

Ball valves and shut-off valves

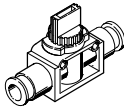
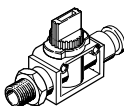
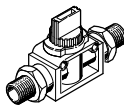
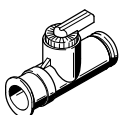
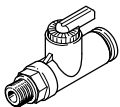
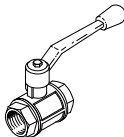
FESTO



Ball valves and shut-off valves

Product range overview

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Function	Design	Type	Pneumatic connection		Valve function		qnN	→ Page/ Internet
			1	2	2/2-way valve	3/2-way valve	[l/min]	
Shut-off valves	Push-in connector at both ends							
		HE	QS-6	QS-6	■	■	278 ... 279	4
			QS-8	QS-8			388 ... 390	
			QS-10	QS-10			761 ... 780	
			QS-12	QS-12			831 ... 840	
	Male thread/push-in connector							
		HE	R1/8	QS-6	■	■	301 ... 307	4
			R1/4	QS-8			380 ... 396	
			R3/8	QS-10			728 ... 733	
			R1/2	QS-12			776 ... 796	
	Male thread at both ends							
		HE	R1/8	R1/8	-	■	301	4
			R1/4	R1/4			380	
			R3/8	R3/8			733	
Ball valves	Push-in connector at both ends							
		QH	QS-4	QS-4	■	-	148	8
			QS-6	QS-6			533	
	Male thread/push-in connector							
		QH	R1/8	QS-4	■	-	235	8
				QS-6			560	
	Bulkhead fitting, push-in connector at both ends							
		QHS	QS-6	QS-6	■	-	528	8
	Female thread at both ends							
		QH	G1/4	G1/4	■	-	3400	10
			G3/8	G3/8			7500	
			G1/2	G1/2			11,500	
			G3/4	G3/4			21,000	
			G1	G1			33,000	
G1 1/2			G1 1/2	84,000				

Shut-off valves HE

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Type codes

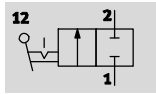
		HE	-	3	-	QS-8	-	
Type								
HE	Shut-off valves							
Function								
2	2/2-way valve							
3	3/2-way valve							
Pneumatic connection 1								
QS-6	Push-in connector for tubing O.D. 6 mm							
QS-8	Push-in connector for tubing O.D. 8 mm							
QS-10	Push-in connector for tubing O.D. 10 mm							
QS-12	Push-in connector for tubing O.D. 12 mm							
1/8	Male thread R1/8							
1/4	Male thread R1/4							
3/8	Male thread R3/8							
1/2	Male thread R1/2							
Pneumatic connection 2								
	Same size push-in connector as pneumatic connection 1							
QS-6	Push-in connector for tubing O.D. 6 mm							
QS-8	Push-in connector for tubing O.D. 8 mm							
QS-10	Push-in connector for tubing O.D. 10 mm							
QS-12	Push-in connector for tubing O.D. 12 mm							
1/8	Male thread R1/8							
1/4	Male thread R1/4							
3/8	Male thread R3/8							

Shut-off valves HE

Technical data

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HE-2

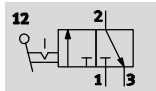


- - Standard nominal flow rate
278 ... 840 l/min

- - Temperature range
0 ... +60 °C

- - Operating pressure
-0.95 ... 10 bar

HE-3



General technical data – HE-2								
Pneumatic connection 1	QS-6	QS-8	QS-10	QS-12	R ¹ / ₈	R ¹ / ₄	R ³ / ₈	R ¹ / ₂
Pneumatic connection 2	QS-6	QS-8	QS-10	QS-12	QS-6	QS-8	QS-10	QS-12
Nominal width [mm]	5	5	7	7	5	5	7	7
Design	Piston spool valve							
Type of mounting	In-line installation With through-hole							
Mounting position	Any							
Valve function	2/2-way valve, bistable							
Type of actuation	Manual							
Type of pilot control	Direct							
Direction of flow	Non-reversible							
Sealing principle	Soft							

