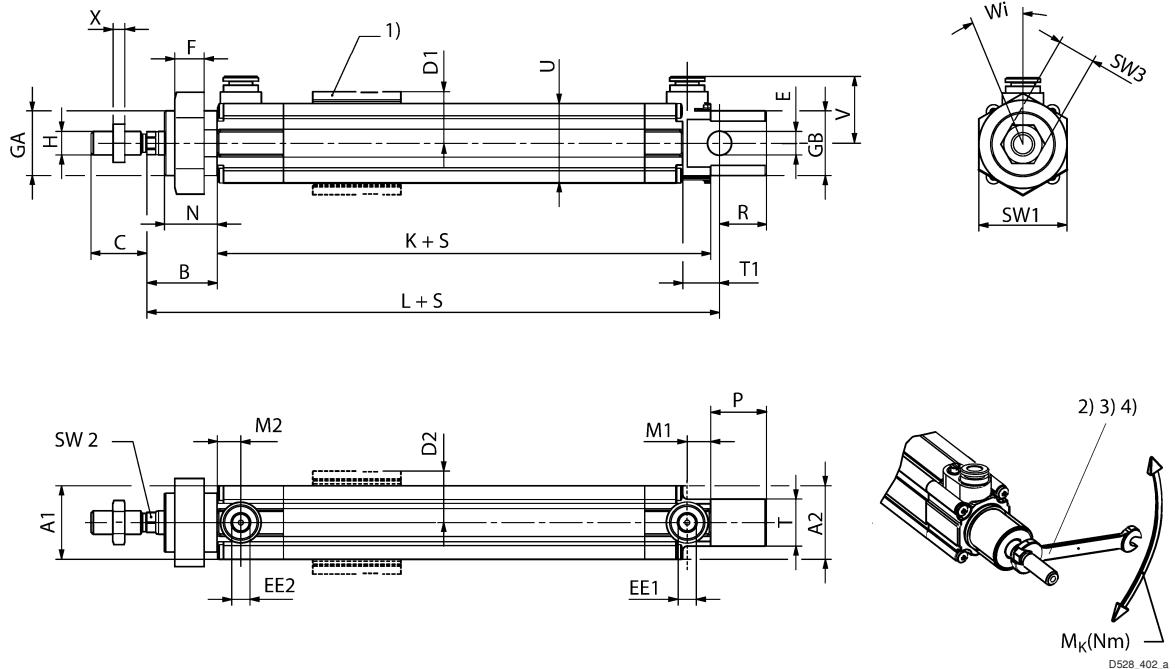
This product is configurable. Please use our Internet configurator at www.boschrexroth.com/pneumatics or contact the nearest Bosch Rexroth sales office.

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: non-rotating, external thread

Piston Ø 10 - 25



1) Clamp for sensor - installation at all 4 cylinder sides (\varnothing 12 mm at 3 sides, \varnothing 10 mm at 2 sides) possible

2) Do not exceed the given max. torque M_K of the piston rod or else the non-rotating function may not work.

3) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.

4) View without hexagon nut on piston rod and cylinder front end cover

S = stroke

Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1/EE2	F	GA/GB	H	K	L	M1/M2
10	15	16	11	12.5	4	Ø 4	7	M12x1,25	M4	46	64	9
12	19	22	15	14.5	6	Ø 4	8	M16x1,5	M6	46	75	8
16	21	22	15	15.5	6	Ø 4	8	M16x1,5	M6	56	82	6
20	25	24	19	17.5	8	Ø 6	10	M22x1,5	M8	68	95	8
25	28.5	28	21	19.25	8	Ø 6	10	M22x1,5	M10x1,25	70	104	8

Piston Ø	N	P	R	T d13	T1	U	V	X	SW1	SW2	SW3	MK	Wi
10	12	12	10	8	6	18	18.7	2.2	17	3	7	0,07	±4,0°
12	17	17	10	12	9	19	19.2	3.2	22	5	10	0,1	±3,9°
16	16	17	13	12	9	23	20.5	3	22	5	10	0,15	±3,2°
20	18	19	16	16	12.5	27	22.7	4	30	7	13	0,25	±2,5°
25	21	21	15	16	12.5	30	24	5	30	9	17	0,40	±2,2°

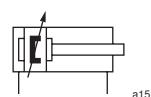
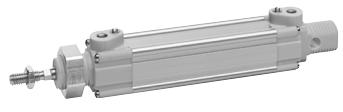
MK = max. torque at piston rod

Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- with integrated rear eye ► piston rod: external thread



Standards
Compressed air connection

ISO 6432
internal thread

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	12	16	20	25
Retracting piston force	[N]	64	130	195	259
Extending piston force	[N]	81	148	227	309
Cushioning length	[mm]	10	10	13	16
Cushioning energy	[J]	0.5	0.6	1.5	2.3
Weight	0 mm stroke [kg]	0.058	0.07	0.122	0.168
	+10 mm stroke [kg]	0.007	0.007	0.009	0.012
Stroke max.	[mm]	600	950	1100	1300

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- with integrated rear eye ► piston rod: external thread

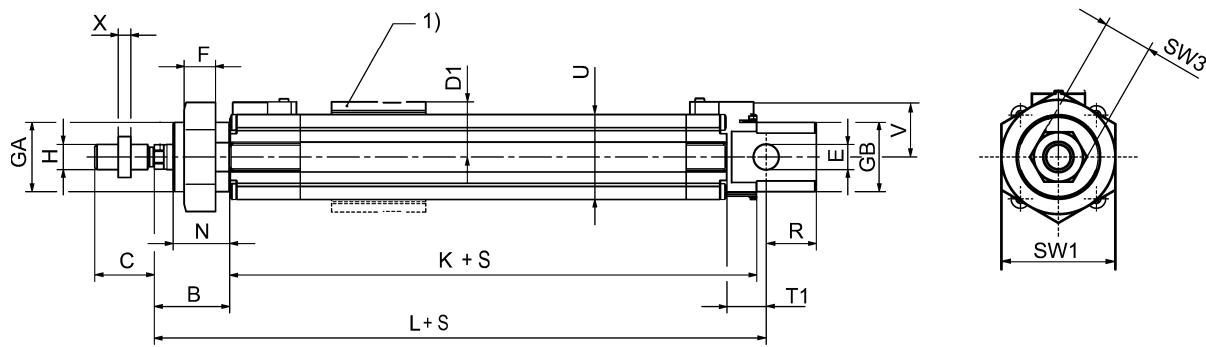
	Piston Ø Piston rod thread Ports Cylinder outer thread	12 M6 M5 M16x1,5	16 M6 M5 M16x1,5	20 M8 G 1/8 M22x1,5	25 M10x1,25 G 1/8 M22x1,5	
	Stroke 10	R480048012	5283110020	5284110020	5285110020	
	25	R480049524	5283110050	5284110050	5285110050	
	50	R480049527	5283110100	5284110100	5285110100	
	80	R480049531	5283110160	5284110160	5285110160	
	100	R480049532	5283110200	5284110200	5285110200	
	125	R480049533	5283110250	5284110250	5285110250	
	160	R480049535	5283110320	5284110320	5285110320	
	200	R480049536	5283110400	5284110400	5285110400	
	250	R480049537	5283110500	5284110500	5285110500	
	320	R480049539	5283110640	5284110640	5285110640	
	400	R480049540	5283110800	5284110800	5285110800	
	500	R480049541	5283111000	5284111000	5285111000	

Configurable product



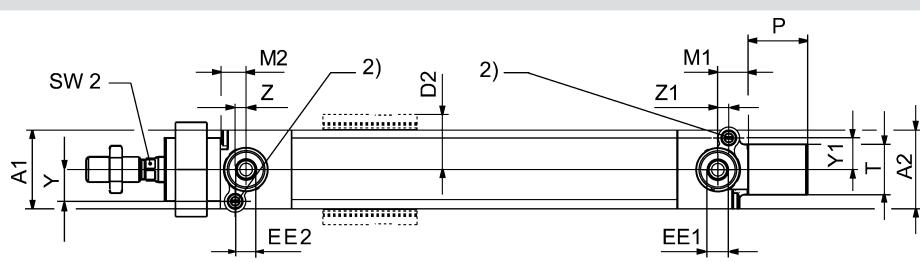
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Piston Ø 12 - 25



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Piston Ø 12



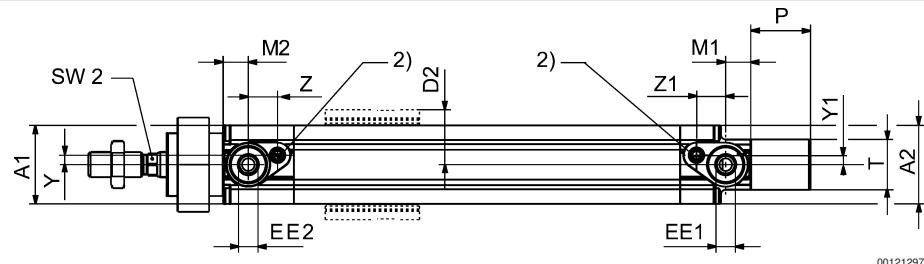
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Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- with integrated rear eye ► piston rod: external thread

Piston Ø 16 - 25



1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides) possible

2) Slot for cushioning screw 0.8 mm

S = stroke

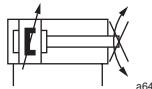
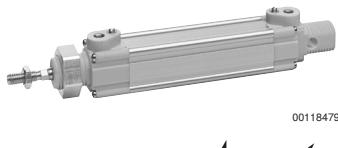
Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1/EE2	F	GA/GB	H	K	L	M1/M2
12	19	22	15	14.5	6	M5	8	M16x1,5	M6	46	75	8
16	21	22	15	15.5	6	M5	8	M16x1,5	M6	56	82	6
20	25	24	19	17.5	8	G 1/8	10	M22x1,5	M8	68	95	8
25	28.5	28	21	19.25	8	G 1/8	10	M22x1,5	M10x1,25	70	104	8

Piston Ø	N	P	R	T d13	T1	U	V	X	SW1	SW2	SW3	Z/Z1	Y/Y1
12	17	17	10	12	9	19	14	3.2	22	5	10	2.5	7
16	16	17	13	12	9	23	15.8	3	22	5	10	6.6	2.4
20	18	19	16	16	12.5	27	17.5	4	30	7	13	9.3	3
25	21	21	15	16	12.5	30	18.8	5	30	9	17	9.3	3

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- with integrated rear eye ► piston rod: non-rotating, external thread



Standards

Compressed air connection

ISO 6432

internal thread

Working pressure min./max.

1.5 bar / 10 bar

Ambient temperature min./max.

-20 °C / +75 °C

Medium temperature min./max.

-20 °C / +75 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

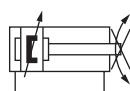
Piston Ø	[mm]	12	16	20	25
Retracting piston force	[N]	64	130	195	259
Extending piston force	[N]	81	148	227	309
Cushioning length	[mm]	10	10	13	16
Cushioning energy	[J]	0.5	0.6	1.5	2.3
Weight	0 mm stroke +10 mm stroke	[kg] [kg]	0.058 0.007	0.07 0.007	0.122 0.009
Stroke max.		[mm]	600	950	1100
					1300

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
 - with integrated rear eye ► piston rod: non-rotating, external thread

	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protec- tion, max.	12 M6 M5 M16x1,5 0.1	16 M6 M5 M16x1,5 0.15	20 M8 G 1/8 M22x1,5 0.25	25 M10x1,25 G 1/8 M22x1,5 0.4	
	Stroke 10	R480049543	5283130020	5284130020	5285130020	
	25	R480049546	5283130050	5284130050	5285130050	
	50	R480047846	5283130100	5284130100	5285130100	
	80	R480049552	5283130160	5284130160	5285130160	
	100	R480049553	5283130200	5284130200	5285130200	
	125	R480049554	5283130250	5284130250	5285130250	
	160	R480049556	5283130320	5284130320	5285130320	
	200	R480049557	5283130400	5284130400	5285130400	
	250	R480049558	5283130500	5284130500	5285130500	
	320	R480049560	5283130640	5284130640	5285130640	
	400	R480049561	5283130800	5284130800	5285130800	
	500	R480049562	5283131000	5284131000	5285131000	

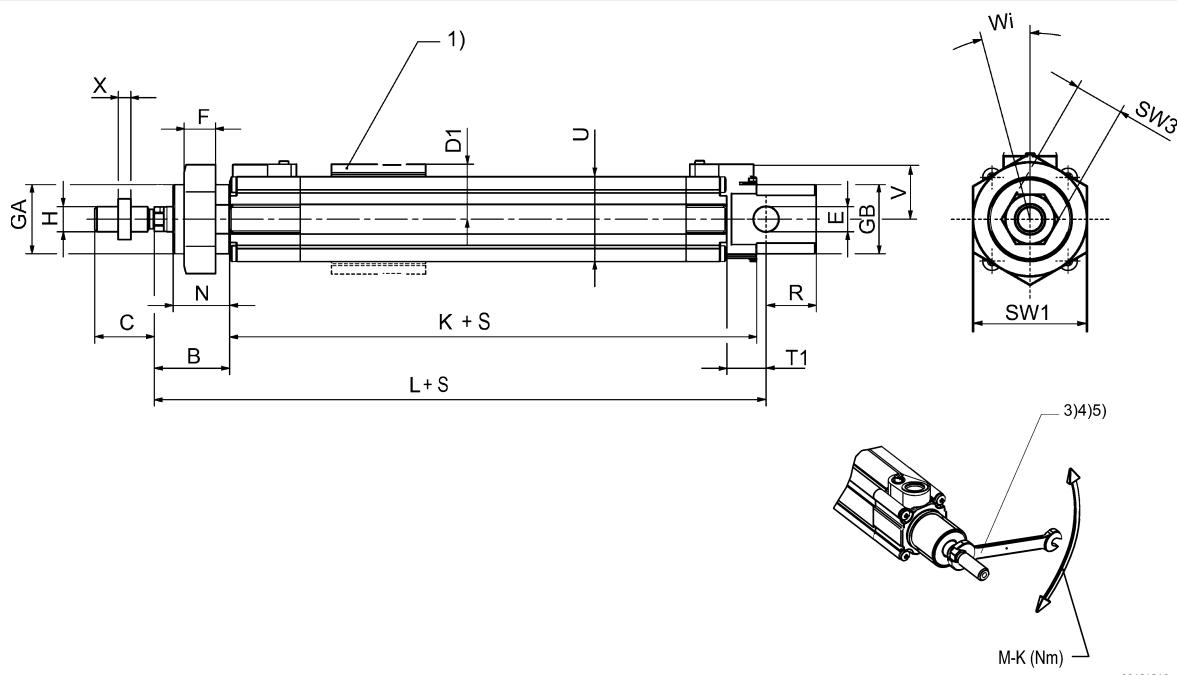


Configurable product



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Piston Ø 12 - 25

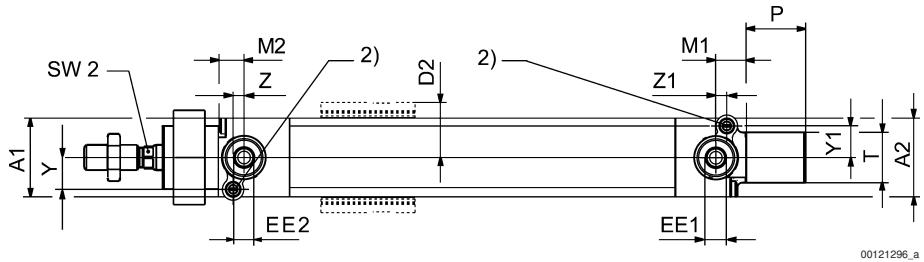


Piston rod cylinders → Standard cylinders

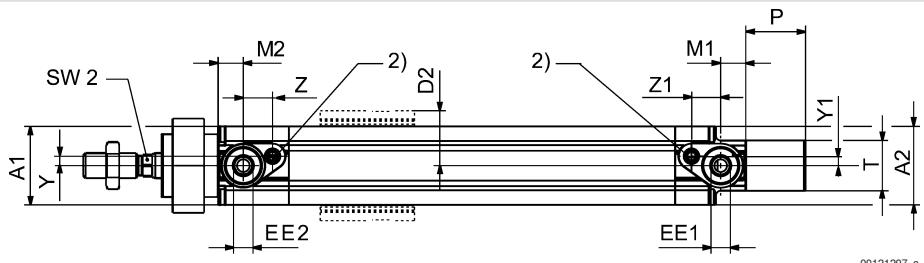
Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- with integrated rear eye ► piston rod: non-rotating, external thread

Piston Ø 12



Piston Ø 16 - 25



1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides) possible

2) Slot for cushioning screw 0.8 mm

3) Do not exceed the given max. torque M-K of the piston rod or the non-rotating function may not work.

4) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.

5) View without hexagon nut on piston rod and cylinder front end cover

S = stroke

Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1/EE2	F	GA/GB	H	K	L	M1/M2
12	19	22	15	14.5	6	M5	8	M16x1,5,	M6	46	75	8
16	21	22	15	15.5	6	M5	8	M16x1,5,	M6	56	82	6
20	25	24	19	17.5	8	G 1/8	10	M22x1,5,	M8	68	95	8
25	28.5	28	21	19.25	8	G 1/8	10	M22x1,5,	M10x1,25	70	104	8

Piston Ø	N	P	R	T d13	T1	U	V	X	SW1	SW2	SW3	Z/Z1	Y/Y1
12	17	17	10	12	9	19	14	3.2	22	5	10	2.5	7
16	16	17	13	12	9	23	15.8	3	22	5	10	6.6	2.4
20	18	19	16	16	12.5	27	17.5	4	30	7	13	9.3	3
25	21	21	15	16	12.5	30	18.8	5	30	9	17	9.3	3

Piston Ø	MK	Wi											
12	0,10	±3,9°											
16	0,15	±3,2°											
20	0,25	±2,5°											
25	0,40	±2,2°											

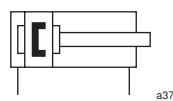
MK = max. torque at piston rod

Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: external thread



Standards
Compressed air connection

ISO 6432
push-in fitting

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel, hardened
Piston	Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø		[mm]	10	12	16	20	25
Retracting piston force		[N]	48	64	130	195	259
Extending piston force		[N]	56	81	148	227	309
Impact energy		[J]	0.04	0.07	0.14	0.23	0.35
Weight	0 mm stroke	[kg]	0.045	0.058	0.07	0.122	0.168
	+10 mm stroke	[kg]	0.004	0.006	0.006	0.006	0.012
Stroke max.		[mm]	600	600	950	1100	1300

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: external thread

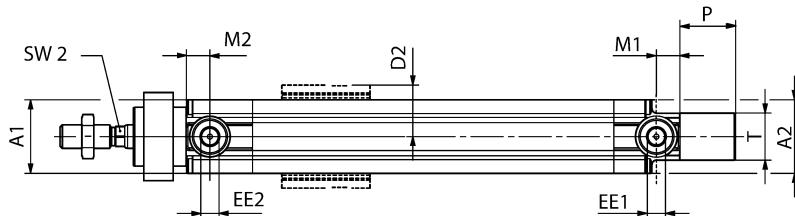
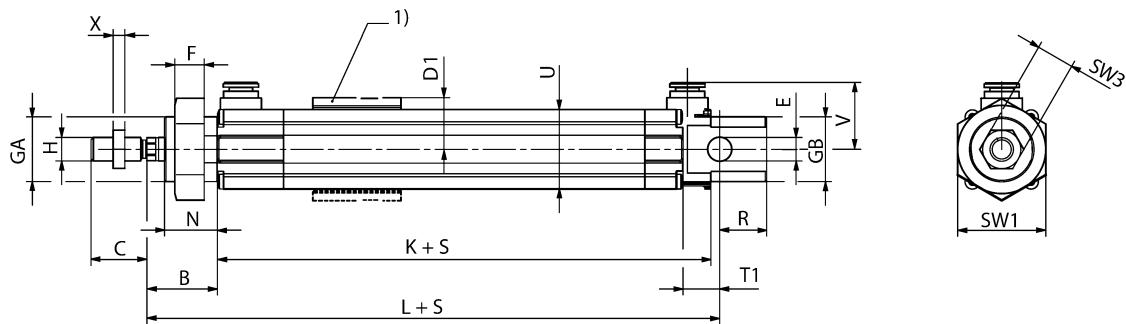
	Piston Ø Piston rod thread Ports Cylinder outer thread	10 M4 Ø 4 M12x1,25	12 M6 Ø 4 M16x1,5	16 M6 Ø 4 M16x1,5	20 M8 Ø 6 M22x1,5	25 M10x1,25 Ø 6 M22x1,5
	Stroke 10	R480052311	R412003602	5283000020	5284000020	5285000020
	25	R480052312	R412003603	5283000050	5284000050	5285000050
	50	R480052313	R412003604	5283000100	5284000100	5285000100
	80	R480052314	R412003605	5283000160	5284000160	5285000160
	100	R480052315	R412003606	5283000200	5284000200	5285000200
	125	R480052316	R412003607	5283000250	5284000250	5285000250
	160	R480052317	R412003608	5283000320	5284000320	5285000320
	200	R480052318	R412003609	5283000400	5284000400	5285000400
	250	R480052319	R412003610	5283000500	5284000500	5285000500
	320	R480052320	R412003611	5283000640	5284000640	5285000640
	400	R480052321	R412003612	5283000800	5284000800	5285000800
	500	R480158039	R412003613	5283001000	5284001000	5285001000

Configurable product



This product is configurable. Please use our Internet configurator at www.boschrexroth.com/pneumatics or contact the nearest Bosch Rexroth sales office.

