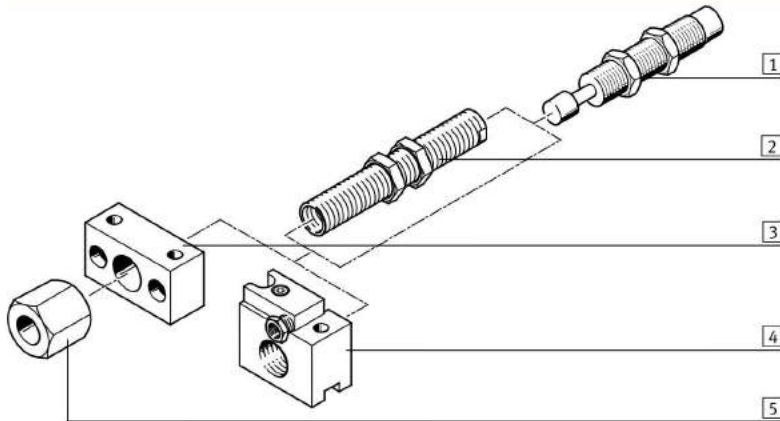


Shock absorbers YSR-C

Peripherals overview and type codes

Peripherals overview



Accessories			
	Type	Brief description	→ Page/Internet
1	Shock absorber YSR-C	Hydraulic shock absorber with rapidly increasing cushioning force curve	19
2	Reducing sleeve DAYH	To improve the cushioning performance in the case of underload, the built-in shock absorber can be replaced by the next smallest shock absorber with the help of the reducing sleeve	45
3	Mounting flange YSRF	Mounting option for shock absorber	42
4	Mounting flange YSRF-S	Mounting option for shock absorber with attached stop sleeve and position sensing	43
5	Stop limiters YSRA	Stroke limiter for shock absorber	44
-	Inductive proximity sensor SIEN	For mounting flange YSRF-S	45

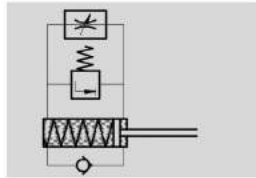
Type codes

		YSR	-	16	-	20	-	C	
Type									
YSR	Shock absorber								
Size [mm]									
Stroke [mm]									
Cushioning function									
C	Self-adjusting								

Shock absorbers YSR-C

Technical data

Function



- \varnothing - Size
4 ... 32 mm
- | - Stroke length
4 ... 60 mm



General technical data										
Size	4	5	7	8	10	12	16	20	25	32
Stroke [mm]	4	5	5	8	10	12	20	25	40	60
Mode of operation	Hydraulic shock absorbers with return spring									
	Single acting, pushing									
Cushioning	Self-adjustable									
Cushioning length [mm]	4	5	5	8	10	12	20	25	40	60
Type of mounting	With locknut									
Impact velocity [m/s]	0.05 ... 2		0.05 ... 3							
Mounting position	Any									
Product weight [g]	5	8	16	32	51	74	185	318	600	1220
Ambient temperature [°C]	-10 ... +80									
Corrosion resistance class CRC ¹⁾	2									

1) Corrosion resistance class 2 to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents

Reset time [s]											
Size	4	5	7	8	10	12	16	20	25	32	
Reset time ¹⁾	≤ 0.2						≤ 0.3		≤ 0.4		≤ 0.5

1) The specified technical data refers to ambient temperature. At higher temperatures in the 80 °C range, the max. mass and the cushioning work must be reduced by 50% approx. At -10 °C, the reset time may be up to 1 second

Forces [N]										
Size	4	5	7	8	10	12	16	20	25	32
Min. insertion force ¹⁾	6.5	7.5	10	18	25	35	60	100	140	160
Max. stop force ²⁾ in end positions	100	200	300	500	700	1,000	2,000	3,000	4,000	6,000
Min. resetting force ³⁾	0.7	0.9	1.2	2.5	3.5	5	6	10	14	20

1) This is the minimum force that must be applied so that the shock absorber is pushed exactly into the retracted end position. This value is reduced correspondingly in the event of an extended external end-position
2) If the max. stop force is exceeded, a fixed stop (e.g. YSRA) 0.5 mm must be fitted before the end of stroke
3) This is the maximum force which may act upon the piston rod, allowing for full extension of the shock absorber (e.g. protruding stem)