General technical data – HE-3											
Pneumatic connection 1	QS-6	QS-8	QS-10	QS-12	R ¹ / ₈	R ¹ / ₄	R ³ / ₈	R ¹ / ₂			
Pneumatic connection 2	QS-6	QS-8	QS-10	QS-12	QS-6	R ¹ / ₈	QS-8	R ¹ / ₄	QS-10	R ³ / ₈	QS-12
Pneumatic connection 3	Not ducted										
Nominal width [mm]	5	5	7	7	5	5	5	7	7	7	7
Design	Piston spool valve										
Type of mounting	In-line installation With through-hole										
Mounting position	Any										
Valve function	3/2-way valve, bistable										
Type of actuation	Manual										
Exhaust air function	No flow control										
Type of control	Direct										
Direction of flow	Non-reversible										
Sealing principle	Soft										

Operating and environmental conditions	
Operating pressure [bar]	-0.95 ... 10
Operating medium	Compressed air according to ISO 8573-1:2010 [7:-:-]
Note on operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature [°C]	0 ... +60

Materials	
Housing	PBT, reinforced
Note on materials	RoHS-compliant

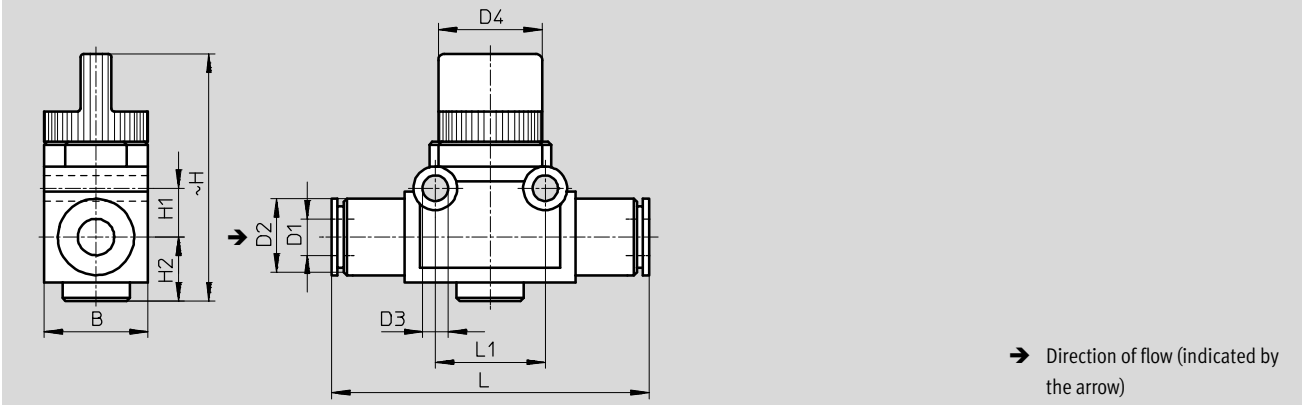
Shut-off valves HE

Technical data

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Dimensions – Push-in connector at both ends