Piston Ø 10 - 25



D528_402

S = stroke

1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides, Ø 10 mm at 2 sides) possible

Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1/EE2	F	GA/GB	H	K	L	M1/M2
10	15	16	11	12.55	4	Ø 4	7	M12x1,25	M4	46	64	9

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

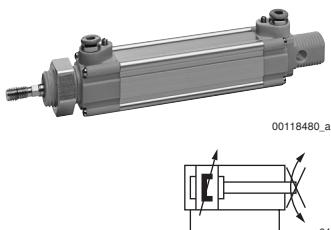
► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► with integrated rear eye ► piston rod: external thread

Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1/EE2	F	GA/GB	H	K	L	M1/M2
12	19	22	15	14.5	6	Ø 4	8	M16x1,5	M6	46	75	8
16	21	22	15	15.5	6	Ø 4	8	M16x1,5	M6	56	82	6
20	25	24	19	17.5	8	Ø 6	10	M22x1,5	M8	68	95	8
25	28.5	28	21	19.25	8	Ø 6	10	M22x1,5	M10x1,25	70	104	8
Piston Ø	N	P	R	T d13	T1	U	V	X	SW1	SW2	SW3	
10	12	12	10	8	6	18	18.7	2.2	17	3	7	
12	17	17	10	12	9	19	19.2	3.2	22	5	10	
16	16	17	13	12	9	23	20.5	3	22	5	10	
20	18	19	16	16	12.5	27	22.7	4	30	7	13	
25	21	21	15	16	12.5	30	24	5	30	9	17	

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- with integrated rear eye ► piston rod: non-rotating, external thread



Standards	ISO 6432
Compressed air connection	push-in fitting
Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6.3 bar

Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
 - The oil content of air pressure must remain constant during the life cycle.
 - Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
 - Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	12	16	20	25
Retracting piston force	[N]	64	130	195	259
Extending piston force	[N]	81	148	227	309
Cushioning length	[mm]	10	10	13	16
Cushioning energy	[J]	0.5	0.6	1.5	2.3
Weight	0 mm stroke [kg]	0.058	0.07	0.122	0.168
	+10 mm stroke [kg]	0.007	0.0067	0.009	0.012
Stroke max.	[mm]	600	950	1100	1300

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- with integrated rear eye ► piston rod: non-rotating, external thread

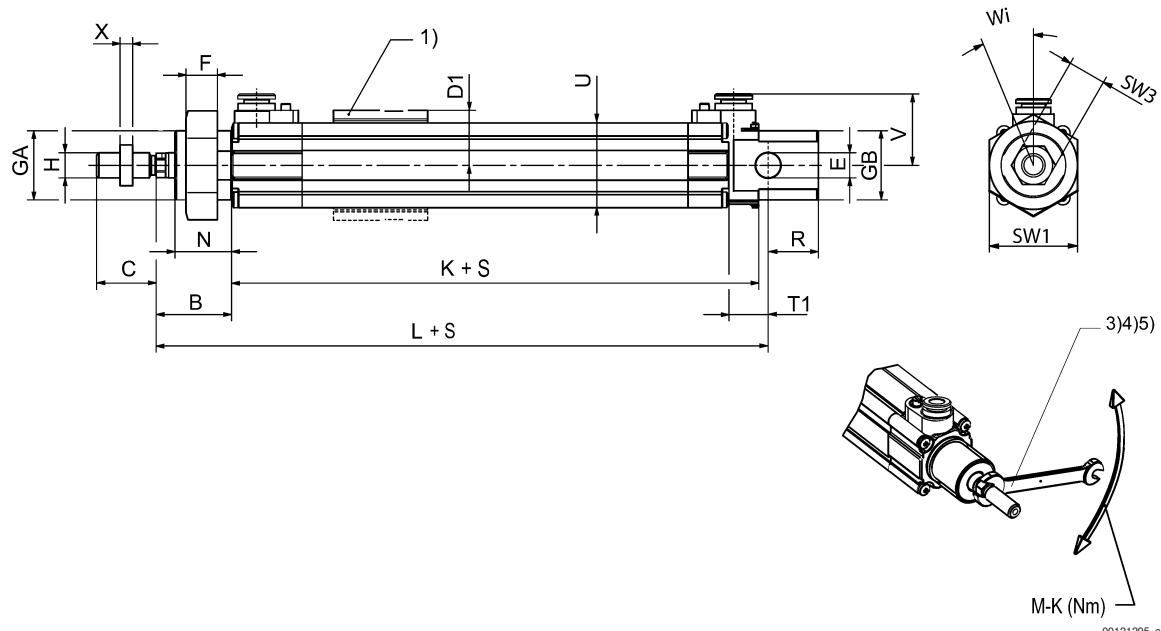
	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	12 M6 Ø 4 M16x1,5 0.1	16 M6 Ø 4 M16x1,5 0.15	20 M8 Ø 6 M22x1,5 0.25	25 M10x1,25 Ø 6 M22x1,5 0.4	
	Stroke 10	R480049585	5283120020	5284120020	5285120020	
	25	R480049588	5283120050	5284120050	5285120050	
	50	R480047845	5283120100	5284120100	5285120100	
	80	R480049594	5283120160	5284120160	5285120160	
	100	R480049595	5283120200	5284120200	5285120200	
	125	R480049596	5283120250	5284120250	5285120250	
	160	R480049597	5283120320	5284120320	5285120320	
	200	R480049599	5283120400	5284120400	5285120400	
	250	R480049600	5283120500	5284120500	5285120500	
	320	R480049602	5283120640	5284120640	5285120640	
	400	R480049603	5283120800	5284120800	5285120800	
	500	R480049604	5283121000	5284121000	5285121000	

Configurable product



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Piston Ø 12 - 25



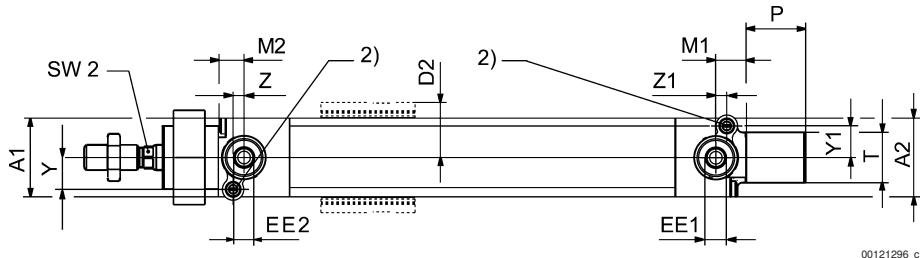
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Piston rod cylinders → Standard cylinders

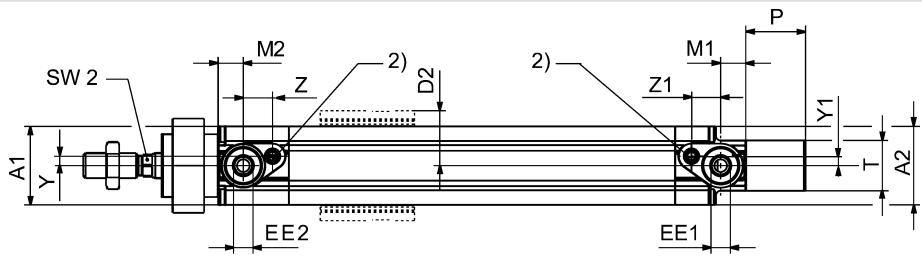
Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- with integrated rear eye ► piston rod: non-rotating, external thread

Piston Ø 12



Piston Ø 16 - 25



1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides) possible

2) Slot for cushioning screw 0.8 mm

3) Do not exceed the given max. torque M-K of the piston rod or the non-rotating function may not work.

4) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.

5) View without hexagon nut on piston rod and cylinder front end cover

S = stroke

Piston Ø	A1/A2	B	C - 2	D1/D2	E H9	EE1/EE2	F	GA/GB	H	K	L	M1/M2
12	19	22	15	14.5	6	Ø 4	8	M16x1,5,	M6	46	75	8
16	21	22	15	15.5	6	Ø 4	8	M16x1,5,	M6	56	82	6
20	25	24	19	17.5	8	Ø 6	10	M22x1,5,	M8	68	95	8
25	28.5	28	21	19.25	8	Ø 6	10	M22x1,5,	M10x1,25	70	104	8

Piston Ø	N	P	R	T d13	T1	U	V	X	SW1	SW2	SW3	Z/Z1	Y/Y1
12	17	17	10	12	9	19	19.2	3.2	22	5	10	2.5	7
16	16	17	13	12	9	23	20.5	3	22	5	10	6.6	2.4
20	18	19	16	16	12.5	27	22.7	4	30	7	13	9.3	3
25	21	21	15	16	12.5	30	24	5	30	9	17	9.3	3

Piston Ø	MK	Wi										
12	0,10	±3,9°										
16	0,15	±3,2°										
20	0,25	±2,5°										
25	0,40	±2,2°										

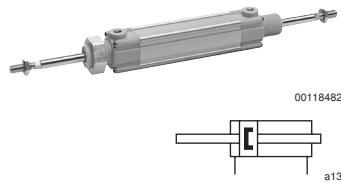
MK = max. torque at piston rod

Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, external thread



Standards
Compressed air connection

ISO 6432
internal thread

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel, hardened
Piston	Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø		[mm]	10	12	16	20	25
Retracting piston force		[N]	48	64	130	195	259
Extending piston force		[N]	48	64	130	195	259
Impact energy		[J]	0.04	0.07	0.14	0.23	0.35
Weight	0 mm stroke	[kg]	0.045	0.058	0.07	0.122	0.168
	+10 mm stroke	[kg]	0.004	0.007	0.007	0.009	0.012
Stroke max.		[mm]	500	500	500	500	500

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, external thread

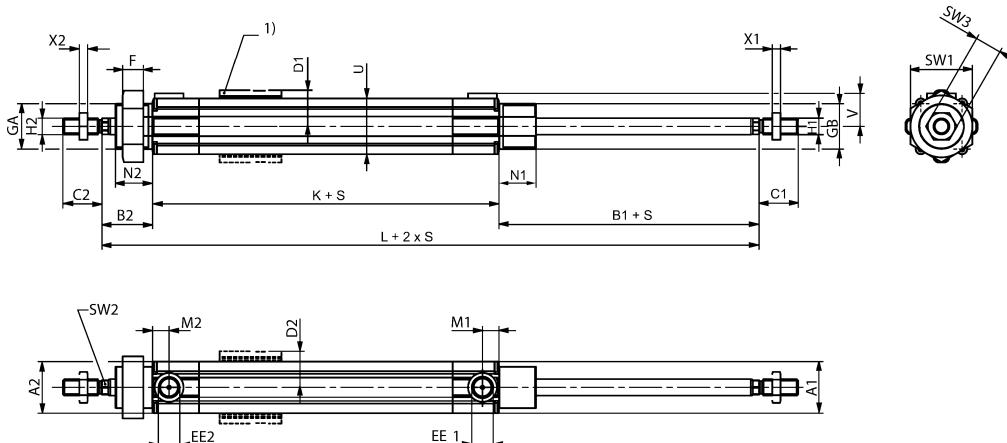
	Piston Ø Piston rod thread Ports Cylinder outer thread	10 M4 M5 M12x1,25	12 M6 M5 M16x1,5	16 M6 M5 M16x1,5	20 M8 G 1/8 M22x1,5	25 M10x1,25 G 1/8 M22x1,5
	Stroke 10	R480052371	R480052416	R412001301	R412001401	R412001501
	25	R480052372	R480052417	R412001304	R412001404	R412001504
	50	R480052373	R480052418	R412001309	R412001409	R412001509
	80	R480052374	R480052419	R412001315	R412001415	R412001515
	100	R480052375	R480052420	R412001319	R412001419	R412001519
	125	R480052376	R480052421	R412001324	R412001424	R412001524
	160	R480052377	R480052422	R412001331	R412001431	R412001531
	200	R480052378	R480052423	R412001339	R412001439	R412001539
	250	R480052379	R480052424	R412001349	R412001449	R412001549
	320	R480052380	R480052425	R412001363	R412001463	R412001563
	400	R480052381	R480052426	R412001379	R412001479	R412001579
	500	R480158040	R480052427	R412001399	R412001499	R412001599

Configurable product



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Piston Ø 10 - 25



1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides, Ø 10 mm at 2 sides) possible
S = stroke

Piston Ø	A1/A2	B1	B2	D1/D2	C1 -2/ C2 -2	EE1/EE2	F	GA/GB	H1/H2	K	L	M1/M2
10	15	16	16	12.55	11	M5	7	M12x1,25	M4	46	78	9
12	19	22	22	14.5	15	M5	8	M16x1,5	M6	46	90	8
16	21	23	22	15.5	15	M5	8	M16x1,5	M6	56	101	6
20	25	25	24	17.5	19	G 1/8	10	M22x1,5	M8	68	118	8
25	28.5	29	28	19.25	21	G 1/8	10	M22x1,5	M10x1,25	70	127	8

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

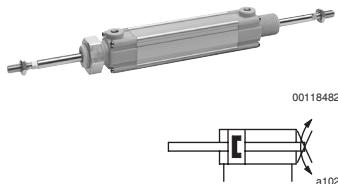
► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, external thread

Piston Ø	N1/N2	U	V	X1/X2	SW1	SW2	SW3							
10	12	18	12	2.2	17	3	7							
12	17	19	14	3.2	22	5	10							
16	16	23	13.5	3	22	5	10							
20	18	27	17.5	4	30	7	13							
25	21	30	18	5	30	9	17							

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, non-rotating, external thread



Standards

Compressed air connection

ISO 6432

internal thread

Working pressure min./max.

1.5 bar / 10 bar

Ambient temperature min./max.

-20 °C / +75 °C

Medium temperature min./max.

-20 °C / +75 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel, hardened
Piston	Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	10	12	16	20	25
Retracting piston force	[N]	48	64	130	195	259
Extending piston force	[N]	48	64	130	195	259
Impact energy	[J]	0.04	0.07	0.14	0.23	0.35
Weight	0 mm stroke [kg]	0.045	0.058	0.07	0.122	1.168
	+10 mm stroke [kg]	0.004	0.007	0.007	0.009	0.012
Stroke max.	[mm]	500	500	500	500	500

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, non-rotating, external thread

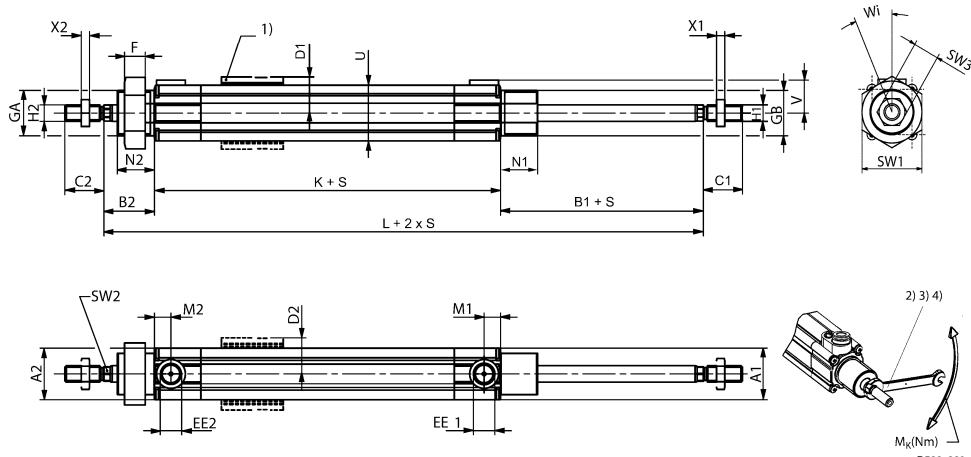
	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	10 M4 M5 M12x1,25 0.07	12 M6 M5 M16x1,5 0.1	16 M6 M5 M16x1,5 0.15	20 M8 G 1/8 M22x1,5 0.25	25 M10x1,25 G 1/8 M22x1,5 0.4
	Stroke 10	R480052347	R480052442	R412001901	R412002001	R412002101
	25	R480052348	R480052443	R412001904	R412002004	R412002104
	50	R480052349	R480052444	R412001909	R412002009	R412002109
	80	R480052350	R480052445	R412001915	R412002015	R412002115
	100	R480052351	R480052446	R412001919	R412002019	R412002119
	125	R480052352	R480052447	R412001924	R412002024	R412002124
	160	R480052353	R480052448	R412001931	R412002031	R412002131
	200	R480052354	R480052449	R412001939	R412002039	R412002139
	250	R480052355	R480052450	R412001949	R412002049	R412002149
	320	R480052356	R480052451	R412001963	R412002063	R412002163
	400	R480052357	R480052452	R412001979	R412002079	R412002179
	500	R480158041	R480052453	R412001999	R412002099	R412002199

Configurable product



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Piston Ø 10 - 25



- 1) Clamp for sensor - installation at all 4 cylinder sides (\varnothing 12 mm at 3 sides, \varnothing 10 mm at 2 sides) possible
 - 2) Do not exceed the given max. torque M_K of the piston rod or else the non-rotating function may not work.
 - 3) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.
 - 4) View without hexagon nut on piston rod and cylinder front end cover
- S = stroke

Piston Ø	A1/A2	B1	B2	D1/D2	C1 –2/ C2 –2	EE1/EE2	F	GA/GB	H1/H2	K	L	M1/M2
10	15	16	16	12.55	11	M5	7	M12x1,25	M4	46	78	9
12	19	22	22	14.5	15	M5	8	M16x1,5	M6	46	90	8

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

► Ø 10 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, non-rotating, external thread

Piston Ø	A1/A2	B1	B2	D1/D2	C1 –2/ C2 –2	EE1/EE2	F	GA/GB	H1/H2	K	L	M1/M2
16	21	23	22	15.5	15	M5	8	M16x1,5	M6	56	101	6
20	25	25	24	17.5	19	G 1/8	10	M22x1,5	M8	68	118	8
25	28.5	29	28	19.25	21	G 1/8	10	M22x1,5	M10x1,25	70	127	8
Piston Ø	N1/N2	U	V	X1/X2	SW1	SW2	SW3	MK	Wi			
10	12	18	12	2.2	17	3	7	0,07	±4°			
12	17	19	14	3.2	22	5	10	0,10	±3,9°			
16	16	23	13.5	3	22	5	10	0,15	±3,2°			
20	18	27	17.5	4	30	7	13	0,25	±2,5°			
25	21	30	18	5	30	9	17	0,40	±2,2°			

