

# PRA/802000/M, RA/802000/M, RA/8000, RA/8000/M ISOLine™ 15552 cylinder, double acting



- > ø 32 ... 320 mm
- > High performance adaptive cushioning system "ACS"
- > Low temperature version up to -40 °C
- > High temperature version up to +150 °C
- > 16 bar version available
- > Rail Cylinder Shock and vibration tested to EN 61373 Category 1; Class A + B



## Technical features

### Medium:

Compressed air, filtered, lubricated or non-lubricated

### Standard:

ISO 15552

### Operation:

Double acting, adjustable cushioning

### Operating pressure:

ø 32 ... 125 mm (Profile barrel)  
1 ... 12 bar (14 ... 174 psi)  
ø 32 ... 200 mm (Round barrel)  
1 ... 16 bar (14 ... 232 psi)  
ø 250 & 320 mm (Round barrel)  
1 ... 10 bar (14 ... 145 psi)

### Ports:

G1/8 ... 1

### Cylinder diameters:

32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 320 mm

### Standard strokes:

25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500 mm

### Non-standard strokes:

ø 32 ... 125 mm (5 ... 2800 mm)  
ø 160 ... 320 mm (5 ... 2600 mm)

### Operating temperature:

ø 32 ... 125 mm  
"Standard version"  
-20 ... +80 °C (-4 ... +176 °F)  
ø 160 ... 320 mm  
"Standard version"  
-10 ... +80 °C (+14 ... +176 °F)  
ø 32 ... 320 mm  
"High temperature version" (T)  
0 ... +150 °C (-17,7 ... +302 °F)  
ø 32 ... 200 mm  
"Low temperature version" (L)  
-40 max. ... +80 °C (-40 ... +176 °F)  
Air supply must be dry enough to avoid ice formation at temperatures below +2 °C (+35 °F)





### Standard Materials:

Barrel: Anodised aluminium  
End covers: Pressure diecast aluminium (ø 200 ... 320 mm gravity cast aluminium)  
Piston rod: Stainless steel (martensitic)  
Piston rod seals: PUR (ø 160 ... 320 mm NBR)  
Piston seals: PUR (ø 160 ... 320 mm NBR)  
'O'-rings: NBR

## Technical data




Cylinder ø (mm)	32	40	50	63	80	100	125	160	200	250	320
Profile barrel	•	•	•	•	•	•	•				
Round barrel	•	•	•	•	•	•	•	•	•	•	•
Port size	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2	G3/4	G3/4	G1	G1
Piston rod ø (mm)	12	16	20	20	25	25	32	40	40	50	63
Piston rod thread	M10x1,25	M12x1,25	M16x1,5	M16x1,5	M20x1,5	M20x1,5	M27x2	M36x2	M36x2	M42x2	M48x2
Cushion length (mm)	20	22	24	24	26	33	39	43	43	55	60
Cushioning Adaptive cushioning systems "ACS"	•	•	•	•	•	•	•				
Cushioning (adjustable cushion)								•	•	•	•
Initial cushion volume (cm3)	12,8	20,2	36	64	111	235	427	784	1273	2534	4559
Theoretical thrusts at 6 bar outstroke (N)	482	754	1178	1870	3016	4710	7363	12064	18840	29436	48228
Theoretical thrusts at 6 bar instroke (N)	414	633	990	1680	2722	4416	6882	11310	18090	28236	47292
Air consumption at 6 bar outstroke (l/cm)	0,056	0,088	0,137	0,218	0,35	0,55	0,86	1,41	2,2	3,44	5,63
Air consumption at 6 bar instroke (l/cm)	0,048	0,074	0,114	0,195	0,32	0,51	0,79	1,32	2,1	3,3	5,41

## Guide blocks

	Guide blocks - plain bearings	Guide blocks - roller bearings	Guide blocks - plain bearings, long coupling	Guide blocks - plain bearings, short coupling
				
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<b>19</b>	<b>Page 21</b>	<b>Page 22</b>	<b>Page 24</b>	<b>Page 24</b>
32	QA/8032/51/*	QA/8032/61/*	QA/8032/81/*	QA/8032/85/*
40	QA/8040/51/*	QA/8040/61/*	QA/8040/81/*	QA/8040/85/*
50	QA/8050/51/*	QA/8050/61/*	QA/8050/81/*	QA/8050/85/*
63	QA/8063/51/*	QA/8063/61/*	QA/8063/81/*	QA/8063/85/*
80	QA/8080/51/*	QA/8080/61/*	QA/8080/81/*	QA/8080/85/*
100	QA/8100/51/*	QA/8100/61/*	QA/8100/81/*	QA/8100/85/*








\*) Insert standard stroke length: 50, 100, 160, 200, 250, 320, 400 and 500 mm, use the next bigger standard stroke.

