

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37

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Санкт-Петербург (812)309-46-40
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Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97

Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

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Технические характеристики на круглые пневмоцилиндры ISO Roundline компании **IMI NORGREN**

Виды товаров: магнитные и немагнитные двойного действия, одностороннего действия, двойного действия.

The image displays two Festo air cylinders against a white background. The top cylinder is oriented horizontally, while the bottom one is angled downwards. Both are silver-colored metal units with black end caps and mounting brackets. A red circular icon with a white refresh symbol is located in the upper right corner.

- > $\varnothing 10 \dots 25 \text{ mm}$
- > Standard magnetic piston for full control system versatility
- > Conforming to ISO 6432
- > Optional port arrangement for compact installation
- > Nose mounting nut and piston rod locknut as standard



Seals: NBR

Cylinder ø (mm)	10	12	16	20	25
Port size	M5	M5	M5	G1/8	G1/8
Piston rod ø (mm)	4	6	6	8	10
Piston rod thread	M4	M6	M6	M8	M10x1,25
Theoretical thrusts at 6 bar outstroke (N)	40,7	57,7	102	165	260
Spring forces F1 instroke (N)	3,7	4,8	10,5	16,1	21,6
Air consumption at 6 bar outstroke (l/cm)	0,006	0,008	0,014	0,022	0,035

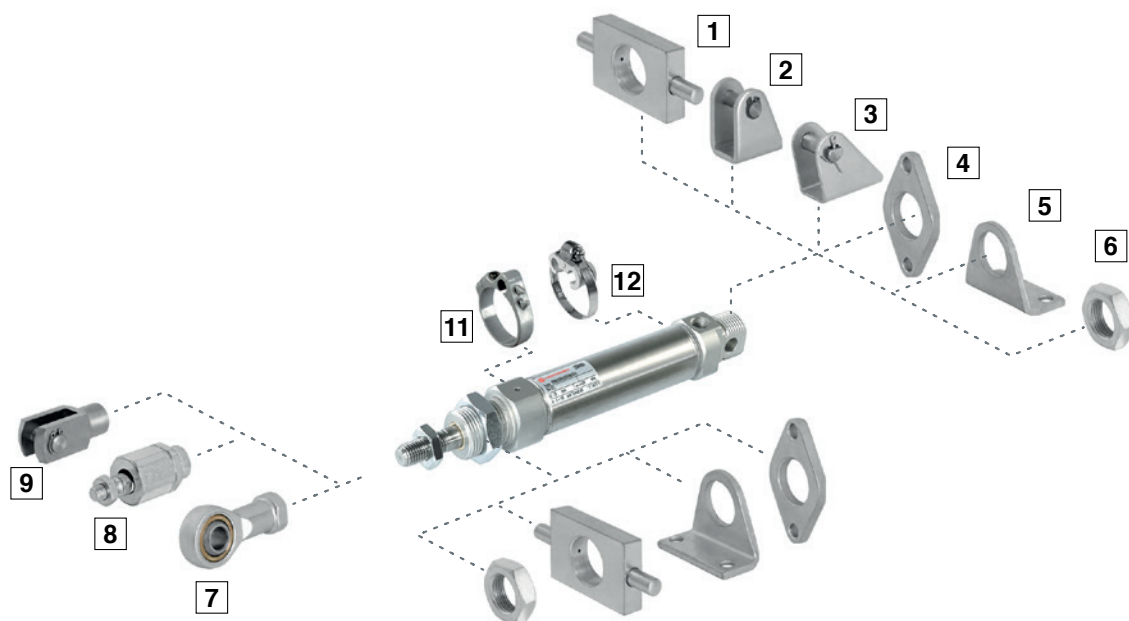
Cylinder ø (mm)	Stroke length (mm)		
	10	25	50
10	•	•	•
12	•	•	•
16	•	•	•
20	•	•	•
25	•	•	•

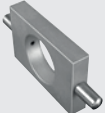
Symbol	Model with magnetic piston	Description	Dimensions Page
	RM/28000/M	Standard cylinder with integral eye mounting	3
	RM/28000/MC	Cylinder with central rear port	3
	RM/28000/MF	Cylinder with flat rear cover	3

RM/280★★/★★/★★

Cylinder ø (mm)	Substitute	Stroke (mm)	Substitute
10	10	max. 50	
12	12	Variants	
16	16	(magnetic piston)	
20	20	Standard with integral eye mounting	M
25	25	Central rear port	MC
		Flat rear cover	MF

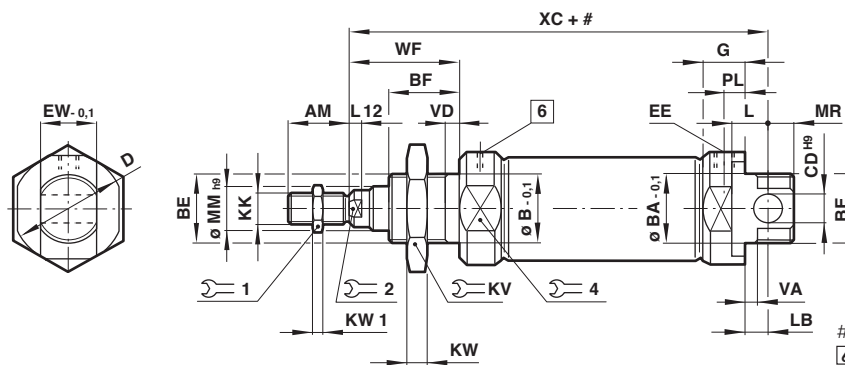
Mountings and Accessories



Cyl.	AK	B, G	C	F	FH
					
	8	4	5	9	1
	Page 4	Page 4	Page 4	Page 4	Page 4
10	QM/8010/38	M/P19407	M/P19369	QM/8010/25	—
12	QM/8012/38	M/P19408	M/P19389	QM/8012/25	QM/8012/34
16	QM/8012/38	M/P19408	M/P19389	QM/8012/25	QM/8012/34
20	QM/8020/38	M/P19409	M/P19406	QM/8020/25	QM/8020/34
25	QM/8025/38	M/P19409	M/P19406	QM/8025/25	QM/8020/34
Cyl.	L	L2	N	UF	
					
	3	2	6	7	
	Page 4	Page 5	Page 5	Page 5	
10	QM/947	QM/8010/44	M/P1501/90	QM/8010/32	
12	QM/8012/24	QM/8012/44	M/P13834	QM/8012/32	
16	QM/8012/24	QM/8012/44	M/P13834	QM/8012/32	
20	QM/8020/24	QM/8020/44	M/P13615	QM/8020/32	
25	QM/8020/24	QM/8020/44	M/P13615	QM/8025/32	
Cyl.	Switch mounting brackets		Magnetically operated switches		
	>15 mm stroke		<15 mm stroke		
					
	11		12		
	Page 6		Page 6		
10	QM/33/012/22		QM/33/010/23		
12	QM/33/012/22		QM/33/016/23		
16	QM/33/016/22		QM/33/016/23		
20	QM/33/020/22		QM/33/020/23		
25	QM/33/025/22		QM/33/025/23		
					
			Page 6 & 7		

Basic dimensions RM/28000/M

Dimensions in mm
Projection/First angle

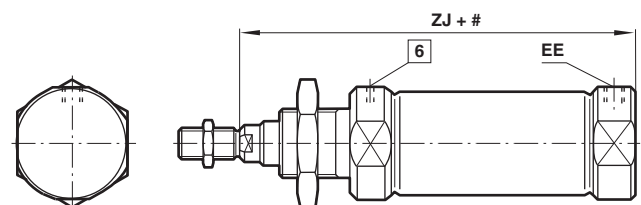
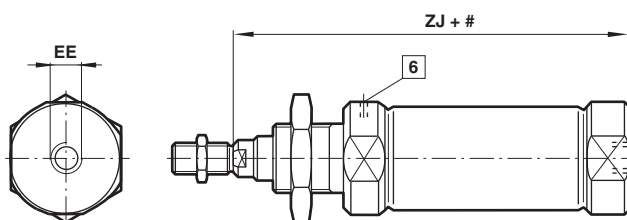


ø	AM	Ø B/BA -0,1	BE	BF	ø CD H9	Ø D	EE	EW -0,1	G	KK	 KV	KW	KW1	L	Model
10	12	12	M12x1,25	12	4	16,5	M5	7,9	9	M4	19	6	2	6	RM/28010/M/*
12	16	16	M16x1,5	17	6	21	M5	11,9	9,5	M6	22	5	3	9	RM/28012/M/*
16	16	16	M16x1,5	17	6	21	M5	11,9	9,5	M6	22	5	3	9	RM/28016/M/*
20	20	22	M22x1,5	20	8	30	G1/8	15,9	15	M8	27	8	4	12	RM/28020/M/*
25	22	22	M22x1,5	22	8	30	G1/8	15,9	15	M10x1,25	27	8	5	12	RM/28025/M/*
ø	L12	LB	ø MM h9	MR	PL	 1	 2	 4	WF	VA/VD	XC	at 0 mm	per 25 mm		Model
10	—	2	4	8	5,5	7	—	14	16	1,5	64	0,034 kg	0,007 kg		RM/28010/M/*
12	3	3	6	8	5,5	10	5	19	22	2	75	0,058 kg	0,011 kg		RM/28012/M/*
16	3	4	6	7	5,5	10	5	19	22	2	82	0,070 kg	0,012 kg		RM/28016/M/*
20	3	3	8	11	8	13	7	27	24	2	95	0,145 kg	0,018 kg		RM/28020/M/*
25	4	7	10	9	8	17	9	27	28	2	104	0,200 kg	0,028 kg		RM/28025/M/*

* Please insert standard stroke length.

Alternative variants RM/28000/MC – Cylinder with central rear port

RM/28000/MF – Cylinder with flat rear cover



ø	EE	ZJ	at 0 mm	per 25 mm	Model
10	M5	62	0,031 kg	0,007 kg	RM/28010/M/*
12	M5	72	0,052 kg	0,011 kg	RM/28012/M/*
16	M5	78	0,064 kg	0,012 kg	RM/28016/M/*
20	G1/8	92	0,130 kg	0,018 kg	RM/28020/M/*
25	G1/8	97	0,185 kg	0,028 kg	RM/28025/M/*

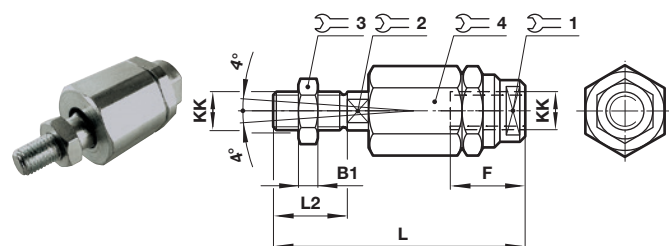
Stroke
6 Exhaust position, do not obstruct

* Please insert standard stroke length.

Mountings

Piston rod swivel AK

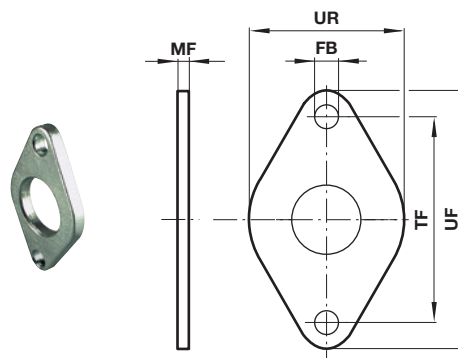
Conforms to DIN ISO 8139



ø	KK	B1	F	L	L2	1	2	3	4	kg	Model (AK)
10	M 4	2	12,5	33	8	11	3,2	7	11	0,01	QM/8010/38
12/16	M 6	3	14	39	12	7	5	10	13	0,02	QM/8012/38
20	M 8	4	18	55	16	10	7	13	17	0,05	QM/8020/38
25	M 10 x 1,25	5	26	73	20	19	12	17	30	0,2	QM/8025/38

Front or rear flange G and B

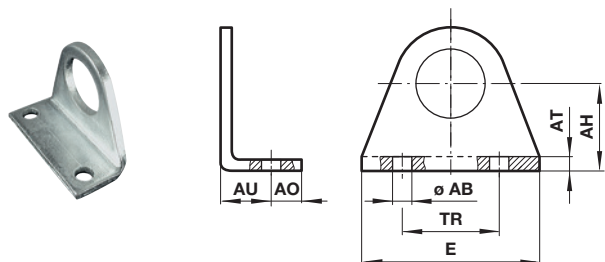
Dimensions in mm
Projection/First angle



ø	ø FB	MF	TF	UF	UR	kg	Model (B, G)
10	4,5	3	30	40	22	0,02	M/P19407
12/16	5,5	4	40	51	28	0,03	M/P19408
20/25	6,6	5	50	63	38	0,05	M/P19409

Foot C

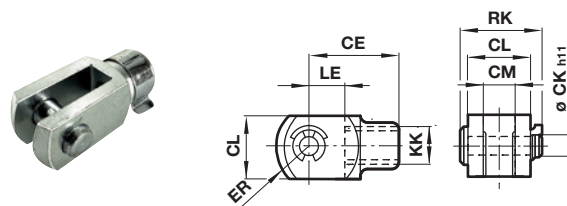
Conforms to DIN ISO 6432



ø	ø AB	AH	AO	AT	AU	E	TR	kg	Model (C)
10	4,5	16	6	2	10	35	25	0,02	M/P19369
12/16	5,5	20	6	3	13	43	32	0,03	M/P19389
20/25	6,6	25	7,5	4	16	53	40	0,06	M/P19406

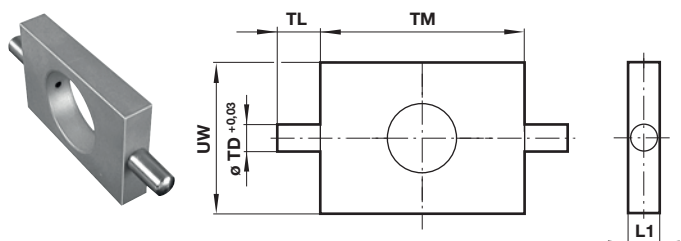
Piston rod clevis F

Conforms to DIN ISO 8140



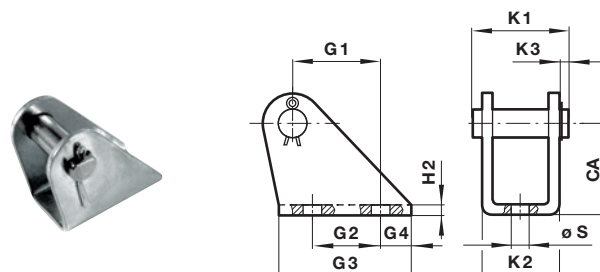
ø	KK	CE	ø CK h11	CL	CM	ER	LE	RK	kg	Model (F)
10	M4	16	4	8	4	6,5	8	11,5	0,01	QM/8010/25
12/16	M6	24	6	12	6	9,5	12	17,5	0,02	QM/8012/25
20	M8	32	8	16	8	13	16	22	0,06	QM/8020/25
25	M10 x 1,25	40	10	20	10	16	20	28	0,10	QM/8025/25

Front or rear detachable trunnion FH



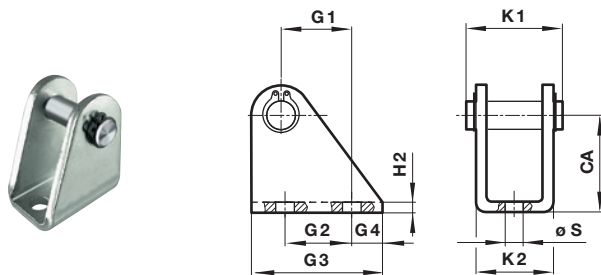
ø	L1	ø TD +0,03	TL	TM	UW	kg	Model (FH)
12/16	8	6	10	38	25	0,05	QM/8012/34
20/25	8	6	10	46	30	0,07	QM/8020/34

Rear hinge L



ø	CA	G1	G2	G3	G4	H2	K1	K2	K3	ø S	kg	Model (L)
10	12	6,5	-	15	6	1	13,5	10,5	2	4,8	0,01	QM/947
12/16	20	18,5	15	30	8	1,5	20	15	3	5,5	0,02	QM/8012/24
20/25	25	20	15	35	10	2	25	20,5	3	6,6	0,04	QM/8020/24

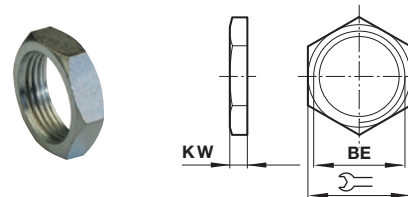
Rear hinge L2



ø	CA	G1	G2	G3	G4	H2	K1	K2	ø S	kg	Model (L2)
10	24	11	12,5	20	4	2,5	17,5	13	4,5	0,018	QM/8010/44
12/16	27	13	15	25	5	3	23	18	5,5	0,035	QM/8012/44
20/25	30	16	20	32	6	4	29,5	24	6,6	0,077	QM/8020/44

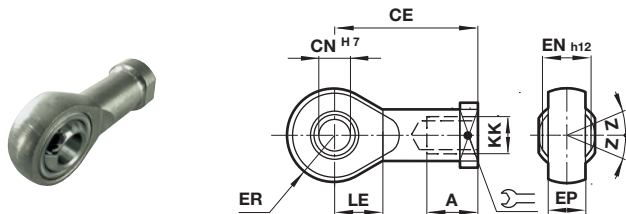
Nose nut N

Dimensions in mm
Projection/First angle



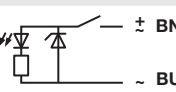
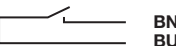
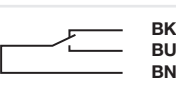
ø	BE	KW	kg	Model (N)
10	M12x1,25	19	6	M/P1501/90
12/16	M16x1,5	22	5	M/P13834
20/25	M22x1,5	27	8	M/P13615

Universal piston rod eye UF Conforms to DIN ISO 8139



ø	KK	AX	CE	ø CN H7	EN -0,1	ER	LE	Z	kg	Model (UF)
10	M4	14	27	5	8	8	10	5°	0,02	QM/8010/32
12/16	M6	14	30	6	9	9	11	5°	0,02	QM/8012/32
20	M8	16	36	8	12	11	13	5°	0,05	QM/8020/32
25	M10 x 1,25	25	42	10	14	14	15	5°	0,08	QM/8025/32

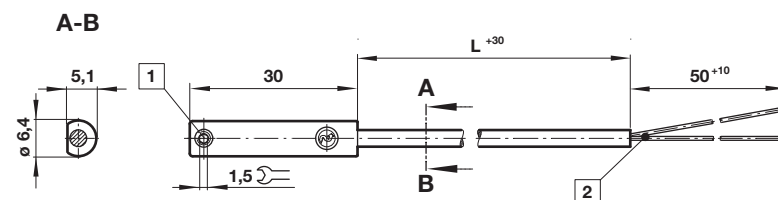
Technical data - Reed switches - additional informations see data sheet N/en 4.3.005

Symbol	Voltage (V a.c.)	(V d.c.)	Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	2, 5 or 10	PVC 2 x 0,25	37	M/50/LSU/*V
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	5	PUR 2 x 0,25	37	M/50/LSU/5U
	10 ... 240	10 ... 170	180	Closer	-25 ... +150	—	IP66	—	2	Silicon 2 x 0,25	37	TM/50/RAU/2S
	10 ... 240	10 ... 170	180	Changeover	-25 ... +80	—	IP66	—	5	PVC 3 x 0,25	37	M/50/RAC/5V
	10 ... 60	10 ... 60	180	Closer	-25 ... +80	•	IP66	M8 x 1	0,3	PVC 3 x 0,25	16	M/50/LSU/CP *1)

* Insert cable length; *1) Plug-in connector see page 11; Color code: BK = black, BN = brown, BU = blue

Drawings

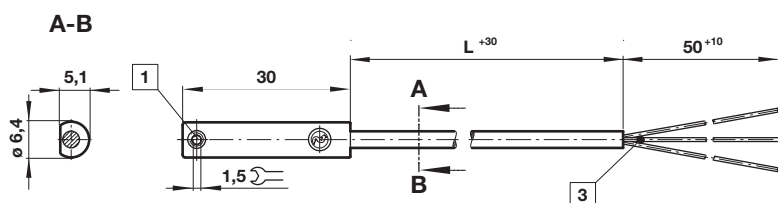
M/50/LSU/*V, M/50/LSU/5U,
TM/50/RAU/2S
Cable length L = 2, 5 or 10 m