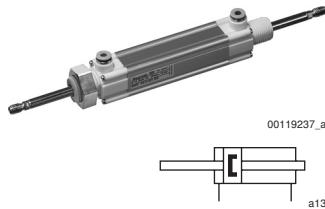
MK = max. torque at piston rod

Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, external thread



Standards
Compressed air connection

ISO 6432
push-in fitting

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel, hardened
Piston	Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø		[mm]	10	12	16	20	25
Retracting piston force		[N]	48	64	130	195	259
Extending piston force		[N]	48	64	130	195	259
Impact energy		[J]	0.04	0.07	0.14	0.23	0.35
Weight	0 mm stroke	[kg]	0.045	0.058	0.07	0.122	0.168
	+10 mm stroke	[kg]	0.004	0.007	0.007	0.009	0.012
Stroke max.		[mm]	500	500	500	500	500

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, external thread

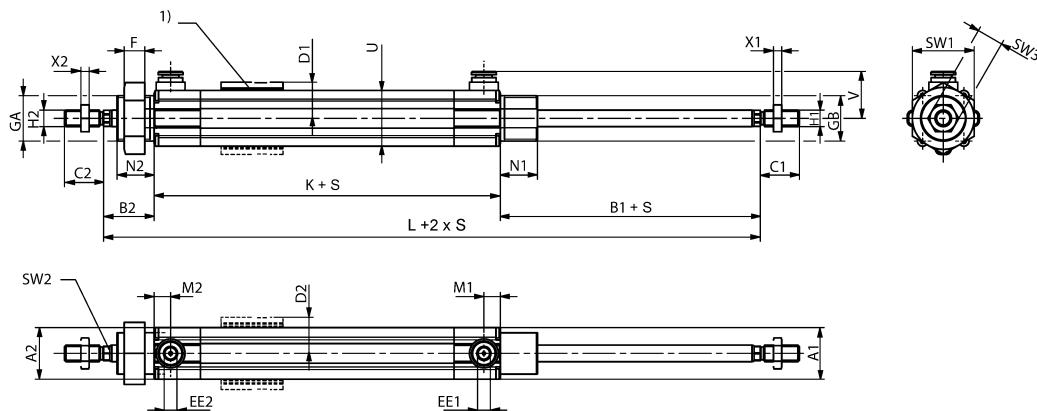
	Piston Ø Piston rod thread Ports Cylinder outer thread	10 M4 Ø 4 M12x1,25	12 M6 Ø 4 M16x1,5	16 M6 Ø 4 M16x1,5	20 M8 Ø 6 M22x1,5	25 M10x1,25 Ø 6 M22x1,5
	Stroke 10	R480052383	R480052429	R412001001	R412001101	R412001201
	25	R480052384	R480052430	R412001004	R412001104	R412001204
	50	R480052385	R480052431	R412001009	R412001109	R412001209
	80	R480052386	R480052432	R412001015	R412001115	R412001215
	100	R480052387	R480052433	R412001019	R412001119	R412001219
	125	R480052388	R480052434	R412001024	R412001124	R412001224
	160	R480052389	R480052435	R412001031	R412001131	R412001231
	200	R480052390	R480052436	R412001039	R412001139	R412001239
	250	R480052391	R480052437	R412001049	R412001149	R412001249
	320	R480052392	R480052438	R412001063	R412001163	R412001263
	400	R480052393	R480052439	R412001079	R412001179	R412001279
	500	R480158042	R480052440	R412001099	R412001199	R412001299

Configurable product



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Piston Ø 10 - 25



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1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides) possible
S = stroke

Piston Ø	A1/A2	B1	B2	C1 - 2/ C2 - 2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	K	L	M1/M2
10	15	16	16	11	12.55	Ø 4	7	M12x1,25	M4	46	78	9
12	19	22	22	15	14.5	Ø 4	8	M16x1,5	M6	46	90	8
16	21	23	22	15	15.5	Ø 4	8	M16x1,5	M6	56	101	6
20	25	25	24	19	17.5	Ø 6	10	M22x1,5	M8	68	118	8
25	28.5	29	28	21	19.25	Ø 6	10	M22x1,5	M10x1,25	70	127	8

Piston Ø	N1/N2	U	V	X1/X2	SW1	SW2	SW3					
10	12	18	18.7	2.2	17	3	7					

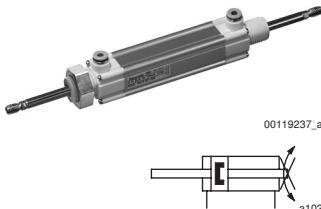
Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, external thread

Piston Ø	N1/N2	U	V	X1/X2	SW1	SW2	SW3							
12	17	19	19.2	3.2	22	5	10							
16	16	23	20.5	3	22	5	10							
20	18	27	22.7	4	30	7	13							
25	21	30	24	5	30	9	17							

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, non-rotating, external thread



Standards	ISO 6432
Compressed air connection	push-in fitting
Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel, hardened
Piston	Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	10	12	16	20	25
Retracting piston force	[N]	48	64	130	195	259
Extending piston force	[N]	48	64	130	195	259
Impact energy	[J]	0.04	0.07	0.14	0.23	0.35
Weight	0 mm stroke [kg]	0.045	0.058	0.07	0.122	0.168
	+10 mm stroke [kg]	0.004	0.007	0.007	0.009	0.012
Stroke max.	[mm]	500	500	500	500	500

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, non-rotating, external thread

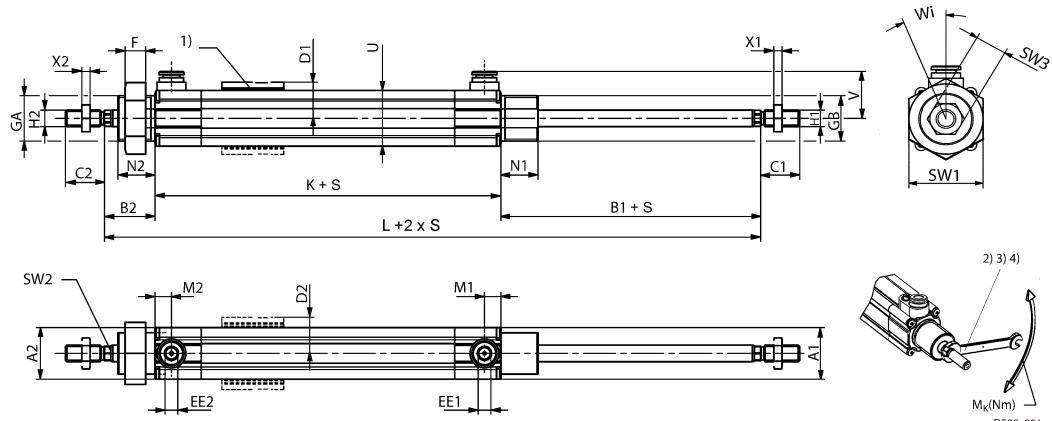
	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	10 M4 Ø 4 M12x1,25 0.07	12 M6 Ø 4 M16x1,5 0.1	16 M6 Ø 4 M16x1,5 0.15	20 M8 Ø 6 M22x1,5 0.25	25 M10x1,25 Ø 6 M22x1,5 0.4
	Stroke 10	R480052359	R480052455	R412001601	R412001701	R412001801
	25	R480052360	R480052456	R412001604	R412001704	R412001804
	50	R480052361	R480052457	R412001609	R412001709	R412001809
	80	R480052362	R480052458	R412001615	R412001715	R412001815
	100	R480052363	R480052459	R412001619	R412001719	R412001819
	125	R480052364	R480052460	R412001624	R412001724	R412001824
	160	R480052365	R480052461	R412001631	R412001731	R412001831
	200	R480052366	R480052462	R412001639	R412001739	R412001839
	250	R480052367	R480052463	R412001649	R412001749	R412001849
	320	R480052368	R480052464	R412001663	R412001763	R412001863
	400	R480052369	R480052465	R412001679	R412001779	R412001879
	500	R480158043	R480052466	R412001699	R412001799	R412001899

Configurable product



This product is configurable. Please use our Internet configurator at www.boschrexroth.com/pneumatics or contact the nearest Bosch Rexroth sales office.

Piston Ø 10 - 25



1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides, Ø 10 mm at 2 sides) possible

2) Do not exceed the given max. torque M-K of the piston rod or else the non-rotating function may not work.

3) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.

4) View without hexagon nut on piston rod and cylinder front end cover

S = stroke

Piston Ø	A1/A2	B1	B2	C1 –2/ C2 –2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	K	L	M1/M2
10	15	16	16	11	12.55	Ø 4	7	M12x1,25	M4	46	78	9
12	19	22	22	15	14.5	Ø 4	8	M16x1,5	M6	46	90	8
16	21	23	22	15	15.5	Ø 4	8	M16x1,5	M6	56	101	6

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

► Ø 10 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, non-rotating, external thread

Piston Ø	A1/A2	B1	B2	C1 -2/ C2 -2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	K	L	M1/M2
20	25	25	24	19	17.5	Ø 6	10	M22x1,5	M8	68	118	8
25	28.5	29	28	21	19.25	Ø 6	10	M22x1,5	M10x1,25	70	127	8

Piston Ø	N1/N2	U	V	X1/X2	SW1	SW2	SW3	MK	Wi			
10	12	18	18.7	2.2	17	3	7	0,07	±4°			
12	17	19	19.2	3.2	22	5	10	0,10	±3,9°			
16	16	23	20.5	3	22	5	10	0,15	±3,2°			
20	18	27	22.7	4	30	7	13	0,25	±2,5°			
25	21	30	24	5	30	9	17	0,40	±2,2°			

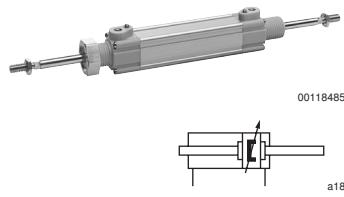
MK = max. torque at piston rod

Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, external thread



Standards
Compressed air connection

ISO 6432
internal thread

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	12	16	20	25
Retracting piston force	[N]	64	130	195	259
Extending piston force	[N]	64	130	195	259
Cushioning length	[mm]	10	10	13	16
Cushioning energy	[J]	0.5	0.6	1.5	2.3
Weight	0 mm stroke [kg]	0.058	0.07	0.122	0.168
	+10 mm stroke [kg]	0.007	0.007	0.009	0.012
Stroke max.	[mm]	500	500	500	500

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, external thread

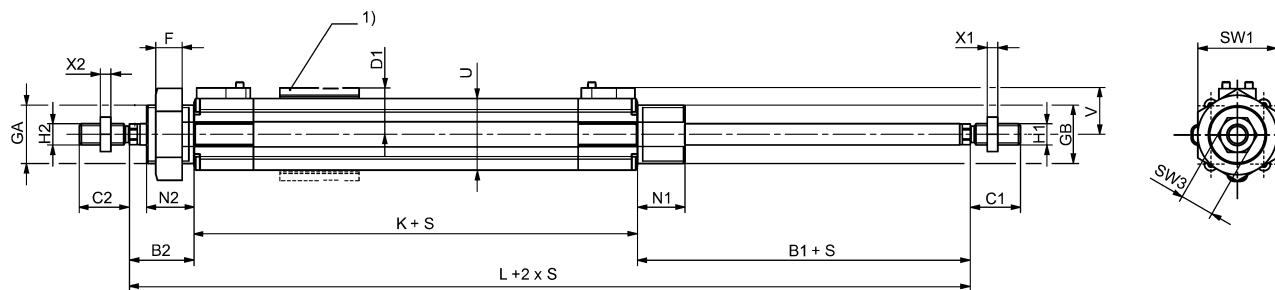
	Piston Ø Piston rod thread Ports Cylinder outer thread	12 M6 M5 M16x1,5	16 M6 M5 M16x1,5	20 M8 G 1/8 M22x1,5	25 M10x1,25 G 1/8 M22x1,5	
	Stroke 10	R480052469	R412002501	R412002601	R412002701	
	25	R480052470	R412002504	R412002604	R412002704	
	50	R480052471	R412002509	R412002609	R412002709	
	80	R480052472	R412002515	R412002615	R412002715	
	100	R480052473	R412002519	R412002619	R412002719	
	125	R480052474	R412002524	R412002624	R412002724	
	160	R480052475	R412002531	R412002631	R412002731	
	200	R480052476	R412002539	R412002639	R412002739	
	250	R480052477	R412002549	R412002649	R412002749	
	320	R480052478	R412002563	R412002663	R412002763	
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Configurable product



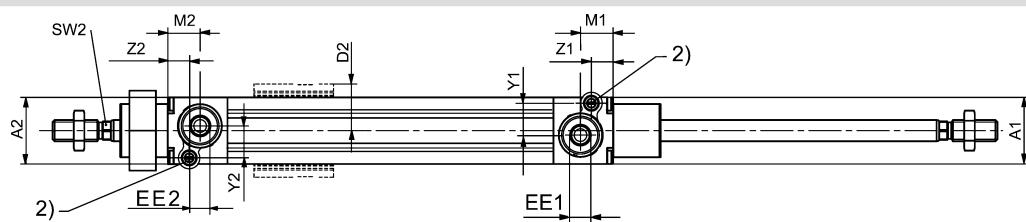
This product is configurable. Please use our Internet configurator at www.boschrexroth.com/pneumatics or contact the nearest Bosch Rexroth sales office.

Piston Ø 12 - 25



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Piston Ø 12



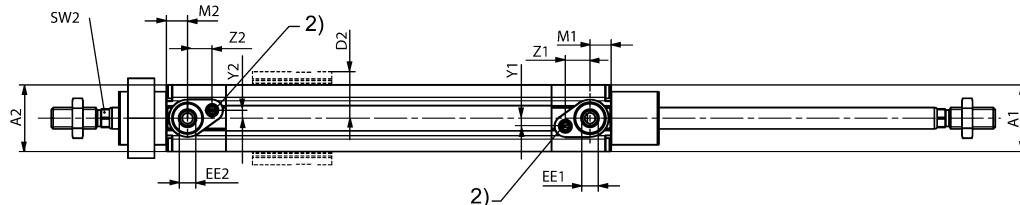
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Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, external thread

Piston Ø 16 - 25



1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides) possible

2) Slot for cushioning screw 0.8 mm

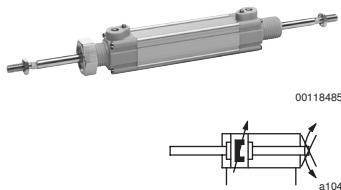
S = stroke

Piston Ø	A1/A2	B1	B2	C1 -2/ C2 -2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	K	L	M1/M2
12	19	22	22	15	14.5	M5	8	M16x1,5		M6	46	90
16	21	23	22	15	15.5	M5	8	M16x1,5		M6	56	101
20	25	25	24	19	17.5	G 1/8	10	M22x1,5		M8	68	118
25	28.5	29	28	21	19.25	G 1/8	10	M22x1,5	M10x1,5	70	127	8

Piston Ø	N1/N2	U	V	X1/X2	SW1	SW2	SW3	Z1/Z2	Y1/Y2			
12	17	19	14	3.2	22	5	10	5.5	7			
16	16	23	15.8	3	22	5	10	6.6	2.4			
20	18	27	17.5	4	30	7	13	9.3	3			
25	21	30	18.8	5	30	9	17	9.3	3			

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, non-rotating, external thread

**Standards**

Compressed air connection

ISO 6432

internal thread

Working pressure min./max.

1.5 bar / 10 bar

Ambient temperature min./max.

-20 °C / +75 °C

Medium temperature min./max.

-20 °C / +75 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube Aluminum, anodized

Piston rod Stainless steel

Front cover Polyarylamide

End cover Polyarylamide

Seal Polyurethane

Nut for cylinder mounting Aluminum, anodized

Nut for piston rod Stainless steel

Scraper Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	12	16	20	25
Retracting piston force	[N]	64	130	195	259
Extending piston force	[N]	64	130	195	259
Cushioning length	[mm]	10	10	13	16
Cushioning energy	[J]	0.5	0.6	1.5	2.3
Weight	0 mm stroke [kg]	0.058	0.07	0.122	0.168
	+10 mm stroke [kg]	0.007	0.007	0.009	0.012
Stroke max.	[mm]	500	500	500	500

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, non-rotating, external thread

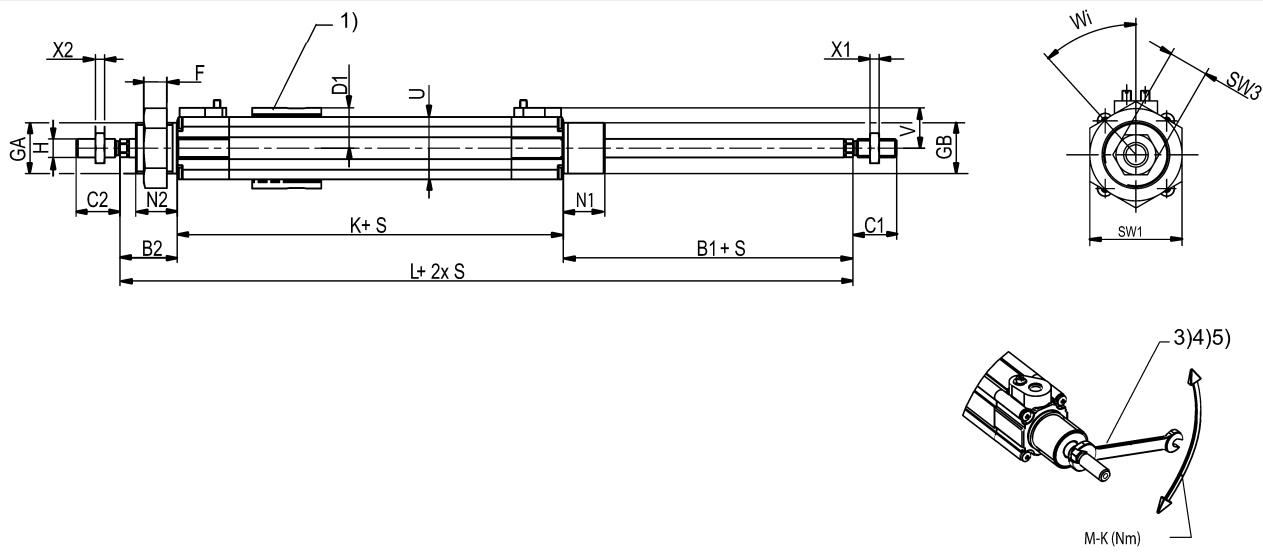
	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	12 M6 M5 M16x1,5 0.1	16 M6 M5 M16x1,5 0.15	20 M8 G 1/8 M22x1,5 0.25	25 M10x1,25 G 1/8 M22x1,5 0.4	
	Stroke 10	R480052495	R412003101	R412003201	R412003301	
	25	R480052496	R412003104	R412003204	R412003304	
	50	R480052497	R412003109	R412003209	R412003309	
	80	R480052498	R412003115	R412003215	R412003315	
	100	R480052499	R412003119	R412003219	R412003319	
	125	R480052500	R412003124	R412003223	R412003324	
	160	R480052501	R412003131	R412003231	R412003331	
	200	R480052502	R412003139	R412003239	R412003339	
	250	R480052503	R412003149	R412003249	R412003349	
	320	R480052504	R412003163	R412003263	R412003363	
	400	R480052505	R412003179	R412003279	R412003379	
	500	R480052506	R412003199	R412003299	R412003399	

Configurable product



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Piston Ø 12 - 25



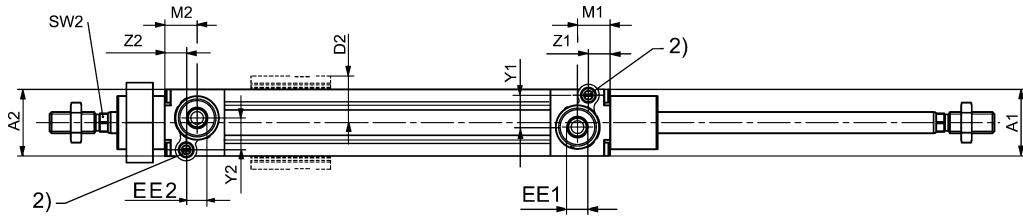
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Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

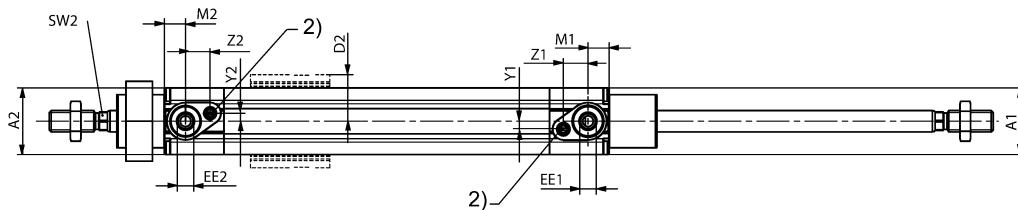
- Ø 12 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, non-rotating, external thread

Piston Ø 12



00122576_a

Piston Ø 16 - 25



00122575_a

1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides) possible

2) Slot for cushioning screw 0.8 mm

3) Do not exceed the given max. torque M-K of the piston rod or the non-rotating function may not work.

4) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.

5) View without hexagon nut on piston rod and cylinder front end cover

S = stroke

Piston Ø	A1/A2	B1	B2	C1 - 2/ C2 - 2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	K	L	M1/M2
12	19	22	22	15	14.5	M5	8	M16x1,5	M6	46	90	8
16	21	23	22	15	15.5	M5	8	M16x1,5	M6	56	101	6
20	25	25	24	19	17.5	G 1/8	10	M22x1,5	M8	68	118	8
25	28.5	29	28	21	19.25	G 1/8	10	M22x1,5	M10x1,25	70	127	8
Piston Ø	N1/N2	U	V	X1/X2	SW1	SW2	SW3	Z1/Z2	Y1/Y2	MK	Wi	
12	17	19	14	3.2	22	5	10	5.5	7	0.1	±3,9°	
16	16	23	15.8	3	22	5	10	6.6	2.4	0.15	±3,2°	
20	18	27	17.5	4	30	7	13	9.3	3	0.25	±2,5°	
25	21	30	18.8	5	30	9	17	9.3	3	0.4	±2,2°	

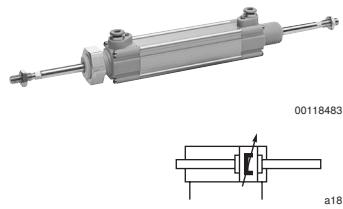
MK = max. torque at piston rod

Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm
- Ports: Ø 4 - Ø 6
- double-acting
- with magnetic piston
- cushioning: pneumatic, adjustable
- piston rod: through, external thread



Standards
Compressed air connection

ISO 6432
push-in fitting

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	12	16	20	25
Retracting piston force	[N]	64	130	195	259
Extending piston force	[N]	64	130	195	259
Cushioning length	[mm]	10	10	13	16
Cushioning energy	[J]	0.5	0.6	1.5	2.3
Weight	0 mm stroke [kg]	0.058	0.07	0.122	0.168
	+10 mm stroke [kg]	0.007	0.007	0.009	0.012
Stroke max.	[mm]	500	500	500	500

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, external thread

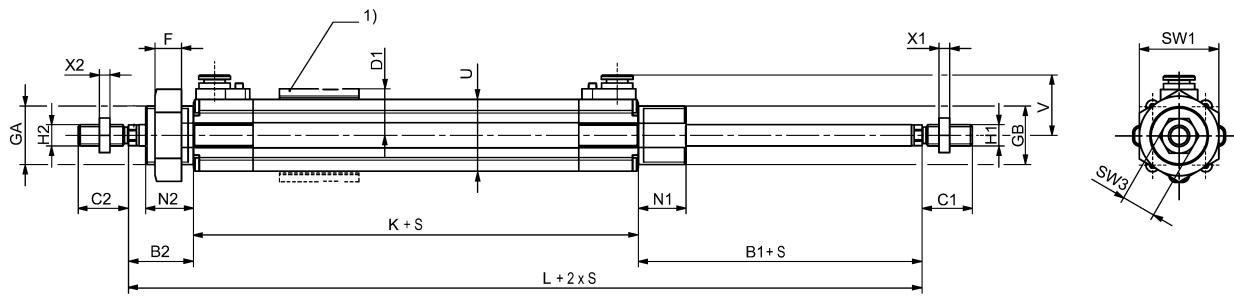
	Piston Ø Piston rod thread Ports Cylinder outer thread	12 M6 Ø 4 M16x1,5	16 M6 Ø 4 M16x1,5	20 M8 Ø 6 M22x1,5	25 M10x1,25 Ø 6 M22x1,5	
	Stroke 10	R480052482	R412002201	R412002301	R412002401	
	25	R480052483	R412002204	R412002304	R412002404	
	50	R480052484	R412002209	R412002309	R412002409	
	80	R480052485	R412002215	R412002315	R412002415	
	100	R480052486	R412002219	R412002319	R412002419	
	125	R480052487	R412002224	R412002324	R412002424	
	160	R480052488	R412002231	R412002331	R412002431	
	200	R480052489	R412002239	R412002339	R412002439	
	250	R480052490	R412002249	R412002349	R412002449	
	320	R480052491	R412002263	R412002363	R412002463	
	400	R480052492	R412002279	R412002379	R412002479	
	500	R480052493	R412002299	R412002399	R412002499	

Configurable product

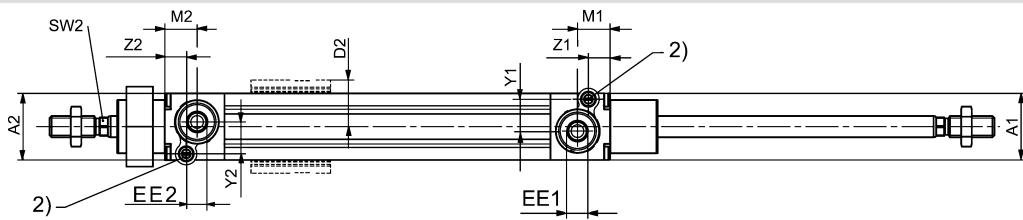


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Piston Ø 12 - 25



Piston Ø 12

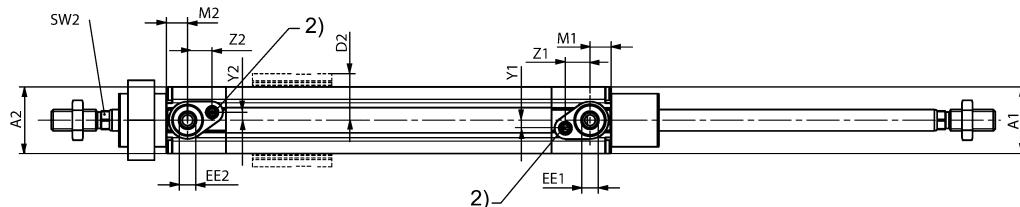


Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, external thread

Piston Ø 16 - 25



00122575_b

1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides) possible

2) Slot for cushioning screw 0.8 mm

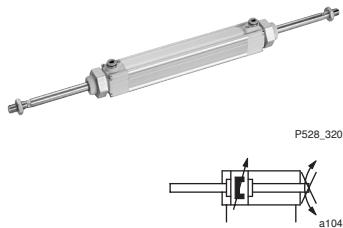
S = stroke

Piston Ø	A1/A2	B1	B2	C1 –2/C2 –2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	K	L	M1/M2
12	19	22	22		15	14.5	Ø 4	8	M16x1,5	M6	46	90
16	21	23	22		15	15.5	Ø 4	8	M16x1,5	M6	56	101
20	25	25	24		19	17.5	Ø 6	10	M22x1,5	M8	68	118
25	28.5	29	28		21	19.25	Ø 6	10	M22x1,5	M10x1,25	70	127

Piston Ø	N1/N2	U	V	X1/X2	SW1	SW2	SW3	Z1/Z2	Y1/Y2			
12	17	19	19.2	3.2	22	5	10	5.5	7			
16	16	23	20.5	3	22	5	10	6.6	2.4			
20	18	27	22.7	4	30	7	13	9.3	3			
25	21	30	24	5	30	9	17	9.3	3			

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

- Ø 12 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, non-rotating, external thread

**Standards**

Compressed air connection

ISO 6432

push-in fitting

Working pressure min./max.

1.5 bar / 10 bar

Ambient temperature min./max.

-20 °C / +75 °C

Medium temperature min./max.

-20 °C / +75 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

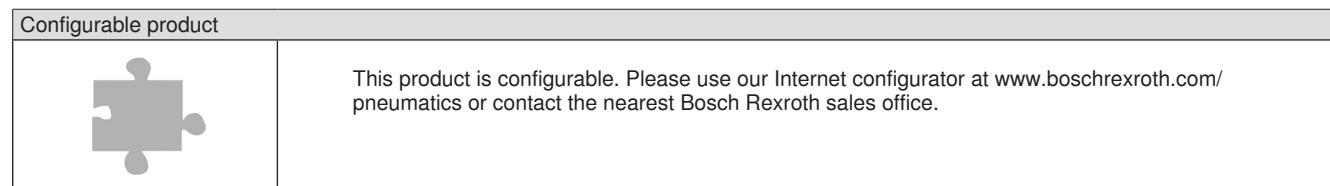
Piston Ø		[mm]	12	16	20	25
Retracting piston force		[N]	64	130	195	259
Extending piston force		[N]	64	130	195	259
Cushioning length		[mm]	10	10	13	16
Cushioning energy		[J]	0.5	0.6	1.5	2.3
Weight	0 mm stroke	[kg]	0.058	0.07	0.122	0.168
	+10 mm stroke	[kg]	0.007	0.007	0.009	0.012
Stroke max.		[mm]	500	500	500	500

Piston rod cylinders → Standard cylinders

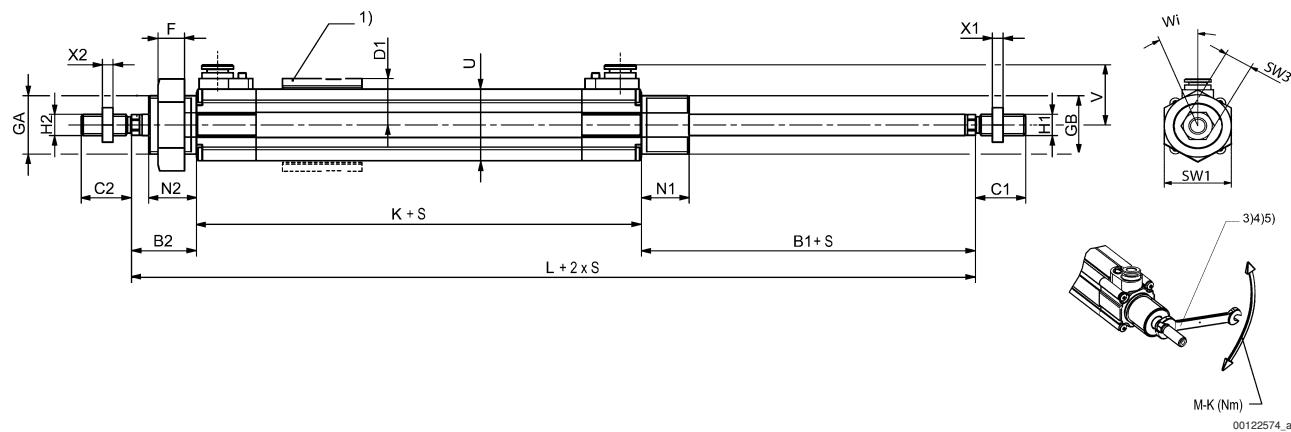
Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
 - piston rod: through, non-rotating, external thread

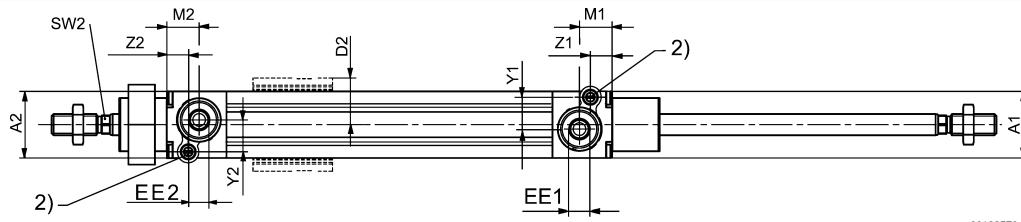
	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protec- tion, max.	12 M6 Ø 4 M16x1,5 0.1	16 M6 Ø 4 M16x1,5 0.15	20 M8 Ø 6 M22x1,5 0.25	25 M10x1,25 Ø 6 M22x1,5 0.4
	Stroke 10	R480052508	R412002801	R412002901	R412003001
	25	R480052509	R412002804	R412002904	R412003004
	50	R480052510	R412002809	R412002909	R412003009
	80	R480052511	R412002815	R412002915	R412003015
	100	R480052512	R412002819	R412002919	R412003019
	125	R480052513	R412002824	R412002924	R412003024
	160	R480052514	R412002831	R412002931	R412003031
	200	R480052515	R412002839	R412002939	R412003039
	250	R480052516	R412002849	R412002949	R412003049
	320	R480052517	R412002863	R412002963	R412003063
	400	R480052518	R412002879	R412002979	R412003079
	500	R480052519	R412002899	R412002999	R412003099



Piston Ø 12 - 25



Piston Ø 12



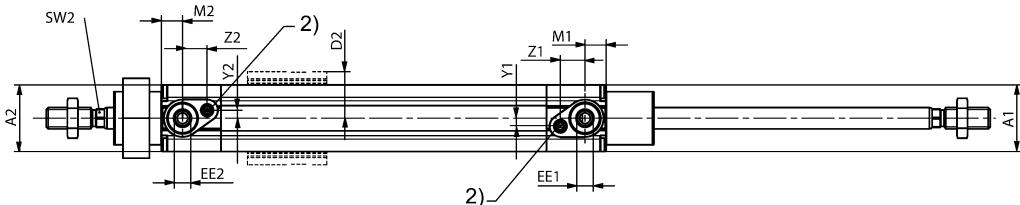
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for detailed information
Pneumatics catalog, online PDF, as of 2010-02-02, © Bosch Rexroth AG, subject to change

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 12 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, non-rotating, external thread

Piston Ø 16 - 25



00122575_c

- 1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides) possible
 - 2) Slot for cushioning screw 0.8 mm
 - 3) Do not exceed the given max. torque M-K of the piston rod or the non-rotating function may not work.
 - 4) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.
 - 5) View without hexagon nut on piston rod and cylinder front end cover
- S = stroke

Piston Ø	A1/A2	B1	B2	C1 -2/C2 -2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	K	L	M1/M2
12	19	22	22	15	14.5	Ø 4	8	M16x1,5	M6	46	90	8
16	21	23	22	15	15.5	Ø 4	8	M16x1,5	M6	56	101	6
20	25	25	24	19	17.5	Ø 6	10	M22x1,5	M8	68	118	8
25	28.5	29	28	21	19.25	Ø 6	10	M22x1,5	M10x1,25	70	127	8

Piston Ø	N1/N2	U	V	X1/X2	SW1	SW2	SW3	Z1/Z2	Y1/Y2	MK	Wi	
12	17	19	19.2	3.2	22	5	10	5.5	7	0.1	±3,9°	
16	16	23	20.5	3	22	5	10	6.6	2.4	0.15	±3,2°	
20	18	27	22.7	4	30	7	13	9.3	3	0.25	±2,5°	
25	21	30	24	5	30	9	17	9.3	3	0.4	±2,2°	

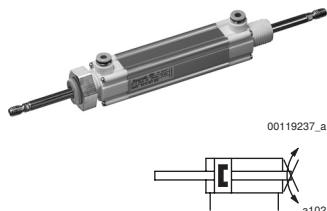
MK = max. torque at piston rod

Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 16 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, hollow, non-rotating, external thread



Standards	ISO 6432
Compressed air connection	push-in fitting
Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Piston	Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	16	25		
Retracting piston force	[N]	130	259		
Extending piston force	[N]	130	259		
Impact energy	[J]	0.14	0.35		
Weight	0 mm stroke +10 mm stroke	[kg]	0.083 0.008	0.216 0.018	
Stroke max.		[mm]	250	250	

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 16 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, hollow, non-rotating, external thread

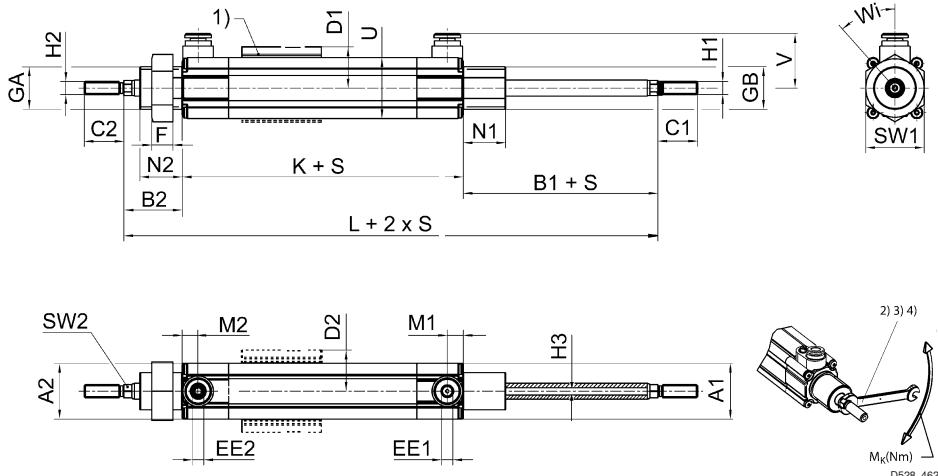
	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	16 M5 Ø 4 M16x1,5 0.15	25 G 1/8 Ø 6 M22x1,5 0.4			
	Stroke 10	R412003950	R412003961			
	25	R412003951	R412003962			
	50	R412003952	R412003963			
	80	R412003954	R412003964			
	100	R412003955	R412003965			
	125	R412003956	R412003966			
	160	R412003957	R412003967			
	200	R412003958	R412003968			
	250	R412003959	R412003969			

Configurable product



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Piston Ø 16 - 25



1) Clamp for sensor - installation at all 4 cylinder sides possible

2) Do not exceed the given max. torque M-K of the piston rod or else the non-rotating function may not work.

3) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.

4) View without hexagon nut on piston rod and cylinder front end cover

S = stroke

Piston Ø	A1/A2	B1	B2	C1 -2/C2 -2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	H3	K	L
16	21	23	22	15	15.5	Ø 4	8	M16x1,5	M5	2	56	101
25	28.5	29	28	21	19.25	Ø 6	10	M22x1,5	G 1/8	4	70	127

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

► Ø 16 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, hollow, non-rotating, external thread

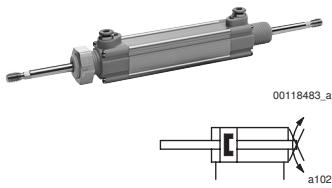
Piston Ø	M1/M2	N1/N2	U	V	SW1	SW2	MK	Wi						
16	6	16	23	20.5	22	5	0.15	±3,2°						
25	8	21	30	24	30	9	0.4	±2,2°						

MK = max. torque at piston rod
Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 16 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, hollow, non-rotating, external thread



Standards

Compressed air connection

ISO 6432

push-in fitting

Working pressure min./max.

1.5 bar / 10 bar

Ambient temperature min./max.

-20 °C / +75 °C

Medium temperature min./max.