## Accessories for Profile (ø 32 ... 125 mm) & Round barrel (ø 32 ... 320 mm)

Model Profile barrel	Model Round barrel	ø	Port size	Banjo flow control	Straight fitting	Elbow fitting
						
PRA/802032/M/*	RA/802032/M/*	32	G1/8	COK510618	C02250618	C02470618
PRA/802040/M/*	RA/802040/M/*	40	G1/4	COK510628	C02250628	C02470628
PRA/802050/M/*	RA/802050/M/*	50	G1/4	COK510828	C02250828	C02470828
PRA/802063/M/*	RA/802063/M/*	63	G3/8	COK510838	C02250838	C02470838
PRA/802080/M/*	RA/802080/M/*	80	G3/8	COK511038	C02251038	C02471038
PRA/802100/M/*	RA/802100/M/*	100	G1/2	COK511248	C02251248	C02471248
PRA/802125/M/*	RA/802125/M/*	125	G1/2	COK511248	C02251248	C02471248
-	RA/8160/M/*	160	G3/4	M840 (Inline)	-	-
-	RA/8200/M/*	200	G3/4	M840 (Inline)	-	-
-	RA/8250/M/*	250	G1	M855 (Inline)	-	-
-	RA/8320/M/*	320	G1	M855 (Inline)	-	-

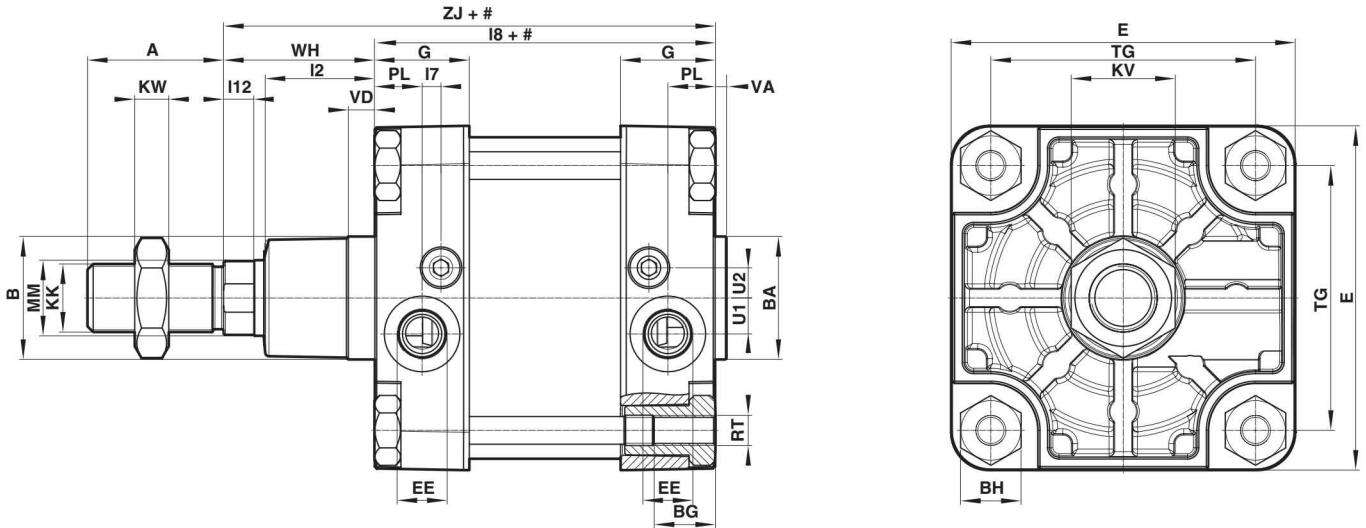
For alternative fitting types please contact the technical service.

