

AVENTICS 

Piston rod cylinder ▶ Mini cylinder





Series ICM

Brochure

Rexroth
Pneumatics

Piston rod cylinder ▶ Mini cylinder





Series ICM

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Piston rod cylinder ▶ Mini cylinder

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Sensor mounting, Series CB1
▶ for Series ST6, SM6 ▶ to mount on cylinder MNI, ICM

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Piston rod cylinder ▶ Mini cylinder

Mini cylinder, Series ICM

- ▶ Ports: M5 - G 1/8 ▶ Single-acting, retracted without pressure ▶ cushioning: elastic ▶ corrosion-resistant
- ▶ with integrated rear eye ▶ Piston rod: external thread ▶ suitable for use in food processing



P132_042_c

Compressed air connection	Internal thread
Working pressure min./max.	2.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +70 °C
Medium temperature min./max.	-20 °C / +70 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:	
Cylinder tube	Stainless steel
Piston rod	Stainless steel
Front cover	Polyoxymethylene
End cover	Polyoxymethylene
Connection thread	Stainless steel
Seal	Acrylonitrile Butadiene Rubber
Nut for cylinder mounting	Polyamide
Nut for piston rod	Stainless steel
Scraper	Polyurethane
Lubricant	ISO 21469 (NSF-H1)

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 compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Nut MR3 included in supply

Piston Ø	[mm]	8	10	12	16	20
Extracting piston force	[N]	26	40	58	90	136
Spring force min. - max.	[N]	4 - 6	6 - 9	7 - 13	24 - 37	28 - 62
Stroke max.	[mm]	25	25	25	25	25

Piston Ø	[mm]	25				
Extracting piston force	[N]	250				
Spring force min. - max.	[N]	28 - 62				
Stroke max.	[mm]	25				

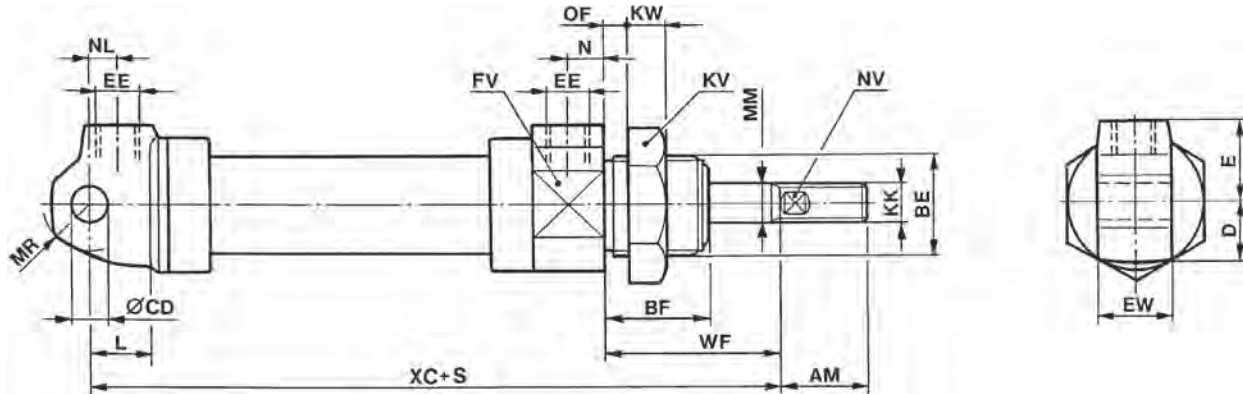
	Piston Ø	8	10	12	16	20
	Piston rod thread	M4	M4	M6	M6	M8
	Ports	M5	M5	M5	M5	G 1/8
	Stroke 25	1326108020	1326110020	1326112020	1326116020	1326120020
	Piston Ø	25				
	Piston rod thread	M10x1,25				
	Ports	G 1/8				
	Stroke 25	1326125020				

Weight [kg]	Piston Ø	8	10	12	16	20
	Stroke 25	0.043	0.046	0.072	0.08	0.14
	Piston Ø	25				
	Stroke 25	0.18				

Mini cylinder, Series ICM

- ▶ Ports: M5 - G 1/8 ▶ Single-acting, retracted without pressure ▶ cushioning: elastic ▶ corrosion-resistant
- ▶ with integrated rear eye ▶ Piston rod: external thread ▶ suitable for use in food processing

Dimensions



D132_005

S = stroke

Piston Ø	AM +0 -2	BE	BF	CD H11	D	E	EE	EW d13	FV	KK	KV	KW
8	12	M12x1,25	14	4	7.5	12	M5	8	14	M4	17	7
10	12	M12x1,25	14	4	8	12	M5	8	16	M4	17	7
12	16	M16x1,5	20	6	10	13.5	M5	12	20	M6	24	7
16	16	M16x1,5	20	6	12	14	M5	12	24	M6	24	7
20	20	M22x1,5	22	8	15	18	G 1/8	16	30	M8	30	8
25	27	M22x1,5	22	8	17	18	G 1/8	16	34	M10x1,25	30	8

Piston Ø	L	MM	MR	N	NL	NV	OF 1)	WF ±1,2	XC ±1				
8	7	4	5	5	12	3	4.5	16	114				
10	7	4	5	5	12	3	4.5	16	114				
12	9	6	7.5	5	7	4	10	22	112				
16	9	6	7.5	5	6	4	10	22	108				
20	12	8	10	8	7	6	10	24	123				
25	12	10	10	8	6.5	8	10	23	127				

1) Max.

Piston rod cylinder ▶ Mini cylinder

Mini cylinder, Series ICM

- ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ cushioning: elastic ▶ corrosion-resistant ▶ with integrated rear eye
- ▶ Piston rod: external thread ▶ suitable for use in food processing



23853

Compressed air connection	Internal thread
Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +70 °C
Medium temperature min./max.	-20 °C / +70 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³
Pressure for determining piston forces	6,3 bar

Materials:	
Cylinder tube	Stainless steel
Piston rod	Stainless steel
Front cover	Polyoxymethylene
End cover	Polyoxymethylene
Connection thread	Stainless steel
Seal	Acrylonitrile Butadiene Rubber
Nut for cylinder mounting	Polyamide
Nut for piston rod	Stainless steel
Scraper	Polyurethane
Lubricant	ISO 21469 (NSF-H1)

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 compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Nut MR3 included in supply

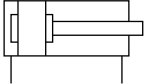
Piston Ø		[mm]	8	10	12	16	20
Retracting piston force		[N]	24	42	53	109	166
Extracting piston force		[N]	32	49	71	127	198
Weight	0 mm stroke	[kg]	0.025	0.035	0.048	0.054	0.08
	+10 mm stroke	[kg]	0.003	0.004	0.005	0.005	0.01
Stroke max.		[mm]	80	80	100	200	400

Piston Ø		[mm]	25	32			
Retracting piston force		[N]	260	435			
Extracting piston force		[N]	309	506			
Weight	0 mm stroke	[kg]	0.1	0.26			
	+10 mm stroke	[kg]	0.014	0.022			
Stroke max.		[mm]	400	400			

Piston rod cylinder ▶ Mini cylinder

Mini cylinder, Series ICM

- ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ cushioning: elastic ▶ corrosion-resistant ▶ with integrated rear eye
- ▶ Piston rod: external thread ▶ suitable for use in food processing