-20 °C / +75 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Piston	Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

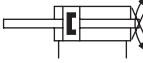
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	16	25		
Retracting piston force	[N]	130	259		
Extending piston force	[N]	130	259		
Cushioning length	[mm]	10	16		
Cushioning energy	[J]	0.6	2.3		
Weight	0 mm stroke [kg]	0.07	0.168		
	+10 mm stroke [kg]	0.0066	0.0123		
Stroke max.	[mm]	250	250		

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 16 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, hollow, non-rotating, external thread

	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	16 M5 Ø 4 M16x1,5 0.15	25 G 1/8 Ø 6 M22x1,5 0.4			
	Stroke 10 25 50 80 100 125 160 200 250	R412004100 R412004101 R412004102 R412004103 R412004104 R412004105 R412004106 R412004107 R412004108	R412004109 R412004110 R412004111 R412004112 R412004113 R412004114 R412004115 R412004116 R412004117			

Configurable product



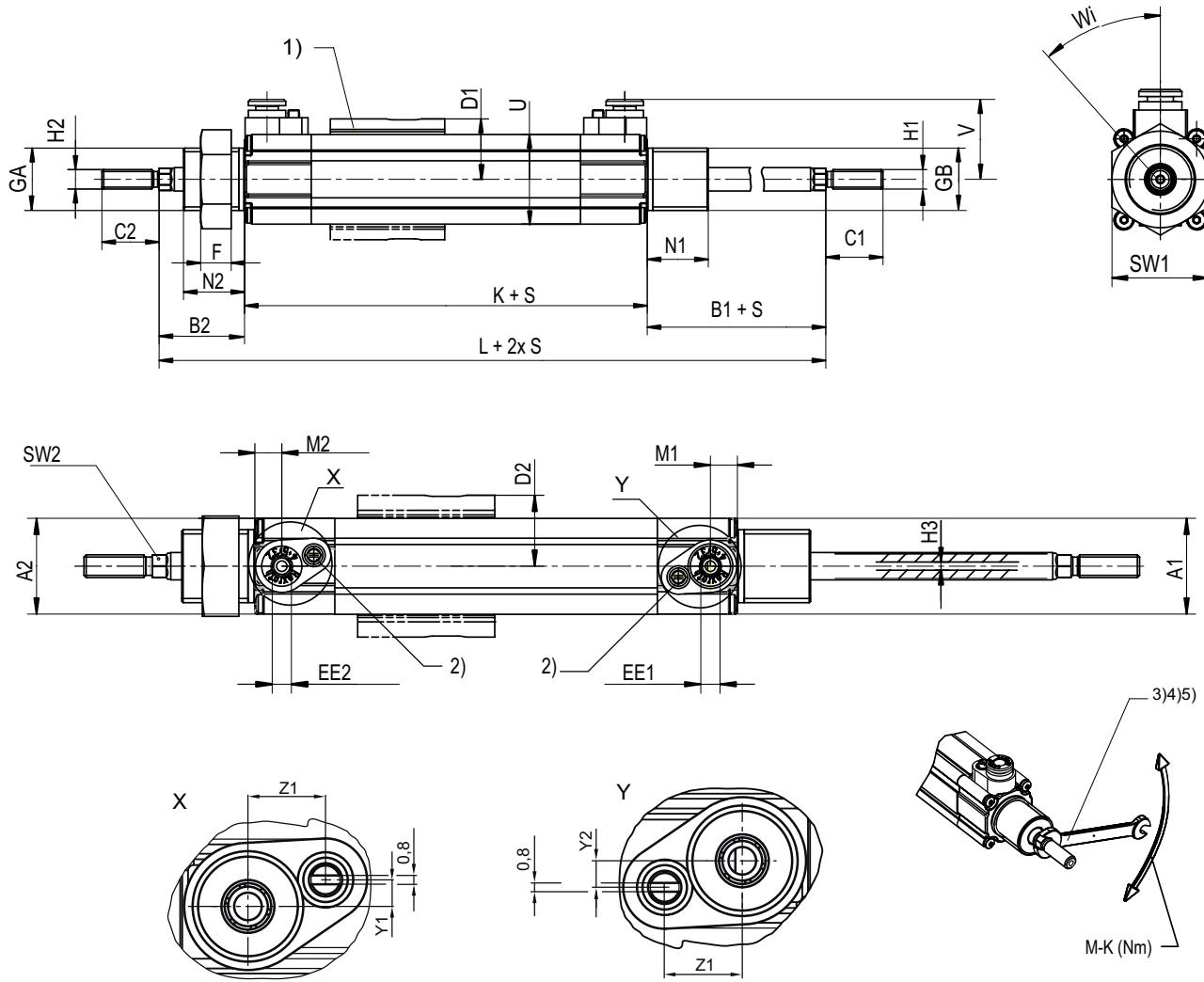
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Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 16 - 25 mm ► Ports: Ø 4 - Ø 6 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, hollow, non-rotating, external thread

Piston Ø 16 - 25



00130707

1) Clamp for sensor - installation at all 4 cylinder sides (Ø 12 mm at 3 sides) possible

2) Slot for cushioning screw 0.8 mm

3) Do not exceed the given max. torque M-K of the piston rod or the non-rotating function may not work.

4) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.

5) View without hexagon nut on piston rod and cylinder front end cover

S = stroke

Piston Ø	A1/A2	B1	B2	C1 -1/C2 -2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	H3	K	L
16	21	23	22	15	15.5	Ø 4	8	M16x1.5	M5	2	56	101
25	28.5	29	28	21	19.25	Ø 6	10	M22x1.5	G 1/8	4	70	127

Piston Ø	M1/M2	N1/N2	U	V	SW1	SW2	Y1/Y2	Z1/Z2	MK	Wi		
16	6	16	23	20.5	22	5	2,4	6,6	0,15	±3,2°		
25	8	21	30	24	30	9	3	9,3	0,40	±2,2°		

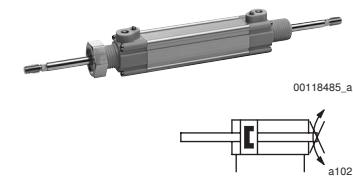
MK = max. torque at piston rod

Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 16 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
► piston rod: through, hollow, non-rotating, external thread



Standards
Compressed air connection

ISO 6432
internal thread

Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +75 °C
Medium temperature min./max.	-20 °C / +75 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Piston	Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

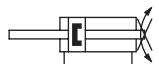
Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	16	25		
Retracting piston force	[N]	130	259		
Extending piston force	[N]	130	259		
Cushioning length	[mm]	10	16		
Cushioning energy	[J]	0.6	2.3		
Weight	0 mm stroke	0.083	0.216		
	+10 mm stroke	0.008	0.018		
Stroke max.	[mm]	250	250		

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

- Ø 16 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, hollow, non-rotating, external thread

	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	16 M5 M5 M16x1,5 0.15	25 G 1/8 G 1/8 M22x1,5 0.4			
	Stroke 10 25 50 80 100 125 160 200 250	R412004118 R412004119 R412004120 R412004121 R412004122 R412004123 R412004124 R412004125 R412004126	R412004127 R412004128 R412004129 R412004130 R412004131 R412004132 R412004133 R412004134 R412004135			

Configurable product



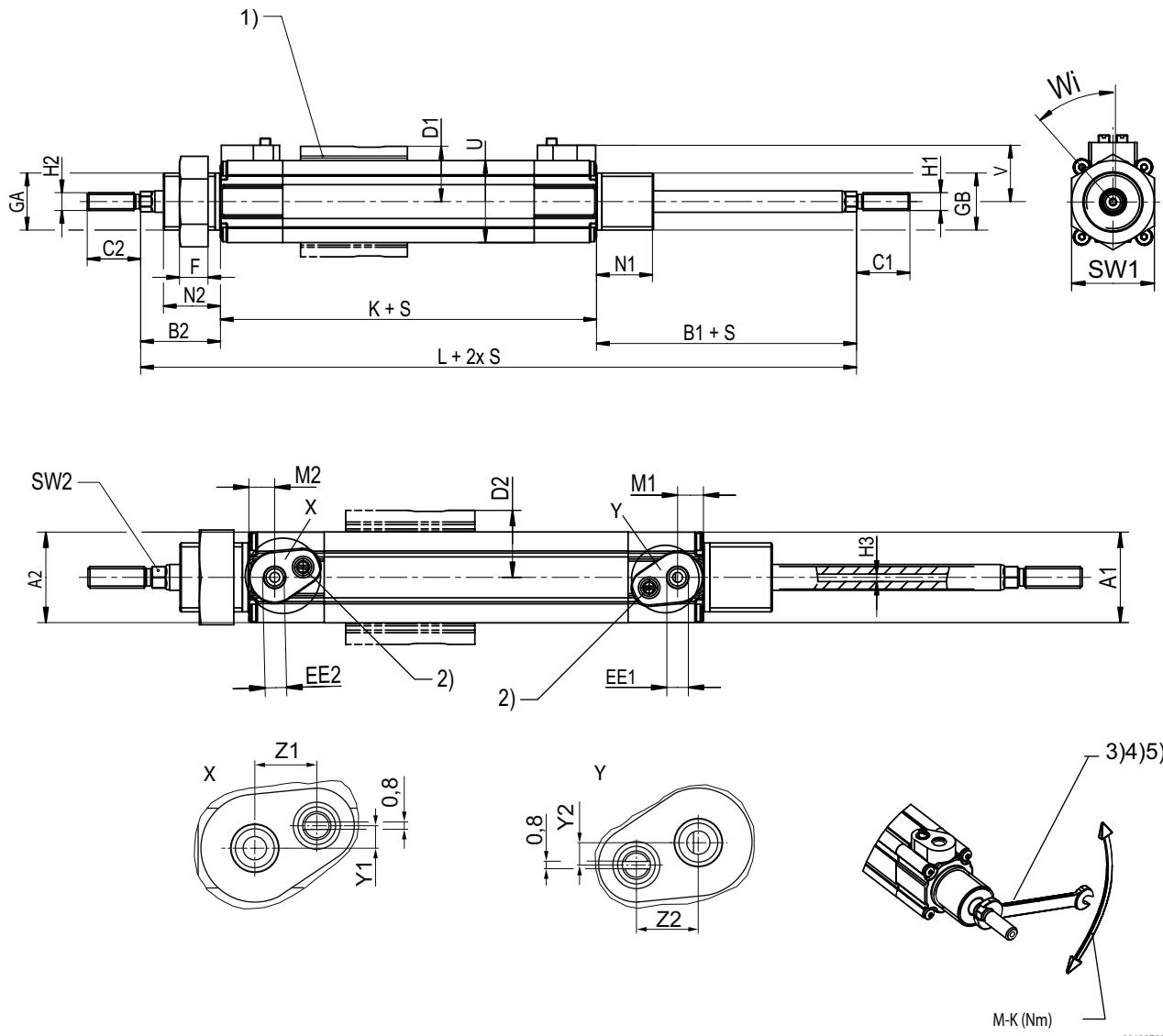
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Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

- Ø 16 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: pneumatic, adjustable
- piston rod: through, hollow, non-rotating, external thread

Piston Ø 16 - 25



1) Clamp for sensor - installation at all 4 cylinder sides (\varnothing 12 mm at 3 sides) possible

2) Slot for cushioning screw 0.8 mm

3) Do not exceed the given max. torque M-K of the piston rod or the non-rotating function may not work.

4) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.

5) View without hexagon nut on piston rod and cylinder front end cover

S = stroke

Piston Ø	A1/A2	B1	B2	C1 –2/C2 –2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	H3	K	L
16	21	23	22	15	15.5	M5	8	M16x1,5	M5	2	56	101
25	28.5	29	28	21	19.25	G 1/8	10	M22x1,5	G 1/8	4	70	127

Piston Ø	M1/M2	N1/N2	U	V	SW1	SW2	Y1/Y2	Z1/Z2	MK	Wi		
16	6	16	23	15.8	22	5	2.4	6.6	0,15	±3,2°		
25	8	21	30	18.8	30	9	3	9.3	0,40	±2,2°		

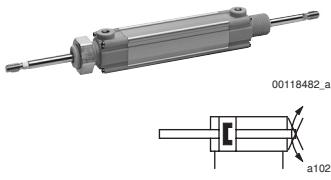
MK = max. torque at piston rod
Wi = angle of rotation of piston rod

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for detailed information
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Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 16 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, hollow, non-rotating, external thread



Standards

Compressed air connection

ISO 6432

internal thread

Working pressure min./max.

1.5 bar / 10 bar

Ambient temperature min./max.

-20 °C / +75 °C

Medium temperature min./max.

-20 °C / +75 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Piston	Aluminum
Front cover	Polyarylamide
End cover	Polyarylamide
Seal	Polyurethane
Nut for cylinder mounting	Aluminum, anodized
Nut for piston rod	Stainless steel
Scraper	Polyester urethane rubber

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary

Piston Ø	[mm]	16	25		
Retracting piston force	[N]	130	259		
Extending piston force	[N]	130	259		
Impact energy	[J]	0.14	0.35		
Weight	0 mm stroke +10 mm stroke	[kg]	0.07 0.0066	0.168 0.0123	
Stroke max.		[mm]	250	250	

Piston rod cylinders → Standard cylinders

Mini cylinder, ISO 6432, series OCT

► Ø 16 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, hollow, non-rotating, external thread

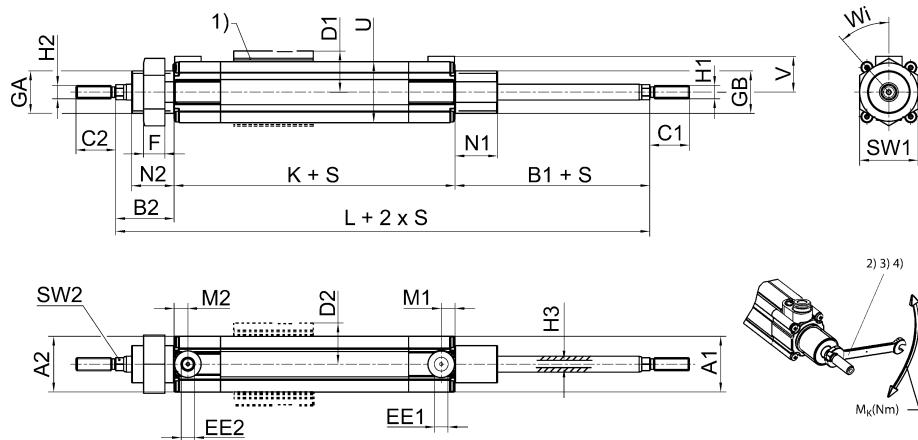
	Piston Ø Piston rod thread Ports Cylinder outer thread Torque for torsion protection, max.	16 M5 M5 M16x1,5 0.15	25 G 1/8 G 1/8 M22x1,5 0.4			
	Stroke 10	R412003970	R412003979			
	25	R412003971	R412003980			
	50	R412003972	R412003981			
	80	R412003973	R412003982			
	100	R412003974	R412003983			
	125	R412003975	R412003984			
	160	R412003976	R412003985			
	200	R412003977	R412003986			
	250	R412003978	R412003987			

Configurable product



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Piston Ø 16 - 25



- 1) Clamp for sensor - installation at all 4 cylinder sides possible
 - 2) Do not exceed the given max. torque M-K of the piston rod or else the non-rotating function may not work.
 - 3) When assembling piston rod mountings, the piston rod must be secured with a tool to prevent twisting.
 - 4) View without hexagon nut on piston rod and cylinder front end cover
- S = stroke

Piston Ø	A1/A2	B1	B2	C1 –2/C2 –2	D1/D2	EE1/EE2	F	GA/GB	H1/H2	H3	K	L
16	21	23	22	15	15.5	M5	8	M16x1,5	M5	2	56	101
25	28.5	29	28	21	19.25	G 1/8	10	M22x1,5	G 1/8	4	70	127

Piston Ø	M1/M2	N1/N2	U	V	SW1	SW2	MK	Wi				
16	6	16	23	13.5	22	5	0.15	±3,2°				

MK = max. torque at piston rod
Wi = angle of rotation of piston rod

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for detailed information
Pneumatics catalog, online PDF, as of 2010-02-02, © Bosch Rexroth AG, subject to change

Piston rod cylinders → Standard cylinders**Mini cylinder, ISO 6432, series OCT**

► Ø 16 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► piston rod: through, hollow, non-rotating, external thread

Piston Ø	M1/M2	N1/N2	U	V	SW1	SW2	MK	Wi						
25	8	21	30	17.5	30	9	0.4	±2,2°						

MK = max. torque at piston rod

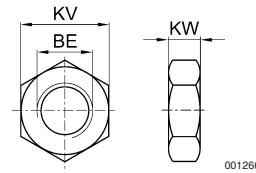
Wi = angle of rotation of piston rod

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****MR3 nut for cylinder mounting**

► OCT



00106400



00126600

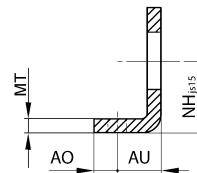
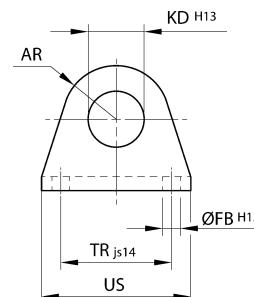
Part No.	Piston Ø	BE	KV	KW	Material	Surface	Weight [kg]			
R499000204	10	M12x1,25	17	7	Aluminum	anodized	0.003			
8915000384	12, 16	M16x1,5	22	8	Aluminum	anodized	0.005			
8915000374	20, 25	M22x1,5	30	10	Aluminum	anodized	0.011			

Foot mounting MS3

► Cylinder mounting in accordance with ISO 6432



00106404



00126389_a

Part No.	Piston Ø	AO	AR	AU	Ø FB H13	Ø KD H13	MT	NH ±0,3 js15	TR js14	US	Material
1821332029	8, 10	5	10	11	4.5	12.1	3	16	25	35	Steel
1821332028	12, 16	6	13	14	5.5	16.1	4	20	32	42	Steel
1821332027	20, 25	8	20	17	6.6	22.1	5	25	40	54	Steel
3322210000	8, 10	5	11	11	4.5	12	3	16	25	35	Stainless steel
3322216000	12, 16	7	13	13	5.5	16.1	3	20	32	42	Stainless steel
3322220000	20, 25	9	20	16.5	6.6	22.1	4	25	40	54	Stainless steel

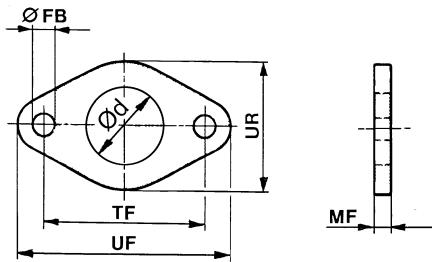
Part No.	Surface										
1821332029	galvanized										
1821332028	galvanized										
1821332027	galvanized										
3322210000	-										
3322216000	-										
3322220000	-										

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****Flange mounting MF8**

► Cylinder mounting in accordance with ISO 6432



00106405

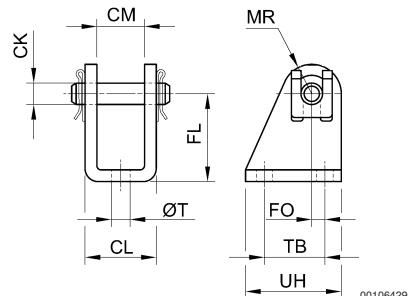


D132_007

Part No.	Piston Ø	Ø d	Ø FB	MF	TF js14	UF	UR	Material		
1821036012	8, 10	12,1	4,5	3	30	40	25	Steel		
1821036011	12, 16	16,1	5,5	4	40	53	30	Steel		
1821036010	20, 25	22,1	6,6	5	50	66	40	Steel		
3322010000	8, 10	12	4,5	3	30	40	22	Stainless steel		
3322016000	12, 16	16	5,5	4	40	53	30	Stainless steel		
3322020000	20, 25	22,1	6,6	5	50	68	40	Stainless steel		