## Magnetically operated switches

	M/50/**	Groove cover	Switch mounting brackets for M/50	TQM/31, QM/32, QM/132	Switch mounting brackets for TQM/31, QM/32, QM/132	QM/140	Switch mounting brackets for QM/140
							
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32		M/P72725/1000	QM/27/2/1		QM/31/032/22		QM/140/010/22
40		M/P72725/1000	QM/27/2/1		QM/31/032/22		QM/140/010/22
50		M/P72725/1000	QM/27/2/1		QM/31/032/22		QM/140/010/22
63		M/P72725/1000	QM/27/2/1		QM/31/032/22		QM/140/010/22
80		M/P72725/1000	QM/27/2/1		QM/31/080/22		QM/140/010/22
100		M/P72725/1000	QM/27/2/1		QM/31/080/22		QM/140/010/22
125		M/P72725/1000	QM/27/2/1		QM/31/080/22		-
160		-	QM/27/2/1		QM/31/160/22		-
200		-	QM/27/2/1		QM/31/160/22		-
250		-	QM/27/2/2		QM/31/250/22		-
320		-	QM/27/2/3		QM/31/320/22		-

**Basic dimensions**  
**PRA/802000/M, RA/802000/M, RA/8000, RA/8000/M**  
**Standard Cylinder**  
**ø 160 ... 320 mm**

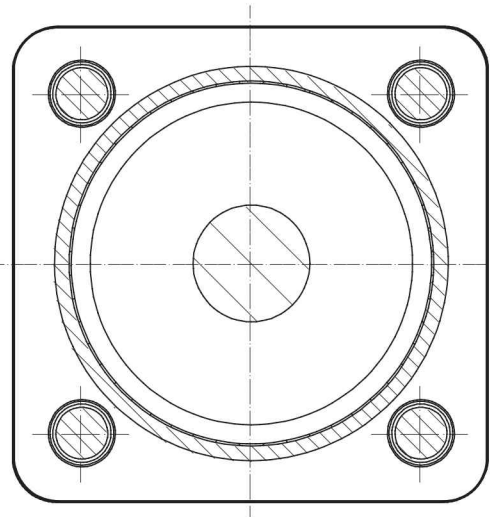
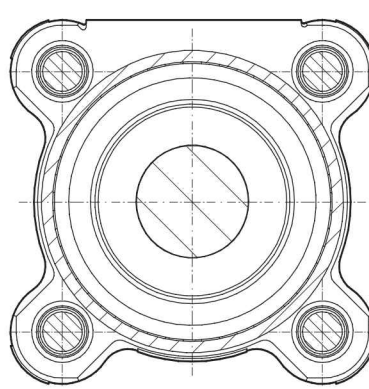
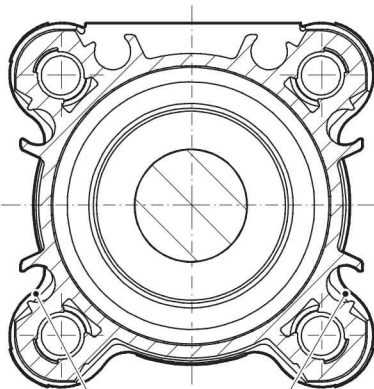
Dimensions in mm  
 Projection/First angle



**Model Profile barrel**  
 ø 32 ... 125 mm

**Model Round barrel**  
 ø 32 ... 125 mm

**Model Round barrel**  
 ø 160 ... 320 mm



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# Stroke

\$ Piston rod extension

1 Cushion screw

2 ø 80 ... 320 mm

3 M/50 switches can be mounted flush with the profile

For additional information please contact the technical service or <http://www.norgren.com>



ø	A -0,5	ø B d11	ø BA d11	BG min	BH	E	EE	G	KK	KV	KW	L2	L3	L7	L8	L12	ø MM h9	PL	TG
32	22	30	30	16	6	47	G1/8	29	M10x1,25	17	5	19,5	4	6,6	94	5,5	12	15	32,5
40	24	35	35	16	6	53	G1/4	34,5	M12x1,25	19	6	22	4	5,6	105	6,5	16	21,5	38
50	32	40	40	16	8	65	G1/4	33	M16x1,5	24	8	25	5	1,6	106	8	20	22,7	46,5
63	32	45	45	16	8	75	G3/8	36,5	M16x1,5	24	8	25	5	3,6	121	8	20	24,2	56,5
80	40	45	45	17	19	95	G3/8	42	M20x1,5	30	10	33	-	1,8	128	10	25	29,7	72
100	40	55	55	17	19	113	G1/2	42	M20x1,5	30	10	35	-	3,8	138	10	25	27,7	89
125	54	60	60	20	24	140	G1/2	54	M27x2	41	13,5	44	-	1,8	160	13	32	39,7	110
160	72	65	65	28,5	32	183,5	G3/4	50	M36x2	55	18	58	-	10	180	16	40	25	140
200	72	75	75	28,5	32	224	G3/4	50	M36x2	55	18	67	-	10	180	16	40	26	175
250	84	90	90	35	36	280	G1	58	M42x2	65	21	80	-	4,5	200	20	50	28	220
320	96	110	110	30	46	350	G1	60	M48x2	75	24	90	-	4,5	220	24	63	31	270

