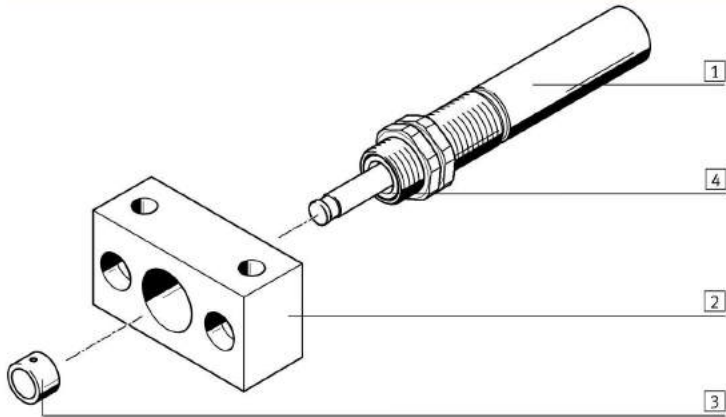


# Hydraulic cushioning cylinders DYHR

Peripherals overview and type codes

## Peripherals overview



## Accessories

Type	Brief description	→ Page/Internet
1 Hydraulic cushioning cylinder DYHR	Hydraulic cushioning cylinder with spring return for slow feed speeds	39
2 Mounting flange YSRF	Mounting option for hydraulic cushioning cylinder	42
3 Buffer YSRP	For protecting the piston rod	44
4 Wiper seal; hardened piston rod	The wiper seal (prevents the ingress of dirt) and the hardened piston rod (protects against scratches) greatly increase the service life	–

## Type codes

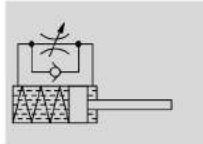
DYHR – 16 – 20 – Y5	
<b>Type</b>	
DYHR	Hydraulic cushioning cylinder
<b>Size</b>	
<b>Stroke [mm]</b>	
<b>Design characteristic</b>	
Y5	Internal hex for setting the flow control valve

# Hydraulic cushioning cylinders DYHR

FESTO

Technical data

Function



- $\varnothing$  - Size  
16 ... 32
- | - Stroke length  
20 ... 60 mm



General technical data							
Size	16		20		25	32	
Stroke [mm]	20	40	25	50	40	60	
Mode of operation	Hydraulic cushioning cylinder with spring return						
	Single-acting, pushing						
Braking speed	Adjustable						
Type of mounting	Via lock nut						
Max. impact velocity [m/s]	0.3						
Mounting position	Any						
Feed speed [mm/s]	0.2 ... 100						
Product weight [g]	190	255	360	440	720	1,380	
Ambient temperature [°C]	0 ... +80						
Corrosion resistance class CRC <sup>1)</sup>	1						

- 1) Corrosion resistance class 1 according to Festo standard 940 070  
Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers

Reset times [s]							
Size	16		20		25	32	
Short stroke <sup>1)</sup>	≤ 0.4		≤ 0.5		≤ 0.8	≤ 1.2	
Long stroke <sup>1)</sup>	≤ 0.8		≤ 1		-	-	

- 1) Increased reset times must be expected at low temperatures (0 °C). Up to 5 s with sizes 12 and 16 and up to 12 s with sizes 25 and 32.

Forces [N]							
Size	16		20		25	32	
Min. feed force <sup>1)</sup>	160		250		400	640	
Max. feed force <sup>2)</sup>	1,600		2,500		4,000	6,400	
Resetting force <sup>3)</sup>	5.4		9		12.5	18	

- 1) Min. required force for constant braking speed with repetition accuracy  
2) Corresponds to max. force in the end position  
3) With piston rod advanced

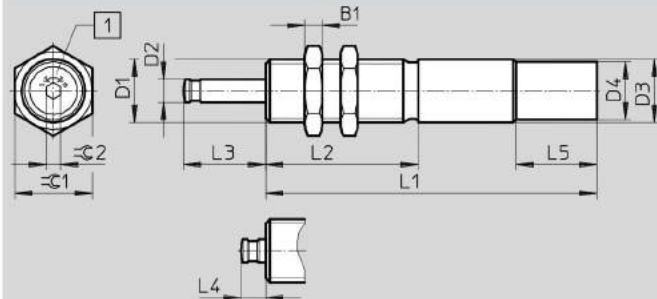
Energies [J]							
Size	16		20		25	32	
Stroke [mm]	20	40	25	50	40	60	
Max. energy absorption per stroke	32	64	62.5	125	160	384	
Max. energy absorption per hour	100,000	150,000	135,000	200,000	220,000	330,000	
Max. residual energy in the end position	0.16		0.32		0.8	2	

# Hydraulic cushioning cylinders DYHR

Technical data



## Dimensions



+ = Braking speed becomes harder  
- = Braking speed becomes softer



1 Speed control

Size	Stroke [mm]	B1	D1	D2 ∅	D3 ∅ +0.15/-0.1	D4 ∅ +0.15	L1
16	20	6	M20x1.25	8	20	-	115±0.1
	40						150±0.1
20	25	8	M24x1.25	10	24	-	138±0.1
	50						181±0.1
25	40	10	M30x1.5	12	30	28.8	178±0.1
32	60	12	M37x1.5	15	37	34.8	230±0.15

Size	Stroke [mm]	L2 ±0.1	L3	L4	L5 ±0.2	C1	C2
16	20	53	28.5+0.4/-0.3	8.5+0.45/-0.4	-	24	5
	40		48.5+0.4/-0.3				
20	25	60	35.6+0.4/-0.3	10.6+0.45/-0.4	-	30	5
	50		60.6+0.4/-0.3				
25	40	80	52.8+0.4/-0.3	12.8+0.45/-0.4	28	36	6
32	60	108	76+0.5/-0.4	16+0.5/-0.4	28	46	6

## Ordering data

Size	Stroke [mm]	Part No.	Type
16	20	1155690	DYHR-16-20-Y5
	40	1155691	DYHR-16-40-Y5
20	25	1155692	DYHR-20-25-Y5
	50	1155693	DYHR-20-50-Y5
25	40	1155694	DYHR-25-40-Y5
32	60	1155696	DYHR-32-60-Y5