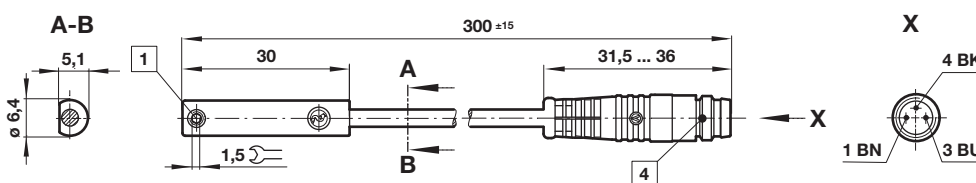
Dimensions in mm
Projection/First angle



M/50/RAC/5V
Cable length L = 5 m



M/50/LSU/CP



- 1 Fixing screw
- 2 + BN = brown; - BU = blue (output)
- 3 - BK = black; + BN = brown; - #BU = blue
- 4 Plug M8 x 1, color code: BK = black; BN = brown; BU = blue

Switch mounting brackets - Brackets > 15 mm stroke



- 1 Magnetically operated switch
- 2 Switch mounting bracket

ø	B	R max.	kg	Model
10	8	16	0,01	QM/33/010/22
12	8	18	0,01	QM/33/012/22
16	10	20	0,01	QM/33/016/22
20	10	22	0,01	QM/33/020/22
25	10	24	0,01	QM/33/025/22

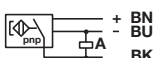
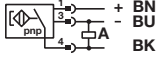
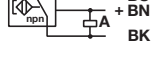
Switch mounting brackets - Brackets < 15 mm stroke



- 1 Magnetically operated switch
- 2 Switch mounting bracket

ø	S	T	kg	Model
10	27,5	19,5	0,01	QM/33/010/23
12	28,5	21,5	0,01	QM/33/016/23
16	29,5	23,5	0,01	QM/33/016/23
20	29,5	26	0,01	QM/33/020/23
25	31,5	28,5	0,01	QM/33/025/23

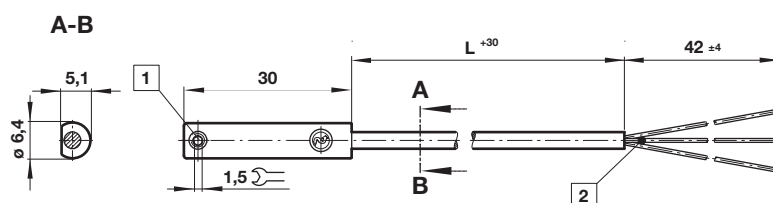
Technical data - Solid state - additional informations see data sheet N/en 4.3.007

Symbol	Voltage (V d.c.)	Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 30	150	PNP	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAP/*V
	10 ... 30	150	PNP	-40 ... +80	•	IP68	—	5	PUR 3 x 0,14	37	M/50/EAP/5U
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CP *1)
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M12 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CC *1)
	10 ... 30	150	NPN	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAN/*V
	10 ... 30	150	Closer	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAN/CP *1)

* Insert cable length; *1) Plug-in connector below; Color code: BK = black, BN = brown, BU = blue

Drawings

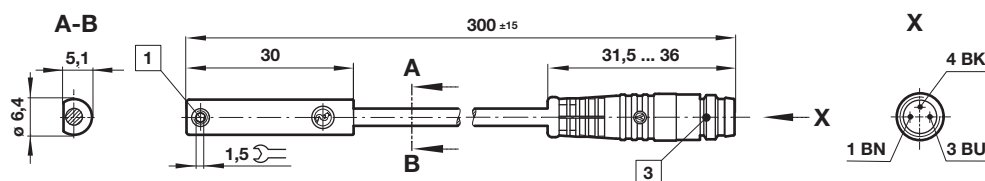
M/50/EAP/*V,
M/50/EAN/*V
Cable length L = 2, 5 or 10 m



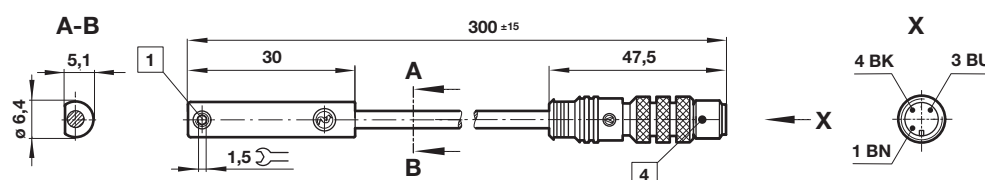
Dimensions in mm
Projection/First angle



M/50/EAP/CP,
M/50/EAN/CP



M/50/EAP/CC



- 1 Fixing screw
- 2 Color code: BK = black; BN = brown; BU = blue
- 3 Plug M8 x 1
- 4 Plug M12 x 1

Accessories

Plug-in connector cable with nut



Outer cover	Cable length (m)	Weight (kg)	Connector	Connector
PVC 3 x 0,25	5 m	0,18	M8 x 1	M/P73001/5
PUR 3 x 0,25	5 m	0,18	M8 x 1	M/P73002/5
PUR 3 x 0,34	5 m	0,21	M12 x 1	M/P34594/5

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features/ data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

- > Ø 8 ... 40 mm
- > Saves 20% space over the basic length of a corresponding ISO/VDMA cylinder
- > Low friction, long life seals
- > High strength, double crimped end cap design
- > Standard magnetic piston for full control system versatility



Technical features

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

R./57100: Single acting, sprung in with buffer cushioning

R./57300: Single acting, sprung out with buffer cushioning

Operating pressure:

2 ... 10 bar (29 ... 145 psi)

Ø 8 mm: 3 ... 10 bar (43 ... 145 psi)

Cylinder diameters:

8, 10, 12, 16, 20, 25, 32, 40 mm

Strokes:

10, 25, 50 mm

Operating temperature:

+80°C max. (+176°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:

Piston rod: Stainless steel
(Ø 8 ... 16 mm austenitic, Ø 20 ... 63 mm martensitic)
Barrel: Stainless steel (austenitic)
End covers: Aluminium
Wiper: PUR
Seals and 'O'-rings: NBR

Technical data

Cylinder RT/57100/M & RT/57300/M (Ø8 ... 40 mm); RM/57100/M & RM/57300/M (Ø20 ... 40 mm)

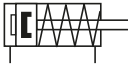
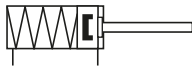
Cylinder Ø (mm)	8	10	12	16	20	25	32	40
Port size	M3 (M3)*1)	M5 (M5)*1)	M5 (M5)*1)	M5 (M5)*1)	Rc 1/8 (M6)*1)	Rc 1/8 (M6)*1)	Rc 1/8 (G 1/8)*1)	Rc 1/8 (G 1/8)*1)
Piston rod Ø (mm)	3	4	4	6	8	10	12	14
Piston rod thread	M3	M4	M4	M6	M8	M10 x 1,25	M10 x 1,25	M12 x 1,25
R./57100/M								
Theoretical thrusts at 6 bar outstroke N	22,7	38,2	56,2	101	161	264	432	687
Theoretical thrusts F1 outstroke (N)	3,6	4,6	6,1	10,5	14,5	20	32	44
Air consumption at 6 bar outstroke l/cm	0,004	0,005	0,008	0,014	0,022	0,035	0,056	0,087
R./57300/M								
Theoretical thrusts at 6 bar outstroke N	18,6	30,8	48,4	84,5	131	217	364	594
Theoretical thrusts F1 outstroke (N)	3,6	4,6	6,1	10,5	14,5	20	32	44
Air consumption at 6 bar outstroke l/cm	0,003	0,004	0,006	0,013	0,019	0,028	0,048	0,074

*1) Values in () for RM/57... only

Standard strokes

Cylinder Ø (mm)	Stroke length (mm)		
	10	25	50
8	•	•	•
10	•	•	•
12	•	•	•
16	•	•	•
20	•	•	•
25	•	•	•
32	•	•	•
40	•	•	•

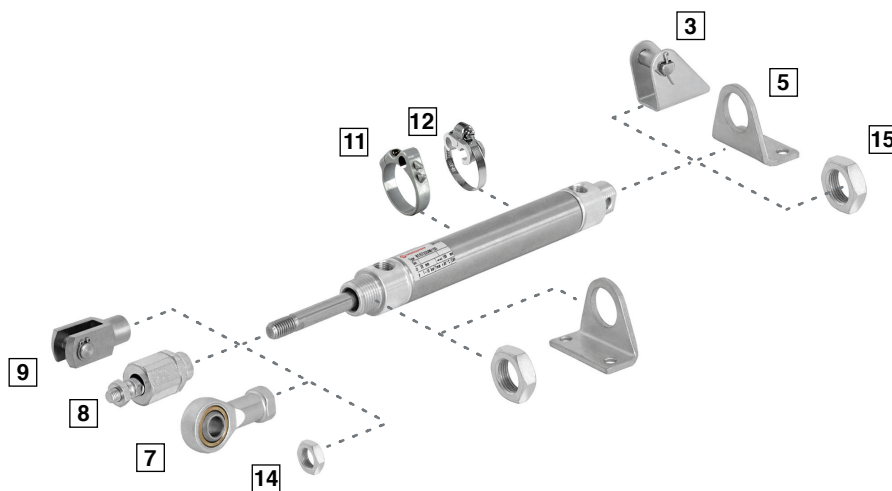
Cylinder variants

Symbol	Model magnetic piston	Description	Dimensions
			Page
	R./57100/M	Standard cylinder, sprung in (RT/571... - Ø8 ... 40 mm; RM/571... - Ø20 ... 40 mm)	4
	R./57100/MC	Cylinder with central rear port (RT/571... - Ø8 ... 40 mm; RM/571... - Ø20 ... 40 mm)	4
	R./57300/M	Standard cylinder, sprung out (RT/573... - Ø8 ... 40 mm; RM/573... - Ø20 ... 40 mm)	4
	R./57300/MC	Cylinder with central rear port (RT/573... - Ø8 ... 40 mm; RM/573... - Ø20 ... 40 mm)	4

Option selector

			R★/57★/★/★/★			
Port size	Cylinder Ø (mm)	Substitute			Stroke (mm)	
M3	8	T			50 max.	
M5	10	T			Cylinder variants	Substitute
M5	12	T			Magnetic piston	M
M5	16	T			Magnetic piston, central rear port, flat end	MC
M6	20	M			Cylinder Ø (mm)	Substitute
Rc1/8	20	T			8	08
M6	25	M			10	10
Rc1/8	25	T			12	12
G1/8	32	M			16	16
Rc1/8	32	T			20	20
G1/8	40	M			25	25
Rc1/8	40	T			32	32
40					40	40
Spring position	Substitute					
Sprung in	1					
Sprung out	3					

Mountings



Cyl.	AK	C	F	L	N
					
	8	5	9	3	15
	Page 5	Page 5	Page 5	Page 5	Page 5
Ø	—	M/P71273/1	QM/57008/25	QM/57008/24	M/P71364
8	—	M/P71273/2	QM/8010/25	QM/947	M/P71364
10	QM/8010/38	M/P71273/2	QM/8010/25	QM/947	M/P71364
12	QM/8010/38	M/P19369	QM/57016/25	QM/946	M/P1501/90
16	QM/8012/38	M/P19389	QM/57020/25	QM/8012/24	M/P13834
20	QM/8020/38	M/P40381	QM/57025/25	QM/57025/24	M/P13607
25	QM/8025/38	M/P19406	QM/57032/25	QM/8020/24	M/P13615
32	QM/8025/38	M/P71273/3	QM/57040/25	QM/57040/24	M/P29254
40	QM/8040/38				

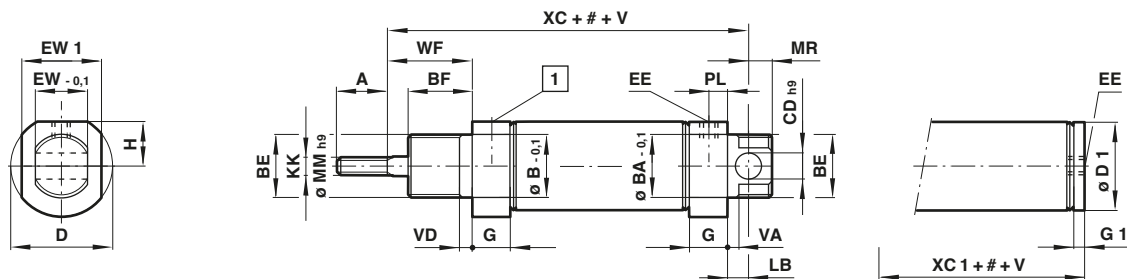
Cyl.	N2	UF	Switch mounting brackets >15 mm stroke	<15 mm stroke	Magnetically operated switches
					
	14	7	11	12	
	Page 5	Page 6	Page 6	Page 6	Page 7 & 8
Ø	M/P1500/111	—	—	—	
8	M/P1501/80	QM/8010/32	QM/33/010/22	QM/33/010/23	
10	M/P1501/80	QM/8010/32	QM/33/012/22	QM/33/016/23	
12	M/P1501/79	QM/8012/32	QM/33/016/22	QM/33/016/23	
16	M/P1501/60	QM/8020/32	QM/33/020/22	QM/33/020/23	
20	M/P1501/89	QM/8025/32	QM/33/025/22	QM/33/025/23	
25	M/P1501/89	QM/8025/32	QM/33/032/22	—	
32	M/P1501/90	QM/8040/32	QM/33/040/22	—	
40	M/P1501/90				

Basic dimensions

Ø 8 ... 12 mm - R./571../M

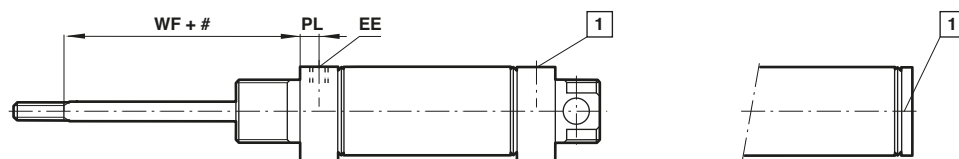
RT/571../MC

Dimensions in mm
 Projection/First angle



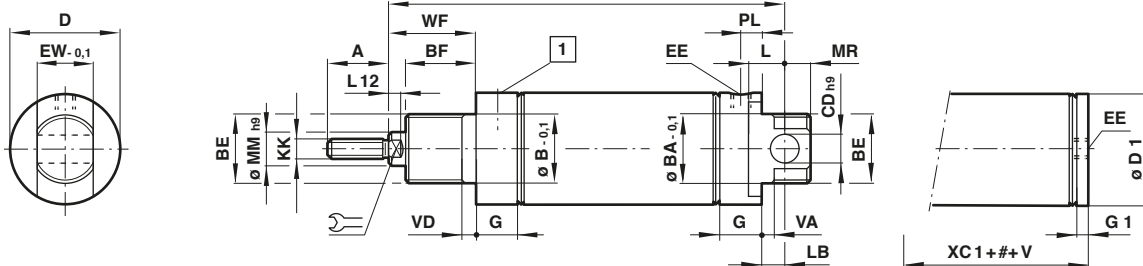
Ø 8 ... 12 mm - R./573../M

RT/573../MC



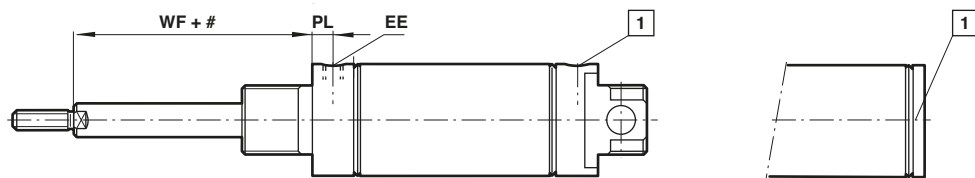
Ø 16 ... 40 mm - R./571../M

RT/571../MC



Ø 8 ... 12 mm - R./573../M

RT/573../MC



Stroke

1 Filtered exhaust position, do not obstruct

Ø	A	Ø B/Ø BA	BE	BF	Ø CD h9	Ø D	Ø D1	RT/57... EE	RM/57... EE	EW -0.1	EW1	G	G1	H	KK	L
8	8	10	M10 x 1	7,5	3	12	9,5	M3	—	6	10	7,5	3	5	M3	—
10	9	10	M10 x 1	8	4	15	11,5	M5	—	8	12,5	9,5	4,5	6,5	M4	—
12	9	10	M10 x 1	8	4	15	13	M5	—	8	—	9,5	4,5	6,5	M4	—
16	12	12	M12 x 1,25	10	5	17,5	17,5	M5	—	10	—	11,5	4	—	M6	—
20	14	16	M16 x 1,5	12	6	22	21,5	Rc 1/8	M6	12	—	15,5	8	—	M8	—
25	16	18	M18 x 1,5	12	8	26,5	26,5	Rc 1/8	M6	14	—	15,5	8	—	M10 x 1,25	—
32	22	22	M22 x 1,5	15	8	33,5	33,5	Rc 1/8	G 1/8	16	—	17,5	5,5	—	M10 x 1,25	12
40	23	30	M30 x 1,5	15	10	41,5	41,5	Rc 1/8	G 1/8	20	—	18	5,5	—	M12 x 1,25	14

Ø	LB	L12	Ø MM h9	MR	PL	⌀	V *1)	V *2)	VA/VD	WF	XC	XC1	57100 kg < 25 mm	57300 kg < 25 mm	kg per 25 mm	Model
8	4,5	—	3	3	4	—	17	34	1,5	8,5	48	39	0,017	0,02	0,01	RT/57.08/M/*
10	5	—	4	4	5,5	—	14	28	1,5	10	54	44	0,025	0,02	0,01	RT/57.10/M/*
12	5	—	4	4	5,5	—	14	28	1,5	10	54	44	0,027	0,03	0,01	RT/57.12/M/*
16	7	5	6	5	5,5	5	15	30	2	13,5	64,5	50	0,053	0,05	0,01	RT/57.16/M/*
20	7	5	8	6	9	7	17	34	3	15,5	75,5	61	0,095	0,09	0,02	R./57.20/M/*
25	9	5	10	8	9	9	18	36	3	16,5	78,5	62	0,15	0,14	0,03	R./57.25/M/*
32	7	5	12	8	9	10	19	38	3	23	93	74	0,26	0,25	0,04	R./57.32/M/*
40	5	6	14	10	10	12	20	40	3	24	96	78,5	0,50	0,38	0,05	R./57.40/M/*

* Please insert standard stroke length.