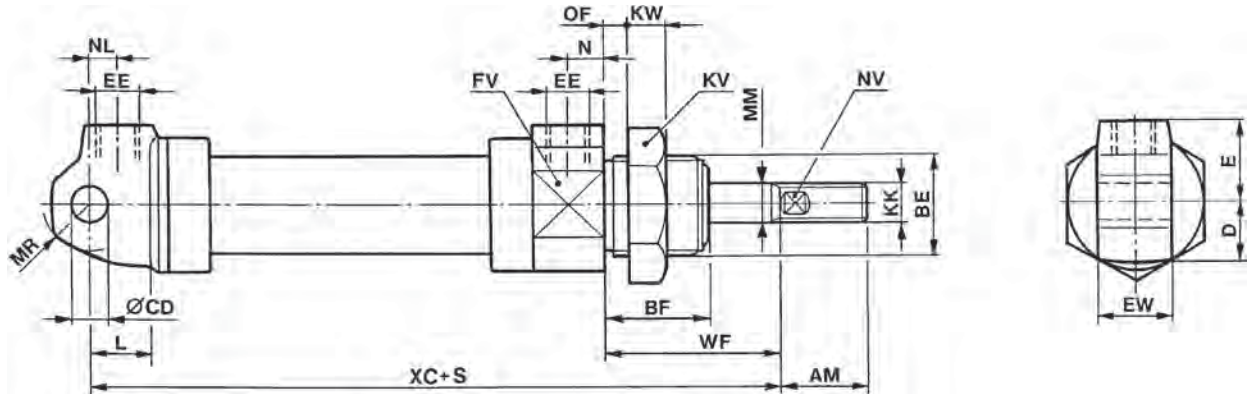
	Piston Ø Piston rod thread Ports	8	10	12	16	20	
		M4 M5	M4 M5	M6 M5	M6 M5	M8 G 1/8	
	Stroke 12	1320801000	1321001000	1321201000	1321601000	1322001000	
	15	-	-	-	R404056204	R402001534	
	20	-	-	-	R402001217	R402001222	
	25	1320802000	1321002000	1321202000	1321602000	1322002000	
	30	-	-	-	R404050535	R404050958	
	35	-	-	-	R402001399	R402001018	
	40	-	R412019436	-	R404051299	R404051300	
	50	1320805000	1321005000	1321205000	1321605000	1322005000	
	60	-	-	R404069622	R404050901	R402001220	
	70	-	-	-	R404052041	-	
	80	1320808000	1321008000	1321208000	1321608000	1322008000	
	100	-	-	1321210000	1321610000	1322010000	
	125	-	-	-	R404052590	1322012000	
	160	-	-	-	-	1322016000	
	200	-	-	-	R404050903	R402001221	
	250	-	-	-	-	-	
	300	-	-	-	-	R404008665	
	320	-	-	-	-	-	
	400	-	-	-	-	-	
		Piston Ø Piston rod thread Ports	25 M10x1,25 G 1/8	32 M10x1,25 G 1/8			
		Stroke 12	1322501000	R404059486			
		15	R404052262	R402001401			
		20	R404062718	R404051563			
		25	1322502000	1323202000			
		30	R404050434	R404052299			
	35	R404009112	R402001229				
	40	R404050929	R404062567				
	50	1322505000	1323205000				
	60	R402001223	-				
	70	R404055008	-				
	80	1322508000	1323208000				
	100	1322510000	1323210000				
	125	1322512000	1323212000				
	160	1322516000	1323216000				
	200	R402001225	1323220000				
	250	R404050418	R402001226				
	300	R404058499	R404009040				
	320	R404008358	R404058773				
	400	R404050620	-				

Piston rod cylinder ▶ Mini cylinder

Mini cylinder, Series ICM

- ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ cushioning: elastic ▶ corrosion-resistant ▶ with integrated rear eye
- ▶ Piston rod: external thread ▶ suitable for use in food processing

Dimensions



D132_005

S = stroke

Piston Ø	AM +0/-2	BE	BF	CD H11	D	E	EE	EW d13	FV	KK	KV	KW	L
8	12	M12x1,25	14	4	7.5	12	M5	8	14	M4	17	7	7
10	12	M12x1,25	14	4	8	12	M5	8	16	M4	17	7	7
12	16	M16x1,5	20	6	10	13.5	M5	12	20	M6	24	7	9
16	16	M16x1,5	20	6	12	14	M5	12	24	M6	24	7	9
20	20	M22x1,5	22	8	15	18	G1/8	16	30	M8	30	8	12
25	27	M22x1,5	22	8	17	18	G1/8	16	34	M10x1,25	30	8	12
32	32	M30x1,5	29	10	22.5	24	G1/8	26	46	M10x1,25	41	11	13

Piston Ø	MM	MR	N	NL	NV	OF 1)	WF ±1,2	XC ±1					
8	4	5	5	12	3	4.5	16	64					
10	4	5	5	12	3	4.5	16	64					
12	6	7.5	5	7	4	10	22	62					
16	6	7.5	5	6	4	10	22	58					
20	8	10	8	7	6	10	24	73					
25	10	10	8	6.5	8	10	23	77					
32	12	15	10	10.5	11	14	38	98					

1) Max.

Mini cylinder, Series ICM

▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic ▶ corrosion-resistant ▶ with integrated rear eye ▶ Piston rod: external thread ▶ suitable for use in food processing



23853

Standards	ISO 6432
Compressed air connection	Internal thread
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-20 °C / +70 °C
Medium temperature min./max.	-20 °C / +70 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³
Pressure for determining piston forces	6,3 bar

Materials:	
Cylinder tube	Stainless steel
Piston rod	Stainless steel
Front cover	Polyoxymethylene
End cover	Polyoxymethylene
Connection thread	Stainless steel
Seal	Acrylonitrile Butadiene Rubber
Nut for cylinder mounting	Polyamide
Nut for piston rod	Stainless steel
Scraper	Polyurethane
Lubricant	ISO 21469 (NSF-H1)

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 compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Nut MR3 included in supply

Piston Ø		[mm]	12	16	20	25	32
Retracting piston force		[N]	53	109	166	260	435
Extracting piston force		[N]	71	127	198	309	506
Weight	0 mm stroke	[kg]	0.048	0.054	0.08	0.1	0.26
	+10 mm stroke	[kg]	0.005	0.005	0.01	0.014	0.022
Stroke max.		[mm]	100	200	400	400	400

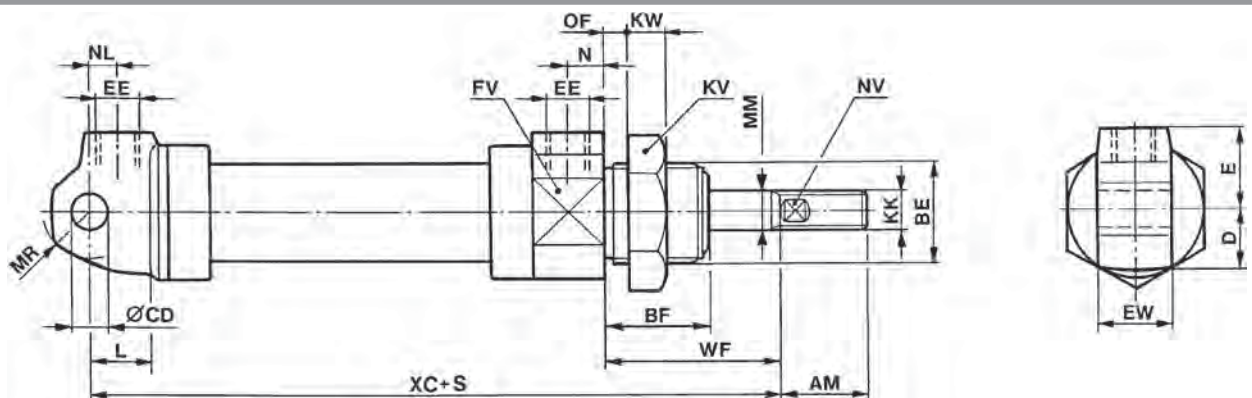
Piston rod cylinder ▶ Mini cylinder

Mini cylinder, Series ICM

▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic ▶ corrosion-resistant ▶ with integrated rear eye ▶ Piston rod: external thread ▶ suitable for use in food processing