Energies [J]										
Size	4	5	7	8	10	12	16	20	25	32
Max. energy absorption per stroke	0.6	1	2	3	6	10	30	60	160	380
Max. energy absorption per hour	5,600	8,000	12,000	18,000	26,000	36,000	64,000	92,000	150,000	220,000
Max. residual energy	0.006	0.01		0.02	0.03	0.05	0.16	0.32	0.8	2

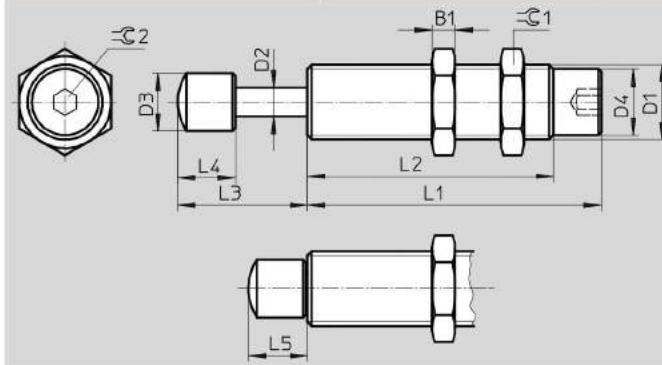
Mass range [kg]										
Size	4	5	7	8	10	12	16	20	25	32
Permissible mass range up to	1.2	1.5	5	15	25	45	90	120	200	400

Shock absorbers YSR-C

Technical data



Dimensions



Note

To increase the service life:
Avoid the ingress of dirt or fluids
into the piston chamber via the
piston rod by, for example, using
a cover.

Size	B1	D1	D2 ∅	D3 ∅	D4 ∅	L1 ±0.1
4	2.5	M6x0.5	2	3.5 ±0.05	5.3 ±0.05	28.5
5	3	M8x1	2.5	4.7 ±0.05	6.7 ±0.05	29
7	3.5	M10x1	3	6 ±0.1	8.6 ±0.05	34
8	4	M12x1	4	8 ±0.2	10.4 ±0.1	46
10	5	M14x1	5	10 ±0.2	12.4 ±0.1	55
12	5	M16x1	6	12 ±0.2	14.5 ±0.1	64
16	6	M22x1.5	8	16 ±0.2	19.6 ±0.1	86
20	8	M26x1.5	10	20 ±0.2	23.8 ±0.1	104
25	10	M30x1.5	12	25 ±0.2	27.8 ±0.1	152
32	12	M37x1.5	15	32 ±0.2	34.8 ±0.1	205

Size	L2 ±0.3	L3	L4	L5	⌀C1	⌀C2	Max. tightening torque ⌀C1 [Nm]
4	18.5	8.3 +0.6/-0.3	4 ±0.1	4.3 +0.35/-0.25	8	2	1
5	19	10.8 +0.6/-0.3	5.5 ±0.1	5.8 +0.55/-0.25	10	-	2
7	23	12.3 +0.7/-0.35	7 ±0.2	7.3 +0.55/-0.25	13		3
8	33	16.3 +0.7/-0.35	8 ±0.2	8.3 +0.55/-0.25	15		5
10	42	20.5 +0.7/-0.35	10 ±0.2	10.5 +0.55/-0.25	17		8
12	51	24.5 +0.7/-0.35	12 ±0.2	12.5 +0.55/-0.25	19		20
16	69	36.5 +0.7/-0.35	16 ±0.2	16.5 +0.55/-0.25	27		35
20	87	45.5 +0.7/-0.35	20 ±0.2	20.5 +0.55/-0.25	32		60
25	125	61.5 +1.25/-0.75	20.5 ±0.4	21.5 +0.95/-0.55	36		80
32	179	87 +1.25/-0.75	26 ±0.4	27 +0.95/-0.55	46	100	

Ordering data

Size [mm]	Part No.	Type
4	540060	YSR-4-4-C ¹⁾
5	158981	YSR-5-5-C ¹⁾
7	160272	YSR-7-5-C ¹⁾
8	34571	YSR-8-8-C ¹⁾
10	191199	YSR-10-10-C ¹⁾
12	34572	YSR-12-12-C ¹⁾
16	34573	YSR-16-20-C ¹⁾
20	34574	YSR-20-25-C ¹⁾
25	160273	YSR-25-40-C
32	160274	YSR-32-60-C

1) Free of copper, PTFE and silicone