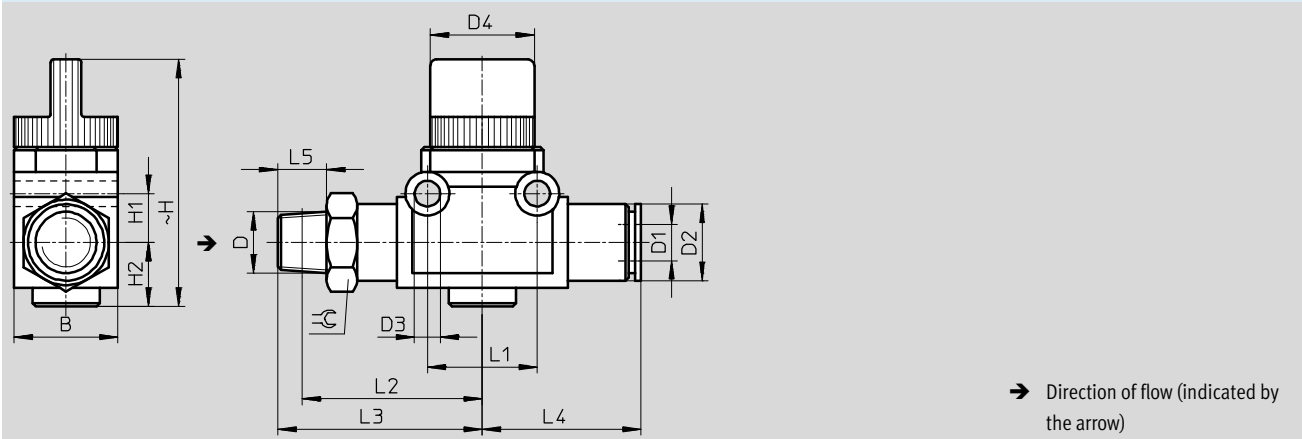
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Type	B	D1 Ø	D2 Ø	D3 Ø	D4 Ø	H	H1	H2	L	L1
HE-...-QS-6	17	6	12.5	4.2	16.5	40.5	8	10.5	53.2	18
HE-...-QS-8	17	8	15	4.2	16.5	40.5	8	10.5	56	18
HE-...-QS-10	21.7	10	17.5	4.2	19.5	41	11	10.5	65	24
HE-...-QS-12	21.7	12	21	4.2	19.5	41	11	10.5	70.2	24

Dimensions – Male thread/push-in connector

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Type	B	D	D1 Ø	D2 Ø	D3 Ø	D4 Ø	H	H1	H2	L1	L2	L3	L4	L5	≡
HE-...-1/8-QS-6	17	R1/8	6	12.5	4.2	16.5	40.5	8	10.5	18	29.5	33.5	26	8	14
HE-...-1/4-QS-8	17	R1/4	8	15	4.2	16.5	40.5	8	10.5	18	30.5	36.5	28	11	14
HE-...-3/8-QS-10	21.7	R3/8	10	17.5	4.2	19.5	41	11	10.5	24	37	43.5	32.5	12	17
HE-...-1/2-QS-12	21.7	R1/2	12	21	4.2	19.5	41	11	10.5	24	38.5	46.5	35.5	15	21