Clevis mounting AB3

00105159



00106429

Scope of delivery: clevis mounting incl. pivot pins

Part No.	Piston Ø	CM	Ø CK	CL	FL	FO	MR	Ø T	TB	UH	Material
1827001447	8, 10	8,1	4	13,1	24	1,5	5	4,5	12,5	20	Steel
1827001446	12, 16	12,1	6	18,1	27	2,0	7	5,5	15	25	Steel
1827001445	20, 25	16,1	8	24,1	30	4,0	10	6,6	20	32	Steel
3323410000	8, 10	8	4	13	24	1,5	5	4,5	12	20	Stainless steel
3323416000	12, 16	12	6	18	27	2,0	7	5,5	17	27	Stainless steel
3323420000	20, 25	16	8	24	30	4,0	10	6,6	22	34	Stainless steel

Part No.	Surface									
1827001447	galvanized									

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories**

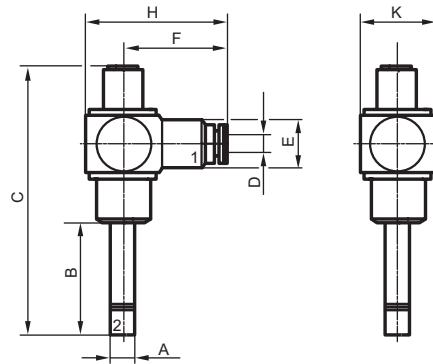
Part No.	Surface											
1827001446	galvanized											
1827001445	galvanized											
3323410000	-											
3323416000	-											
3323420000	-											

Check-choke valves, Series CC02

► Qn = 95 l/min ► direction of throttle: 2 → 1 ► exhaust air throttling ► push-in fitting - pin bushing



00127688



00128981

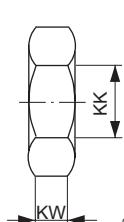
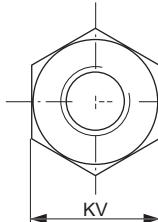
	Port 1	Port 2	Throttle bore	Qn 2 → 1		Weight [kg]	Part No.
				[mm]	[l/min]		
	Ø 4	Ø 4	1.5			0.01	R412007408
	Ø 6	Ø 6	3		95	0.014	R412007409

Nominal flow Qn at 6 bar and Δp = 1 bar

Part No.	A	D	B	C	E	F	H	K				
R412007408	4	4	17	42.5	10	19	24	10				
R412007409	6	6	19.6	45	12	20	25	10				

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****Piston rod nut MR9**

00105168

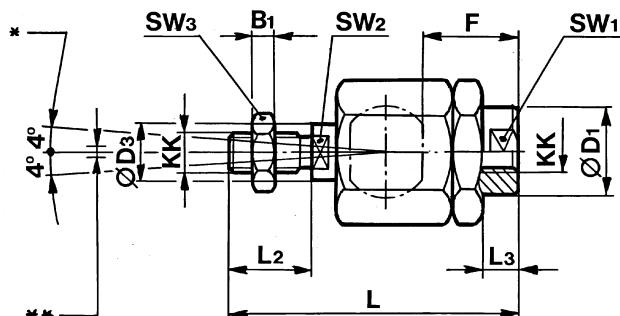
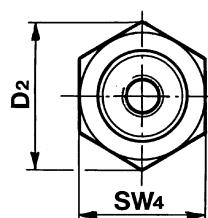


00105192

Part No.	KK	KV	KW	Material	Weight [kg]				
8103190644	M6	10	3.2	Stainless steel	0.003				
8103190164	M8	13	4	Stainless steel	0.006				
8103190464	M10x1,25	16	5	Stainless steel	0.008				
R913000042	M4	7	3.2	Stainless steel	0.003				

Flexible spherical coupling, PM5

00105169



D300_029

* angle equalization

** Radial joint from 0,5 - 2 mm

Part No.	KK	B1	Ø D1	D2	Ø D3	F	L ±2	L2	L3 ±1	SW1	SW2	SW3
1826409008	M4	2.2	12	13.5	4	13	33	8	5.6	12	3.2	7
1826409000	M6	3.2	8.5	15	6	11.5	39	12	3.5	7	5	10
1826409001	M8	4	12.5	20	8	14.5	55	15	5	10	6	13
1826409002	M10x1,25	6	21.5	34	14	23	73	20	7.5	19	12	17

Part No.	SW4	Material	Surface	Weight [kg]					
1826409008	12	Steel	galvanized	0.02					
1826409000	13	Steel	galvanized	0.02					
1826409001	17	Steel	galvanized	0.05					
1826409002	30	Steel	galvanized	0.21					

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****AP2 rod clevis
Steel, galvanized**

00105171

Fig. 1

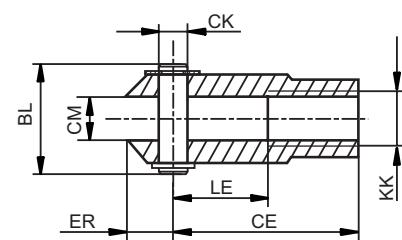
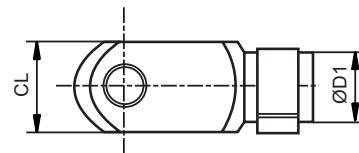
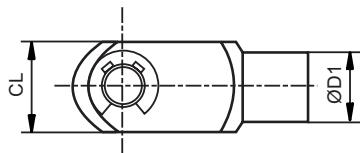
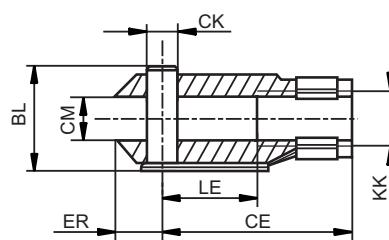


Fig. 2



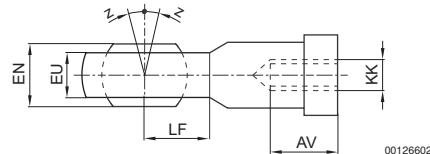
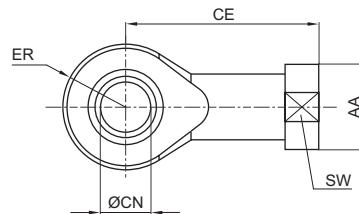
00126410

Part No.	KK	Fig.	BL	CE	ØCK e11	CL	CM	ØD1	ER	LE
1822122028	M4	2	11	16	4	8	4	8	5	8
1822122009	M6	2	16	24	6	12	6	10	7	12
1822122010	M8	2	21,5	32	8	16	8	14	10	16
1822122024	M10x1,25	2	26	40	10	20	10	18	12	20

Part No.	Material	Surface	Weight [kg]							
1822122028	Steel	galvanized	0.01							
1822122009	Steel	galvanized	0.02							
1822122010	Steel	galvanized	0.05							
1822122024	Steel	galvanized	0.1							

Ball eye rod end AP6

00105172



00126602

Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

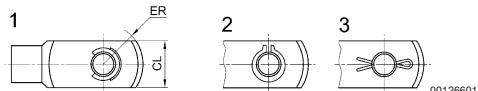
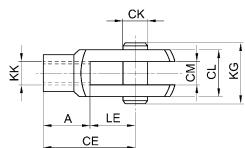
Accessories

Part No.	KK	AA	AV min.	CE	Ø CN H7	EN -0,1	ER	EU max.	LF	SW	Z [°] max.
1822124000	M4	12	8	27	5	8	9	7.5	9	9	4
1822124001	M6	13	9	30	6	9	10	7.5	10	11	4
1822124002	M8	16	12	36	8	12	12	9.5	12	14	4
1822124003	M10x1,25	19	15	43	10	14	14	11.5	14	17	4
8958209002	M4	11	8	27	5	8	9	6	9	9	6.5
8958209012	M6	13	9	30	6	9	10	6.75	10	11	6.5
8958209022	M8	16	12	36	8	12	12	9	12	14	6.5
8958209032	M10x1,25	19	15	43	10	14	14	10.5	14	17	6.5

Part No.	Material	Surface	Weight [kg]							
1822124000	Steel	galvanized	0.02							
1822124001	Steel	galvanized	0.03							
1822124002	Steel	galvanized	0.05							
1822124003	Steel	galvanized	0.07							
8958209002	Stainless steel	-	0.022							
8958209012	Stainless steel	-	0.035							
8958209022	Stainless steel	-	0.057							
8958209032	Stainless steel	-	0.09							

AP2 rod clevis
Stainless steel

P300_006



00126601

Part No.	KK	Fig.	A	CE	CK e8	CL	CM B12	ER	KG	LE
3330510000	M4	1	8	16	5	10	5	6	15	8
3330516000	M6	3	12	24	6	12	6	7	17	12
3330520000	M8	3	16	32	8	16	8	10	22	16
3590502000	M10x1,25	1	20	40	10	20	10	12	26	20

Part No.	Material	Weight [kg]								
3330510000	Stainless steel	0.01								
3330516000	Stainless steel	0.02								
3330520000	Stainless steel	0.05								
3590502000	Stainless steel	0.1								

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****Guide unit, GU1**

► Ø 12 - 25 mm ► Plain bearing ► for standard cylinder ISO 6432



00127781

Ambient temperature min./max.

-20 °C / 80 °C

Materials:

Bearing housings

Aluminum, black anodized

Bearing type

Sintered bronze

Carrying plate

Aluminum, black anodized

Flexible coupling in carrying plate

Stainless steel

Guide rods

Stainless steel, smooth rolled

Technical Remarks

- Guide units for cylinder Ø 12 also fit on cylinder Ø 16

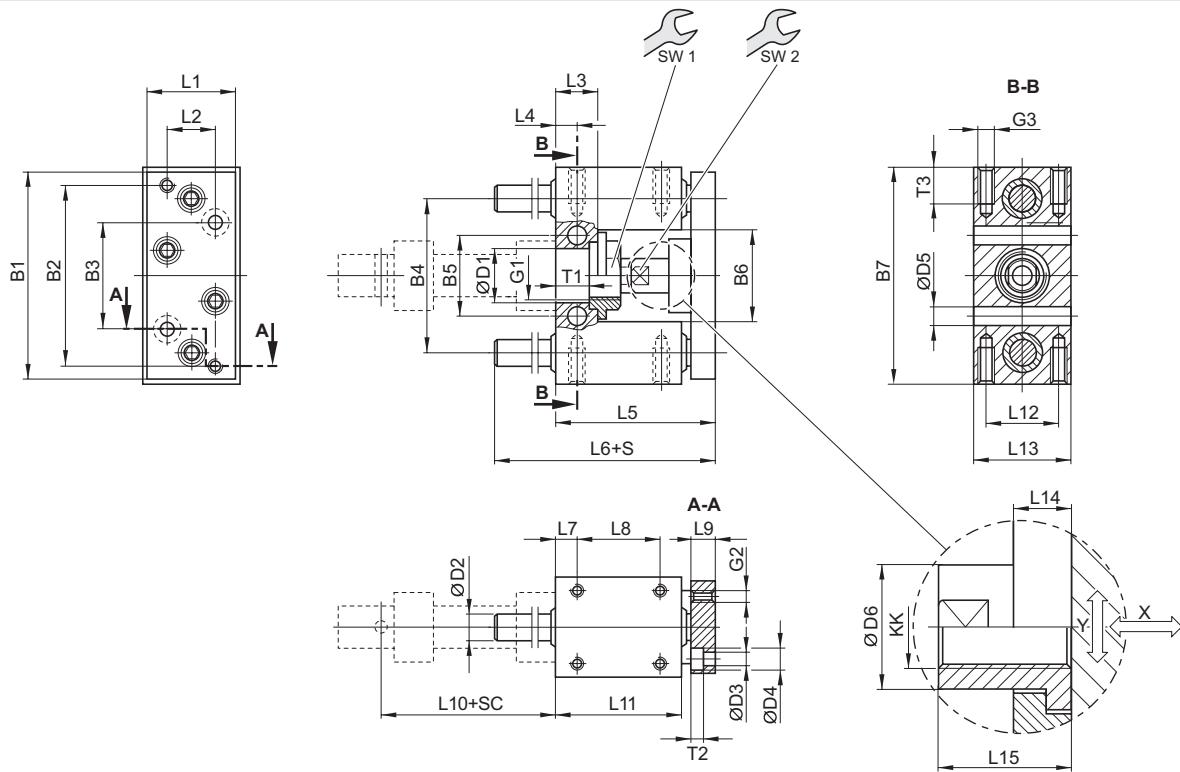
Suitable piston Ø	[mm]	12	20	25		
Weight	0 mm stroke [kg]	0.247	0.66	0.66		
	10 mm stroke [kg]	0.0078	0.0122	0.0122		

	Suitable piston Ø [mm] Min. play (radial) [mm]	12 1	20 2	25 2		
	Stroke 50	0821401095	0821401070	0821401080		
	100	0821401096	0821401071	0821401081		
	160	-	0821401072	0821401082		
	200	0821401097	0821401073	0821401083		
	250	-	0821401074	0821401084		
	400	-	-	0821401085		
	600	-	-	0821401086		
	800	-	0821401077	0821401087		

Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

Accessories

Ø 12 - 16 mm

00127775

S = stroke

SC = cylinder stroke

X = max. play (axial)

Y = min. play (radial)

Piston Ø	B1	B2	B3	B4	B5	B6	B7	D1	D2	D3	D4	D5	D6
12	63	54	32	46	24	27	65	16 H7	8	4.5	8	5.5	10

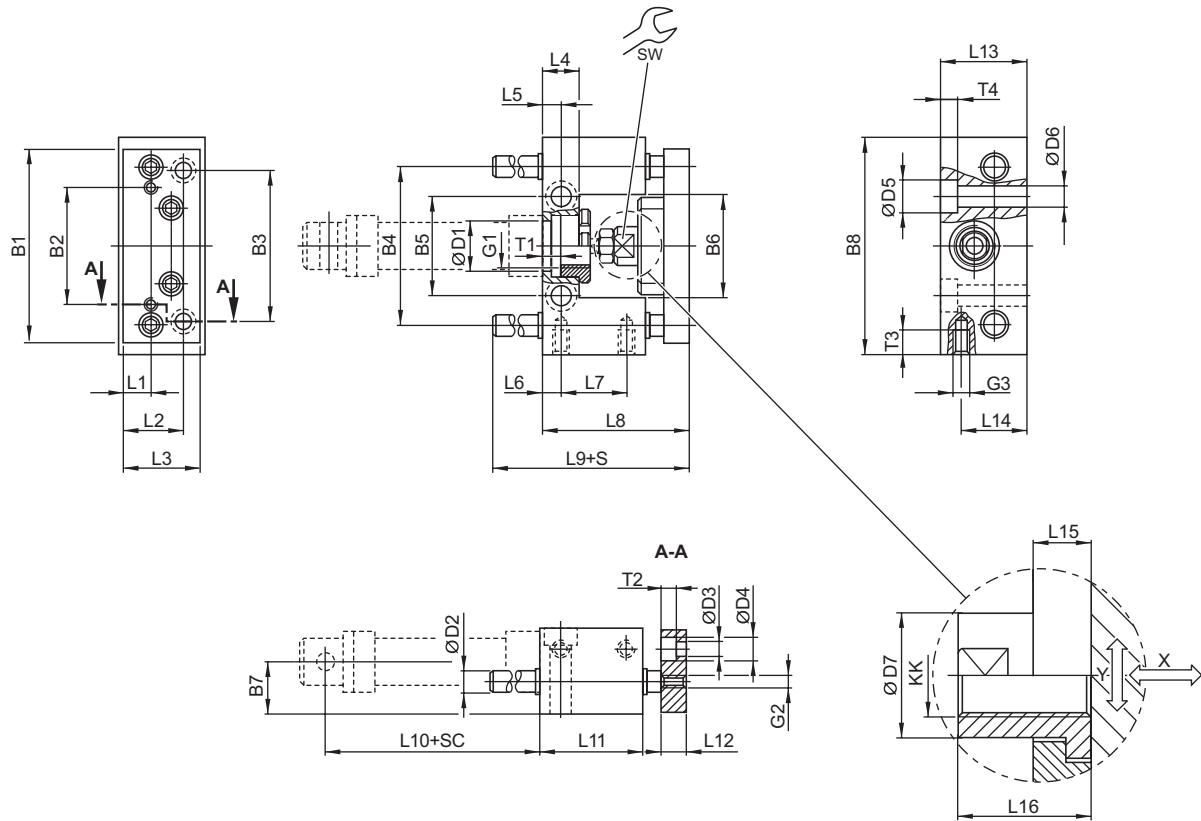
Piston Ø	G1	G2	G3	KK	L1	L2	L3	L4	L5	L6	L7	L8	L9
12	M16x1,5	M4	M4	M6	27	15	13	6.5	53	73	6.5	25	10

Piston Ø	L10	L11	L12	L13	L14	L15	SW1	SW2	T1	T2	T3		
12	52.6	38	22	30	7	18	19	8	10.6	4.6	8		

Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

Accessories

Ø 20 - 25 mm

00127776

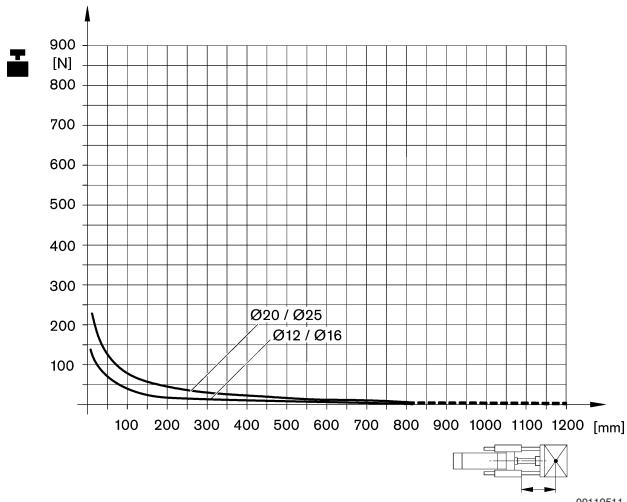
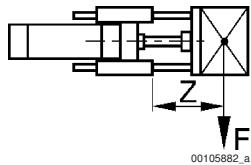
S = stroke

SC = cylinder stroke

X = max. play (axial)

Y = min. play (radial)

Piston Ø	B1	B2	B3	B4	B5	B6	B7	B8	D1	D2	D3	D4	D5
20	90	55	70	74	46.5	48	24	100	22 H7	10	6.6	11	15
25	90	55	70	74	46.5	48	24	100	22 H7	10	6.6	11	15
Piston Ø	D6	D7	G1	G2	G3	KK	L1	L2	L3	L4	L5	L6	
20	9	18	M22x1,5	M6	M8	M8	14	29	38	17	8.5	8	
25	9	18	M22x1,5	M6	M8	M10x1,25	14	29	38	17	8.5	8	
Piston Ø	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	T1	T2	T3
20	32	65	77	71	48	12	40	30	14	22	8	7	14
25	32	71	77	76	48	12	40	30	14	22	8	7	14
Piston Ø	T4	SW											
20	9	15											
25	9	15											

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****Useful load**

F = Useful load, Z = Projection

Guide unit, GH1

► Ø 12 - 25 mm ► Plain bearing ► for standard cylinder ISO 6432



Ambient temperature min./max.