	Piston Ø Piston rod thread Ports	12	16	20	25	32
		M6 M5	M6 M5	M8 G 1/8	M10x1,25 G 1/8	M10x1,25 G 1/8
	Stroke 12	1331201000	1331601000	1332001000	1332501000	-
	15	-	R404062574	R402001231	R404050979	-
	20	-	-	-	R404054477	-
	25	1331202000	1331602000	1332002000	1332502000	1333202000
	30	-	-	R402001533	R404052834	R404050547
	35	-	R404053760	R404063867	-	R404050533
	40	-	-	R404051010	R402001019	-
	50	1331205000	1331605000	1332005000	1332505000	1333205000
	60	-	R404052973	R402001230	-	R404051858
	70	-	-	-	R404051389	R404051564
	80	1331208000	1331608000	1332008000	1332508000	1333208000
	100	1331210000	1331610000	1332010000	1332510000	1333210000
	125	-	-	1332012000	1332512000	1333212000
	160	-	R404063245	1332016000	1332516000	1333216000
	200	-	R404065638	R402001232	R402001235	1333220000
	250	-	-	R404051220	R402001236	R404051390
	300	-	-	R404053499	R404050518	-
	320	-	-	R404008517	R404009055	-
	400	-	-	R404001788	-	R404009214

Dimensions



D132_005

S = stroke

Piston Ø	AM +0/-2	BE	BF	CD H11	D	E	EE	EW d13	FV	KK	KV	KW	L
12	16	M16x1,5	20	6	10	13.5	M5	12	20	M6	24	7	9
16	16	M16x1,5	20	6	12	14	M5	12	24	M6	24	7	9
20	20	M22x1,5	22	8	15	18	G 1/8	16	30	M8	30	8	12
25	27	M22x1,5	22	8	17	18	G 1/8	16	34	M10x1,25	30	8	12
32	32	M30x1,5	29	10	22.5	24	G 1/8	26	46	M10x1,25	41	11	13

Piston Ø	MM	MR	N	NL	NV	OF 1)	WF ±1,2	XC ±1
12	6	7.5	5	7	4	10	22	75
16	6	7.5	5	6	4	10	22	82
20	8	10	8	7	6	10	24	95
25	10	10	8	6.5	8	10	23	104

1) Max.

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information
Pneumatics catalog, online PDF, as of 2016-04-29, ©AVENTICS S.à r.l., subject to change

Piston rod cylinder ▶ Mini cylinder
Mini cylinder, Series ICM

▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic ▶ corrosion-resistant ▶ with integrated rear eye ▶ Piston rod: external thread ▶ suitable for use in food processing

Piston Ø	MM	MR	N	NL	NV	OF 1)	WF ±1,2	XC ±1					
32	12	15	10	10.5	11	14	38	128					
1) Max.													

Piston rod cylinder ▶ Mini cylinder

Mini cylinder, Series ICM

- ▶ Ports: M5 - G 1/8 ▶ Single-acting, extended without pressure ▶ cushioning: elastic ▶ corrosion-resistant
- ▶ with integrated rear eye ▶ Piston rod: external thread ▶ suitable for use in food processing



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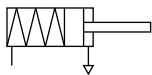
Compressed air connection	Internal thread
Working pressure min./max.	2.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +70 °C
Medium temperature min./max.	-20 °C / +70 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³
Pressure for determining piston forces	6,3 bar


Materials:	
Cylinder tube	Stainless steel
Piston rod	Stainless steel
Front cover	Polyoxymethylene
End cover	Polyoxymethylene
Connection thread	Stainless steel
Seal	Acrylonitrile Butadiene Rubber
Nut for cylinder mounting	Polyamide
Nut for piston rod	Stainless steel
Scraper	Polyurethane
Lubricant	ISO 21469 (NSF-H1)

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 compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Nut MR3 included in supply

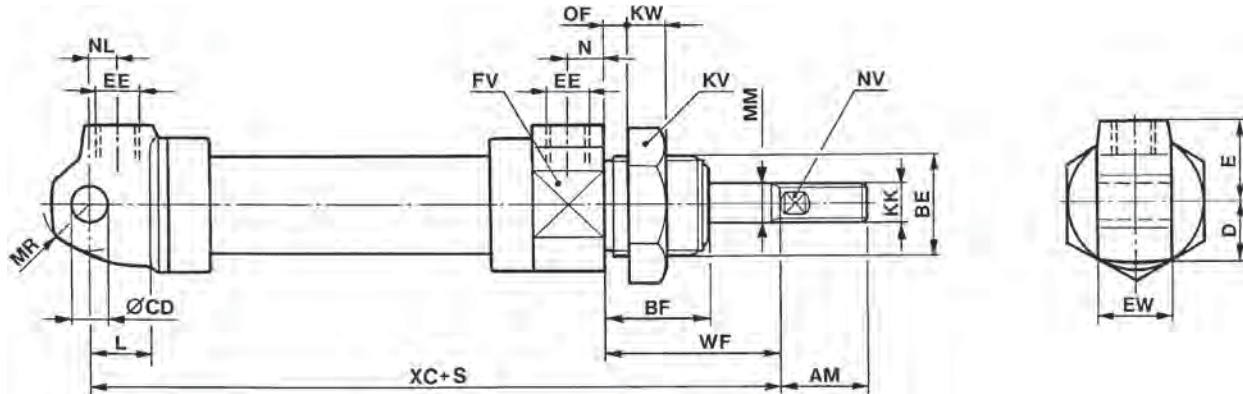
Piston Ø	[mm]	16	20	25		
Retracting piston force	[N]	72	104	198		
Spring force min. - max.	[N]	24 - 37	28 - 62	28 - 62		
Stroke max.	[mm]	25	25	25		

	Piston Ø Piston rod thread Ports	16 M6 M5	20 M8 G 1/8	25 M10x1,25 G 1/8		
	Stroke 25	1326216020	1326220020	1326225020		

Weight [kg]	Piston Ø	16	20	25		
	Stroke 25	0.08	0.14	0.18		

Mini cylinder, Series ICM

- ▶ Ports: M5 - G 1/8 ▶ Single-acting, extended without pressure ▶ cushioning: elastic ▶ corrosion-resistant
- ▶ with integrated rear eye ▶ Piston rod: external thread ▶ suitable for use in food processing

Dimensions


D132_005

S = stroke

Piston Ø	AM	BE	BF	CD H11	D	E	EE	EW d13	FV	KK	KV	KW	L
16	16	M16x1,5	20	6	12	14	M5	12	24	M6	24	7	9
20	20	M22x1,5	22	8	15	18	G1/8	16	30	M8	30	8	12
25	27	M22x1,5	22	8	17	18	G1/8	16	34	M10x1,25	30	8	12

Piston Ø	MM	MR	N	NL	NV	OF 1)	WF ±1,2	XC ±1					
16	6	7.5	5	6	4	10	47	133					
20	8	10	8	7	6	10	49	148					
25	10	10	8	6.5	8	10	53	152					

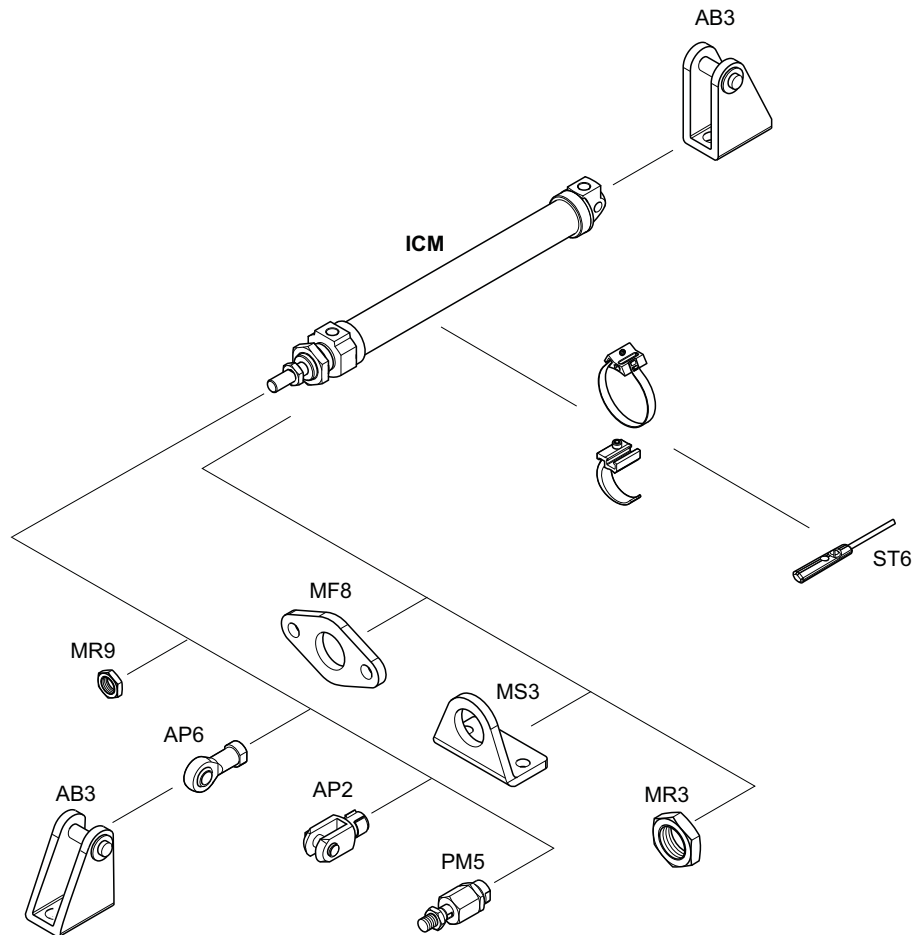
1) Max.