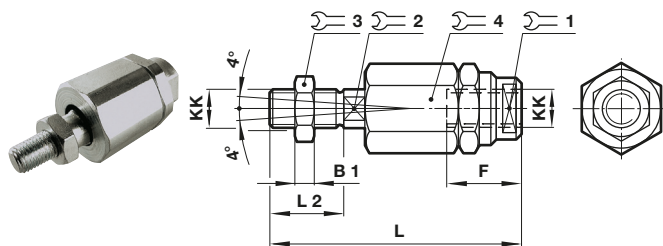
*1) For 10 and 25 mm stroke

*2) For 50 mm stroke only

Mountings

Piston rod swivel AK

Conforms to DIN ISO 8139

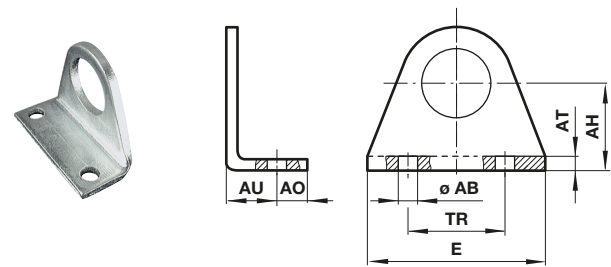


Ø	KK	B1	F	L	L2	1	2	3	4	kg	Model (AK)
10/12	M 4	2	12,5	33	8	11	3,2	7	11	0,01	QM/8010/38
16	M 6	3	14	39	12	7	5	10	13	0,02	QM/8012/38
20	M 8	4	18	55	16	10	7	13	17	0,05	QM/8020/38
25/32	M 10x1,25	5	26	73	20	19	12	17	30	0,20	QM/8025/38
40	M 12x1,25	6	26	77	24	19	12	19	30	0,20	QM/8040/38

Foot C

Conforms to DIN ISO 6432

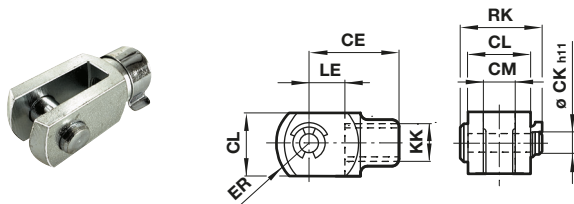
Dimensions in mm
Projection/First angle



Ø	Ø AB	AH	AO	AT	AU	E	TR	kg	Model (C)
8	3,8	10	3,5	1,5	7,5	25	18	0,01	M/P71273/1
10/12	5	12	4,5	1,5	7,5	30	20	0,01	M/P71273/2
16	4,5	16	6	2	10	35	25	0,02	M/P19369
20	5,5	20	6	3	13	43	32	0,03	M/P19389
25	6,6	22	8	3	12,5	49	38	0,04	M/P40381
32	6,6	25	7,5	4	16	53	40	0,06	M/P19406
40	7	28	7	4	16	66	52	0,08	M/P71273

Piston rod clevis F

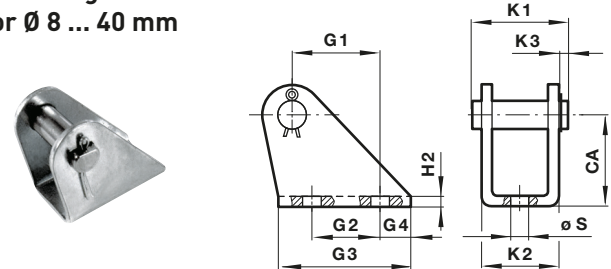
Conforms to DIN ISO 8140



Ø	KK	CE	Ø CK h11	CL	CM	ER	LE	RK	kg	Model (F)
8	M3	11	3	6	3	4,5	5	10,5	0,01	QM/57008/25
10/12	M4	16	4	8	4	6,5	8	11,5	0,01	QM/8010/25
16	M6	20	5	10	5	8	10	14,5	0,01	QM/57016/25
20	M8	24	6	12	6	9,5	12	17,5	0,02	QM/57020/25
25	M10x1,25	26	8	14	7	11,5	12	20,5	0,04	QM/57025/25
32	M10x1,25	32	8	16	8	13	16	22,5	0,05	QM/57032/25
40	M12x1,25	40	10	20	10	16	20	29	0,09	QM/57040/25

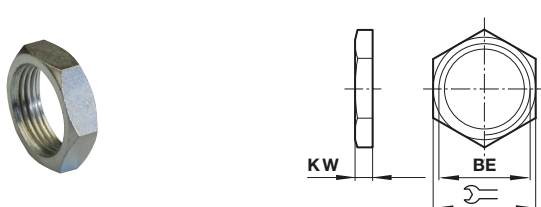
Rear hinge L

for Ø 8 ... 40 mm



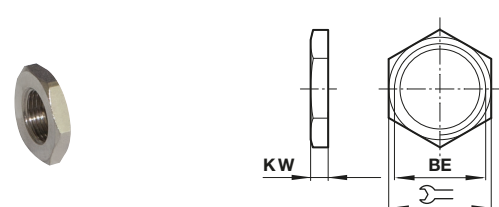
Ø	CA	G	1	2	3	4	H2	K	1	2	3	Ø	UT	kg	Model (L)
8	10	9	7	14	3,5	1	–	8	–	3,5	–	0,01	QM/57008/24		
10/12	12	6,5	–	15	6	1	13,5	10,5	2	4,8	–	0,01	QM/947		
16	16	13	10	22	6	1,5	–	12,5	–	4,8	–	0,02	QM/946		
20	20	18,5	15	30	8	1,5	20	15	3	5,5	–	0,02	QM/8012/24		
25	22	20	15	33	9	2	–	18	–	6,6	–	0,04	QM/57025/24		
32	25	20	15	35	10	2	25	20,5	3	6,6	–	0,04	QM/8020/24		
40	28	25	20	42	11	3	–	26	–	7	–	0,09	QM/57040/24		

Nose nut N



Ø	BE	1	KW	kg	Model (N)
8...12	M10x1	14	4	0,01	M/P71364
16	M12x1,25	19	6	0,01	M/P1501/90
20	M16x1,5	22	5	0,01	M/P13834
25	M18x1,5	24	5	0,01	M/P13607
32	M22x1,5	27	8	0,02	M/P13615
40	M30x1,5	36	8	0,03	M/P29254

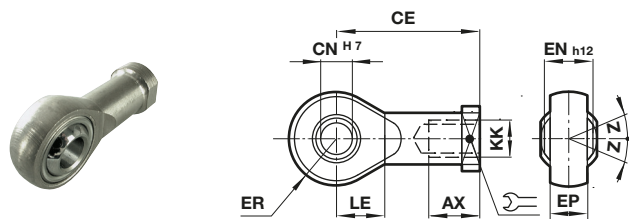
Locknut N2



Ø	BE	1	KW	kg	Model (N)
8	M3	6	2	0,01	M/P1500/111
10/12	M4	7	2	0,01	M/P1501/80
16	M6	10	3	0,01	M/P1501/79
20	M8	13	4	0,01	M/P1501/60
25/32	M10x1,25	17	5	0,01	M/P1501/89
40	M12x1,25	19	6	0,01	M/P1501/90

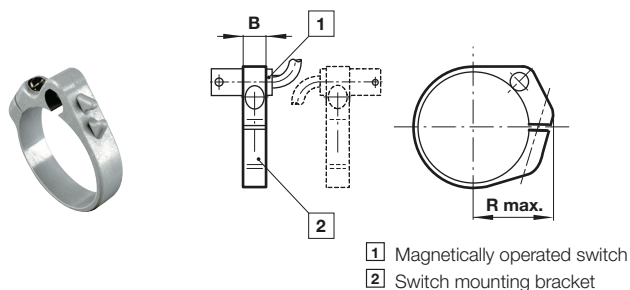
Universal piston rod eye UF
Conforms to DIN ISO 8139

Dimensions in mm
Projection/First angle



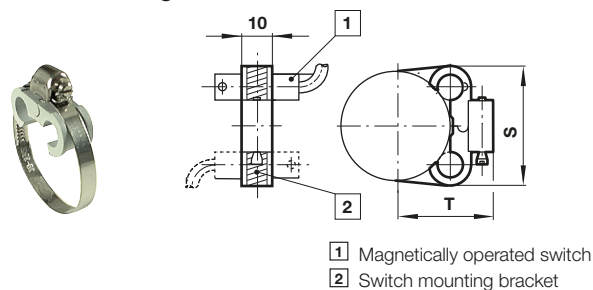
Ø	KK	AX	CE	Ø CN H7	EN -0,1	ER	LE	Z	kg	Model (UF)
10/12	M4	14	27	5	8	8	10	5°	0,02	QM/8010/32
16	M6	14	30	6	9	9	11	5°	0,02	QM/8012/32
20	M8	16	36	8	12	11	13	5°	0,05	QM/8020/32
25/32	M10x1,25	25	42	10	14	14	15	13°	0,08	QM/8025/32
40	M12x1,25	22	50	12	16	16	17	13°	0,12	QM/8040/32

Switch mounting brackets - Brackets → 15 mm stroke



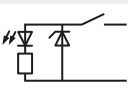
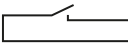
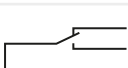
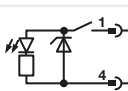
Ø	B	R max.	kg	Model
10	8	16	0,01	QM/33/010/22
12	8	18	0,01	QM/33/012/22
16	10	20	0,01	QM/33/016/22
20	10	22	0,01	QM/33/020/22
25	10	24	0,01	QM/33/025/22
32	10	29	0,01	QM/33/032/22
40	10	32	0,01	QM/33/040/22

Switch mounting brackets - Brackets ← 15 mm stroke



Ø	S	T	kg	Model
10	27,5	19,5	0,01	QM/33/010/23
12	28,5	21,5	0,01	QM/33/016/23
16	29,5	23,5	0,01	QM/33/016/23
20	29,5	26	0,01	QM/33/020/23
25	31,5	28,5	0,01	QM/33/025/23

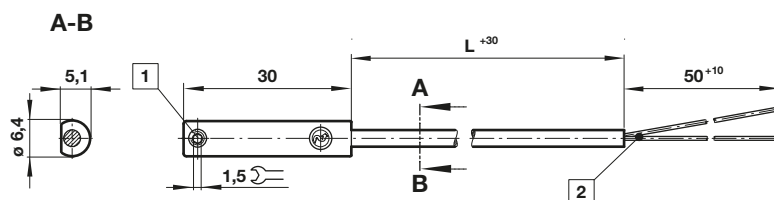
Technical data - Reed switches - additional informations see data sheet N/en 4.3.005

Symbol	Voltage		Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	(V a.c.)	(V d.c.)										
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	2, 5 or 10	PVC 2 x 0,25	37	M/50/LSU/*V
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	5	PUR 2 x 0,25	37	M/50/LSU/5U
	10 ... 240	10 ... 170	180	Closer	-25 ... +150	—	IP66	—	2	Silicon 2 x 0,25	37	TM/50/RAU/2S
	10 ... 240	10 ... 170	180	Changeover	-25 ... +80	—	IP66	—	5	PVC 3 x 0,25	37	M/50/RAC/5V
	10 ... 60	10 ... 60	180	Closer	-25 ... +80	•	IP66	M8 x 1	0,3	PVC 3 x 0,25	16	M/50/LSU/CP *1)

* Insert cable length; *1) Plug-in connector see page 11; Color code: BK = black, BN = brown, BU = blue

Drawings

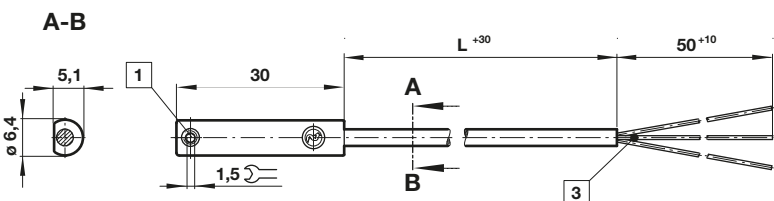
M/50/LSU/*V, M/50/LSU/5U,
TM/50/RAU/2S
Cable length L = 2, 5 or 10 m



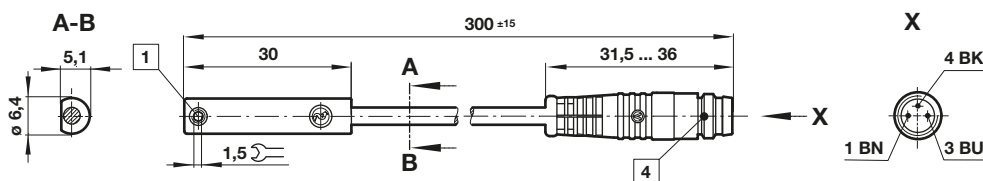
Dimensions in mm
Projection/First angle



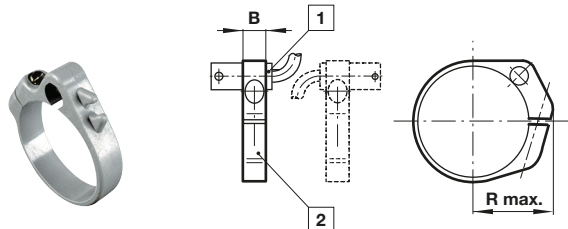
M/50/RAC/5V
Cable length L = 5 m



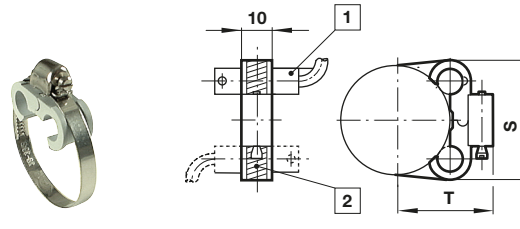
M/50/LSU/CP



- 1 Fixing screw
2 + BN = brown; - BU = blue (output)
3 - BK = black; + BN = brown; - ≠BU = blue
4 Plug M8 x 1, color code: BK = black; BN = brown; BU = blue

Switch mounting brackets - Brackets > 15 mm stroke


- 1 Magnetically operated switch
2 Switch mounting bracket

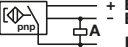
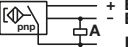
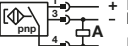
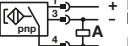
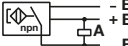
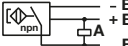
Switch mounting brackets - Brackets < 15 mm stroke


- 1 Magnetically operated switch
2 Switch mounting bracket

Ø	B	R max.	kg	Model
10	8	16	0,01	QM/33/010/22
12	8	18	0,01	QM/33/012/22
16	10	20	0,01	QM/33/016/22
20	10	22	0,01	QM/33/020/22
25	10	24	0,01	QM/33/025/22

Ø	S	T	kg	Model
10	27,5	19,5	0,01	QM/33/010/23
12	28,5	21,5	0,01	QM/33/016/23
16	29,5	23,5	0,01	QM/33/016/23
20	29,5	26	0,01	QM/33/020/23
25	31,5	28,5	0,01	QM/33/025/23

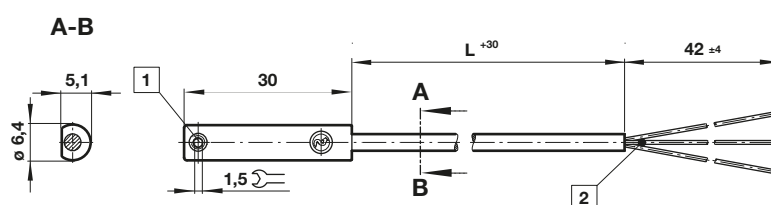
Technical data - Solid state - additional informations see data sheet N/en 4.3.007

Symbol	Voltage (V d.c.)	Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 30	150	PNP	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAP/*V
	10 ... 30	150	PNP	-40 ... +80	•	IP68	—	5	PUR 3 x 0,14	37	M/50/EAP/5U
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CP *1)
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M12 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CC *1)
	10 ... 30	150	NPN	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAN/*V
	10 ... 30	150	Closer	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAN/CP *1)

* Insert cable length; *1) Plug-in connector below; Color code: BK = black; BN = brown; BU = blue

Drawings

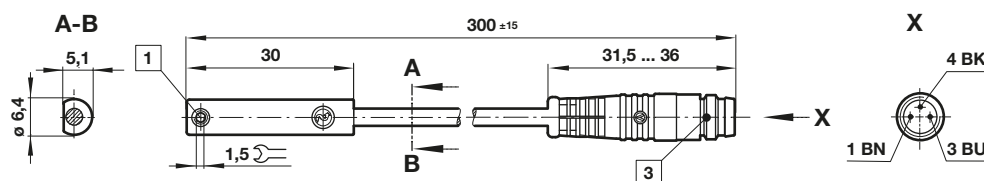
**M/50/EAP/*V,
M/50/EAN/*V**
Cable length L = 2, 5 or 10 m



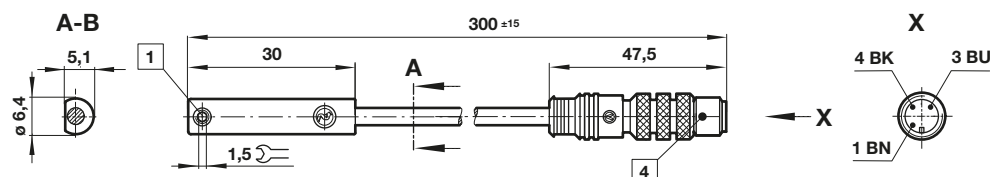
Dimensions in mm
Projection/First angle



**M/50/EAP/CP,
M/50/EAN/CP**



M/50/EAP/CC



- 1 Fixing screw
- 2 Color code: BK = black; BN = brown; BU = blue
- 3 Plug M8 x 1
- 4 Plug M12 x 1

Accessories

Plug-in connector cable with nut



Outer cover	Cable length (m)	Weight (kg)	Connector	Connector
PVC 3 x 0,25	5 m	0,18	M8 x 1	M/P73001/5
PUR 3 x 0,25	5 m	0,18	M8 x 1	M/P73002/5
PUR 3 x 0,34	5 m	0,21	M12 x 1	M/P34594/5

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under

»Technical features/data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult

IMI Precision Engineering, Norgren GmbH.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

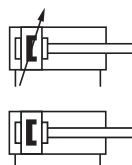
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

RM/8000/M, ISO cylinder

Magnetic piston, double acting

- > Ø 10 ... 25 mm
- > Magnetic piston as standard
- > Conforming to ISO 6432
- > Corrosion resistant With buffer or adjustable cushioning
- > Nose mounting nut and piston rod supplied locknut as standard



Technical features

Medium:

Compressed air, filtered, lubricated or non-lubricated

Standard:

ISO 6432

Operation:

Double acting with magnetic piston and buffer or adjustable cushioning

Operating pressure:

1 ... 10 bar (14 ... 145 psi)

Cylinder diameters:

10, 12, 16, 20, 25 mm (buffer)

16, 20, 25 mm (adjustable cushioning)

Strokes:

See page below

Non-standard strokes:

up to 500 mm max. on request

Operating temperature:

-10 ... +80°C max. (+14 ... +176°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:

Barrel: stainless steel (austenitic)

End covers: clear anodised aluminium alloy

Piston rod: stainless steel

(austenitic)

Buffer: PUR

Wiper: PUR

Seals: NBR

Technical data

Cylinder Ø (mm)	10	12	16	20	25
Port size	M5	M5	M5	G1/8	G1/8
Piston rod Ø (mm)	4	6	6	8	10
Piston rod thread	M4	M6	M6	M8	M10x1,25
Cushion length mm	—	—	16	19	19
Initial cushion volume (cm ³) *1)	—	—	2,4	4,4	7,2
Theoretical thrusts at 6 bar outstroke (N)	47,1	67,8	120	188	294
Theoretical thrusts at 6 bar instroke (N)	39,6	51	104	158	247
Air consumption at 6 bar outstroke (l/cm)	0,006	0,008	0,014	0,022	0,035
Air consumption at 6 bar instroke (l/cm)	0,005	0,006	0,013	0,019	0,028

*1) For cylinders with adjustable cushioning only

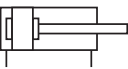
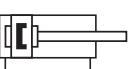
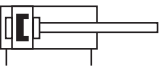
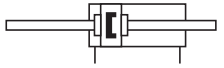
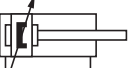
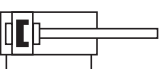
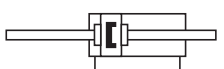
Standard strokes with buffer cushioning

Cylinder Ø (mm)	Stroke length (mm)	10	25	40	50	80	100	125	160	200	250
10	•	•	•	•	•	•	•	—	—	—	—
12	•	•	•	•	•	•	•	•	•	•	•
16	•	•	•	•	•	•	•	•	•	•	—
20	•	•	•	•	•	•	•	•	•	•	•
25	•	•	•	•	•	•	•	•	•	•	•

with adjustable cushioning

Cylinder Ø (mm)	Stroke length (mm)	10	25	40	50	80	100	125	160	200	250
16	—	•	—	•	•	•	•	•	•	•	•
20	—	•	—	•	•	•	•	•	•	•	•
25	—	•	—	•	•	•	•	•	•	•	•

Cylinder variants

Symbol	Model Non-magnetic piston	Symbol	Model magnetic piston	Description	Dimensions Page
	TRM/8000 *1)		RM/8000/M	Standard cylinder with integral eye mounting	4
			RM/8000/MC	Cylinder with central rear port	5
			RM/8000/MF	Cylinder with flat rear cover	5
	RM/8000/IU TRM/8000/IU *1)		RM/8000/MU	Cylinder with extended piston rod piston rod extension 75 mm: *RM/8**/*U/stroke/75	4
			RM/8000/JM	Cylinder with double ended piston rod (Ø 16 to 25 mm)	4
			RM/8017/M	Cylinder Ø 16 mm with adjustable cushioning	4
			RM/8021/M	Cylinder Ø 20 mm with adjustable cushioning	4
			RM/8026/M	Cylinder Ø 25 mm with adjustable cushioning	4
			RM/8017/MU	Cylinder Ø 16 mm with adjustable cushioning and extended piston rod	4
			RM/8021/MU	Cylinder Ø 20 mm with adjustable cushioning and extended piston rod	4
			RM/8026/MU	Cylinder Ø 25 mm with adjustable cushioning and extended piston rod	4
			RM/8017/JM	Cylinder Ø 16 mm with double ended piston rod and adjustable cushioning	4
			RM/8021/JM	Cylinder Ø 20 mm with double ended piston rod and adjustable cushioning	4
			RM/8026/JM	Cylinder Ø 25 mm with double ended piston rod and adjustable cushioning	4
			RM/8000/N2	Cylinder with non-rotating piston rod (Ø 12 to 25 mm)	4
			RM/8000/L4	Cylinder Ø 12 to 25 mm with locking unit (PASSIVE). achieved by spring force on removal of the signal to the unit. Operating pressure for locking unit: 4 ... 10 bar	5

*1 Cylinder (Ø 16 ... 25 mm) with heat resistant seals 150°C max.