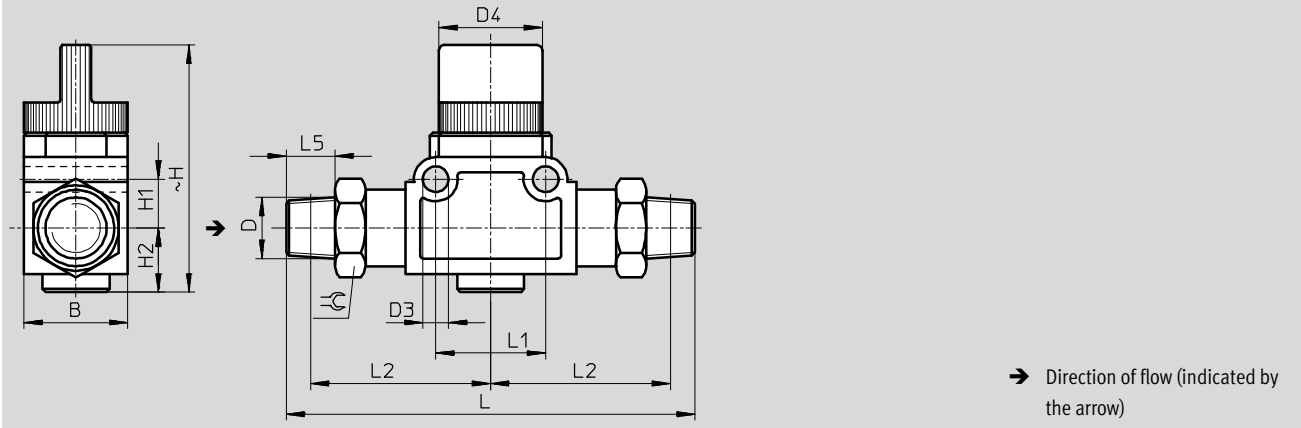
Shut-off valves HE

Technical data

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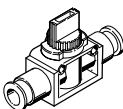
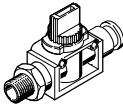
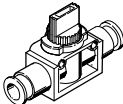
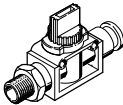
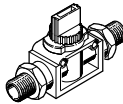
Dimensions – Male thread at both ends

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Type	B	D	D3 Ø	D4 Ø	H	H1	H2	L	L1	L2	L5	↻
HE-3-1/8-1/8	17	R1/8	4.2	16.5	40.5	8	10.5	67	18	29.5	8	14
HE-3-1/4-1/4	21.7	R1/4	4.2	19.5	41	11	10.5	85	24	36.5	11	17
HE-3-3/8-3/8	21.7	R3/8	4.2	19.5	41	11	10.5	87	24	37	12	17

Ordering data

Version		Pneumatic connection		Standard nominal flow rate qnN	Weight	Part No.	Type
		1	2	[l/min]	[g]		
2/2-way valve							
	Push-in connector at both ends	QS-6	QS-6	278	24.5	153467	HE-2-QS-6
		QS-8	QS-8	388	27	153468	HE-2-QS-8
		QS-10	QS-10	761	44	153469	HE-2-QS-10
		QS-12	QS-12	831	50	153470	HE-2-QS-12
	Male thread/ push-in connector	R1/8	QS-6	307	33	153471	HE-2-1/8-QS-6
		R1/4	QS-8	396	40.5	153472	HE-2-1/4-QS-8
		R3/8	QS-10	728	70	153473	HE-2-3/8-QS-10
		R1/2	QS-12	776	95	153474	HE-2-1/2-QS-12
3/2-way valve							
	Push-in connector at both ends	QS-6	QS-6	279	24.5	153475	HE-3-QS-6
		QS-8	QS-8	390	27	153476	HE-3-QS-8
		QS-10	QS-10	780	44	153477	HE-3-QS-10
		QS-12	QS-12	840	50	153478	HE-3-QS-12
	Male thread/ push-in connector	R1/8	QS-6	301	33	153479	HE-3-1/8-QS-6
		R1/4	QS-8	380	40.5	153480	HE-3-1/4-QS-8
		R3/8	QS-10	733	70	153481	HE-3-3/8-QS-10
		R1/2	QS-12	796	95	153482	HE-3-1/2-QS-12
	Male thread at both ends	R1/8	R1/8	301	42	153296	HE-3-1/8-1/8
		R1/4	R1/4	380	79.5	153297	HE-3-1/4-1/4
		R3/8	R3/8	733	96	153298	HE-3-3/8-3/8

Ball valves QH/QHS

Type codes

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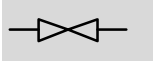
		QH	-	QS-6	-	
Type						
QH	Ball valve					
QHS	Ball valve with bulkhead fitting					
Pneumatic connection 1						
QS-4	Push-in connector for tubing O.D. 4 mm					
QS-6	Push-in connector for tubing O.D. 6 mm					
1/4	Female thread G1/4					
3/8	Female thread G3/8					
1/2	Female thread G1/2					
3/4	Female thread G3/4					
1	Female thread G1					
1 1/2	Female thread G1 1/2					
Pneumatic connection 2						
	Same connection size as pneumatic connection 1					
1/8	Male thread R1/8					

Ball valves QH/QHS

Technical data

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QH/QHS



- Standard nominal flow rate
148 ... 560 l/min
- Temperature range
0 ... +60 °C
- Operating pressure
-1 ... 10 bar