Piston rod cylinder ▶ Mini cylinder

Series ICM
Accessories

Accessories overview

Overview drawing



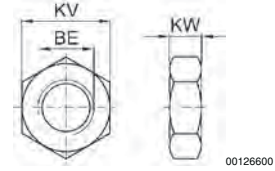
00136555

NOTE:

This overview drawing is only for orientation to see where the various accessory parts can be fastened to the cylinder. The illustration has been simplified for this purpose. It is thus not possible to derive the dimensions from this overview.

Series ICM
Accessories
Nut for cylinder mounting, Series MR3


00106400



00126600

Part No.	Piston Ø	For series	BE	KV	KW	Weight [kg]					
0413215803	8, 10	ICM	M12x1,25	17	6.75	0.05					
0413214505	16	ICM	M16x1,5	24	7	0.004					
0413214602	20, 25	ICM	M22 x1,5	30	8	0.004					
0413214718	32	ICM	M30x1,5	41	11	0.01					

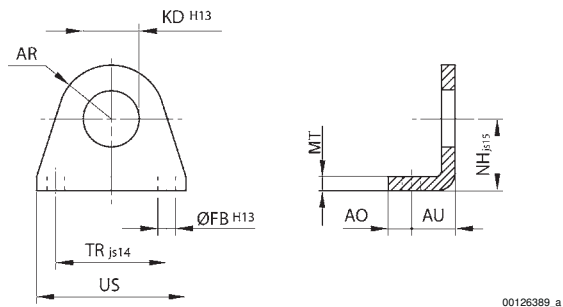
Material: Polyamide, fiber-glass reinforced

Foot mounting, Series 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	
3322210000	8, 10	5	11	11	4.5	12	3	16	25	35	
3322216000	12, 16	7	13	13	5.5	16.1	3	20	32	42	
3322220000	20, 25	9	20	16.5	6.6	22.1	4	25	40	54	
3322232000	32	9	24	20	6.6	30.1	5	32	48	65	

Material: Stainless steel

Piston rod cylinder ▶ Mini cylinder

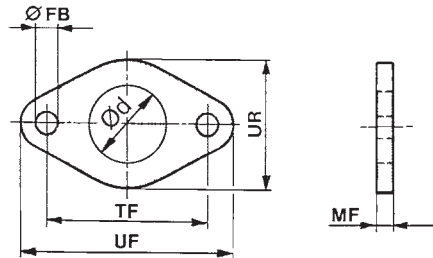
Series ICM Accessories

Flange mounting, Series MF8

▶ Cylinder mounting in accordance with ISO 6432



00106405



D132_007

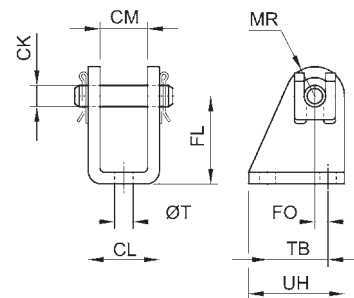
Part No.	Piston Ø	Ø d	Ø FB	MF	TF js14	UF	UR	Note				
3322010000	8, 10	12	4.5	3	30	40	22	1)				
3322016000	12, 16	16	5.5	4	40	53	30	1)				
3322020000	20, 25	22.1	6.6	5	50	68	40	1)				
1821036012	8, 10	12.1	4.5	3	30	40	25	2)				
1821036011	12, 16	16.1	5.5	4	40	53	30	2)				
1821036010	20, 25	22.1	6.6	5	50	66	40	2)				

1) Material: Stainless steel
2) Material: Steel
Surface: galvanized

Clevis mounting, Series 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		
3323410000	8, 10	8	4	13	24	1,5	5	4.5	12	20		
3323416000	12, 16	12	6	18	27	2,0	7	5.5	17	27		
3323420000	20, 25	16	8	24	30	4,0	10	6.6	22	34		
3323432000	32	26	10	36	32	6,0	12	6.6	24	36		

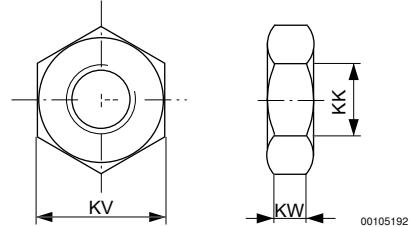
Material: Stainless steel

Series ICM
Accessories

Nut for piston rod, Series MR9



00105168



00105192

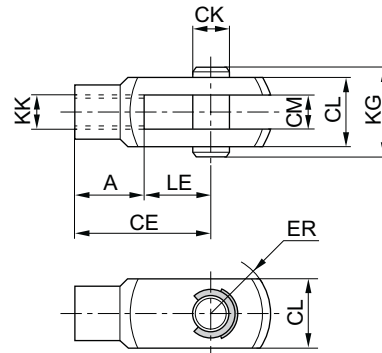
Part No.	KK	KV	KW	Material	Weight					
					[kg]					
3330310000	M4	7	2.2	Stainless steel	0.001					
3330316000	M6	10	3.2	Stainless steel	0.004					
3330320000	M8	13	4	Stainless steel	0.006					
3590302000	M10x1,25	16	5	Stainless steel	0.01					

Rod clevis with lock washer, Series AP2

▶ Stainless steel



P300_006



24270

Part No.	KK	A	CE	CK e8	CL	CM B12	ER	KG	LE	Material
3330510000	M4	8	16	4	10	5	6	15	8	Stainless steel
3590502000	M10x1,25	20	40	10	20	10	12	26	20	Stainless steel

Part No.	Weight									
	[kg]									
3330510000	0.01									
3590502000	0.1									

Piston rod cylinder ▶ Mini cylinder

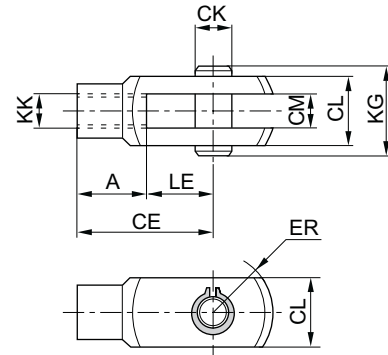
Series ICM
Accessories

Rod clevis with circlip, Series AP2

▶ Stainless steel



P300_006



24271

Part No.	KK	A	CE	CK e8	CL	CM B12	ER	KG	LE	Material
3330516000	M6	12	24	6	12	6	7	17	12	Stainless steel

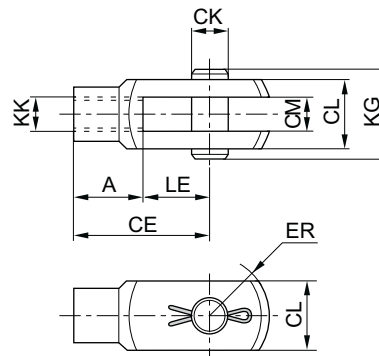
Part No.	Weight									
	[kg]									
3330516000	0.02									

Rod clevis with split pin, Series AP2

▶ Stainless steel



P300_006



24272

The delivered product may vary from that in the illustration.