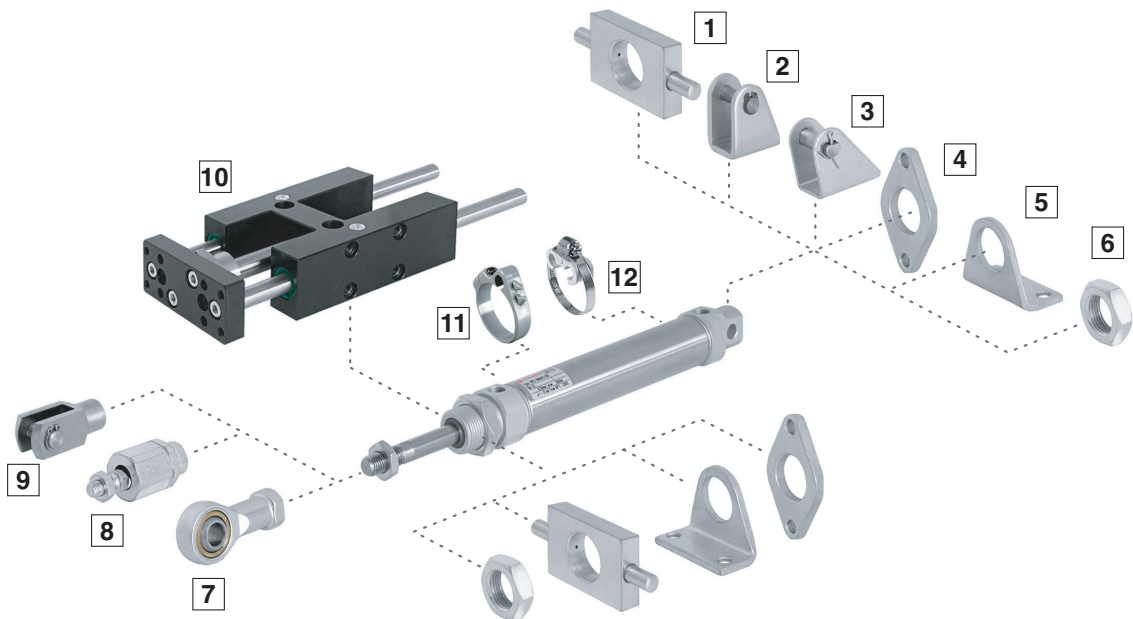
Option selector

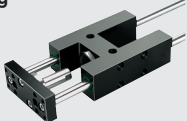
Non-standard variants		Substitute		Stroke (mm)	
High temperature version 150°C max.		T		max. 500	
Cylinder Ø (mm) with buffer		Substitute		Variants (non-magnetic piston)	
10		10		Extended piston rod	
12		12		RM/8**/IU*/***/**	
16		16		Extension (mm)	
20		20		Variants (magnetic piston)	
25		25		Standard with integral eye mounting	
Cylinder Ø (mm) with adjustable cushioning		Substitute		M	
16		17		Central rear port	
20		21		MC	
25		26		Flat rear cover	
				MF	
				Non-rotating piston rod	
				N2	
				Double ended piston rod	
				JM	
				Locking unit	
				L4	
				Extended piston rod	
				MU	
				RM/8**/MU*/***/**	
				Extension (mm)	

Note: If option is not required, disregard option position within part number eg. RM/8025/M/50. For combinations of cylinder variants consult our Technical Service. Please note that heat resistant seals are not available for all variants. This options selector explains only the cylinder variants. Additional variants/options are not possible.

Note: Please fill in only the numbers of digits required, e.g. RM/8025/M/50

Mountings

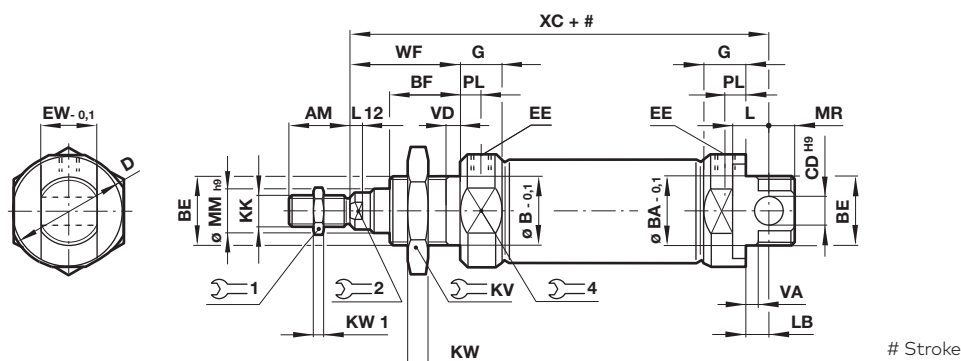


Cyl.	AK	B, G	C	F	FH
					
	8	4	5	9	1
	Page 6	Page 6	Page 6	Page 6	Page 6
Ø					
10	QM/8010/38	M/P19407	M/P19369	QM/8010/25	—
12	QM/8012/38	M/P19408	M/P19389	QM/8012/25	QM/8012/34
16	QM/8012/38	M/P19408	M/P19389	QM/8012/25	QM/8012/34
20	QM/8020/38	M/P19409	M/P19406	QM/8020/25	QM/8020/34
25	QM/8025/38	M/P19409	M/P19406	QM/8025/25	QM/8020/34
Cyl.	L	L2	N	UF	Guide block with roller bearing
					
	3	2	6	7	10
	Page 6	Page 7	Page 7	Page 7	Page 8
Ø					
10	QM/947	QM/8010/44	M/P1501/90	QM/8010/32	—
12	QM/8012/24	QM/8012/44	M/P13834	QM/8012/32	QM/8012/61/*
16	QM/8012/24	QM/8012/44	M/P13834	QM/8012/32	QM/8012/61/*
20	QM/8020/24	QM/8020/44	M/P13615	QM/8020/32	QM/8020/61/*
25	QM/8020/24	QM/8020/44	M/P13615	QM/8025/32	QM/8025/61/*
Cyl.	Switch mounting brackets >15 mm stroke	<15 mm stroke	Magnetically operated switches		
					
	11	12	Page 10 & 11		
	Page 10	Page 10			
Ø					
10	QM/33/010/22	QM/33/010/23			
12	QM/33/012/22	QM/33/016/23			
16	QM/33/016/22	QM/33/016/23			
20	QM/33/020/22	QM/33/020/23			
25	QM/33/025/22	QM/33/025/23			

* Please insert standard stroke length: Ø 12 mm: 50, 100, 160, 200 and 250 mm; Ø 16 ... 25 mm: 50, 100, 160, 200, 250, 320, 400 and 500 mm.
For special strokes, use next larger standard stroke.

Basic dimensions RM/8000/M

Dimensions in mm
Projection/First angle



Ø	AM	Ø B/BA -0,1	BE	BF	Ø CD H9	Ø D	EE	EW -0,1	G	KK	 KV	KW	KW1	L	Model
10	12	12	M12x1,25	12	4	16,5	M5	7,9	9	M4	19	6	2	6	RM/8010/M/*
12	16	16	M16x1,5	17	6	21	M5	11,9	9,5	M6	22	5	3	9	RM/8012/M/*
16	16	16	M16x1,5	17	6	21	M5	11,9	9,5	M6	22	5	3	9	RM/8016/M/*
20	20	22	M22x1,5	20	8	30	G1/8	15,9	15	M8	27	8	4	12	RM/8020/M/*
25	22	22	M22x1,5	22	8	30	G1/8	15,9	15	M10x1,25	27	8	5	12	RM/8025/M/*
Ø	L12	LB	Ø MM h9	MR	PL	 1	 2	 4	WF	VA/VD	XC	at 0 mm	per 25 mm		Model
10	–	2	4	8	5,5	7	–	14	16	1,5	64	0,034 kg	0,007 kg		RM/8010/M/*
12	3	3	6	8	5,5	10	5	19	22	2	75	0,058 kg	0,011 kg		RM/8012/M/*
16	3	4	6	7	5,5	10	5	19	22	2	82	0,070 kg	0,012 kg		RM/8016/M/*
20	3	3	8	11	8	13	7	27	24	2	95	0,145 kg	0,018 kg		RM/8020/M/*
25	4	7	10	9	8	17	9	27	28	2	104	0,200 kg	0,028 kg		RM/8025/M/*

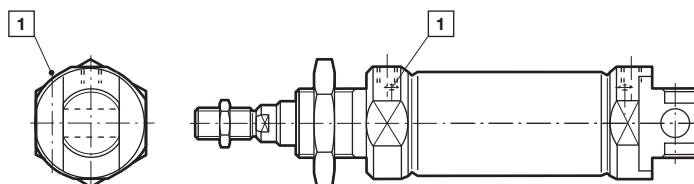
* Please insert standard stroke length.

Alternative variants

RM/8017/M, RM/8021/M, RM/8026/M – Cylinder with adjustable cushioning

Ø	at 0 mm	per 25 mm	Model
16	0,070 kg	0,012 kg	RM/8017/M/*
20	0,145 kg	0,018 kg	RM/8021/M/*
25	0,195 kg	0,028 kg	RM/8026/M/*

* Please insert standard stroke length.



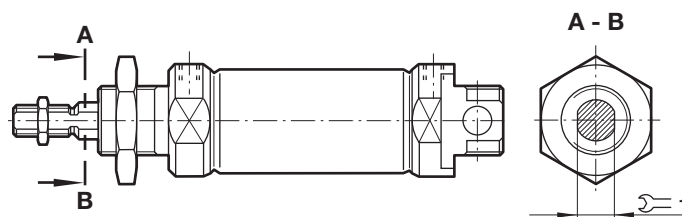
1 Cushion screw

RM/8000/N2 –

Cylinder with non-rotating piston rod

Ø	⌀1	Torque max.	at 0 mm	per 25 mm	Model
12	5	0,04 Nm	0,058 kg	0,011 kg	RM/8012/N2/*
16	5	0,04 Nm	0,070 kg	0,012 kg	RM/8016/N2/*
20	6	0,15 Nm	0,145 kg	0,018 kg	RM/8020/N2/*
25	8	0,25 Nm	0,200 kg	0,028 kg	RM/8025/N2/*

* Please insert standard stroke length.

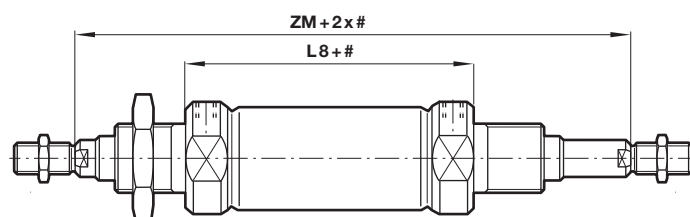


RM/8000/JM –

Cylinder with double ended piston rod

Ø	L8	ZM	at 0 mm	per 25 mm	Model
16	56	100	0,080 kg	0,017 kg	RM/8016/JM/*
20	68	116	0,165 kg	0,028 kg	RM/8020/JM/*
25	69	125	0,250 kg	0,043 kg	RM/8025/JM/*

* Please insert standard stroke length.

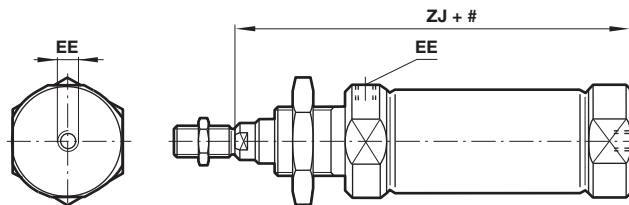


Stroke

Alternative variants

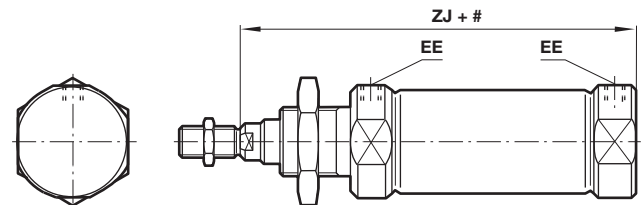
RM/8000/MC –

Cylinder with central rear port



RM/8000/MF –

Cylinder with flat rear cover



Dimensions in mm
Projection/First angle

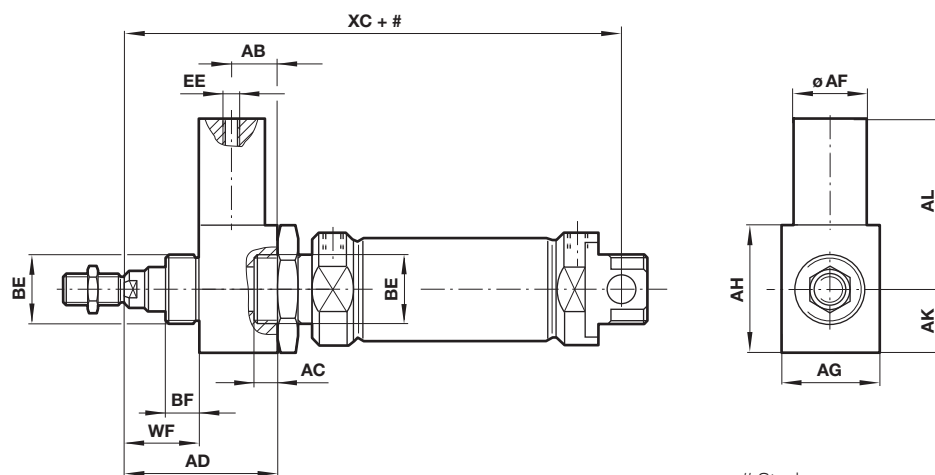


Stroke

Ø	EE	ZJ	at 0 mm	per 25 mm	Model
10	M5	62	0,031 kg	0,007 kg	RM/8010/M/*
12	M5	72	0,052 kg	0,011 kg	RM/8012/M/*
16	M5	78	0,064 kg	0,012 kg	RM/8016/M/*
20	G1/8	92	0,130 kg	0,018 kg	RM/8020/M/*
25	G1/8	97	0,185 kg	0,028 kg	RM/8025/M/*

* Please insert standard stroke length.

RM/8000/L4 – Cylinder with locking unit



Stroke

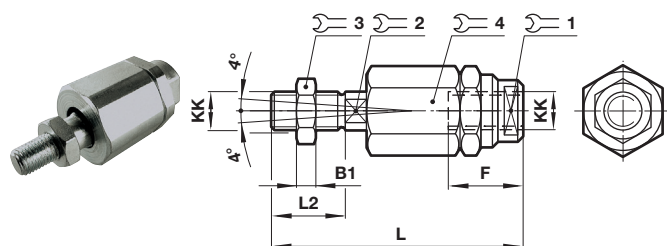
Ø	AB	AC	AD	Ø AF	AG	AH	AL	AK	Model
12	21	13	48,5	20	20	20	43,5	10	RM/8012/L4/*
16	21	13	48,5	20	20	20	43,5	10	RM/8016/L4/*
20	24	14	66	22	27	33	45,5	16,5	RM/8020/L4/*
25	24	14	65	22	27	33	45,5	16,5	RM/8025/L4/*
Ø	BE	BF	EE	WF	XC	Locking forces	at 0 mm	per 25 mm	Model
12	M16 x 1,5	12	M5	18,5	109	200 N	0,130 kg	0,011 kg	RM/8012/L4/*
16	M16 x 1,5	12	M5	18,5	116	200 N	0,140 kg	0,012 kg	RM/8016/L4/*
20	M22 x 1,5	23	M5	31	145	350 N	0,300 kg	0,018 kg	RM/8020/L4/*
25	M22 x 1,5	23	M5	30	151,5	400 N	0,360 kg	0,028 kg	RM/8025/L4/*

* Please insert standard stroke length.

Mountings

Piston rod swivel AK

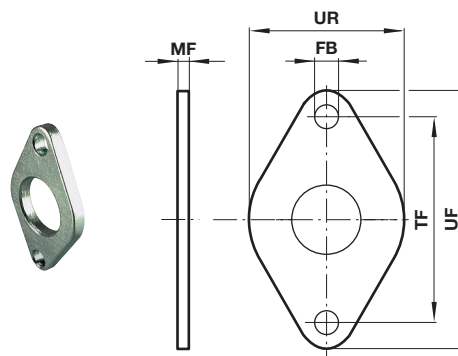
Conforms to DIN ISO 8139



Ø	KK	B1	F	L	L2	1 2 3 4				kg	Model (AK)
10	M 4	2	12,5	33	8	11	3,2	7	11	0,01	QM/8010/38
12/16	M 6	3	14	39	12	7	5	10	13	0,02	QM/8012/38
20	M 8	4	18	55	16	10	7	13	17	0,05	QM/8020/38
25	M 10 x 1,25	5	26	73	20	19	12	17	30	0,2	QM/8025/38

Front or rear flange G and B

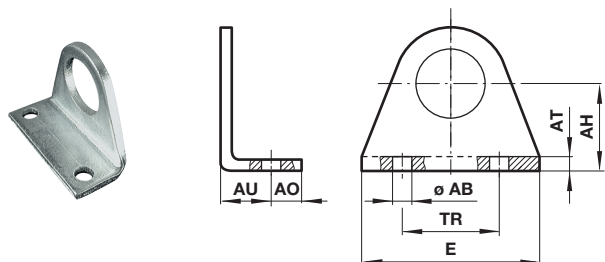
Dimensions in mm
Projection/First angle



Ø	Ø FB	MF	TF	UF	UR	kg	Model (B, G)
10	4,5	3	30	40	22	0,02	M/P19407
12/16	5,5	4	40	51	28	0,03	M/P19408
20/25	6,6	5	50	63	38	0,05	M/P19409

Foot C

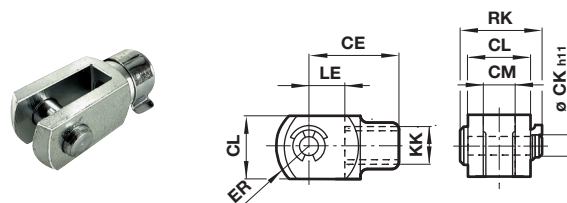
Conforms to DIN ISO 6432



Ø	Ø AB	AH	AO	AT	AU	E	TR	kg	Model (C)
10	4,5	16	6	2	10	35	25	0,02	M/P19369
12/16	5,5	20	6	3	13	43	32	0,03	M/P19389
20/25	6,6	25	7,5	4	16	53	40	0,06	M/P19406

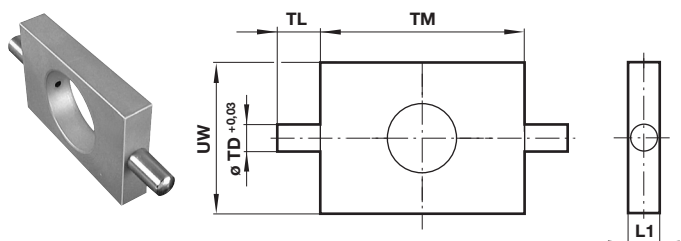
Piston rod clevis F

Conforms to DIN ISO 8140



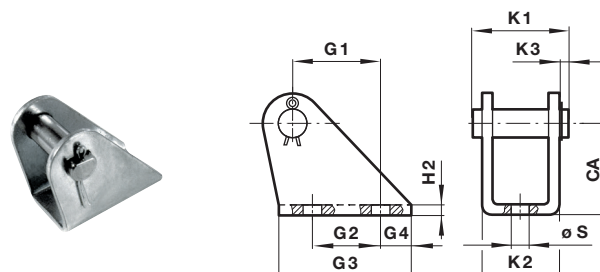
Ø	KK	CE	Ø CK h11	CL	CM	ER	LE	RK	kg	Model (F)
10	M 4	16	4	8	4	6,5	8	11,5	0,01	QM/8010/25
12/16	M 6	24	6	12	6	9,5	12	17,5	0,02	QM/8012/25
20	M 8	32	8	16	8	13	16	22	0,06	QM/8020/25
25	M 10 x 1,25	40	10	20	10	16	20	28	0,10	QM/8025/25

Front or rear detachable trunnion FH



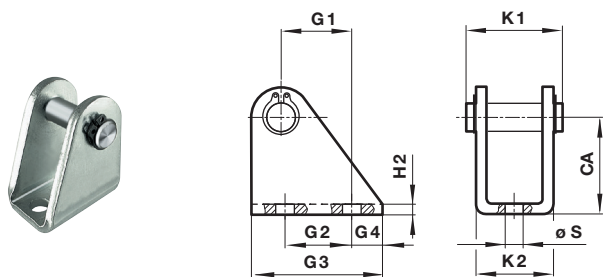
Ø	L1	Ø TD +0,03	TL	TM	UW	kg	Model (FH)
12/16	8	6	10	38	25	0,05	QM/8012/34
20/25	8	6	10	46	30	0,07	QM/8020/34