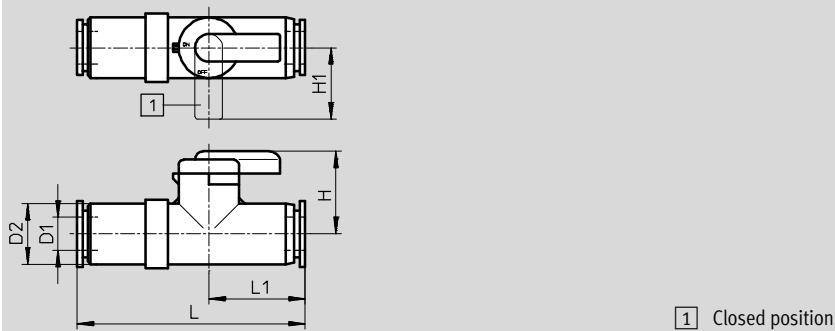
General technical data					
Type	QH				QHS, bulkhead fitting
Pneumatic connection 1	QS-4	QS-6	R1/8		QS-6
Pneumatic connection 2	QS-4	QS-6	QS-4	QS-6	QS-6
Nominal width [mm]	2.5	4	2.5	2.5	4
Design	Ball valve				
Type of mounting	In-line installation		Screw-in		Via lock nut
Mounting position	Any				
Valve function	2/2-way valve, bistable				
Type of actuation	Manual				
Sealing principle	Soft				

Operating and environmental conditions	
Operating pressure [bar]	-1 ... 10
Operating medium	Compressed air according to ISO 8573-1:2010 [7:-:-]
Note on operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature [°C]	0 ... +60

Materials	
Housing	PBT
Note on materials	RoHS-compliant

Dimensions – Push-in connector at both ends

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Type	D1 Ø	D2 Ø	H	H1	L	L1
QH-QS-4	4	11	15	13	38	17
QH-QS-6	6				41.5	17.5

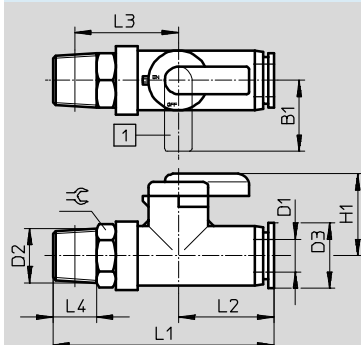
Ball valves QH/QHS

Technical data

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Dimensions – Male thread/push-in connector

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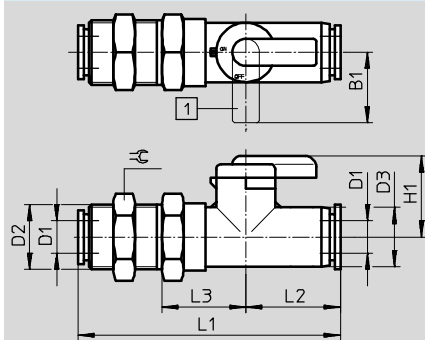


1 Closed position

Type	B1	D1 Ø	D2	D3 Ø	H1	L1	L2	L3	L4	≡C
QH-QS-4-1/8	13	4	R1/8	11	15	41.5	17	20	8	10
QH-QS-6-1/8		6				42	17.5			

Dimensions – Bulkhead fitting, push-in connector at both ends

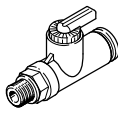
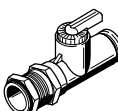
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1 Closed position

Type	B1	D1 Ø	D2	D3 Ø	H1	L1	L2	L3	≡C
QHS-QS-6	13	6	M12x1	11	15	48.5	17.5	15.5	14

Ordering data

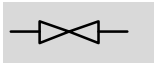
Version		Pneumatic connection		Standard nominal flow rate qnN	Weight	Part No.	Type
		1	2	[l/min]	[g]		
2/2-way valve							
	Push-in connector at both ends	QS-4	QS-4	148	12	153483	QH-QS-4
		QS-6	QS-6	533	12.5	153484	QH-QS-6
	Male thread/push-in connector	R1/8	QS-4	235	14	153486	QH-QS-4-1/8
			QS-6	560	15	153487	QH-QS-6-1/8
	Bulkhead fitting, push-in connector at both ends	QS-6	QS-6	528	16.5	153485	QHS-QS-6