Part No.	KK	A	CE	CK e8	CL	CM B12	ER	KG	LE	Material
3330520000	M8	16	32	8	16	8	10	22	16	Stainless steel

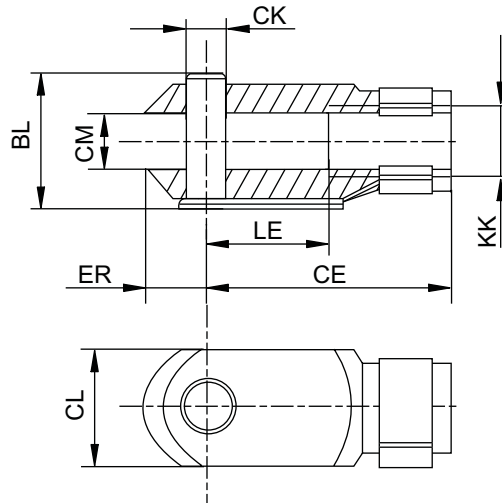
Part No.	Weight									
	[kg]									
3330520000	0.05									

Series ICM
Accessories

Rod clevis, Series AP2
▶ galvanized steel



00105171



00126410_a

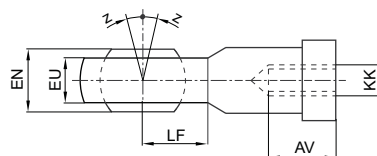
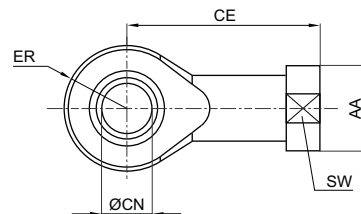
Part No.	KK	BL	CE	ØCK e11	CL	CM	ØD1	ER	LE	Material
1822122028	M4	11	16	4	8	4	8	5	8	Steel
1822122009	M6	16	24	6	12	6	10	7	12	Steel
1822122010	M8	21,5	32	8	16	8	14	10	16	Steel
1822122024	M10x1,25	26	40	10	20	10	18	12	20	Steel

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

Ball eye rod end with flange, Series AP6
▶ Steel



00105172



00126602

Piston rod cylinder ▶ Mini cylinder

Series ICM Accessories

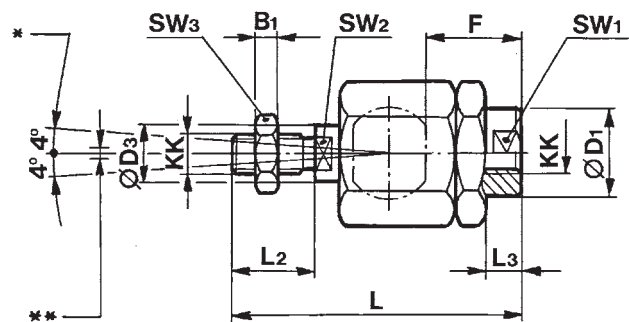
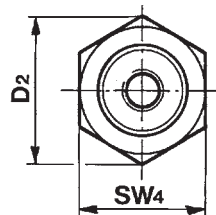
Part No.	KK	AA	AV min.	CE	Ø CN H7	EN -0,1	ER	EU max.	LF	SW	Z [°] max.
8958209002	M4	11	8	27	5	8	9	6	9	9	6.5
8958209012	M6	13	9	30	6	9	10	6.75	10	11	6.5
8958209022	M8	16	12	36	8	12	12	9	12	14	6.5
8958209032	M10x1,25	19	15	43	10	14	14	10.5	14	17	6.5

Part No.	Material	Weight [kg]
8958209002	Stainless steel	0.022
8958209012	Stainless steel	0.035
8958209022	Stainless steel	0.057
8958209032	Stainless steel	0.09

Flexible spherical coupling, Series PM5



00105169



D300_029

- * Angle joint
- ** Radial joint from 0,5 - 2 mm
- Axial play set to 0.05 to 0.2 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

Series ICM
Accessories
Holding unit, Series HU1

▶ Ø20 - 25 mm ▶ hold: spring force, release: compressed air



00106684

Function	Hold with clamping jaws
Release pressure	4 bar / 8 bar
Ambient temperature min./max.	-10 °C / +60 °C
Medium temperature min./max.	-10 °C / +60 °C
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Static holding force	See table below

Materials:	
Housing	Aluminum, black anodized

Technical Remarks

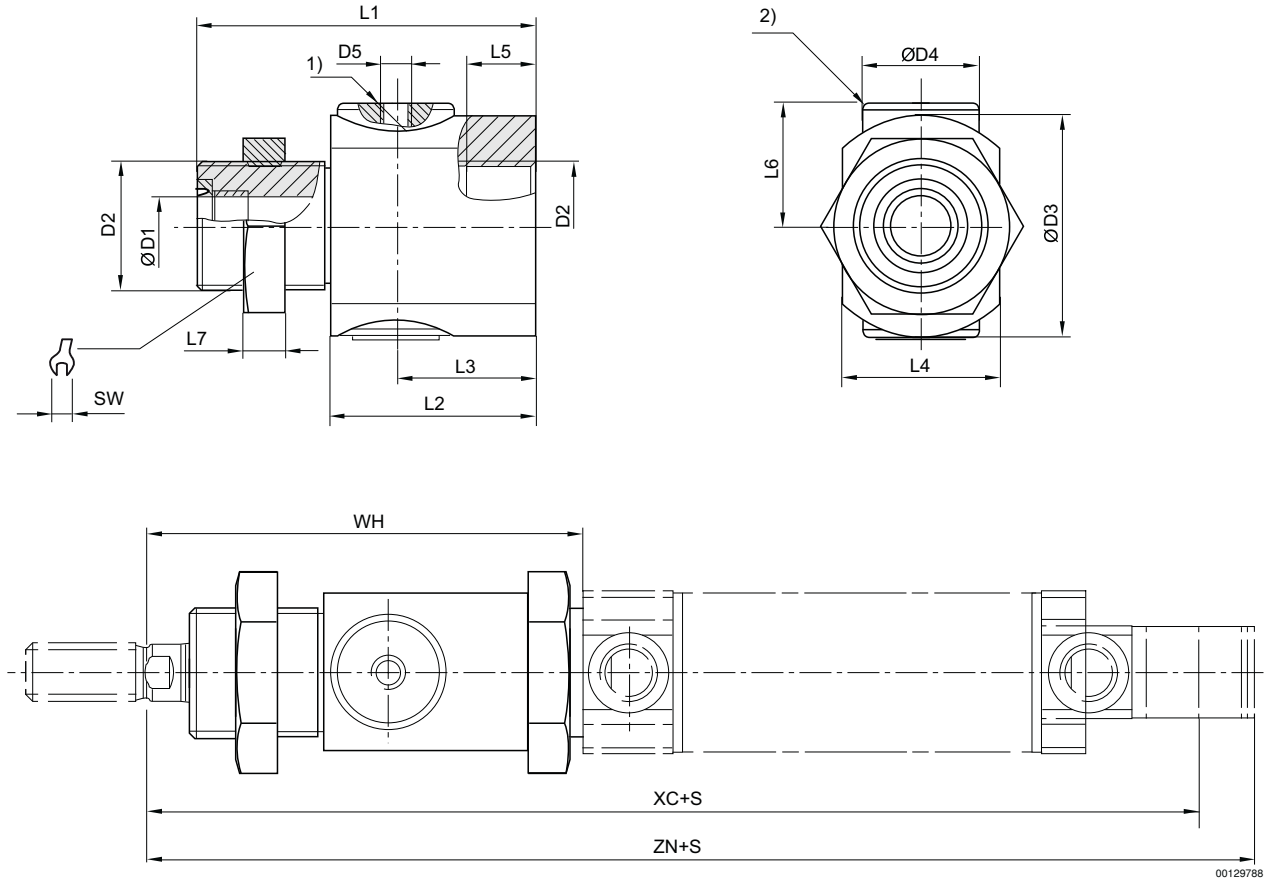
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Warning: The holding unit may not be used for the following applications: - for dynamic holding- in or as safety equipment
- Holding unit may only be unlocked when turned off.
- Make sure that the load direction does not change during a holding interval. A change in the direction of force, as well as external forces such as impacts, strong vibrations, or torsional forces, will briefly release the piston rod and may destroy the HU1 holding unit.
- When clamped, there must be no residual pressure on the holding unit (0 bar).
- Note: The minimum control pressure is \geq the working pressure of the cylinder!