Rear hinge L



Ø	CA	G1	G2	G3	G4	H2	K1	K2	K3	Ø S	kg	Model (L)
10	12	6,5	-	15	6	1	13,5	10,5	2	4,8	0,01	QM/947
12/16	20	18,5	15	30	8	1,5	20	15	3	5,5	0,02	QM/8012/24
20/25	25	20	15	35	10	2	25	20,5	3	6,6	0,04	QM/8020/24

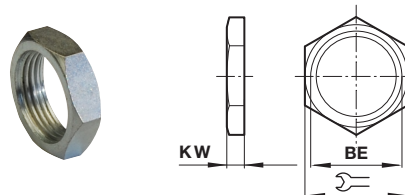
Rear hinge L2



Ø	CA	G1	G2	G3	G4	H2	K1	K2	Ø S	kg	Model (L2)
10	24	11	12,5	20	4	2,5	17,5	13	4,5	0,018	QM/8010/44
12/16	27	13	15	25	5	3	23	18	5,5	0,035	QM/8012/44
20/25	30	16	20	32	6	4	29,5	24	6,6	0,077	QM/8020/44

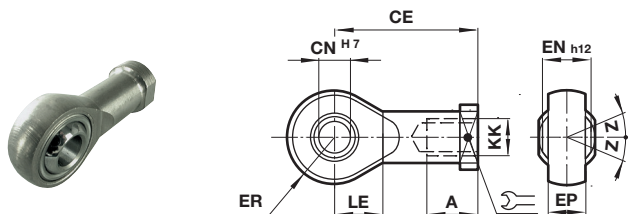
Nose nut N

Dimensions in mm
Projection/First angle



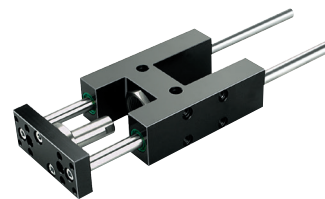
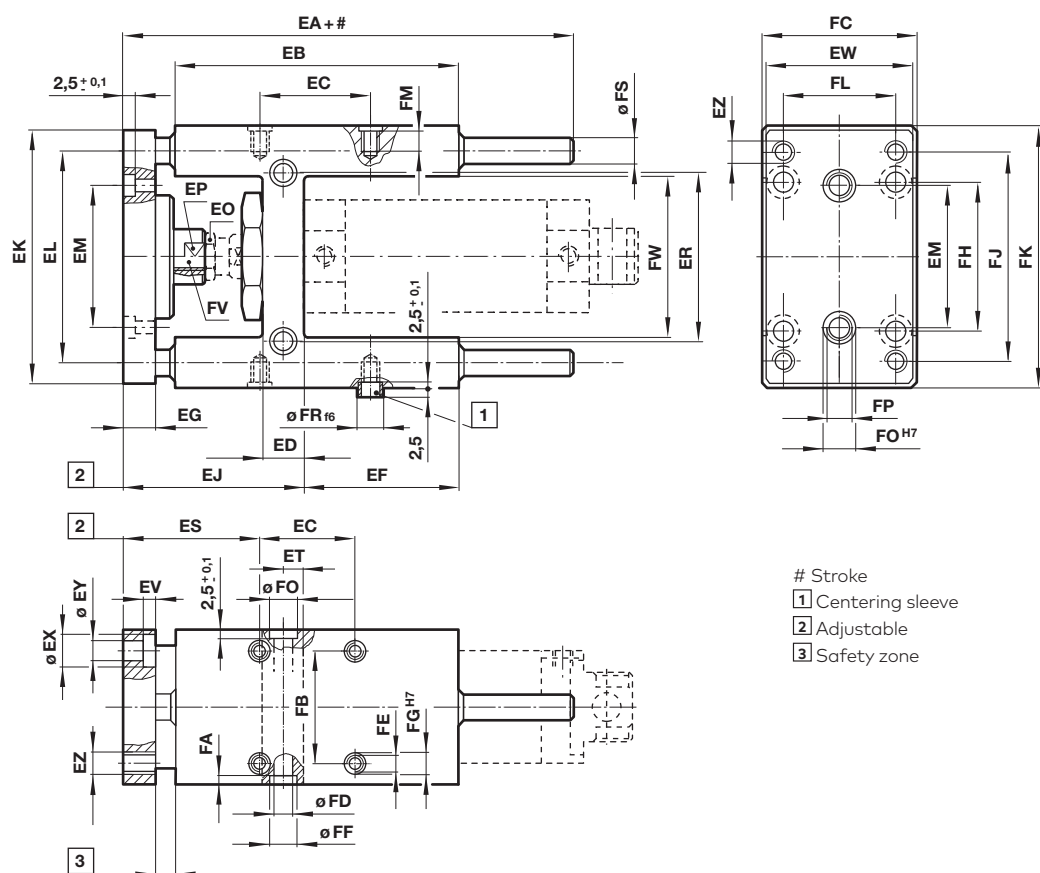
Ø	BE	KW	kg	Model (N)
10	M12x1,25	19	6	M/P1501/90
12/16	M16x1,5	22	5	M/P13834
20/25	M22x1,5	27	8	M/P13615

Universal piston rod eye UF Conforms to DIN ISO 8139



Ø	KK	AX	CE	Ø CN H7	EN -0,1	ER	LE	Z	kg	Model (UF)
10	M4	14	27	5	8	8	10	5°	0,02	QM/8010/32
12/16	M6	14	30	6	9	9	11	5°	0,02	QM/8012/32
20	M8	16	36	8	12	11	13	5°	0,05	QM/8020/32
25	M10 x 1,25	25	42	10	14	14	15	5°	0,08	QM/8025/32

QM/8000/61 – Guide block



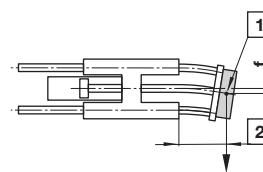
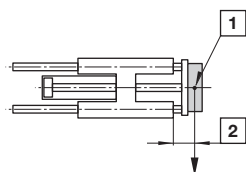
Dimensions in mm
 Projection/First angle



Ø	EA	EB	EC	ED	EF	EG	EJ	EK	EL	EM	EO	EP	ER	ES	ET	EV	EW	Ø EX	Ø EY	EZ	Model
12/16	132	75	32,5	16,5	37	10	76	63	46	24	10	8	24	65	6,5	4,6	27	8	4,5	M4	QM/8012/61
20	160	108	32,5	19	58	12	90	76	58	38	13	13	38	75	8,5	5,7	32	10	5,5	M5	QM/8020/61
25	160	108	32,5	19	58	12	90	76	58	38	17	13	38	75	8,5	5,7	32	10	5,5	M5	QM/8025/61
Ø	FA	FB	FC	Ø FD	FE	FF	Ø FG H7	FH	FJ	FK	FL	FM	Ø FO H7	FP	Ø FR f6	Ø FS	FV	FW	kg at 0 mm	kg per 100 mm	Model
12/16	6	22	30	5,5	M4	9	6	32	54	65	15	10	9	M5	6	8	M6	27	0,40	0,04	QM/8012/61
20	7	23	34	6,6	M6	11	9	40	68	79	20	14	9	M6	9	10	M8	37	0,65	0,06	QM/8020/61
25	7	23	34	6,6	M6	11	9	40	68	79	20	14	9	M6	9	10	M10 x 1,25	37	0,65	0,06	QM/8025/61

Note: supplied complete with cylinder mounting screws and two centering sleeves

Maximum load for QM/8000/61



Dimensions in mm
Projection/First angle



- 1 Centre of gravity load capacity
- 2 Outstroke

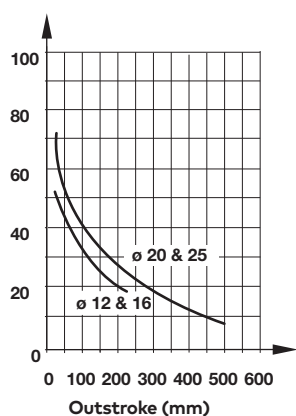
Maximum load capacity is dependent on the outstroke of a horizontally installed guide unit. In the case of short stroke operation, the load capacity figures taken from the diagram must be multiplied by the correction factor (diagram 2). In the curves of load capacity (diagram 1), the short stroke corrections have already been taken

into account for an outstroke > 60 mm.

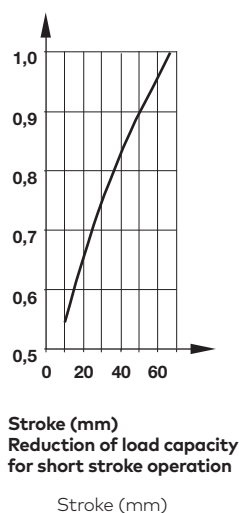
The total deflection of guide rods will be determined by the addition of that due to own weight (diagram 3) and that due to load capacity (diagram 4).

Maximum load capacity depending on outstroke (diagram 1)

Load capacity

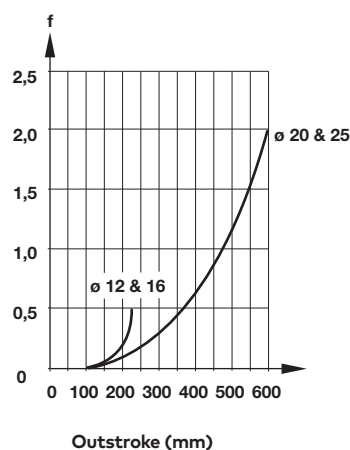


Correction factor



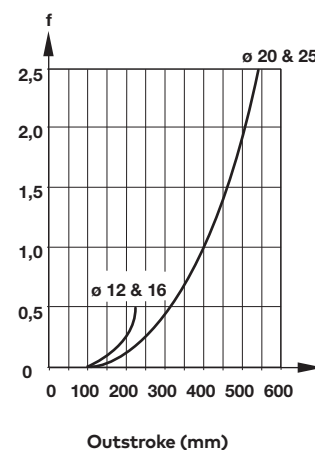
Deflection caused by own weight (diagram 3)

Deflection (mm)

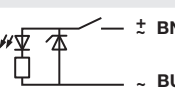
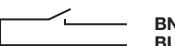
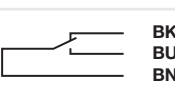


Deflection caused by a load of 10 N (diagram 4)

Deflection (mm)



Technical data - Reed switches - additional informations see data sheet N/en 4.3.005

Symbol	Voltage		Current maximum	Function	Operating temperature	LED	Protection class	Plug	Cable length	Cable type	Weight	Model	
	(V a.c.)	(V d.c.)	(mA)		(°C)				(m)		(g)		
	± BN	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	2, 5 or 10	PVC 2 x 0,25	37	M/50/LSU/*V
	~ BU	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	5	PUR 2 x 0,25	37	M/50/LSU/5U
	BN BU	10 ... 240	10 ... 170	180	Closer	-25 ... +150	—	IP66	—	2	Silicon 2 x 0,25	37	TM/50/RAU/2S
	BK BU BN	10 ... 240	10 ... 170	180	Changeover	-25 ... +80	—	IP66	—	5	PVC 3 x 0,25	37	M/50/RAC/5V
	1- ± BN	10 ... 60	10 ... 60	180	Closer	-25 ... +80	•	IP66	M8 x 1	0,3	PVC 3 x 0,25	16	M/50/LSU/CP *1)
	4- ~ BK												

* Insert cable length; *1) Plug-in connector see page 11; Color code: BK = black, BN = brown, BU = blue

Drawings

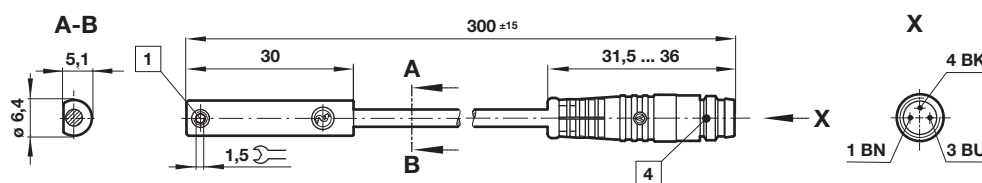
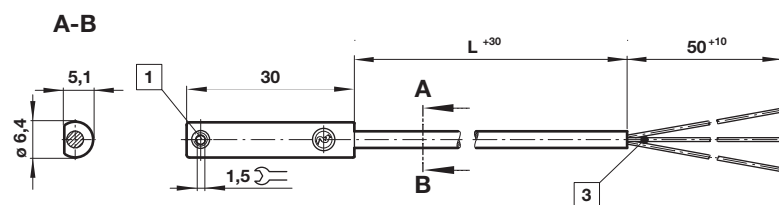
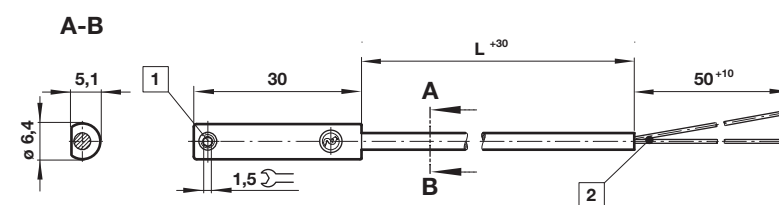
M/50/LSU/*V, M/50/LSU/5U,
TM/50/RAU/2S
Cable length L = 2, 5 or 10 m



M/50/RAC/5V
Cable length L = 5 m



M/50/LSU/CP



- 1 Fixing screw
2 + BN = brown; - BU = blue (output)
3 - BK = black; + BN = brown; - #BU = blue
4 Plug M8 x 1, color code: BK = black; BN = brown; BU = blue

Dimensions in mm
Projection/First angle



Switch mounting brackets - Brackets > 15 mm stroke



- 1 Magnetically operated switch
2 Switch mounting bracket

Ø	B	R max.	kg	Model
10	8	16	0,01	QM/33/010/22
12	8	18	0,01	QM/33/012/22
16	10	20	0,01	QM/33/016/22
20	10	22	0,01	QM/33/020/22
25	10	24	0,01	QM/33/025/22

Switch mounting brackets - Brackets < 15 mm stroke



- 1 Magnetically operated switch
2 Switch mounting bracket

Ø	S	T	kg	Model
10	27,5	19,5	0,01	QM/33/010/23
12	28,5	21,5	0,01	QM/33/016/23
16	29,5	23,5	0,01	QM/33/016/23
20	29,5	26	0,01	QM/33/020/23
25	31,5	28,5	0,01	QM/33/025/23

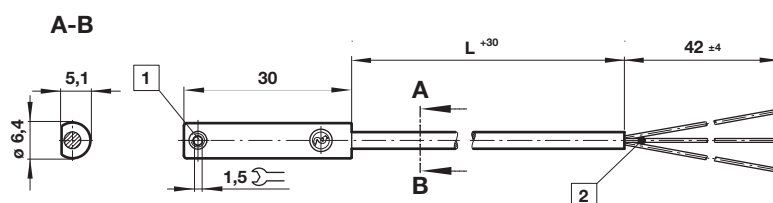
Technical data - Solid state - additional informations see data sheet N/en 4.3.007

Symbol	Voltage (V d.c.)	Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 30	150	PNP	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAP/*V
	10 ... 30	150	PNP	-40 ... +80	•	IP68	—	5	PUR 3 x 0,14	37	M/50/EAP/5U
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CP *1)
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M12 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CC *1)
	10 ... 30	150	NPN	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAN/*V
	10 ... 30	150	Closer	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAN/CP *1)

* Insert cable length; *1) Plug-in connector below; Color code: BK = black, BN = brown, BU = blue

Drawings

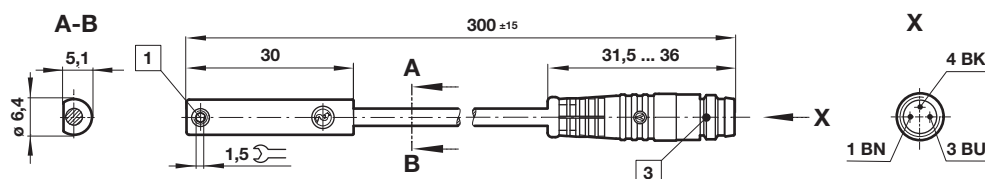
M/50/EAP/*V,
M/50/EAN/*V
Cable length L = 2, 5 or 10 m



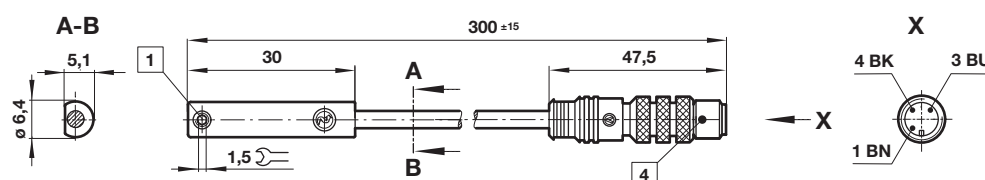
Dimensions in mm
Projection/First angle



M/50/EAP/CP,
M/50/EAN/CP



M/50/EAP/CC



Accessories

Plug-in connector cable with nut



Outer cover	Cable length (m)	Weight (kg)	Connector	Connector
PVC 3 x 0,25	5 m	0,18	M8 x 1	M/P73001/5
PUR 3 x 0,25	5 m	0,18	M8 x 1	M/P73002/5
PUR 3 x 0,34	5 m	0,21	M12 x 1	M/P34594/5

- 1 Fixing screw
- 2 Color code: BK = black; BN = brown; BU = blue
- 3 Plug M8 x 1
- 4 Plug M12 x 1

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features/data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren.

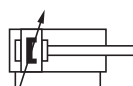
Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

- > Ø 32 ... 100 mm
- > Clean line design
- > Low friction, long life seals
- > Standard magnetic piston for full control system versatility



Technical features

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting, magnetic piston, adjustable cushioning

Operating pressure:

1 ... 10 bar (14 ... 145 psi)

Cylinder diameters:

32 ... 100 mm

Strokes:

See page below

Non-standard strokes:

On request

Operating temperature:

-20°C ... +80°C (-4 ... +176°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:

Barrel and end covers:

anodized aluminium

Piston rods: stainless steel

(martensitic)

Piston and piston rod seals: PUR

'O'-rings: NBR

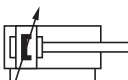
Technical data

Cylinder Ø (mm)	32	40	50	63	80	100
Port size	G 1/8	G 1/4	G 1/4	G 3/8	G 3/8	G 1/2
Piston rod Ø (mm)	12	16	20	20	25	25
Piston rod thread	M10x1,25	M12x1,25	M16x1,5	M16x1,5	M20x1,5	M20x1,5
Cushion length (mm)	19	22	24	24	27	34
Theoretical thrusts at 6 bar outstroke (N)	482	754	1178	1870	3016	4710
Theoretical thrusts at 6 bar instroke (N)	414	633	990	1680	2722	4416
Air consumption at 6 bar outstroke (l/cm)	0,056	0,088	0,137	0,218	0,35	0,55
Air consumption at 6 bar instroke (l/cm)	0,048	0,074	0,114	0,195	0,32	0,51

Standard strokes

Cylinder Ø (mm)	Strokes length (mm)								
	25	50	80	100	125	160	200	250	300
32	•	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•	•
100	•	•	•	•	•	•	•	•	•

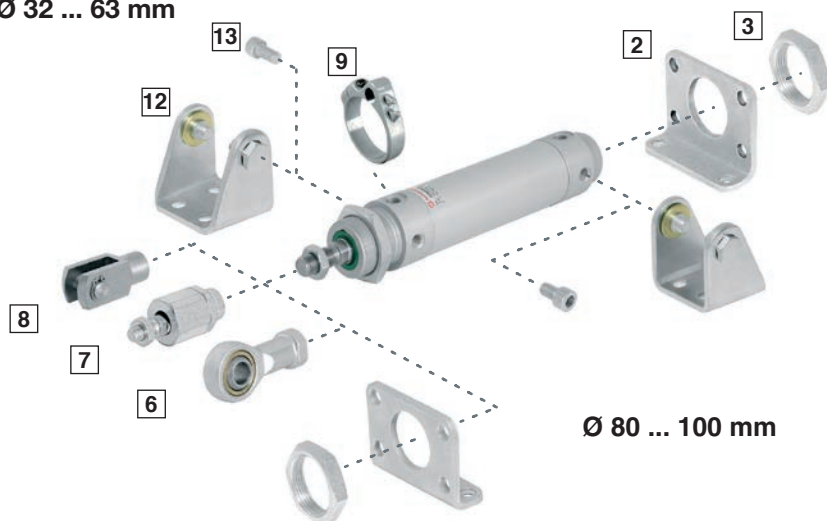
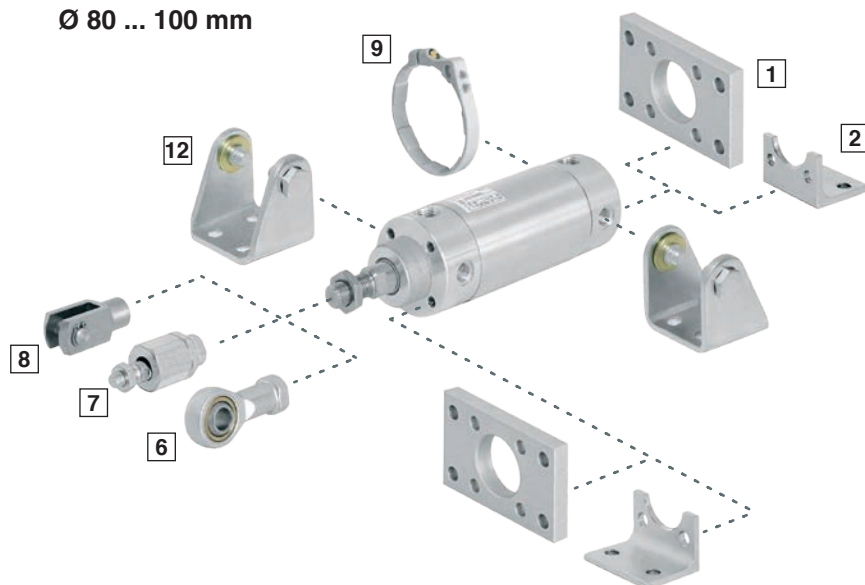
Cylinder variants

