

General information

Telescopic slides offer smooth running, wear-free, and quiet linear motion. They are used in a very wide range of applications. The spectrum ranges from the most simple extensions and drawers to high-quality variants that are used in the industrial environment on machines, production systems, and equipment. The telescopic slides have a multitude of positive features and are still very interesting from an economic standpoint.

Here are a few examples of use: sliding doors, protective hoods, keyboards and PC pullouts, vehicle equipment, storage shelves, battery boxes etc.

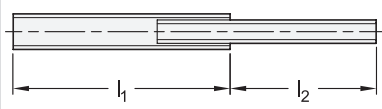
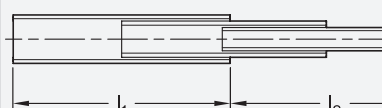
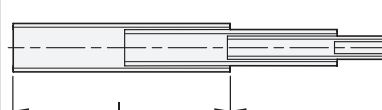
Telescopic slides can come with a number of component options. Some are available for one of the two stop positions and in combination, and they are defined by the type in the article number.

Structure

Telescopic slides consist of an outer and inner slide as well as additionally of one or two middle slides depending on design and/or required extension lengths. The slides are interconnected through appropriately shaped geometry and move by means of ball bearings. A ball cage keeps the bearings spaced and in position.

The slides are usually mounted through countersunk holes or through-holes. Other options, such as threaded bolts or support brackets, are available as an alternative.

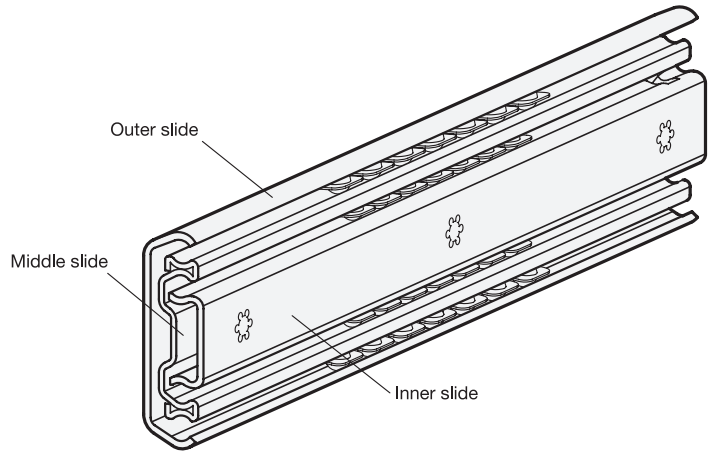
In regard to the length of the extension, telescopic slides can be divided into three categories: partial extension, full extension, and over extension. The categories are defined by the achievable stroke l_2 , which is listed in relation to the nominal length l_1 .

Type of extension	Extension diagram
Partial extension: $l_1 = 100\% \rightarrow l_2 = \text{min. } 75\%$	 <p>The diagram shows a telescopic slide with three sections. The innermost section is shaded. Dimension lines below indicate the nominal length l_1 and the achievable stroke l_2, which is shorter than l_1.</p>
Full extension: $l_1 = 100\% \rightarrow l_2 = \text{min. } 100\%$	 <p>The diagram shows a telescopic slide with three sections. The innermost section is shaded. Dimension lines below indicate the nominal length l_1 and the achievable stroke l_2, which is equal to l_1.</p>
Over extension: $l_1 = 100\% \rightarrow l_2 = \text{min. } 150\%$	 <p>The diagram shows a telescopic slide with four sections. The innermost section is shaded. Dimension lines below indicate the nominal length l_1 and the achievable stroke l_2, which is longer than l_1.</p>