-20 °C / 80 °C

Materials:

Bearing housings	Aluminum, black anodized
Bearing type	Sintered bronze
Carrying plate	Aluminum, black anodized
Flexible coupling in carrying plate	Stainless steel
Guide rods	Stainless steel, smooth rolled

Technical Remarks

- Guide units for cylinder Ø 12 also fit on cylinder Ø 16

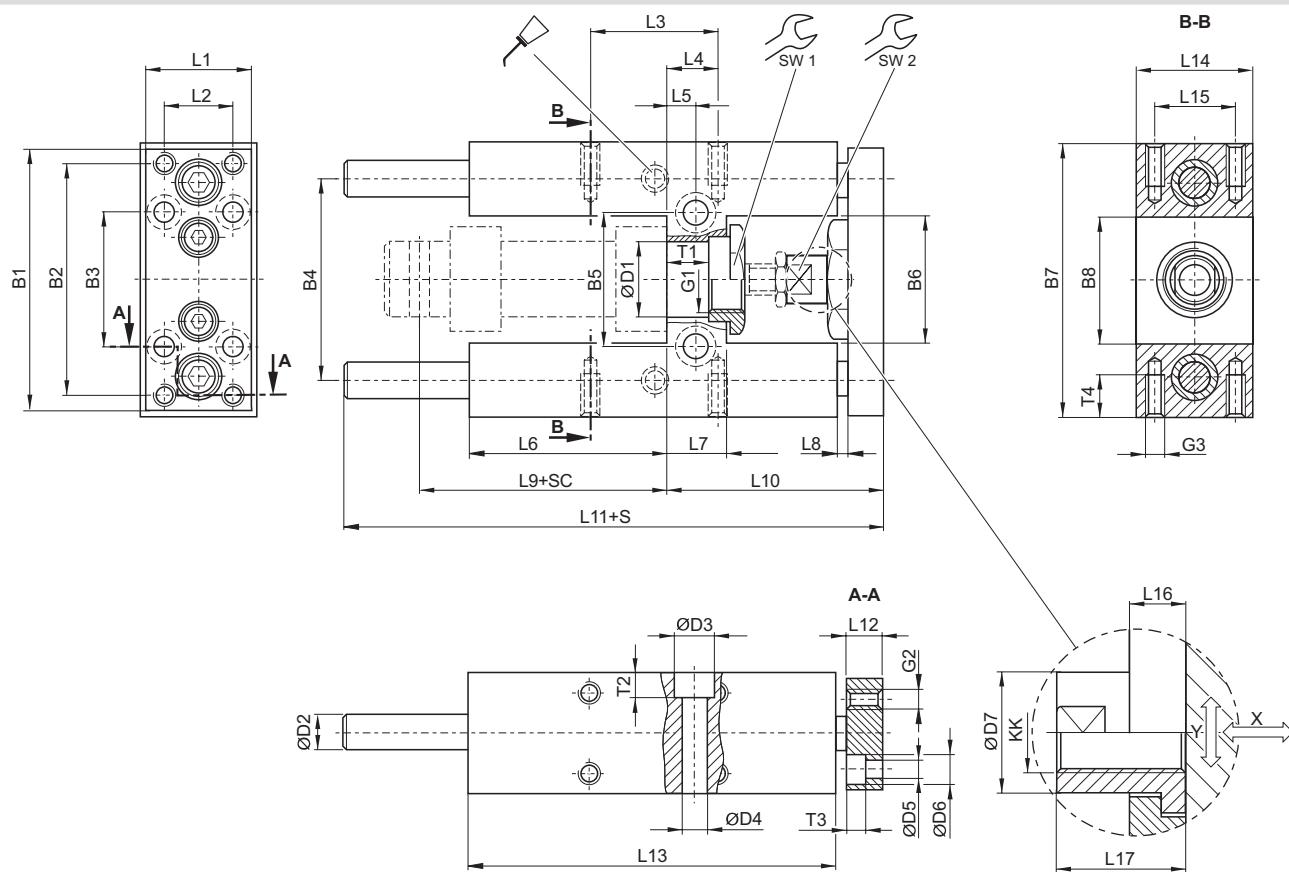
Suitable piston Ø		[mm]	12	20	25		
Weight	0 mm stroke	[kg]	0.395	0.73	0.73		
	10 mm stroke	[kg]	0.0078	0.0122	0.0122		

Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

Accessories

	Suitable piston Ø [mm] Min. play (radial) [mm]	12 1	20 1.5	25 1.5		
	Stroke 50	0821401295	0821401200	0821401210		
	100	0821401296	0821401201	0821401211		
	160	-	0821401202	0821401212		
	200	0821401297	0821401203	0821401213		
	250	-	0821401204	0821401214		
	400	-	0821401205	0821401215		
	600	-	0821401206	0821401216		
	800	-	0821401207	0821401217		

Ø 12 - 25 mm

S = stroke

SC = cylinder stroke

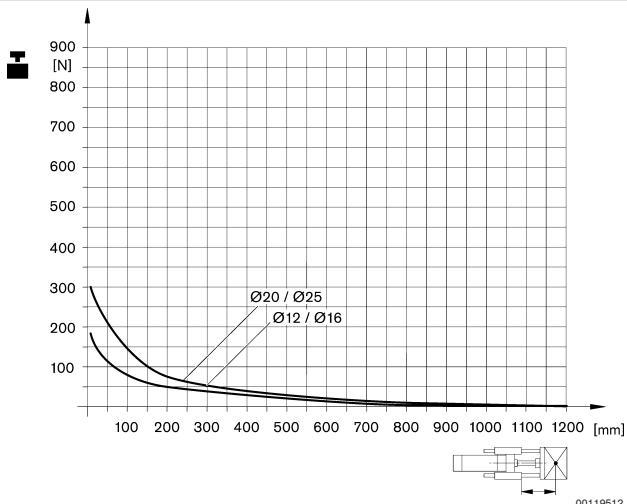
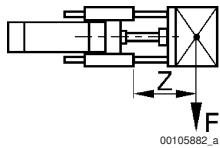
X = max. play (axial)

Y = min. play (radial)

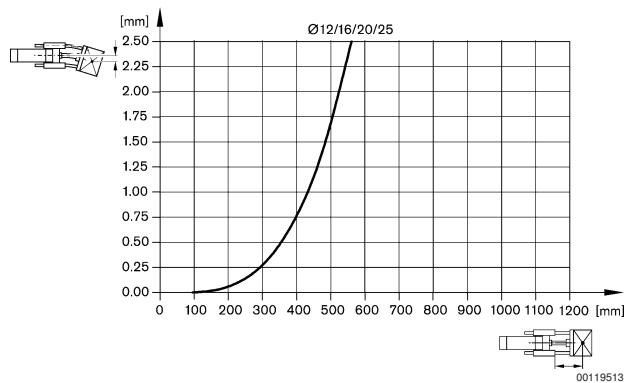
Piston Ø	B1	B2	B3	B4	B5	B6	B7	B8	D1	D2	D3	D4	D5
12	63	54	32	46	24	27	65	27	16 H7	8	-	5.5	4.5
20	76	68	40	58	38	37	79	37	22 H7	10	11	6.6	5.5
25	76	68	40	58	38	37	79	37	22 H7	10	11	6.6	5.5
Piston Ø	D6	D7	G1	G2	G3	KK	L1	L2	L3	L4	L5	L6	
12	8	10	M16x1,5	M4	M4		M6	27	15	32.5	11	6.5	37

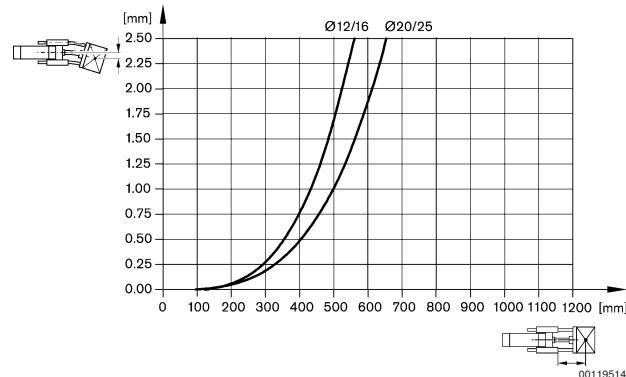
Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories**

Piston Ø	D6	D7	G1	G2	G3	KK	L1	L2	L3	L4	L5	L6	
20	10.5	14.5	M22x1,5	M5	M6	M8	32	20	32.5	15	8.5	58	
25	10.5	14.5	M22x1,5	M5	M6	M10x1,25	32	20	32.5	15	8.5	58	
Piston Ø	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	SW1	SW2
12	13	3	52.6	51	133	10	75	30	22	7	18	19	8
20	17	3	71	65	160.5	12	108	34	23	6	22	27	13
25	17	3	76	65	160.5	12	108	34	23	6	17	27	13
Piston Ø	T1	T2	T3	T4									
12	10.6	—	4.6	8									
20	11	7	5.7	14									
25	11	7	5.7	14									

Useful load

F = Useful load, Z = Projection

Bending due to own load

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****Bending due to 10 N load**

Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

Accessories

Sensor, Series ST6

► 6 mm groove ► with cable ► without wire end ferrule, tin-plated



00112027_2

Ambient temperature min./max.	-25 °C / +70 °C
Protection class according to EN 60529:2000	IP 65IP 67
Switching point precision [mm]	±0,1
Switching capacity	3 W / 3 VA
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Materials:	
Housing	Polyamide
Cable	Polyurethane

	Type of contact	Cable length L [m]	DC operating voltage min./max. [V]	Operational voltage AC min./max. [V]	DC switching current, max. [A]	AC switching current, max. [A]	Part No.
	Reed	3 5	10 / 30	10 / 30	0,13	0,13	0830100629 0830100630
	electronic PNP	3 5	10 / 30	-	0,1	0,1	0830100631 0830100632
	electronic NPN	3 5	10 / 30	-	0,1	-	0830100633 0830100634
	Reed	10	10 / 30	10 / 30	0,13	0,13	R412004575
	electronic PNP	10	10 / 30	-	0,1	0,1	R412004576

Part No.	Voltage drop U at Imax [V]	Protective resistor for reed [Ω]	Max. switching frequency [kHz]	Operating current, not switched [mA]	Operating current, switched [mA]	LED	Note
0830100629 0830100630	I*Rs	15	< 0,3	-	< 10	Yellow	1)
0830100631 0830100632	≤ 2,5	-	< 1,0	< 20	< 30	Yellow	2)
0830100633 0830100634	≤ 2,5	-	< 1,0	< 20	< 30	Yellow	2)
R412004575	I*Rs	15	< 0,3	-	< 10	Yellow	1)
R412004576	≤ 2,5	-	< 1,0	< 20	< 30	Yellow	2)

1) short circuit protected

2) short circuit resistant; short circuit protected

interfaces: without wire end ferrule, tin-plated

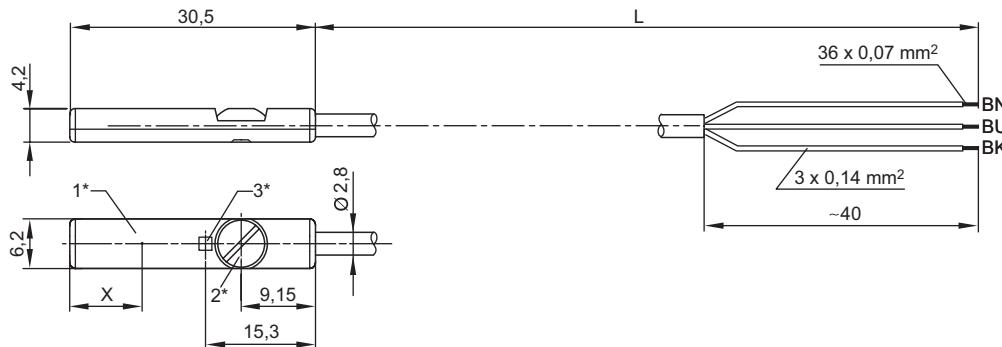
UL (Underwriters Laboratories)

Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

Accessories

Dimensions



00111942_b

1* = switching point 2* = clamping screw 3* = LED

L = cable length

BN = brown, BK = black, BU = blue

X = electronic: 6 mm, Reed: 10 mm

Sensor, Series ST6

► 6 mm groove ► with cable ► Plug, M8, 3-pin, with knurled screw



00112027_5

Certificates

Ambient temperature min./max.
Protection class according to EN 60529:2000

UL (Underwriters Laboratories)

-25°C / +70°C

IP 65/IP 67

Switching point precision [mm]

±0,1

Switching capacity

3 W / 3 VA

LED status display

Yellow

Vibration resistance

10 - 55 Hz, 1 mm

Shock resistance

30 g / 11 ms

Materials:

Housing

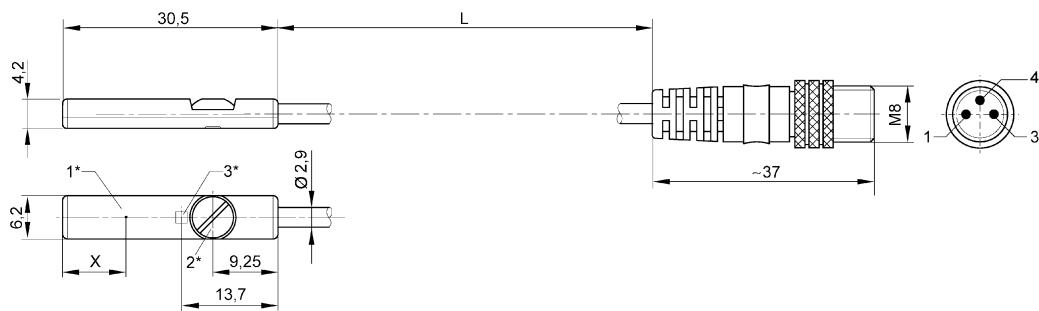
Polyamide

	Type of contact	Cable length L [m]	DC operating voltage min./max. [V]	Operational voltage AC min./max. [V]	DC switching current, max. [A]	AC switching current, max. [A]	Part No.
	Reed	0.3 0.5	10 / 30	10 / 30	0,13	0,13	0830100434 0830100436
	electronic PNP	0.3 0.5 0.3	10 / 30	-	0.1	0.1	0830100435 0830100437 R412004762
	electronic NPN	0.3	10 / 30	-	0.1	-	0830100431

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories**

Part No.	Voltage drop U at I_{max}	Protective resistor for reed	Max. switch- ing frequency	Operating current, not switched	Operating cur- rent, switched	Material Cable	Note
	[V]	[Ω]	[kHz]	[mA]	[mA]		
0830100434							
0830100436	I^*R_s	15	< 0,3	-	< 10	Polyurethane	1)
0830100435							
0830100437	$\leq 2,5$	-	< 1,0	< 20	< 30	Polyurethane	2)
R412004762						Polyvinyl chloride	
0830100431	$\leq 2,5$	-	< 1,0	< 20	< 30	Polyurethane	2)

1) short circuit protected

2) short circuit resistant; short circuit protected
interfaces: Plug; M8; 3-pin; with knurled screw**Dimensions**

00111942_d

1* = switching point 2* = clamping screw 3* = LED

L = cable length

X = electronic: 6 mm, Reed: 10 mm

Pin assignment: 1 = (+), 3 = (-), 4 = (OUT), EN 60947-5-2:1998

Sensor, Series ST6

► 6 mm groove ► with cable ► Plug, M8, 3-pin



00112027_3

Certificates

Ambient temperature min./max.

Protection class according to EN 60529:2000

Switching point precision [mm]

Switching capacity

LED status display

Vibration resistance

Shock resistance

UL (Underwriters Laboratories)

-25°C / +70°C

IP 65/67

±0,1

3 W / 3 VA

Yellow

10 - 55 Hz, 1 mm

30 g / 11 ms

Materials:

Housing

Polyamide

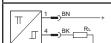
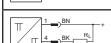
Cable

Polyurethane

Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

Accessories

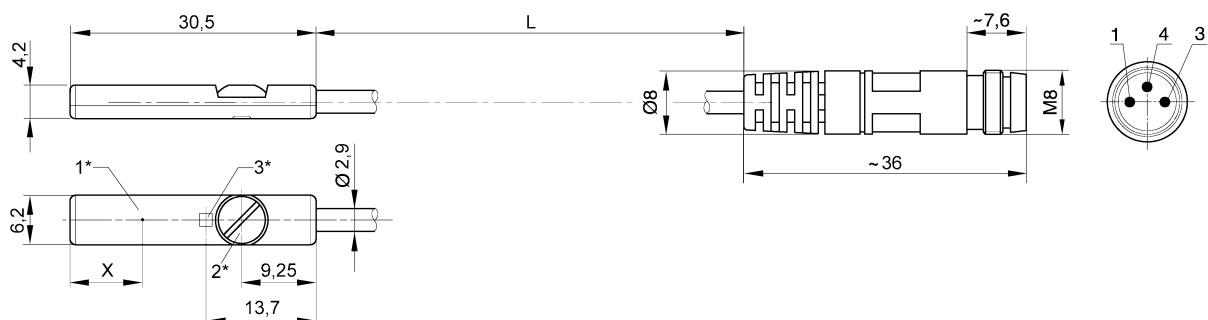
	Type of contact	Cable length L [m]	DC operating voltage min./max. [V]	Operational voltage AC min./max. [V]	DC switching current, max. [A]	AC switching current, max. [A]	Part No.
	Reed	0.3	10 / 30	10 / 30	0,13	0,13	0830100488
	electronic PNP	0.3	10 / 30	-	0.1	0.1	0830100489
	electronic NPN	0.3	10 / 30	-	0.1	-	0830100430

Part No.	Voltage drop U at Imax [V]	Protective resistor for reed [Ω]	Max. switching frequency [kHz]	Operating current, not switched [mA]	Operating current, switched [mA]	Note
0830100488	I*Rs	15	< 0,3	-	< 10	1)
0830100489	≤ 2,5	-	< 1,0	< 20	< 30	2)
0830100430	≤ 2,5	-	< 1,0	< 20	< 30	2)

1) short circuit protected

2) short circuit resistant; short circuit protected interfaces: Plug; M8; 3-pin

Dimensions



00111942_a

1* = switching point 2* = clamping screw 3* = LED

L = cable length

X = electronic: 6 mm, Reed: 10 mm

Pin assignment: 1 = (+), 3 = (-), 4 = (OUT), EN 60947-5-2:1998

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****Sensor, Series ST6**

► 6 mm groove ► with cable ► Plug, M12, 3-pin, with knurled screw



00112027_4

Certificates

Ambient temperature min./max.
Protection class according to EN
60529:2000

UL (Underwriters Laboratories)

-25 °C / +70 °C
IP 65IP 67

Switching point precision [mm]
Switching capacity
LED status display
Vibration resistance
Shock resistance

±0,1
3 W / 3 VA
Yellow
10 - 55 Hz, 1 mm
30 g / 11 ms

Materials:

Housing Polyamide
Cable Polyurethane

	Type of contact	Cable length L	DC operating voltage min./max.	Operational voltage AC min./max.	DC switching current, max.	AC switching current, max.	Part No.
		[m]	[V]	[V]	[A]	[A]	
	Reed	0.3	10 / 30	10 / 30	0,13	0,13	0830100432
	electronic PNP	0.3	10 / 30	-	0.1	-	0830100433
Part No.	Voltage drop U at Imax	Protective resistor for reed	Max. switching frequency	Operating current, not switched	Operating current, switched	Note	
	[V]	[Ω]	[kHz]	[mA]	[mA]		
0830100432	I*Rs	15	< 0,3	-	< 10		1)
0830100433	≤ 2,5	-	< 1,0	< 20	< 30		2)

1) short circuit protected

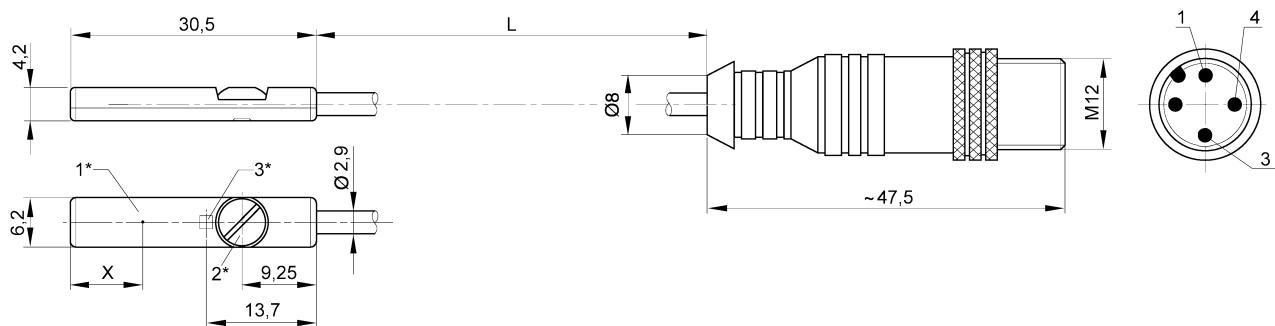
2) short circuit resistant; short circuit protected
interfaces: Plug; M12; 3-pin; with knurled screw

Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

Accessories

Dimensions



00111942_c

1* = switching point 2* = clamping screw 3* = LED

L = cable length

X = PNP: 6 mm, reed: 10 mm

Pin assignment: 1 = (+), 3 = (-), 4 = (OUT), EN 60947-5-2:1998

Sensor, Series ST8

► 8 mm groove ► with cable ► without wire end ferrule, tin-plated



P322_194_2

Ambient temperature min./max.	-25°C / +75°C
Protection class according to EN 60529:2000	IP 65/67
Switching point precision [mm]	±0,1
Vibration resistance	10 - 55 Hz, 1,5 mm

Materials:

Housing	Polyamide
Cable	Polyvinyl chloride

	Type of contact	Cable length L [m]	DC operating voltage min./max. [V]	Operational voltage AC min./max. [V]	DC switching current, max. [A]	AC switching current, max. [A]	Part No.		
	Reed	2,5	10 / 30	-- / 240	0,1	0,13	2750132310		
		10		12 / 240			2750152310		
	electronic PNP	2,5	10 / 30	-	0,15	-	2750131110		
		10					2750151110		
Part No.	Voltage drop U at Imax			Shock resistance max.		Note			
	[V]								
2750132310	$\leq 3,0$			-		2)			
2750152310	I^*Rs			30 g / 11 ms		1); 2)			

1) switching capacity: 3 W / 3 VA

2) short circuit protected

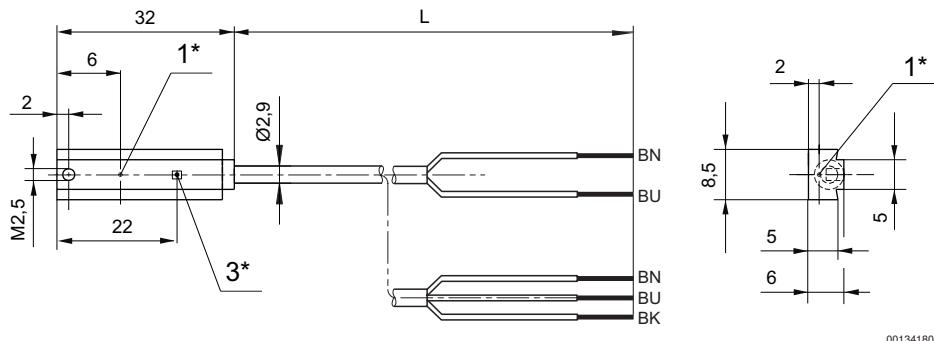
3) short circuit resistant; short circuit protected
interfaces: without wire end ferrule, tin-plated

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories**

Part No.	Voltage drop U at Imax	Shock resistance max.	Note
	[V]		
2750131110			
2750151110	≤ 2,0	30 g	3)

1) switching capacity: 3 W / 3 VA

2) short circuit protected

3) short circuit resistant; short circuit protected
interfaces: without wire end ferrule, tin-plated**Dimensions**

1* = switching point

3* = LED

L = cable length

BN = brown, BK = black, BU = blue

Sensor, Series ST8

► 8 mm groove ► with cable ► Plug, M8, 3-pin

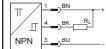


Ambient temperature min./max.	-25 °C / +75 °C
Protection class according to EN 60529:2000	IP 65/67
Switching point precision [mm]	±0,1
Vibration resistance	10 - 55 Hz, 1,5 mm
Shock resistance	30 g

Materials:	
Housing	Polyamide
Cable	Polyurethane

	Type of contact	Cable length L	DC operating voltage min./max.	Operational voltage AC min./max.	DC switching current, max.	AC switching current, max.	Part No.
		[m]	[V]	[V]	[A]	[A]	
	Reed	0.3	10 / 30	3 / 30	0.1	0,15	2750111320
	electronic PNP	0.3	10 / 30	-	0,15	-	275011120 2750123120

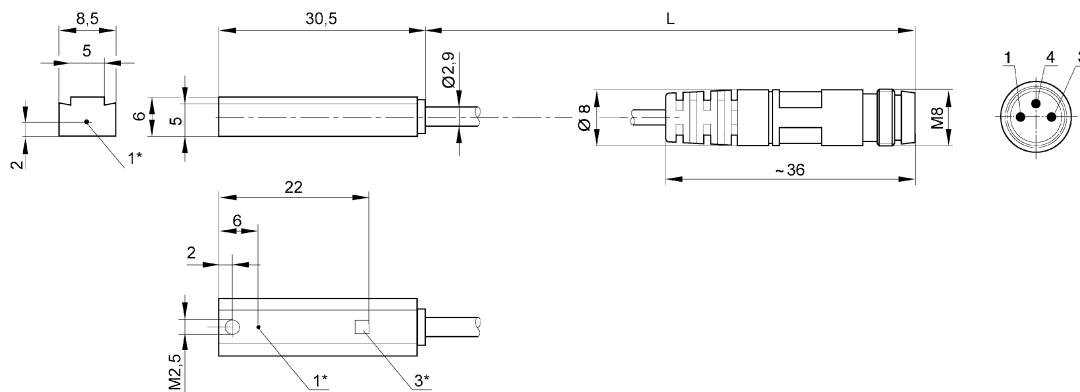
Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories**

	Type of contact	Cable length L [m]	DC operating voltage min./max. [V]	Operational voltage AC min./max. [V]	DC switching current, max. [A]	AC switching current, max. [A]	Part No.
	electronic NPN	0.3	10 / 30	-	0,15	-	2750111220
Part No.	Voltage drop U at I _{max}						Note
2750111320	[V]						I [*] R _S
275011120	≤ 2,0						2); 3)
2750123120	≤ 2,0						4)
2750111220	≤ 2,0						1); 4)
							4)

1) in accordance with EN 50082-2

2) switching capacity: 3 W / 3 VA

3) short circuit protected

4) short circuit resistant; short circuit protected
interfaces: Plug; M8; 3-pin**Dimensions**

d322_178_b

1* = switching point

3* = LED

L = cable length

Pin assignment: 1 = (+), 3 = (-), 4 = (OUT), EN 60947-5-2:1998

Sensor, Series ST8

► 8 mm groove ► with cable ► Plug, M12, 3-pin, with knurled screw



P322_194_12

Ambient temperature min./max.	-25 °C / +75 °C
Protection class according to EN 60529:2000	IP 65/IP 67
Switching point precision [mm]	±0,1
Vibration resistance	10 - 55 Hz, 1,5 mm
Shock resistance	30 g

Materials:

Housing

Polyamide

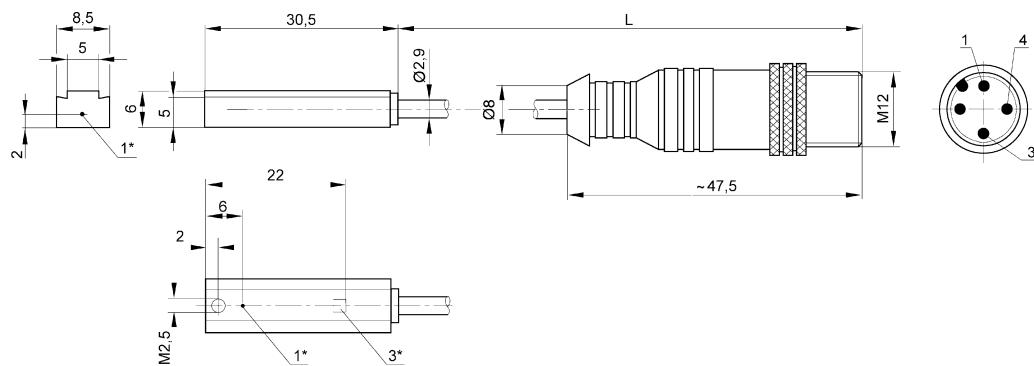
Cable

Polyurethane

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories**

	Type of contact	Cable length L [m]	DC operating voltage min./max. [V]	DC switching current, max. [A]	Voltage drop U at I _{max} [V]	Part No.
	electronic PNP	0.3	10 / 30	0,15	≤ 2,0	2750121120

interfaces: Plug; M12; 3-pin; with knurled screw
short circuit resistant; short circuit protected

Dimensions

d322_178_c

1* = switching point

3* = LED

L = cable length

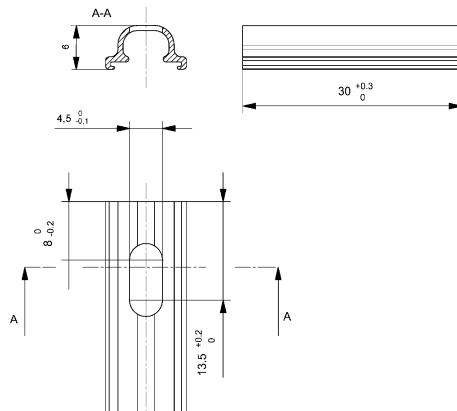
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT), EN 60947-5-2:1998

Sensor mounting

► clamping piece ► for Sensor Series ST6 ► to mount on cylinder series OCT, series PRE



5283003514



D528_351

Part No.	Material	Weight [kg]	Delivery quantity [Piece]						
5283003512	Aluminum	0.005	1						

Piston rod cylinders → Standard cylinders

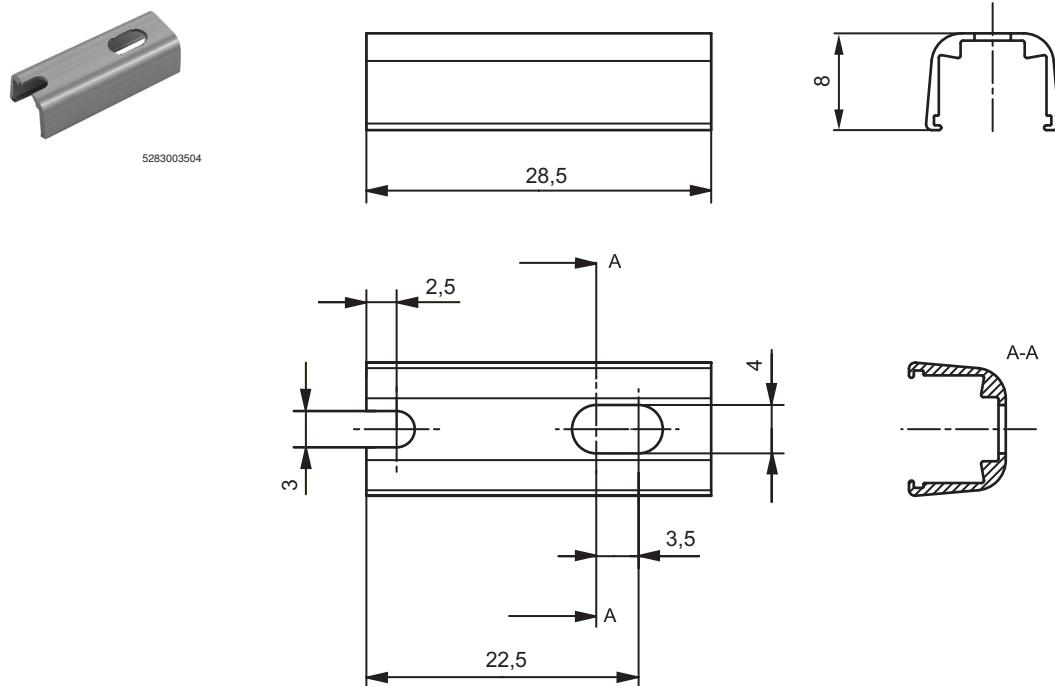
ISO 6432, series OCT

Accessories

Part No.	Material	Weight [kg]	Delivery quantity [Piece]					
5283003532	Aluminum	0.005	10					

Sensor mounting

► clamping piece ► for Sensor Series ST8 ► to mount on cylinder series OCT, series PRE



D528_350

Part No.	Material	Weight [kg]	Delivery quantity [Piece]					
5283003502	Aluminum	0.005	1					

Connecting cable, Series CN1

► Socket, M8, 3-pin ► without wire end ferrule, tin-plated, 3-pin



00107009

Ambient temperature min./max.
Protection class according to EN 60529

-40 °C / +85 °C
IP 65

Materials:
Cable sheath

Polyurethane

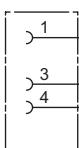
Piston rod cylinders → Standard cylinders

ISO 6432, series OCT

Accessories

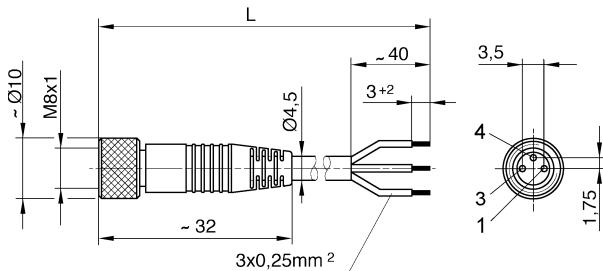
Technical Remarks

- The specified protection class is valid only in assembled and tested state.

	Electrical interface	Number of plug options	Max. current	Number of wires	Cable length	Part No.
	[Port 1]	[Port 2]	[for port 1]	[A]	[m]	
	Socket, M8, 3-pin	without wire end ferrule, tin-plated, 3-pin	1 position	4	3	1834484166 5 10 3 5 10 15
						1834484168 1834484247 1834484167 1834484169 1834484248 1834484249

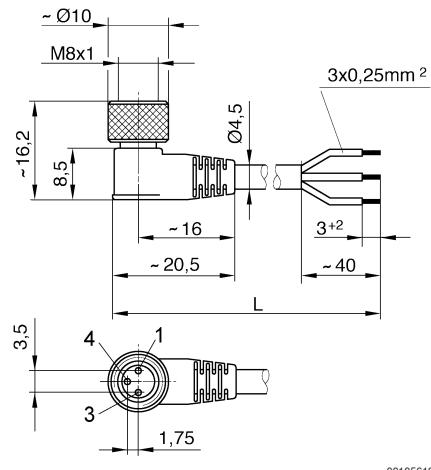
Part No.	Cable exit	Weight [kg]	Note
1834484166	straight 180°	0.091	Fig. 1
1834484168	straight 180°	0.145	Fig. 1
1834484247	straight 180°	0.33	Fig. 1
1834484167	angled 90°	0.092	Fig. 2
1834484169	angled 90°	0.141	Fig. 2
1834484248	angled 90°	0.276	Fig. 2
1834484249	angled 90°	0.431	Fig. 2

Fig. 1



00105612_a

(1) BN=brown (3) BU=blue (4) BK=black
L = length

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****Fig. 2**

(1) BN=brown (3) BU=blue (4) BK=black
L = length

Connecting cable, Series CN1

00107010

Ambient temperature min./max.
Protection class according to EN 60529

-40°C / +85°C
IP 65

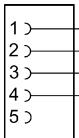
Technical Remarks

- The specified protection class is valid only in assembled and tested state.

Piston rod cylinders → Standard cylinders

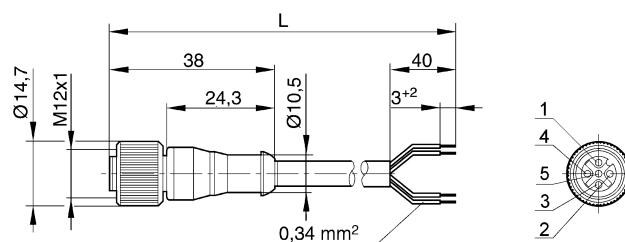
ISO 6432, series OCT

Accessories

	Electrical interface		Number of plug options	Operating voltage		Max. current	Housing color	Part No.
	[Port 1]	[Port 2]		[for port 1]	[V DC]			
	Socket, M12, 5-pin	without wire end ferrule, tin-plated, 5-pin	1 position	300	250	4	Black	1834484256
	Socket, M12, 5-pin	without wire end ferrule, tin-plated, 5-pin					Black	1834484257
	Socket, M12, 5-pin	without wire end ferrule, tin-plated, 5-pin					Black	1834484258
	Socket, M12, 4-pin	-	-	-	-	4	-	1834484177
	Socket, M12, 5-pin	without wire end ferrule, tin-plated, 5-pin					Black	1834484259
	Socket, M12, 5-pin	without wire end ferrule, tin-plated, 5-pin	1 position	300	250	4	Black	1834484260
	Socket, M12, 5-pin	without wire end ferrule, tin-plated, 5-pin					Black	1834484261
	Socket, M12, 4-pin	-	-	-	-	-	-	1834484178

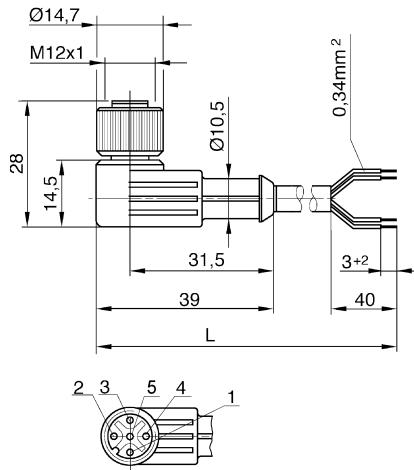
Part No.	Number of wires	Cable length	Cable exit	Cable color	Cable sheath	Weight	Note
		[m]				[kg]	
1834484256	4	3	straight 180°	Black	Polyurethane	0.131	Fig. 1
1834484257	4	5	straight 180°	Black	Polyurethane	0.201	Fig. 1
1834484258	4	10	straight 180°	Black	Polyurethane	0.398	Fig. 1
1834484177	-	-	straight 180°	-	-	0.013	Fig. 1
1834484259	4	3	angled 90°	Black	Polyurethane	0.13	Fig. 2
1834484260	4	5	angled 90°	Black	Polyurethane	0.202	Fig. 2
1834484261	4	10	angled 90°	Black	Polyurethane	0.387	Fig. 2
1834484178	-	-	angled 90°	-	-	0.014	Fig. 2

Fig. 1



00127651

(1) BN=brown (2) WH=white (3) BU=blue (4) BK=black (5) not assigned
 L = length

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****Fig. 2**

00107205_b

(1) BN=brown (2) WH=white (3) BU=blue (4) BK=black (5) not assigned
L = length

M8x1 socket (female)► **Socket, M8x1, 3-pin**

00136663

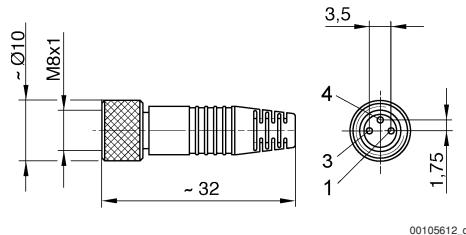
Ambient temperature min./max. -40 °C / +85 °C
Protection class according to EN 60529: IP 65

Materials:
Housing Polyamide

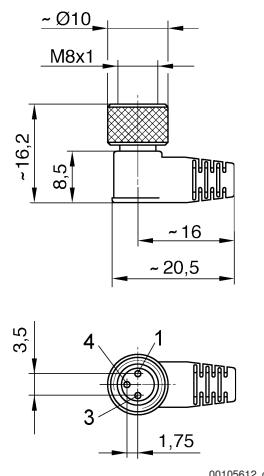
Technical Remarks

- The specified protection class is valid only in assembled and tested state.

	Operating voltage		Max. current	Contact assignment	Cable exit	suitable cable-Ø min./max	Part No.
	DC	AC					
	[V]	[V]	[A]			[mm]	
	75	60	4	3	straight 180°		1834484173
					angled 90°	-- / 4.5	1834484174
Part No.	number of plug options 1			Housing color	Weight		Note
					[kg]		
1834484173	1 position			Black	0.008		Fig. 1
1834484174							Fig. 2

Piston rod cylinders → Standard cylinders**ISO 6432, series OCT****Accessories****Fig. 1**

00105612_d

Fig. 2

00105612_c

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