Symbol	C	S	Model magnetic piston	Description	Dimensions Page
	•	•	RM/55401/M	Standard cylinder	4
			RM/55401/W2	Cylinder with special wiper/seal (suitable for appl. with cement, plaster (stucco), arizona sand, hoar-frost or ice)	4
			RM/55401/MU	Cylinder with extended piston rod	4
			RM/55401/JM	Cylinder with double ended piston rod	4
			RM/55401/W4	Cylinder with double ended piston rod and special wiper/seal (suitable for appl. with cement, plaster (stucco), arizona sand, hoar-frost or ice)	4

For the cylinder of alternative options consult our technical service

Option selector

Piston rod material	Substitute					Strokes (mm)
Stainless steel martensitic (standard)	R					3000 max.
Hard chromium plated	C					Variants (magnetic piston)
Stainless steel austenitic	S					Substitute
Cylinder Ø (mm)	Substitute					Standard
32	33					Double ended piston rod
40	41					Extended piston rod
50	51					*M/554**/MU/***/***
63	64					Extension (mm)
80	81					
100	11					

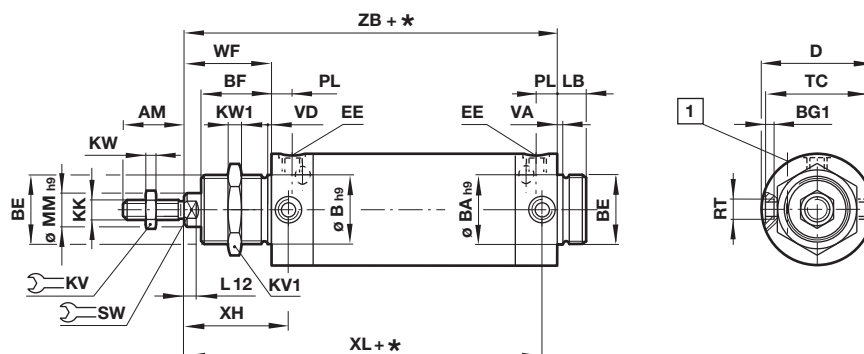
**Mountings
Ø 32 ... 63 mm**

Ø 80 ... 100 mm


Cyl.	AK	B, G	C	F	H	L
						
	7	1	2	8	13	12
	Page 5	Page 5	Page 5	Page 5	Page 5	Page 5
Ø						
32	QM/8025/38	QM/55232/22	QM/55232/21	QM/8025/25	QM/55232/28	QM/55232/24
40	QM/8040/38	QM/55240/22	QM/55240/21	QM/8040/25	QM/55240/28	QM/55240/24
50	QM/8050/38	QM/55250/22	QM/55250/21	QM/8050/25	QM/55250/28	QM/55250/24
63	QM/8050/38	QM/55263/22	QM/55263/21	QM/8050/25	QM/55263/28	QM/55263/24
80	QM/8080/38	QM/55480/22	QM/55480/21	QM/8080/25	QM/55480/28	QM/55480/24
100	QM/8080/38	QM/55410/22	QM/55410/21	QM/8080/25	QM/55410/28	QM/55410/24

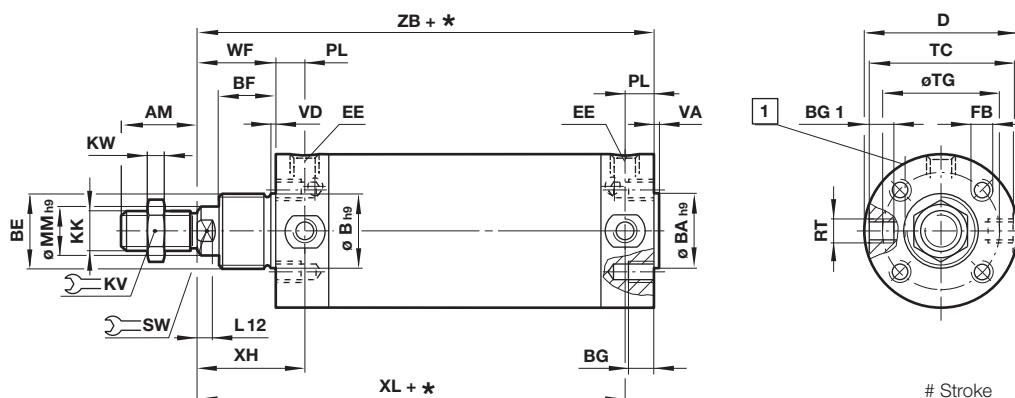
Cyl.	N	UF	Switch mounting	Magnetically operated switches	Service kit
					
	3	6	9		
	Page 6	Page 6	Page 6	Page 7 & 8	
Ø					
32	M/P29254	QM/8025/32	QM/33/432/22		QM/55433/00
40	M/P29255	QM/8040/32	QM/33/440/22		QM/55441/00
50	M/P29256	QM/8050/32	QM/33/450/22		QM/55451/00
63	M/P29256	QM/8050/32	QM/33/463/22		QM/55464/00
80	M/P34806	QM/8080/32	QM/33/480/22		QM/55481/00
100	M/P34806	QM/8080/32	QM/33/100/22		QM/55411/00

Basic dimensions
Ø 32 ... 63 mm

Dimensions in mm
Projection/First angle



Ø 80 and 100 mm



Stroke
1 Cushion screw

Ø	AM	Ø B/BA h9	BE	BF	BG	BG1	D	EE	FB	KK	 KV	 KV1	KW	KW1	LB
32	22	30	M 30 x 1,5	30	—	6	36,5	G 1/8	—	M 10 x 1,25	17	36	5	8	14
40	24	38	M 38 x 1,5	35	—	8	45,5	G 1/4	—	M 12 x 1,25	19	46	6	10	16
50	32	45	M 45 x 1,5	38	—	9,5	55,5	G 1/4	—	M 16 x 1,5	24	55	8	10	18
63	32	45	M 45 x 1,5	38	—	10	69,5	G 3/8	—	M 16 x 1,5	24	55	8	10	18
80	40	55	M 55 x 1,5	45	14	17,5	87,5	G 3/8	M8	M 20 x 1,5	30	—	10	—	—
100	40	55	M 55 x 1,5	45	14	21,5	107,5	G 1/2	M10	M 20 x 1,5	30	—	10	—	—
Ø	L12	Ø MM h9	PL	RT	 SW	Ø TC	TG	VA/VD	WF	XH	XL	ZB	kg at 0 mm	kg per 100 mm	Model
32	5,5	12	9	M 8 x 1	10	35	—	3	38	47	123	132	0,40	0,14	RM/55433/*
40	7,5	16	12	M 10 x 1	13	44	—	3	45	57	142	154	0,83	0,27	RM/55441/*
50	8,5	20	12	M 12 x 1,5	17	54	—	3	50	62	152	164	1,30	0,32	RM/55451/*
63	8,5	20	13	M 14 x 1,5	17	67	—	3	51	64	159	172	1,60	0,38	RM/55464/*
80	11,5	25	15	M 16 x 1,5	22	85,5	70	5	61	76	196	211	3,10	0,59	RM/55481/*
100	11,5	25	18,5	M 20 x 1,5	22	105,5	80	5	61	79,5	200,5	219	4,60	0,68	RM/55411/*

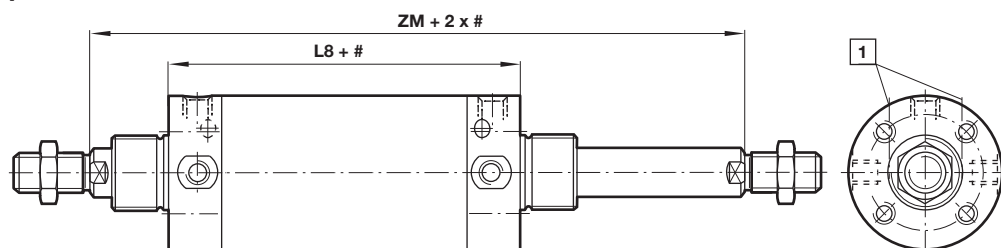
* Please insert stroke length.

Cylinder variants

RM/55401/JM – Double ended piston rod

Ø	L8	ZM	Model
32	94	170	RM/55433/JM/*
40	109	199	RM/55441/JM/*
50	114	214	RM/55451/JM/*
63	121	223	RM/55461/JM/*
80	150	272	RM/55481/JM/*
100	158	280	RM/55411/JM/*

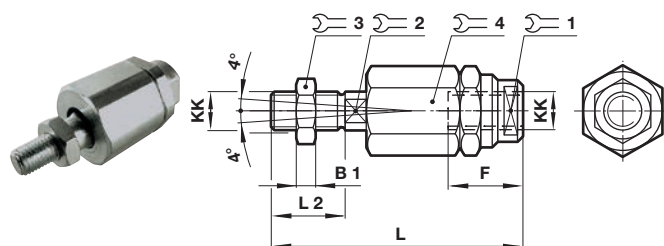
* Please insert standard stroke length.



Stroke
1 Cushion screw

Mountings

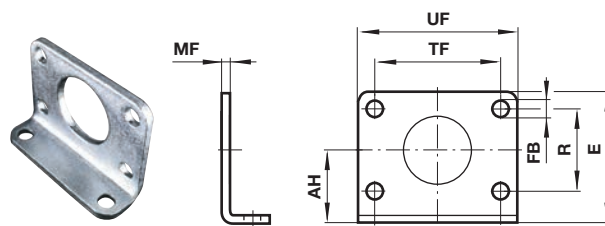
Piston rod swivel AK



Ø	KK	B1	F	L	L2	1	2	3	4	kg	Model (AK)
32	M10x1,25	5	26	73	20	19	12	17	30	0,20	QM/8025/38
40	M12x1,25	6	26	77	24	19	12	19	30	0,20	QM/8040/38
50/63	M16x1,5	8	34	106	32	30	19	24	42	0,65	QM/8050/38
80/100	M20x1,5	10	42	122	40	30	19	30	42	0,72	QM/8080/38

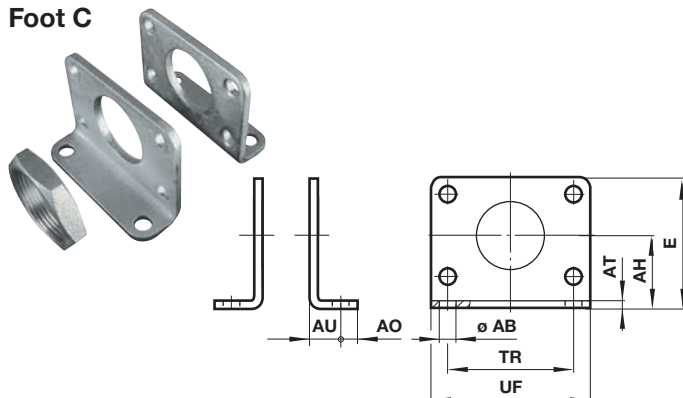
Rear flange B, front flange G

Dimensions in mm
Projection/First angle



Ø	AH	E	Ø FB	MF	R	TF	UF	kg	Model
32	28	49	7	4	28	52	66	0,11	QM/55232/22
40	33	58	9	5	30	60	80	0,19	QM/55240/22
50	40	70	9	5	40	70	90	0,25	QM/55250/22
63	45	80	9	5	50	76	96	0,33	QM/55263/22
80	56	100	12	8	—	120	150	0,81	QM/55480/22
100	66	120	14	8	—	130	170	1,10	QM/55410/22

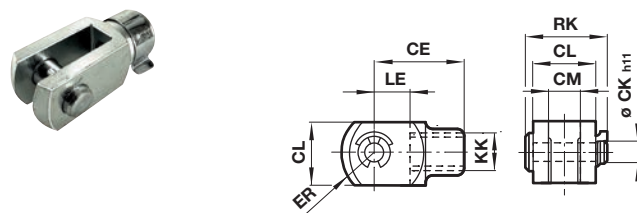
Foot C



Ø	Ø AB	AH	AO	AT	AU	E	TR	UF	kg	Model
32	7	28	7	4	14	49	52	66	0,25	QM/55232/21
40	9	33	10	5	20	58	60	80	0,44	QM/55240/21
50	9	40	10	5	20	70	70	90	0,59	QM/55250/21
63	9	45	10	5	20	80	76	96	0,73	QM/55263/21
80	12	56	15	5	45	100	63	90	0,67	QM/55480/21
100	14	66	20	5	45	120	75	113	1,00	QM/55410/21

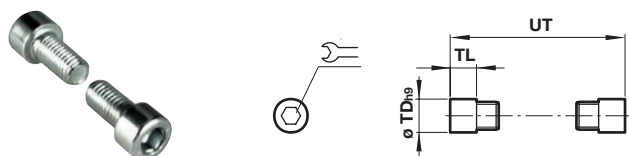
Piston rod clevis F

Conforms to DIN ISO 8140



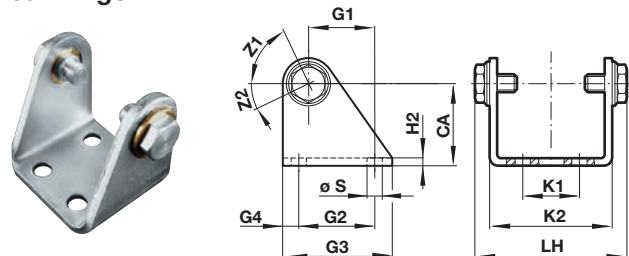
Ø	KK	CE	Ø CK h11	CL	CM	ER	LE	RK	kg	Model (F)
32	M10x1,25	40	10	20	10	16	20	28	0,09	QM/8025/25
40	M12x1,25	48	12	24	12	19	24	32	0,13	QM/8040/25
50/63	M16x1,5	64	16	32	16	25	32	41,5	0,33	QM/8050/25
80/100	M20x1,5	80	20	40	20	32	40	50	0,67	QM/8080/25

End cover trunnion H



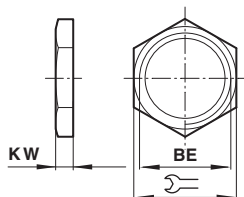
Ø	Ø TDh9	TL	UT	kg	Model
32	10	8	51	0,02	QM/55232/28
40	12	9,5	63	0,03	QM/55240/28
50	14	11	76	0,05	QM/55250/28
63	16	13	93	0,07	QM/55263/28
80	18	13	111,5	0,09	QM/55480/28
100	20	13	131,5	0,25	QM/55410/28

Rear hinge L



Ø	CA	G	1	2	3	4	Ø S	H2	K	1	2	LH	Z	1	2	Model
32	35	20	24	40	8	7	4	20	46,5	59,5	202°	36°	QM/55232/24			
40	40	27	30	50	10	9	5	28	56,5	71	197°	33°	QM/55240/24			
50	45	30	34	54	10	9	5	36	68,5	83	196°	31°	QM/55250/24			
63	50	34	35	65	15	9	5	42	82,5	99	191°	25°	QM/55263/24			
80	65	47,5	55	80	12,5	11	6	55	102,5	125,5	193°	27°	QM/55480/24			
100	77	63	70	100	15	11	6	70	122,5	145,5	192°	27°	QM/55410/24			

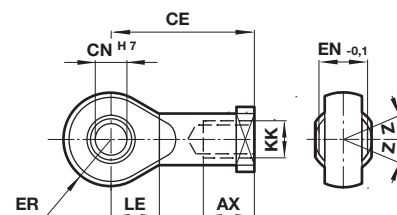
Nose nut N



Ø	BE		KW	kg	Model
32	M30 x 1,5	36	8	0,03	M/P29254
40	M38 x 1,5	46	10	0,06	M/P29255
50/63	M45 x 1,5	55	10	0,08	M/P29256
80/100	M55 x 1,5	60	13	0,25	M/P34806

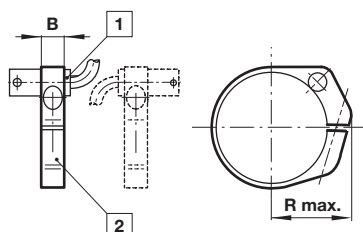
Universal piston rod eye UF Conforms to DIN ISO 8139

Dimensions in mm
Projection/First angle



Ø	Thread KK	AX	CE	Ø CN H7	EN- 0,1	ER	LE	Z	kg	Model
32	M10x1,25	20	43	10	14	14	15	13°	0,09	QM/8025/32
40	M12x1,25	22	50	12	16	16	17	13°	0,13	QM/8040/32
50/63	M16x1,5	28	64	16	21	21	22	15°	0,33	QM/8050/32
80/100	M20x1,5	33	77	20	25	25	26	15°	0,67	QM/8080/32

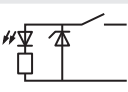
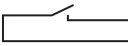
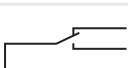
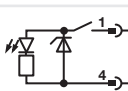
Switch mounting QM/33/XXX/22



- 1 Magnetically operated switch
2 Switch mounting bracket

Ø	B	R max.	Model
32	10	29	QM/33/432/22
40	10	32	QM/33/440/22
50	10	38	QM/33/450/22
63	10	46	QM/33/463/22
80	12	54	QM/33/480/22
100	10	59	QM/33/100/22

Technical data - Reed switches - additional informations see data sheet N/en 4.3.005

Symbol	Voltage		Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	(V a.c.)	(V d.c.)										
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	2, 5 or 10	PVC 2 x 0,25	37	M/50/LSU/~V
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	5	PUR 2 x 0,25	37	M/50/LSU/5U
	10 ... 240	10 ... 170	180	Closer	-25 ... +150	—	IP66	—	2	Silicon 2 x 0,25	37	TM/50/RAU/2S
	10 ... 240	10 ... 170	180	Changeover	-25 ... +80	—	IP66	—	5	PVC 3 x 0,25	37	M/50/RAC/5V
	10 ... 60	10 ... 60	180	Closer	-25 ... +80	•	IP66	M8 x 1	0,3	PVC 3 x 0,25	16	M/50/LSU/CP *1)

* Insert cable length; *1) Plug-in connector; Color code: BK = black, BN = brown, BU = blue

Drawings

M/50/LSU/~V, M/50/LSU/5U,
TM/50/RAU/2S
Cable length L = 2, 5 or 10 m



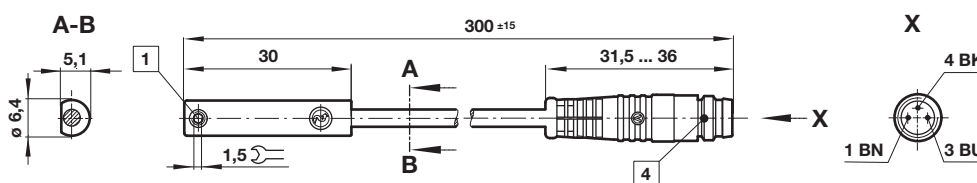
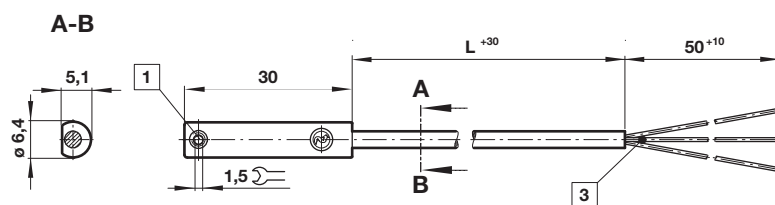
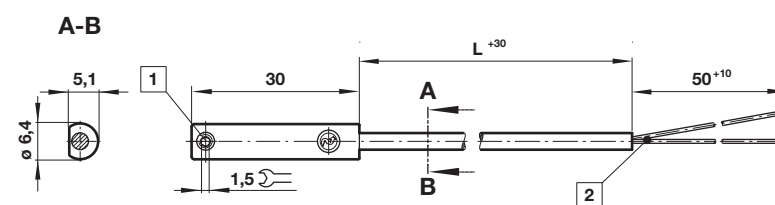
M/50/RAC/5V
Cable length L = 5 m