	Piston Ø	suitable piston rod Ø	Piston rod extension	Compressed air connection	Static holding force	Weight	Part No.
	[mm]	[mm]	[mm]		[N]	[kg]	
	20	8	54		300		0821401163
	25	10	51	M5	400	0.11	0821401164
Holding force at 0 bar							

Piston rod cylinder ▶ Mini cylinder

Series ICM
Accessories

Dimensions



- 1) air connection
- 2) Holding cartridge
- S = stroke

Piston Ø	ØD1	D2	ØD3	ØD4	D5	L1	L2	L3	L4	L5	L6	L7	SW
20	8	M22x1,5	38	20	M5	58	35	24	27	12	21	7	30
25	10	M22x1,5	38	20	M5	58	35	24	27	12	21	7	30

Piston Ø	WH	XC	ZN
20	78	149	163.5
25	79	155	170.5

Series ICM

Accessories

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ open cable ends, 2-pin, open cable ends, 3-pin







24712

Certificates	CE declaration of conformity cULus
Ambient temperature min./max.	-30°C / +80°C
Protection class	IP65, IP67, IP69K
Switching point precision [mm]	±0,1
Switching logic	NO (make contact)
Switching capacity	Reed, 2-pin: max. 10 W Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Technical Remarks

- No cULus certification for 230 V variant.

	Type of contact	Cable length	DC operating voltage min./max. [V]	Operational voltage AC min./max. [V]	Voltage drop U at I _{max}	DC switching current, max.	Part No.
		[m]		[V AC]		[A]	
	Reed	3	10 / 230	10 / 230	I*Rs	0.13	R412022866
	Reed	3	10 / 30	10 / 30	I*Rs	0.3	R412022869
		5					R412022870
		10					R412022871
	electronic PNP	3	10 / 30	-	≤ 2,5 V	0.13	R412022853
		5					R412022855
		10					R412022857
	electronic NPN	3	10 / 30	-	≤ 2,5 V	0.13	R412022849
		5					R412022850

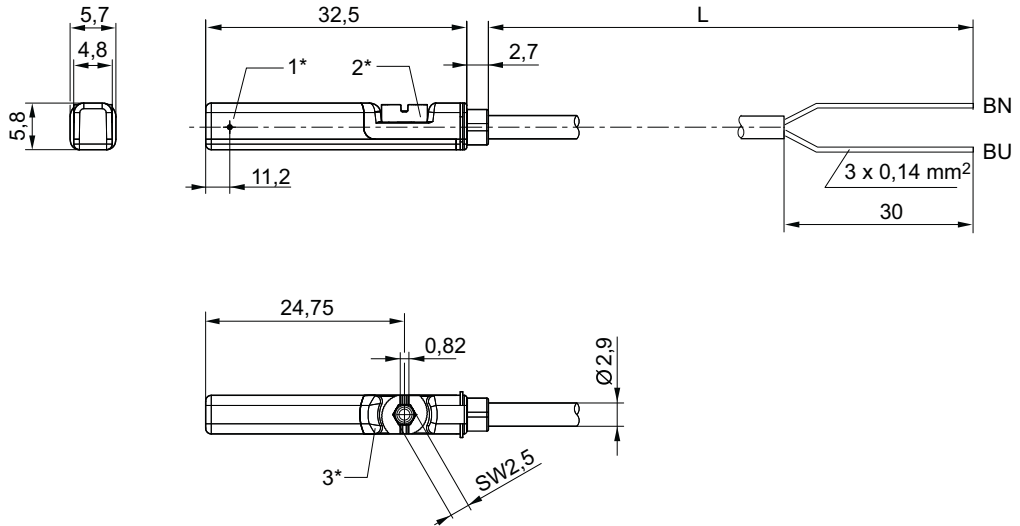
Part No.	AC switching current, max.	Max. switching frequency	Operating current, not switched	Operating current, switched	Fig.	Note
	[A]					
R412022866	0.13	< 0,4	-	-	Fig. 1	1); 3)
R412022869	0.5	< 0,4	-	-	Fig. 2	2); 3)
R412022870						
R412022871						
R412022853	-	< 1,0	< 8 mA	< 30 mA	Fig. 2	2); 4)
R412022855						
R412022857						
R412022849	-	< 1,0	< 8 mA	< 30 mA	Fig. 2	2); 4)
R412022850						

- 1) interfaces: open cable ends; 2-pin
- 2) interfaces: open cable ends; 3-pin
- 3) Protected against polarity reversal
- 4) short circuit resistant / Protected against polarity reversal

Piston rod cylinder ▶ Mini cylinder

Series ICM
Accessories

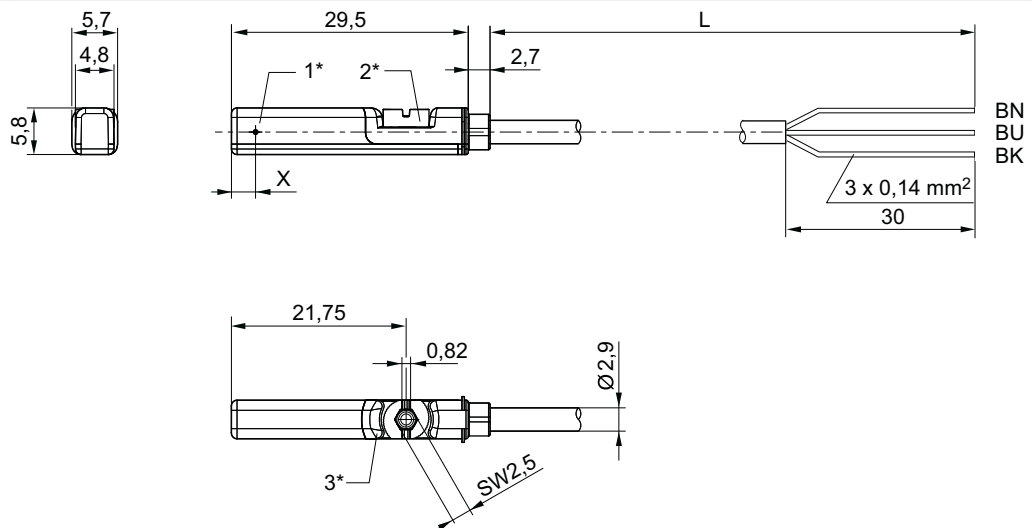
Fig. 1



24619

1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN=brown, BU=blue

Fig. 2



24620

1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN = brown, BK = black, BU = blue
X = electronic: 11,6 mm, Reed: 8,3 mm

Series ICM

Accessories

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ Plug, M8, 3-pin, with knurled screw



24713

Certificates

Ambient temperature min./max.
Protection class
Switching point precision [mm]
DC operating voltage min./max.
Switching logic
Switching capacity
LED status display
Vibration resistance
Shock resistance




CE declaration of conformity
cULus

-30 °C / +80 °C
IP65, IP67
±0,1
10 - 30
NO (make contact)
Reed, 3-pin: max. 6 W
Yellow
10 - 55 Hz, 1 mm
30 g / 11 ms

Materials:

Housing
Locking screw

Polyamide
Stainless steel

	Type of contact	Cable sheath	Cable length	Operational voltage AC min./max. [V]	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Part No.
			[m]	[V AC]		[A]	[A]	
	Reed	Polyurethane	0.3	10 / 30	I [*] Rs	0.3	0.5	R412022873
		Polyvinyl chloride	0.3					R412022875
		Polyurethane	0.5					R412022874
	electronic PNP	Polyurethane	0.3	-	≤ 2,5 V	0.13	-	R412022859
		Polyvinyl chloride	0.3					R412022862
		Polyurethane	0.5					R412022861
	electronic NPN	Polyurethane	0.3	-	≤ 2,5 V	0.13	-	R412022852