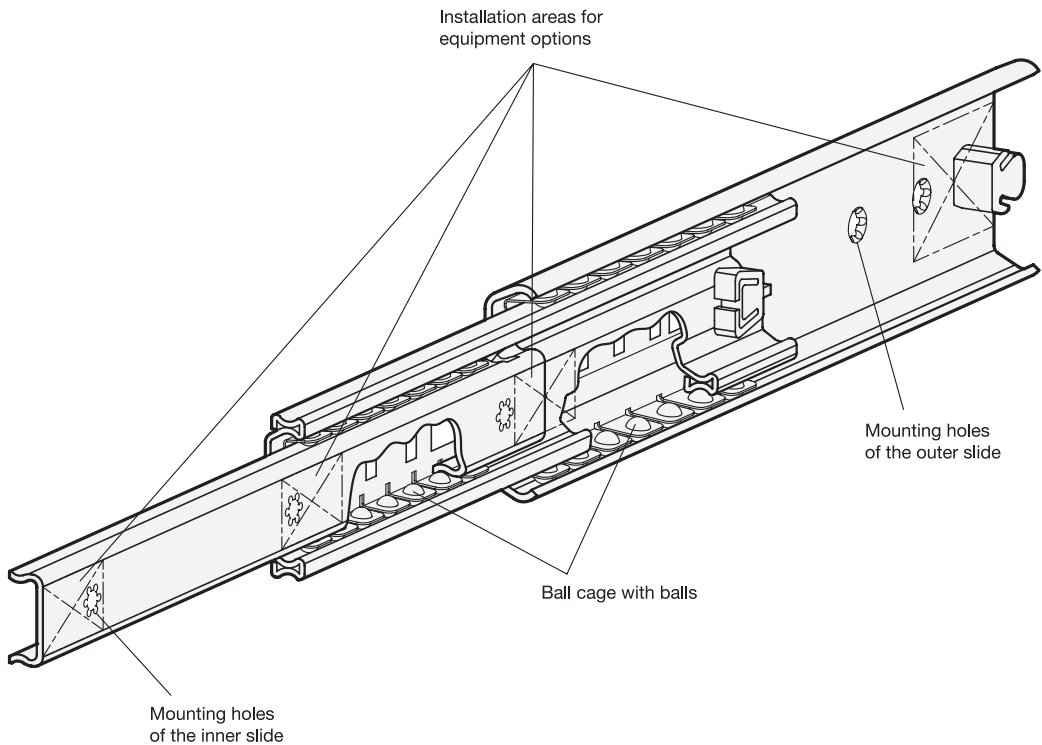
All slides have internally constructed stops in the front and back end position. The stops prevent the slides from extending unintentionally. Depending on the available installation space and required stability, the stops are designed accordingly in a metallic form or with additional plastic or elastomer parts as a rubber stop to prevent the slides from hitting the end positions with too much force.

Also the telescopic slides can come with a variety of accessory functions. Examples include locking devices, latches, detach functions, and self-retracting mechanisms, some of which are dampened. Some additional functions are available, depending on slide variant, for the back or front stop position and in combination. Furthermore, customer-specific modifications regarding the fastening of the slides can be made.

Telescopic slides with full extension, back stop position



Telescopic slides with full extension, front stop position



Telescopic Slides

Overview of Types

Standard	Type of extension		Load capacity Per pair at 10,000 cycles in N	Basic length Retracted position in mm	Material Steel ST SST NI	Fastening		
	Partial extension T Full extension V					Through-holes (ld. no. 1)	Countersunk holes (ld. no. 2)	Outer slide, through-holes / Inner slide, countersunk holes (ld. no. 3)
GN 1400 Page 6	T		280	300 - 500	ST	×		
GN 1404 Page 8	T		780	300 - 700	ST			×
GN 1408 Page 10	V		250	250 - 700	ST	×		
GN 1410 Page 13	V		510	250 - 800	ST	×		
GN 1412 Page 16	V		430	300 - 700	ST	×		
GN 1414 Page 19	V		360	300 - 650	ST	×		
GN 1418 Page 22	V		430	350 - 650	ST	×		
GN 1420 Page 25	V		1290	300 - 1200	ST		×	
GN 1422 Page 27	V		1290	300 - 800	ST		×	
GN 1424 Page 30	V		750	350 - 700	ST		×	
GN 1426 Page 33	V		1380	500 - 800	ST		×	
GN 1430 Page 35	V		2120	400 - 1200	ST		×	
GN 1432 Page 37	V		2300	400 - 800	ST		×	
GN 1440 Type B Page 40	V		3250	300 - 1500	ST	×		
GN 1440 Type M Page 40	V		3250	300 - 1500	ST	×		
GN 1440 Type K Page 40	V		3250	300 - 1500	ST	×		
GN 1440 Type Q Page 40	V		3250	300 - 1500	ST	×		
GN 1450 Page 43	V		480	300 - 600	NI	×		

Telescopic Slides

Component Features

Standard	Component features									
	Without rubber stop	With rubber stop back-front	Locking device back Type E	Locking device back, detach function Type F	Latch back Type M	Latch front Type K	Latch back-front Type Q	Self-retracting mechanism, dampened / not dampened	Push to open - mechanism	Extension on both sides
GN 1400 Page 6	×									
GN 1404 Page 8		×	×							
GN 1408 Page 10		×		×						
GN 1410 Page 13		×		×						
GN 1412 Page 16		×		×				×		
GN 1414 Page 19		×		×				×		
GN 1418 Page 22		×		×					×	
GN 1420 Page 25		×	×							
GN 1422 Page 27		×						×		
GN 1424 Page 30		×						×		
GN 1426 Page 33		×								×
GN 1430 Page 35		×	×							
GN 1432 Page 37		×						×		
GN 1440 Type B Page 40		×								
GN 1440 Type M Page 40		×			×					
GN 1440 Type K Page 40		×				×				
GN 1440 Type Q Page 40		×					×			
GN 1450 Page 43		×		×						