M/50/LSU/CP

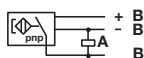
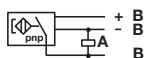
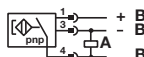
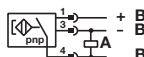
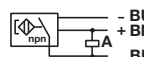
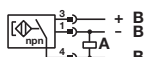


Dimensions in mm
Projection/First angle



- 1 Fixing screw
- 2 + BN = brown; - BU = blue (output)
- 3 - BK = black; + BN = brown; - ≠BU = blue
- 4 Plug M8 x 1, color code: BK = black; BN = brown; BU = blue

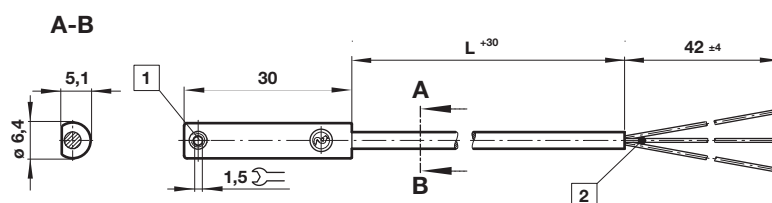
Technical data - Solid state - additional informations see data sheet N/en 4.3.007

Symbol	Voltage (V d.c.)	Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 30	150	PNP	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAP/*V
	10 ... 30	150	PNP	-40 ... +80	•	IP68	—	5	PUR 3 x 0,14	37	M/50/EAP/5U
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CP *1)
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M12 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CC *1)
	10 ... 30	150	NPN	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAN/*V
	10 ... 30	150	Closer	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAN/CP *1)

* Insert cable length; *1) Plug-in connector; Color code: BK = black, BN = brown, BU = blue

Drawings

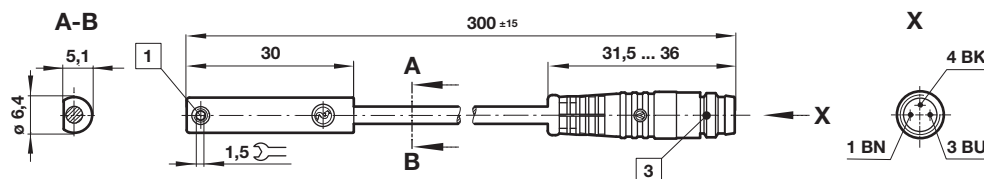
M/50/EAP/*V,
M/50/EAN/*V
Cable length L = 2, 5 or 10 m



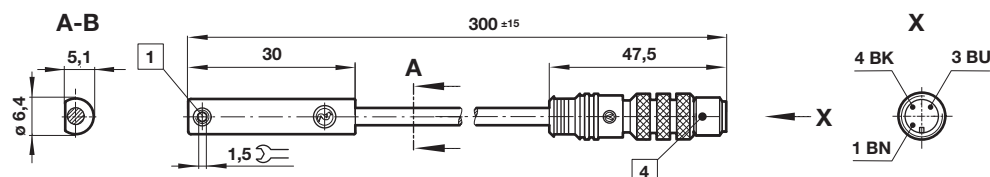
Dimensions in mm
Projection/First angle



M/50/EAP/CP,
M/50/EAN/CP



M/50/EAP/CC



- 1 Fixing screw
- 2 Color code: BK = black; BN = brown; BU = blue
- 3 Plug M8 x 1
- 4 Plug M12 x 1

Accessories

Plug-in connector cable with nut



Outer cover	Cable length (m)	Weight (kg)	Connector	Connector
PVC 3 x 0,25	5 m	0,18	M8 x 1	M/P73001/5
PUR 3 x 0,25	5 m	0,18	M8 x 1	M/P73002/5
PUR 3 x 0,34	5 m	0,21	M12 x 1	M/P34594/5

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under

»Technical features/data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI NORGREN.

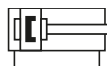
Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

- > Ø 8 ... 63 mm
- > Saves 20% space over the basic length of a corresponding ISO/VDMA cylinder
- > Low friction, long life seals
- > High strength, double crimped end cap design
- > Standard magnetic piston for full control system versatility



Technical features

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting with buffer cushioning

Operating pressure:

1 ... 10 bar (14 ... 145 psi)

Cylinder diameters:

8, 10, 12, 16, 20, 25, 32, 40, 50, 63 mm

Strokes:

See page below

Non-standard strokes:

up to 500 mm max. on request

Operating temperature:

+80°C max. (+176°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:

Piston rod: stainless steel (8 ... 16 mm bore austenitic, 20 ... 63 mm bore martensitic)
End covers: aluminium
Barrel: stainless steel (austenitic)
Wiper: PUR
Seals and 'O'-rings: NBR

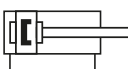
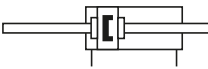
Technical data

Cylinder Ø (mm)	8	10	12	16	20	25	32	40	50	63
Port size RT/572** (RM/572**)	M3 (M3)	M5 (M5)	M5 (M5)	M5 (M5)	Rc 1/8 (M6)	Rc 1/8 (M6)	Rc 1/8 (G 1/8)	Rc 1/8 (G 1/8)	Rc 1/4 (G 1/4)	Rc 1/4 (G 1/4)
Piston rod Ø (mm)	3	4	4	6	8	10	12	14	16	20
Piston rod thread	M3	M4	M4	M6	M8	M10 x 1,25	M10 x 1,25	M12 x 1,25	M 12 x 1,25	M 16 x 1,5
Theoretical thrusts at 6 bar outstroke (N)	30	46,8	67,8	120	188	294	482	754	1178	1870
Theoretical thrusts at 6 bar instroke (N)	25,9	39,6	60	103	158	247	414	661	1057	1680
Air consumption at 6 bar outstroke (l/cm)	0,004	0,005	0,008	0,014	0,022	0,035	0,056	0,087	0,137	0,218
Air consumption at 6 bar instroke (l/cm)	0,003	0,004	0,006	0,013	0,019	0,02	0,048	0,074	0,114	0,195

Standard strokes

Cylinder Ø (mm)	Stroke length (mm)										
	10	25	40	50	80	100	125	160	200	250	320
8	•	•	•	•	•	•	—	—	—	—	—
10	•	•	•	•	•	•	—	—	—	—	—
12	•	•	•	•	•	•	•	•	•	—	—
16	•	•	•	•	•	•	•	•	•	—	—
20	•	•	•	•	•	•	•	•	•	•	•
25	•	•	•	•	•	•	•	•	•	•	•
32	•	•	•	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•	•	•	•

Cylinder variants

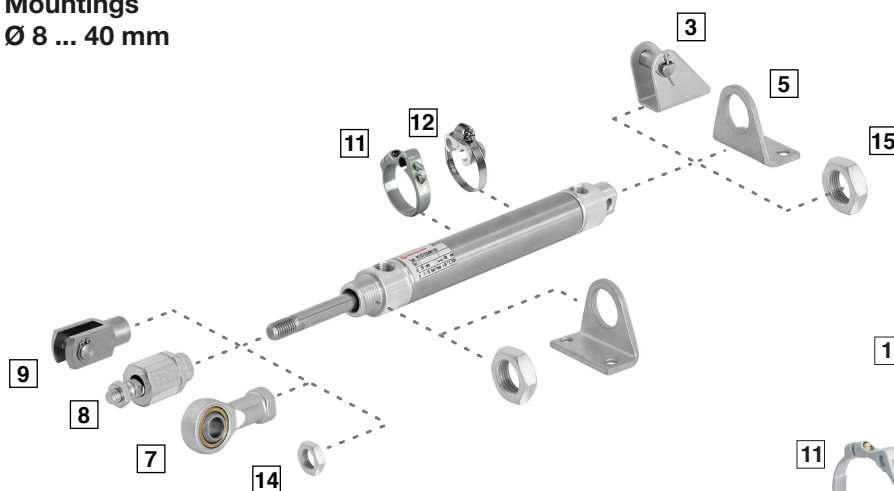
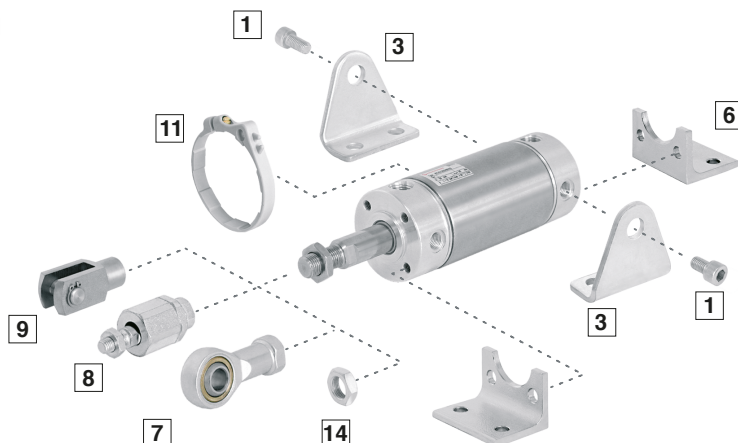
Symbol	Model magnetic piston	Description	Dimensions Page
	R./57200/M	Standard cylinder, Ø 8 to 40 mm, integral eye mounting, Ø 50 and 63 mm	4 & 5
	R./57200/MC	Cylinder with central rear port	5
	R./57200/MF	Cylinder with flat rear cover	5
	R./57200/JM	Cylinder with double ended piston rod (Ø 16 to 63 mm)	4

Option selector

Port size	Cylinder Ø (mm)	Substitute
M3	8	T
M5	10	T
M5	12	T
M5	16	T
M6	20	M
Rc1/8	20	T
M6	25	M
Rc1/8	25	T
G1/8	32	M
Rc1/8	32	T
G1/8	40	M
Rc1/8	40	T
G 1/4	50	M
Rc 1/4	50	T
G 1/4	63	M
Rc 1/4	63	T

R★/572★★/★★/★★★

Stroke (mm)	
500 max.	
Cylinder variants	Substitute
Magnetic piston	M
Magnetic piston, central rear port, flat end	MC
Magnetic piston, side port, flat end	MF
Magnetic piston, double ended piston rod	JM
Cylinder Ø (mm)	Substitute
8	08
10	10
12	12
16	16
20	20
25	25
32	32
40	40
50	50
63	63

**Mountings
Ø 8 ... 40 mm**

Ø 50 and 63 mm


Cyl.	AK	C	F	H	L	N
						
	8	5	9	1	3	15
	Page 6	Page 6	Page 6	Page 6	Page 6	Page 7
Ø						
8	—	M/P71273/1	QM/57008/25	—	QM/57008/24	M/P71364
10	QM/8010/38	M/P71273/2	QM/8010/25	—	QM/947	M/P71364
12	QM/8010/38	M/P71273/2	QM/8010/25	—	QM/947	M/P71364
16	QM/8012/38	M/P19369	QM/57016/25	—	QM/946	M/P1501/90
20	QM/8020/38	M/P19389	QM/57020/25	—	QM/8012/24	M/P13834
25	QM/8025/38	M/P40381	QM/57025/25	—	QM/57025/24	M/P13607
32	QM/8025/38	M/P19406	QM/57032/25	—	QM/8020/24	M/P13615
40	QM/8040/38	M/P71273/3	QM/57040/25	—	QM/57040/24	M/P29254
50	QM/8040/38	QM/57050/21	QM/57040/25	QM/55240/28	QM/57050/24	—
63	QM/8050/38	QM/57063/21	QM/57063/25	QM/55250/28	QM/57063/24	—

Cyl.	N2	UF	Switch mounting brackets >15 mm stroke	<15 mm stroke	Magnetically operated switches
					
	14	7	11	12	
	Page 7	Page 7	Page 7	Page 7	Page 8 & 9
Ø					
8	M/P1500/111	—	—	—	
10	M/P1501/80	QM/8010/32	QM/33/010/22	QM/33/010/23	
12	M/P1501/80	QM/8010/32	QM/33/012/22	QM/33/016/23	
16	M/P1501/79	QM/8012/32	QM/33/016/22	QM/33/016/23	
20	M/P1501/60	QM/8020/32	QM/33/020/22	QM/33/020/23	
25	M/P1501/89	QM/8025/32	QM/33/025/22	QM/33/025/23	
32	M/P1501/89	QM/8025/32	QM/33/032/22	—	
40	M/P1501/90	QM/8040/32	QM/33/040/22	—	
50	M/P1501/90	QM/8040/32	QM/33/050/22	—	
63	M/P1501/91	QM/8050/32	QM/33/063/22	—	

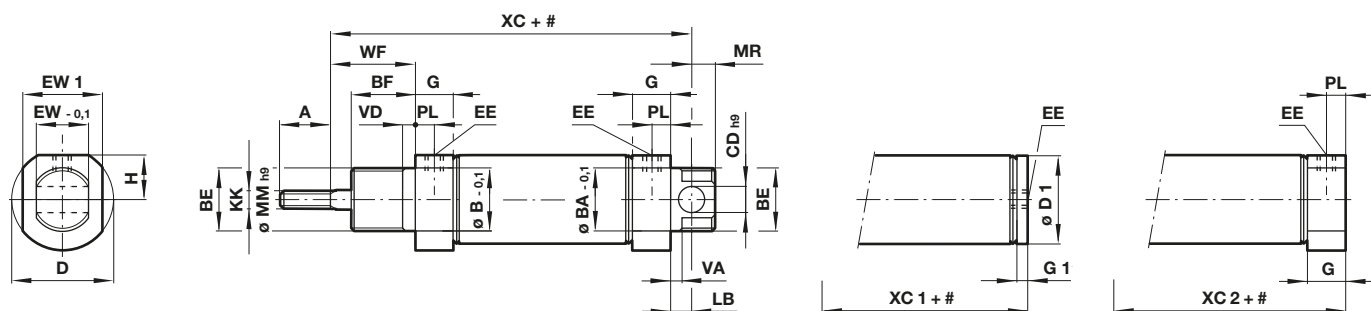
Basic dimensions

Dimensions in mm
 Projection/First angle

Ø 8 ... 12 mm - RT/572../M

RT/572../MC

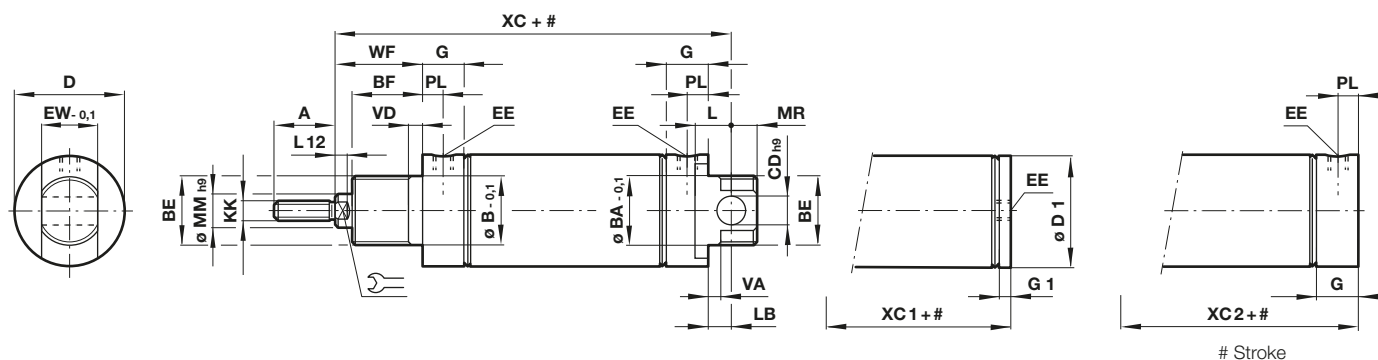
RT/572../MF



Ø 16 ... 40 mm - R./572../M

R./572../MC

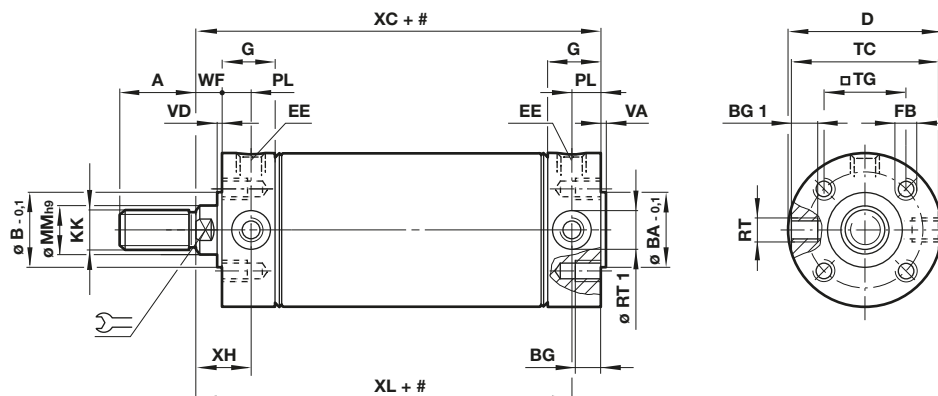
RT/572../MF



Ø	A	Ø B/Ø BA	BE	BF	Ø CD h9	Ø D	Ø D1	RT/5... EE	RM/5... EE	EW -0,1	EW1	G	G1	H	KK	L
8	8	10	M10 x 1	7,5	3	12	9,5	M3	M3	6	10	7,5	3	5	M3	—
10	9	10	M10 x 1	8	4	15	11,5	M5	M5	8	12,5	9,5	4,5	6,5	M4	—
12	9	10	M10 x 1	8	4	15	13	M5	M5	8	—	9,5	4,5	6,5	M4	—
16	12	12	M12 x 1,25	10	5	17,5	17,5	M5	M5	10	—	11,5	4	—	M6	—
20	14	16	M16 x 1,5	12	6	22	21,5	Rc 1/8	M6	12	—	15,5	8	—	M8	—
25	16	18	M18 x 1,5	12	8	26,5	26,5	Rc 1/8	M6	14	—	15,5	8	—	M10 x 1,25	—
32	22	22	M22 x 1,5	15	8	33,5	33,5	Rc 1/8	G 1/8	16	—	17,5	5,5	—	M10 x 1,25	12
40	23	30	M30 x 1,5	15	10	41,5	41,5	Rc 1/8	G 1/8	20	—	18	5,5	—	M12 x 1,25	14
Ø	LB	L12	Ø MM h9	MR	PL	VA/VD	WF	XC	XC1	XC2	kg at 0 mm	kg per 25 mm	Model			
8	4,5	—	3	3	4	—	1,5	8,5	48	39	43,5	0,02	0,02	RT/57208/M*		
10	5	—	4	4	5,5	—	1,5	10	54	44	49	0,02	0,03	RT/57210/M*		
12	5	—	4	4	5,5	—	1,5	10	54	44	49	0,02	0,03	RT/57212/M*		
16	7	5	6	5	5,5	5	2	13,5	64,5	50	57,5	0,04	0,05	RT/57216/M*		
20	7	5	8	6	9	7	3	15,5	75,5	61	68,5	0,08	0,07	R./57220/M*		
25	9	5	10	8	9	9	3	16,5	78,5	62	69,5	0,12	0,11	R./57225/M*		
32	7	5	12	8	9	10	3	23	93	74	86	0,21	0,16	R./57232/M*		
40	5	6	14	10	10	12	3	24	96	78,5	91	0,33	0,20	R./57240/M*		

* Please insert standard stroke length.