Part No.	Max. switching frequency	Operating current, not switched	Operating current, switched	Note
R412022873 R412022875 R412022874	< 0,4	-	-	1)
R412022859 R412022862 R412022861	< 1,0	< 8 mA	< 30 mA	2)
R412022852	< 1,0	< 8 mA	< 30 mA	2)

1) Protected against polarity reversal

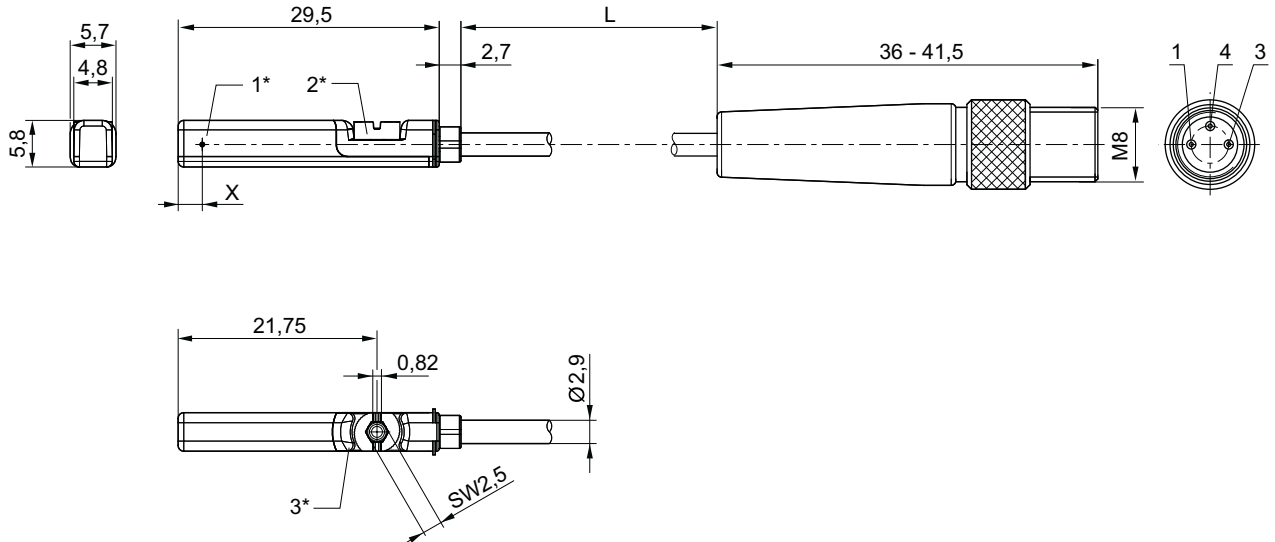
2) short circuit resistant / Protected against polarity reversal

interfaces: Plug; M8; 3-pin; with knurled screw

Piston rod cylinder ▶ Mini cylinder

Series ICM
Accessories

Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = electronic: 11,6 mm, Reed: 8,3 mm
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

24622

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ Plug, M8, 3-pin



24742

Certificates

Ambient temperature min./max.
Protection class
Switching point precision [mm]
DC operating voltage min./max.
Switching logic
Switching capacity
LED status display
Vibration resistance
Shock resistance

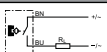
Materials:

Housing
Cable sheath
Locking screw

CE declaration of conformity

cULus
-30°C / +80°C
IP65, IP67
±0,1
10 - 30
NO (make contact)
Reed, 2-pin: max. 10 W
Reed, 3-pin: max. 6 W
Yellow
10 - 55 Hz, 1 mm
30 g / 11 ms

Polyamide
Polyurethane
Stainless steel

	Type of contact	Cable length	Operational voltage AC min./max. [V]	Voltage drop U at I _{max}	DC switching current, max. [A]	AC switching current, max. [A]	Part No.
		[m]	[V AC]				
	Reed	0.3	10 / 30	I*Rs	0.13	0.13	R412022868

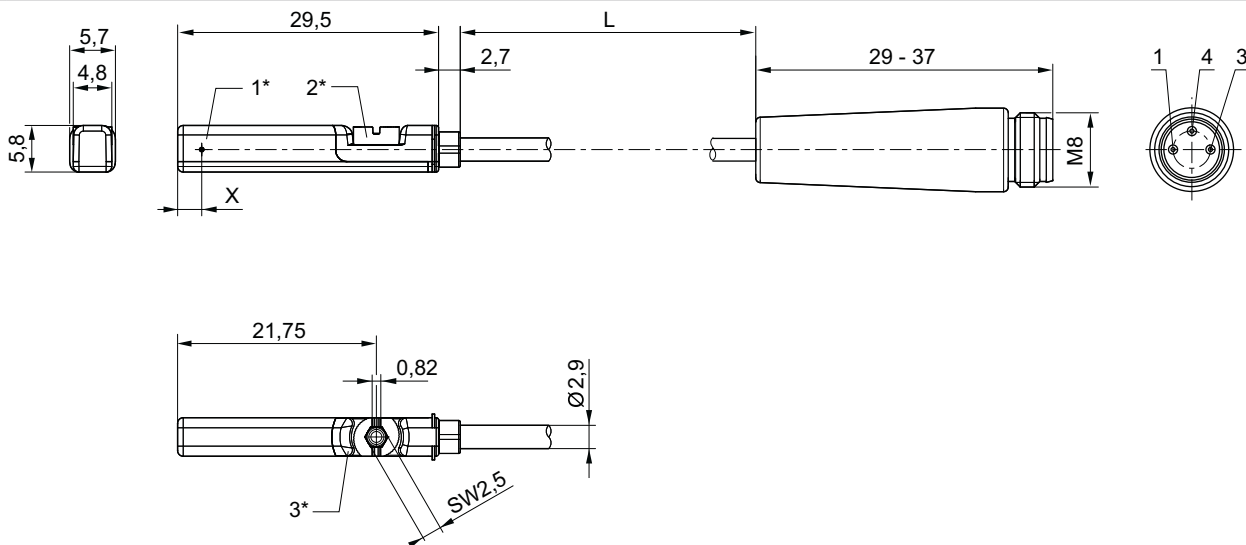
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information
Pneumatics catalog, online PDF, as of 2016-04-29, ©AVENTICS S.à r.l., subject to change

Series ICM
Accessories

	Type of contact	Cable length	Operational voltage AC min./max. [V]	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Part No.
		[m]	[V AC]		[A]	[A]	
	Reed	0.3	10 / 30	I [*] Rs	0.3	0.5	R412022872
	electronic PNP	0.3	-	≤ 2,5 V	0.13	-	R412022858
	electronic NPN	0.3	-	≤ 2,5 V	0.13	-	R412022851

Part No.	Max. switching frequency	Operating current, not switched	Operating current, switched	Note
R412022868	< 0,4	-	-	1)
R412022872	< 0,4	-	-	1)
R412022858	< 1,0	< 8 mA	< 30 mA	2)
R412022851	< 1,0	< 8 mA	< 30 mA	2)

1) Protected against polarity reversal

2) short circuit resistant / Protected against polarity reversal
interfaces: Plug; M8; 3-pin
Dimensions


1* = switching point 2* = locking screw 3* = LED window, transparent

L = cable length

X = electronic: 11,6 mm, Reed: 8,3 mm

Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

24621

Piston rod cylinder ▶ Mini cylinder

Series ICM
Accessories

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ Plug, M12, 3-pin, with knurled screw