Ball valves QH

Technical data – With hand lever

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QH



-  - Standard nominal flow rate
3400 ... 84,000 l/min
-  - Temperature range
-20 ... +180 °C



General technical data						
Pneumatic connection 1	G1/4	G3/8	G1/2	G3/4	G1	G1 1/2
Pneumatic connection 2	G1/4	G3/8	G1/2	G3/4	G1	G1 1/2
Nominal size [mm]	10	10	15	20	25	40
Design	Ball valve					
Type of mounting	In-line installation					
Mounting position	Any					
Valve function	2/2-way valve, bistable					
Type of actuation	Manual					
Sealing principle	Soft					

-  - Note: This product conforms to ISO 1179-1 and to ISO 228-1

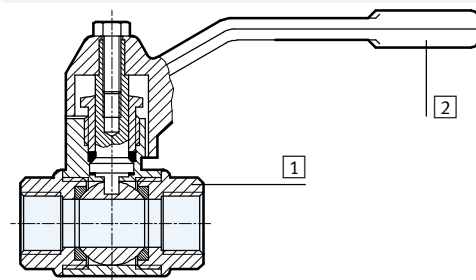
Operating and environmental conditions	
Operating medium	Compressed air according to ISO 8573-1:2010 [7:-:-] Water ¹⁾
Note on operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature [°C]	-20 ... +180

1) Other media on request.

-  - Note
Not permitted for toxic gases such
as natural gas, town gas etc.

Materials

Sectional view



Ball valve		
1	Housing	Brass
2	Lever	Aluminium

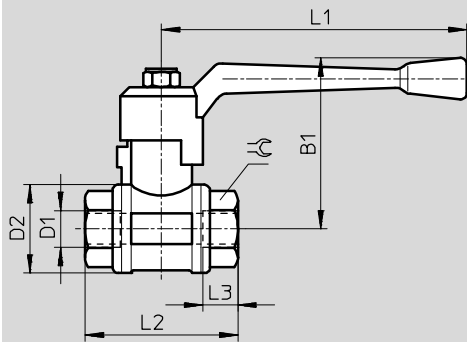
Ball valves QH

Technical data – With hand lever

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Dimensions – Female thread at both ends

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Type	B1	D1	D2 Ø	L1	L2	L3	≈G
QH-1/4	56	G1/4	30	100	52	11.5	21.5
QH-3/8	56	G3/8	30	100	52	11.5	21.5
QH-1/2	59	G1/2	35	100	64	15	27
QH-3/4	72	G3/4	44	120	74	16.3	32
QH-1	77	G1	51	120	88	19.1	41
QH-1 1/2	100	G1 1/2	73	150	105.5	21.4	55

• Note: This product conforms to ISO 1179-1 and to ISO 228-1

Ordering data

Version		Pneumatic connection		Standard nominal flow rate qnN	Weight	Part No.	Type
		1	2	[l/min]	[g]		
2/2-way valve							
	Female thread at both ends	G1/4	G1/4	3400	175	9541	QH-1/4
		G3/8	G3/8	7500	180	9542	QH-3/8
		G1/2	G1/2	11,500	340	9543	QH-1/2
		G3/4	G3/4	21,000	590	9544	QH-3/4
		G1	G1	33,000	815	9545	QH-1
		G11/2	G11/2	84,000	1750	6837	QH-11/2

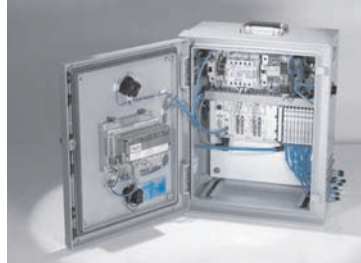
Product Range and Company Overview

A Complete Suite and Company Overview

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