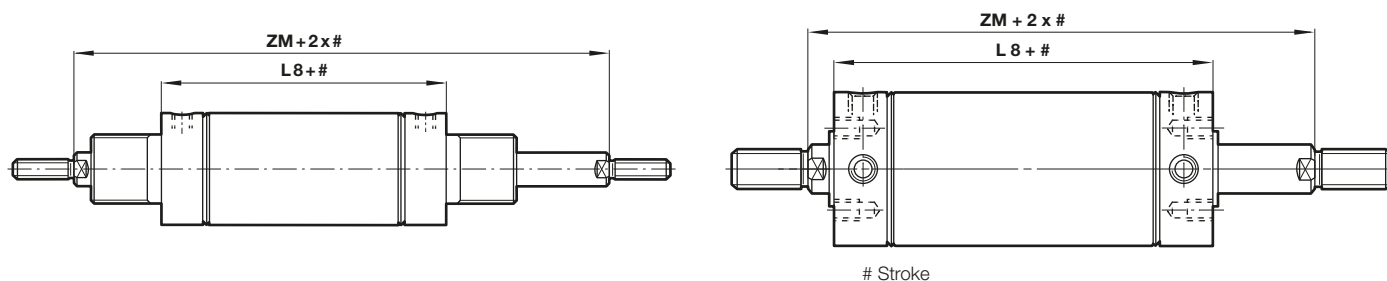
Ø 50 and 63 mm - R./57200/M

 Dimensions in mm
Projection/First angle


Ø	A	Ø B/BA -0,1	BG	BG 1	Ø D	RT/57... EE	RM/57... EE	FB	G	KK	Ø MM h9	PL
50	23	28	12	8	52,5	Rc 1/4	G 1/4	M 6	22	M 12 x 1,25	16	13
63	30	35	12	9,5	65,5	Rc 1/4	G 1/4	M 8	22	M 16 x 1,5	20	13

Ø	RT	RT 1	SW	TG	TC	VA/VD	WF	XH	XL	kg at 0 mm	kg per 100 mm	Model
50	M 10 x 1	13	13	28,5	49	2	13	26	84	0,39	0,31	R./57250/M*
63	M 12 x 1,5	15	17	35,5	62	2	13	26	86	0,89	0,44	R./57263/M*

* Please insert standard stroke length.

Ø 16 ... 63 mm - R./57200/JM


Stroke

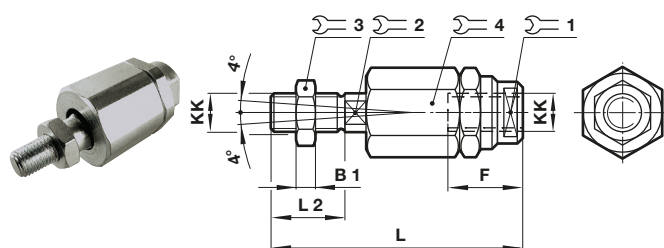
Ø	L8	ZM	Model
16	44	71	R./57216/JM*
20	53	84	R./57220/JM*
25	53	86	R./57225/JM*
32	63	109	R./57232/JM*
40	67	115	R./57240/JM*
50	84	110	R./57250/JM*
63	86	112	R./57263/JM*

* Please insert standard stroke length.

Mountings

Piston rod swivel AK

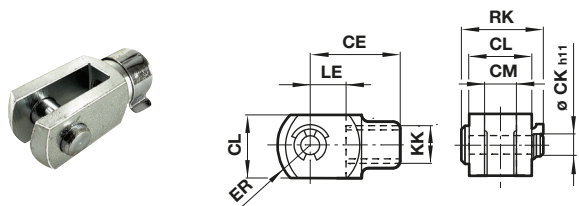
Conforms to DIN ISO 8139



Ø	KK	B1	F	L	L2	1	2	3	4	kg	Model (AK)
10/12	M 4	2	12,5	33	8	11	3,2	7	11	0,01	QM/8010/38
16	M 6	3	14	39	12	7	5	10	13	0,02	QM/8012/38
20	M 8	4	18	55	16	10	7	13	17	0,05	QM/8020/38
25/32	M 10x1,25	5	26	73	20	19	12	17	30	0,20	QM/8025/38
40/50	M 12x1,25	6	26	77	24	19	12	19	30	0,20	QM/8040/38
63	M 16x1,5	8	34	106	32	30	19	24	42	0,65	QM/8050/38

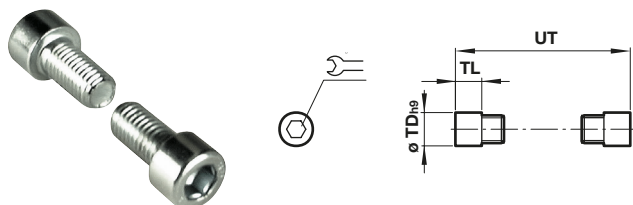
Piston rod clevis F

Conforms to DIN ISO 8140



Ø	KK	CE	Ø CK h11	CL	CM	ER	LE	RK	kg	Model (F)
8	M3	11	3	6	3	4,5	5	10,5	0,01	QM/57008/25
10/12	M4	16	4	8	4	6,5	8	11,5	0,01	QM/8010/25
16	M6	20	5	10	5	8	10	14,5	0,01	QM/57016/25
20	M8	24	6	12	6	9,5	12	17,5	0,02	QM/57020/25
25	M10x1,25	26	8	14	7	11,5	12	20,5	0,04	QM/57025/25
32	M10x1,25	32	8	16	8	13	16	22,5	0,05	QM/57032/25
40/50	M12x1,25	40	10	20	10	16	20	29	0,09	QM/57040/25
63	M 16x1,5	56	14	27	14	21	28	36,5	0,20	QM/57063/25

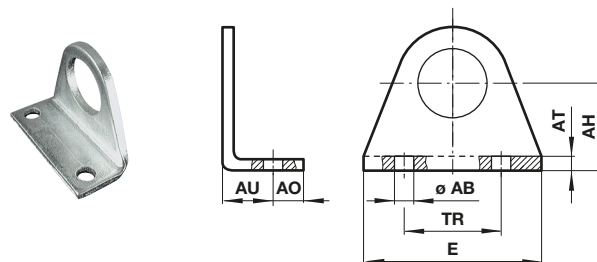
Central trunnion H



Ø	Ø TD h9	TL	UT	kg	Model (H)
50	12	9,5	63	0,03	QM/55240/28
63	14	11	76	0,05	QM/55250/28

Foot C

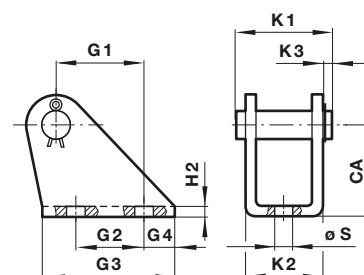
Conforms to DIN ISO 6432



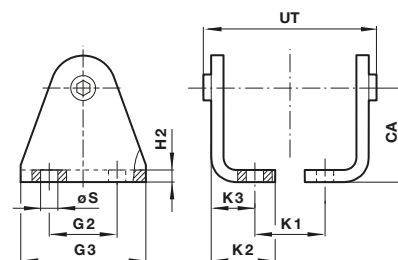
Ø	Ø AB	AH	AO	AT	AU	E	TR	kg	Model (C)
8	3,8	10	3,5	1,5	7,5	25	18	0,01	M/P71273/1
10/12	5	12	4,5	1,5	7,5	30	20	0,01	M/P71273/2
16	4,5	16	6	2	10	35	25	0,02	M/P19369
20	5,5	20	6	3	13	43	32	0,03	M/P19389
25	6,6	22	8	3	12,5	49	38	0,04	M/P40381
32	6,6	25	7,5	4	16	53	40	0,06	M/P19406
40	7	28	7	4	16	66	52	0,08	M/P71273
50	9	40	10	4	17	52	36	0,18	QM/57050/21
63	9	47	10	5	19	61	45	0,28	QM/57063/21

Rear hinge L

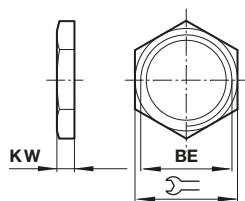
for Ø 8 ... 40 mm



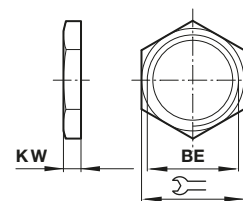
Ø 50 ... 63 mm



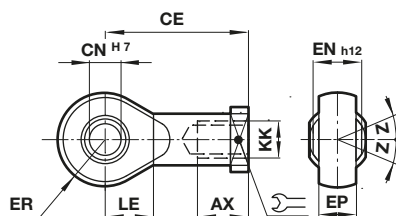
Ø	CA	G 1	2	3	4	H2	K 1	2	3	Ø S	UT	kg	Model (L)
8	10	9	7	14	3,5	1	—	8	—	3,5	—	0,01	QM/57008/24
10/12	12	6,5	—	15	6	1	13,5	10,5	2	4,8	—	0,01	QM/947
16	16	13	10	22	6	1,5	—	12,5	—	4,8	—	0,02	QM/946
20	20	18,5	15	30	8	1,5	20	15	3	5,5	—	0,02	QM/8012/24
25	22	20	15	33	9	2	—	18	—	6,6	—	0,04	QM/57025/24
32	25	20	15	35	10	2	25	20,5	3	6,6	—	0,04	QM/8020/24
40	28	25	20	42	11	3	—	26	—	7	—	0,09	QM/57040/24
50	40	—	30	54	—	4	30,5	24	15	9	68	0,20	QM/57050/24
63	47	—	40	64	—	5	40,5	26,5	17,5	9	84	0,32	QM/57063/24

Nose nut N


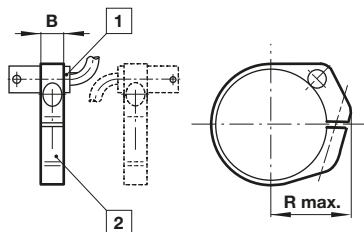
Ø	BE		KW	kg	Model (N)
8...12	M10x1	14	4	0,01	M/P71364
16	M12x1,25	19	6	0,01	M/P1501/90
20	M16x1,5	22	5	0,01	M/P13834
25	M18x1,5	24	5	0,01	M/P13607
32	M22x1,5	27	8	0,02	M/P13615
40	M30x1,5	36	8	0,03	M/P29254

Locknut N2


Ø	BE		KW	kg	Model (N)
8	M3	6	2	0,01	M/P1500/111
10/12	M4	7	2	0,01	M/P1501/80
16	M6	10	3	0,01	M/P1501/79
20	M8	13	4	0,01	M/P1501/60
25/32	M10x1,25	17	5	0,01	M/P1501/89
40/50	M12x1,25	19	6	0,01	M/P1501/90
63	M16x1,5	24	8	0,02	M/P1501/91

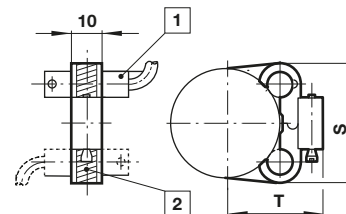
**Universal piston rod eye UF
Conforms to DIN ISO 8139**


Ø	KK	AX	CE	Ø CN H7	EN -0,1	ER	LE	Z	kg	Model (UF)
10/12	M4	14	27	5	8	8	10	5°	0,02	QM/8010/32
16	M6	14	30	6	9	9	11	5°	0,02	QM/8012/32
20	M8	16	36	8	12	11	13	5°	0,05	QM/8020/32
25/32	M10x1,25	25	42	10	14	14	15	13°	0,08	QM/8025/32
40/50	M12x1,25	22	50	12	16	16	17	13°	0,12	QM/8040/32
63	M16x1,5	28	64	16	21	21	22	15°	0,33	QM/8050/32

Switch mounting brackets - Brackets → 15 mm stroke


- 1** Magnetically operated switch
2 Switch mounting bracket

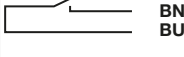
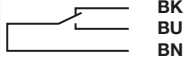
Ø	B	R max.	kg	Model
10	8	16	0,01	QM/33/010/22
12	8	18	0,01	QM/33/012/22
16	10	20	0,01	QM/33/016/22
20	10	22	0,01	QM/33/020/22
25	10	24	0,01	QM/33/025/22
32	10	29	0,01	QM/33/032/22
40	10	32	0,01	QM/33/040/22
50	10	38	0,01	QM/33/050/22
63	10	46	0,01	QM/33/063/22

Switch mounting brackets - Brackets ← 15 mm stroke


- 1** Magnetically operated switch
2 Switch mounting bracket

Ø	S	T	kg	Model
10	27,5	19,5	0,01	QM/33/010/23
12	28,5	21,5	0,01	QM/33/016/23
16	29,5	23,5	0,01	QM/33/016/23
20	29,5	26	0,01	QM/33/020/23
25	31,5	28,5	0,01	QM/33/025/23

Technical data - Reed switches - additional informations see data sheet N/en 4.3.005

Symbol	Voltage		Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	(V a.c.)	(V d.c.)										
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	2, 5 or 10	PVC 2 x 0,25	37	M/50/LSU/*V
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	5	PUR 2 x 0,25	37	M/50/LSU/5U
	10 ... 240	10 ... 170	180	Closer	-25 ... +150	—	IP66	—	2	Silicon 2 x 0,25	37	TM/50/RAU/2S
	10 ... 240	10 ... 170	180	Changeover	-25 ... +80	—	IP66	—	5	PVC 3 x 0,25	37	M/50/RAC/5V
	10 ... 60	10 ... 60	180	Closer	-25 ... +80	•	IP66	M8 x 1	0,3	PVC 3 x 0,25	16	M/50/LSU/CP *1)

* Insert cable length; *1) Plug-in connector see page 11; Color code: BK = black, BN = brown, BU = blue

Drawings

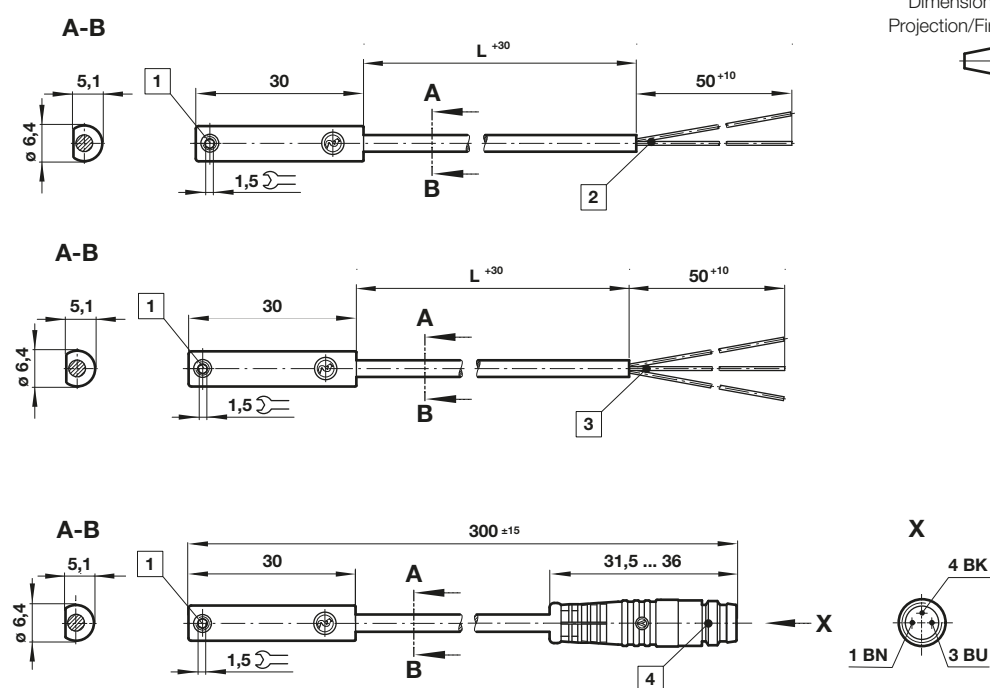
M/50/LSU/*V, M/50/LSU/5U,
TM/50/RAU/2S
Cable length L = 2, 5 or 10 m



M/50/RAC/5V
Cable length L = 5 m

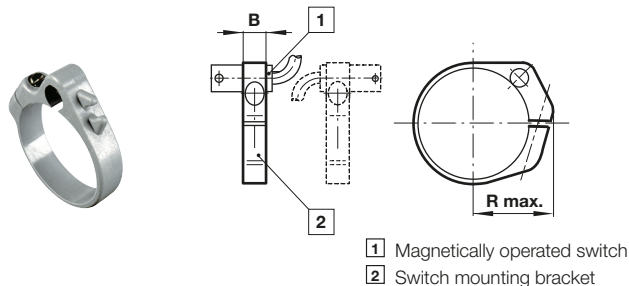


M/50/LSU/CP



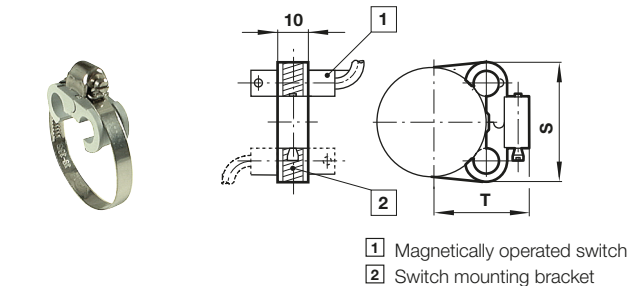
- 1 Fixing screw
- 2 + BN = brown; - BU = blue (output)
- 3 - BK = black; + BN = brown; - BU = blue
- 4 Plug M8 x 1, color code: BK = black; BN = brown; BU = blue

Switch mounting brackets - Brackets > 15 mm stroke



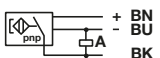
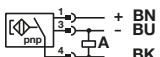
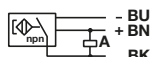
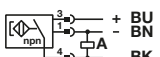
Ø	B	R max.	kg	Model
10	8	16	0,01	QM/33/010/22
12	8	18	0,01	QM/33/012/22
16	10	20	0,01	QM/33/016/22
20	10	22	0,01	QM/33/020/22
25	10	24	0,01	QM/33/025/22

Switch mounting brackets - Brackets < 15 mm stroke



Ø	S	T	kg	Model
10	27,5	19,5	0,01	QM/33/010/23
12	28,5	21,5	0,01	QM/33/016/23
16	29,5	23,5	0,01	QM/33/016/23
20	29,5	26	0,01	QM/33/020/23
25	31,5	28,5	0,01	QM/33/025/23

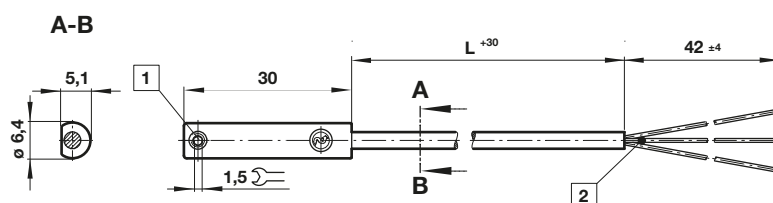
Technical data - Solid state - additional informations see data sheet N/en 4.3.007

Symbol	Voltage (V d.c.)	Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 30	150	PNP	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAP/*V
	10 ... 30	150	PNP	-40 ... +80	•	IP68	—	5	PUR 3 x 0,14	37	M/50/EAP/5U
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CP *1)
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M12 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CC *1)
	10 ... 30	150	NPN	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAN/*V
	10 ... 30	150	Closer	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAN/CP *1)

* Insert cable length; *1) Plug-in connector below; Color code: BK = black, BN = brown, BU = blue

Drawings

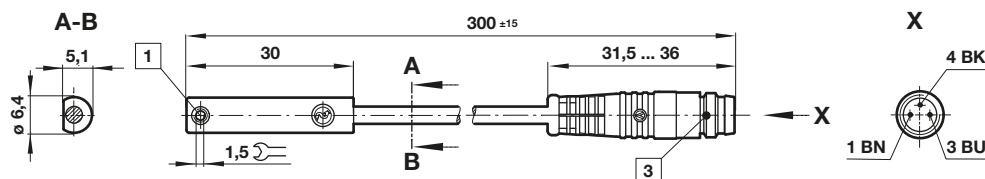
M/50/EAP/*V,
M/50/EAN/*V
Cable length L = 2, 5 or 10 m



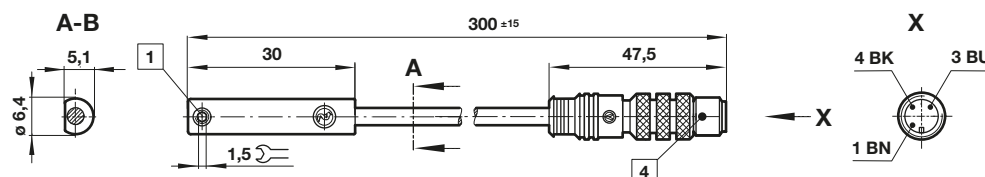
Dimensions in mm
Projection/First angle



M/50/EAP/CP,
M/50/EAN/CP



M/50/EAP/CC



- 1 Fixing screw
- 2 Color code: BK = black; BN = brown; BU = blue
- 3 Plug M8 x 1
- 4 Plug M12 x 1

Accessories

Plug-in connector cable with nut



Outer cover	Cable length (m)	Weight (kg)	Connector	Connector
PVC 3 x 0,25	5 m	0,18	M8 x 1	M/P73001/5
PUR 3 x 0,25	5 m	0,18	M8 x 1	M/P73002/5
PUR 3 x 0,34	5 m	0,21	M12 x 1	M/P34594/5

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under

»Technical features/data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, Norgren GmbH. Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

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