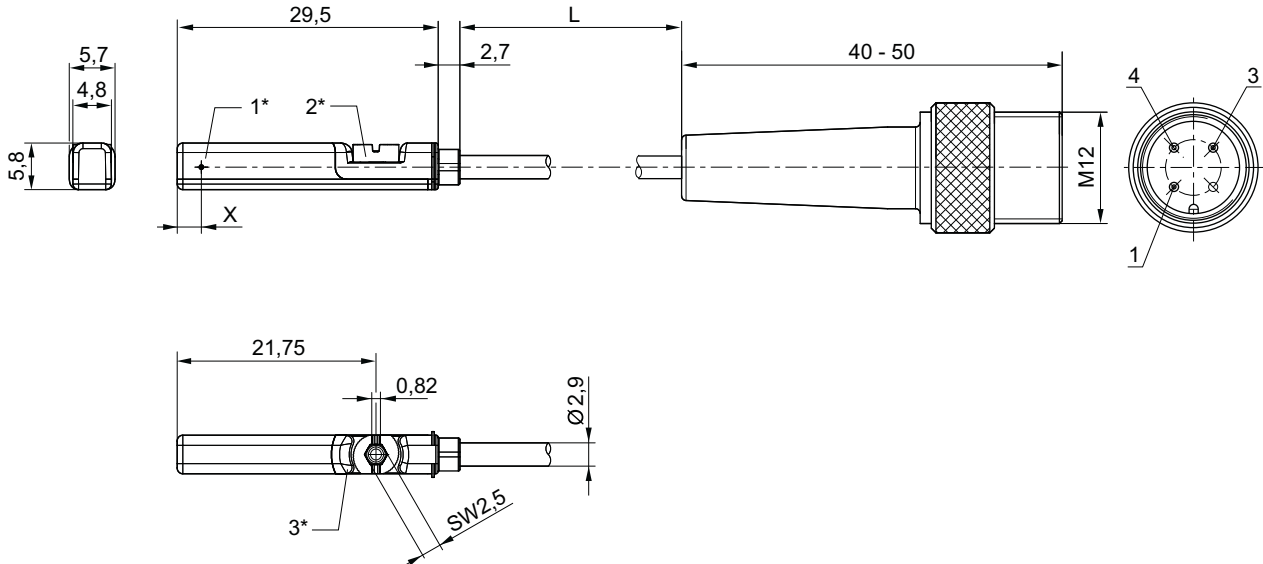
24714

Certificates	CE declaration of conformity cULus
Ambient temperature min./max.	-30°C / +80°C
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
DC operating voltage min./max.	10 - 30
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

	Type of contact	Cable length	Operational voltage AC min./max. [V]	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Part No.
		[m]	[V AC]		[A]	[A]	
	Reed	0.3	10 / 30	I [*] R _s	0.3	0.5	R412022876
	electronic PNP	0.1	-	≤ 2,5 V	0.13	-	R412022879
		0.3					R412022863
		3					R412022877
		5					R412022878

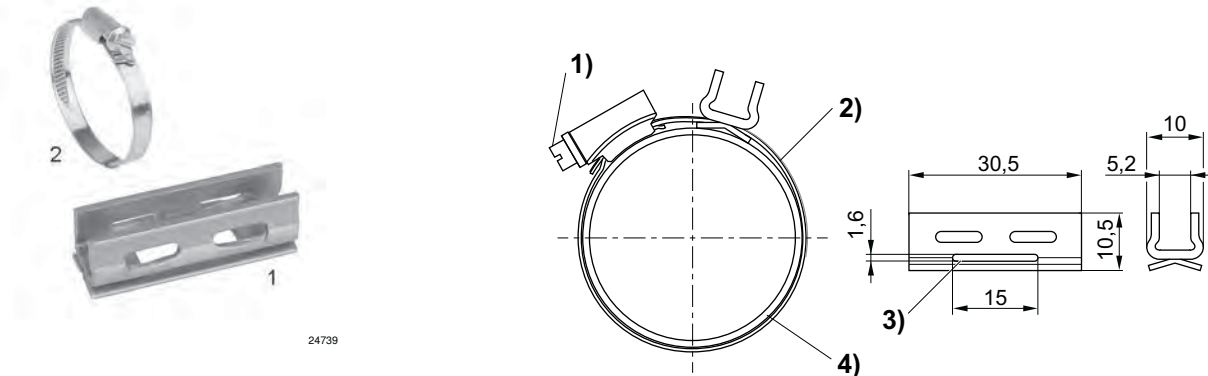
Part No.	Max. switching frequency	Operating current, not switched	Operating current, switched	Note
R412022876	< 0,4	-	-	1)
R412022879 R412022863 R412022877 R412022878	< 1,0	< 8 mA	< 30 mA	2)

1) Protected against polarity reversal
2) short circuit resistant / Protected against polarity reversal
interfaces: Plug; M12; 3-pin; with knurled screw

**Series ICM
Accessories**
Dimensions


24623

1* = switching point 2* = locking screw 3* = LED window, transparent
 L = cable length
 X = PNP: 11,6 mm, reed: 8,3 mm
 Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Sensor mounting, Series CB1
▶ for Series ST6 ▶ to mount on cylinder CSL-RD, ICM, ICS-D1, ICS-D2, RPC


24640

1) Mounting screw 2) Tightening strap 3) Opening for tightening strap 4) Cylinder tube

Part No.	Cylinders Ø [mm]	Cylinder tube Ø [mm]	For series	Material	Weight [kg]	Fig.		
R412024050	25 - 32	25 - 40	ST6	Stainless steel	-	Fig. 2		
R412024054	-	-	ST6	Stainless steel	0.011	Fig. 1		

Piston rod cylinder ▶ Mini cylinder

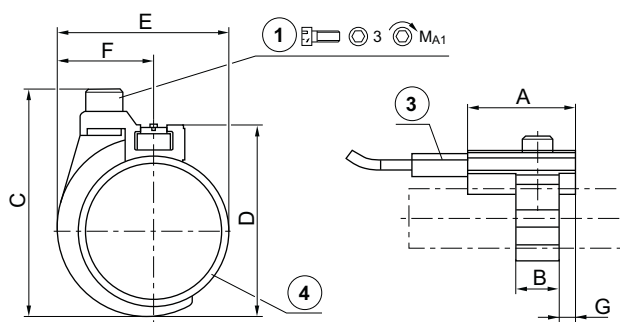
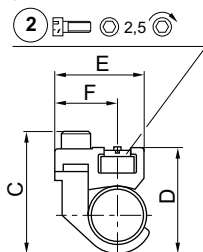
Series ICM
Accessories

Sensor mounting, Series CB1

▶ for Series ST6, SM6 ▶ to mount on cylinder MNI, ICM



00110587



00111947

1) Mounting screw 2) Mounting screw for sensor 3) Sensor 4) Cylinder pipe

Part No.	Cylinders Ø [mm]	For series	A	B	C	D	E	F	G	1)	MA1 [Nm]
1827020296	10	ST6, SM6	20	8	24	19	17.5	11.8	3	M3x8	1 +0,2
1827020297	12	ST6, SM6	20	8	26	22	19	11.8	3	M3x8	1 +0,2
1827020298	16	ST6, SM6	20	12	34	30	23	13.8	4	M4x10	2 +0,3
1827020299	20	ST6, SM6	20	12	38	32	26	13.8	4	M4x10	2 +0,3
1827020300	25	ST6, SM6	20	12	43	37	31	13.8	4	M4x10	2 +0,3

Part No.	Material	Weight [kg]									
1827020296	Aluminum	0.009									
1827020297	Aluminum	0.01									
1827020298	Aluminum	0.014									
1827020299	Aluminum	0.014									
1827020300	Aluminum	0.015									

Series ICM
 Accessories

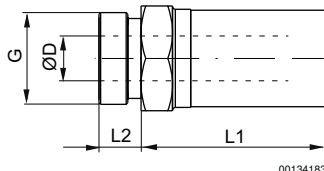
Silencers, Series SI1
 ▶ Stainless steel


00136335

Working pressure min./max. 0 bar / 12 bar
 Ambient temperature min./max. -20°C / +150°C
 Medium Compressed air

Materials:
 Silencers Stainless steel
 Thread Stainless steel

Compressed air connection	Sound pressure level	Qn	Delivery quantity	Weight	Part No.
	[dB]	[l/min]	[piece]	[kg]	
M5	85	125	1	0.003	R412010090
G 1/8	90	465	1	0.011	R412010081

Dimensions


00134183

Part No.	Port G	SW	Ø D	L1	L2						
R412010090	M5	8	3.1	10.5	3.5						
R412010081	G 1/8	13	6.6	20	6						

Sound pressure level measured at 6 bar at 1 m distance

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29-04-2016

An example configuration is depicted on the title page. The delivered product may thus vary from that in the illustration. Subject to change. © AVENTICS S.à r.l.
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