ø	RT	SW	U1	U2	VA	VD	WH	ZJ	Model Profile barrel	at 0 mm	per 25 mm	Model Round barrel	at 0 mm	per 25 mm
32	M6	10	4,6	6,3	3,5	6	26	120	PRA/802032/M/*	0,49 (kg)	0,06 (kg)	RA/802032/M/*	0,46 (kg)	0,06 (kg)
40	M6	13	5,8	9,2	3,5	6	30	135	PRA/802040/M/*	0,69 (kg)	0,08 (kg)	RA/802040/M/*	0,65 (kg)	0,08 (kg)
50	M8	17	8,7	10,8	3,5	6	37	143	PRA/802050/M/*	1,09 (kg)	0,12 (kg)	RA/802050/M/*	1,02 (kg)	0,12 (kg)
63	M8	17	10	12,8	3,5	6	37	158	PRA/802063/M/*	1,54 (kg)	0,13 (kg)	RA/802063/M/*	1,46 (kg)	0,14 (kg)
80	M10	22	12	14,5	3,5	6	46	174	PRA/802080/M/*	2,64 (kg)	0,20 (kg)	RA/802080/M/*	2,54 (kg)	0,21 (kg)
100	M10	22	9	14,5	3,5	6	51	189	PRA/802100/M/*	3,66 (kg)	0,23 (kg)	RA/802100/M/*	3,50 (kg)	0,23 (kg)
125	M12	27	12	17	5,5	8	65	225	PRA/802125/M/*	6,16 (kg)	0,45 (kg)	RA/802125/M/*	5,92 (kg)	0,34 (kg)
160	M16	36	19	16	4	15	80	260	-	-	-	RA/8160/M/*	14,9 (kg)	0,55 (kg)
200	M16	36	19	16	5	15	95	275	-	-	-	RA/8200/M/*	21,7 (kg)	0,60 (kg)
250	M20	41	22	30	7	13	105	305	-	-	-	RA/8250/M/*	32,6 (kg)	0,92 (kg)
320	M24	55	22	30	7	13	120	340	-	-	-	RA/8320/M/*	59,8 (kg)	1,46 (kg)

\* Please insert stroke length.

Basic Dimension are also for cylinder variants or for different piston rod material

LPRA/802000/M, LRA/802000/M, LRA/8000/M - Low Temperature Cylinder

TPRA/802000/M, TRA/802000/M, TRA/8000/M - High Temperature Cylinder

HPRa/802000/M, HRA/802000/M, - Hydraulic Cylinder

PRA/802000/W2, RA/802000/W2 - Cylinder with Special Wiper - Seal

PRA/802000/X2, RA/802000/X2, RA/8000/X2 - Low Friction Cylinder

PRA/802000/MU, RA/802000/MU, RA/8000/MU - Cylinder with Extended Piston Rod

PRA/802000/W6, RA/802000/W6 - Cylinder with Extended Piston Rod and Special Wiper - Seal

PRA/802000/MW, RA/802000/MW, RA/8000/MW - Cylinder without Cushioning

PRA/802000/X4, RA/802000/X4, RA/8000/X4 - Low Friction Cylinder without Cushioning

RA/8000/W1 - Cylinder with Special Wiper - Seal without Magnet

RA/8000/X1 - Low Friction Cylinder without Magnet

RA/8000/IU - Cylinder with Extended Piston Rod without Magnet

RA/8000/W5 - Cylinder with Extended Piston Rod and Special Wiper - Seal without Magnet

RA/8000/W - Cylinder without Cushioning without Magnet

RA/8000/X3 - Low Friction Cylinder without Cushioning without Magnet