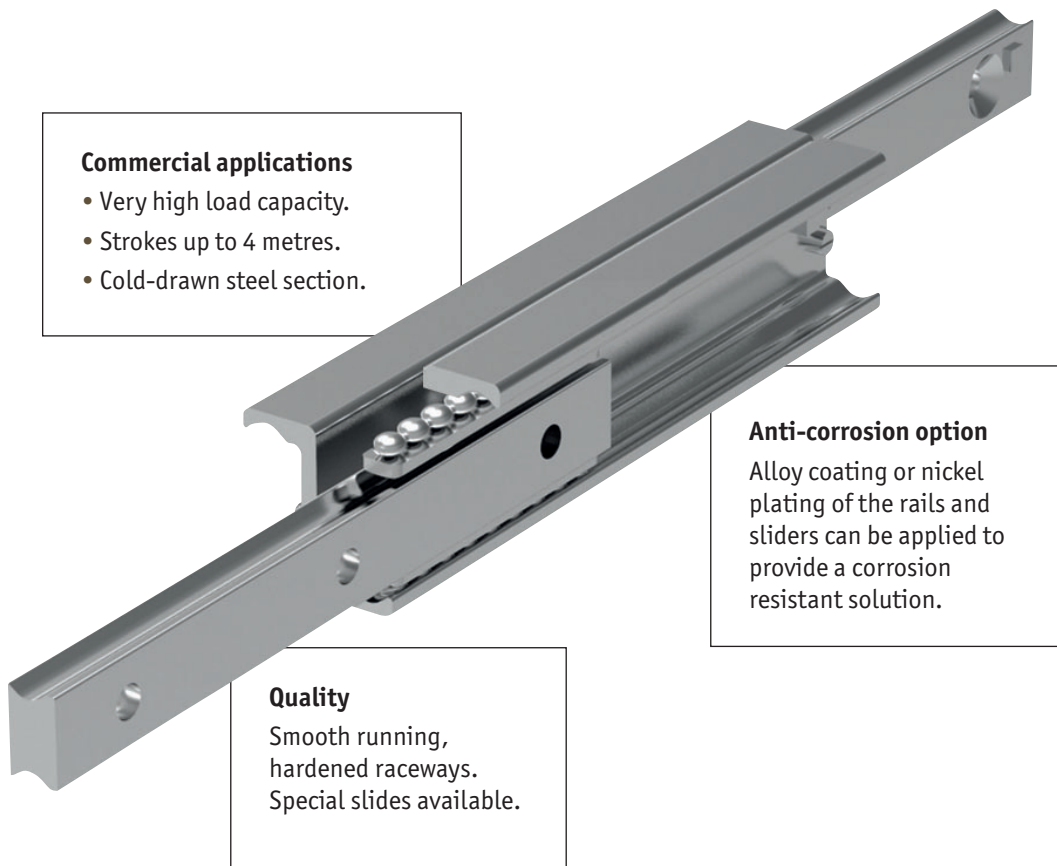


If you are looking for heavy duty, quality telescopic rails for industrial or commercial applications then these are the rails for you!

### The best heavy duty telescopic slides on the market

These are unique rails that are not made from pressed steel but from cold-drawn steel section. The rails can take high loads, with very long strokes, with repeated use, low deflection and minimal play.



**Commercial applications**

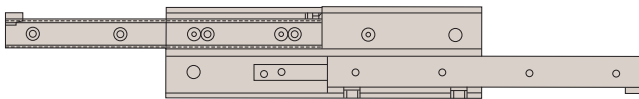
- Very high load capacity.
- Strokes up to 4 metres.
- Cold-drawn steel section.

**Anti-corrosion option**  
Alloy coating or nickel plating of the rails and sliders can be applied to provide a corrosion resistant solution.

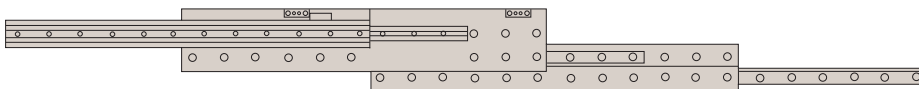
**Quality**  
Smooth running, hardened raceways. Special slides available.



Partial Stroke (~60%)



Full Stroke (~100%)



Over-extension (150%)

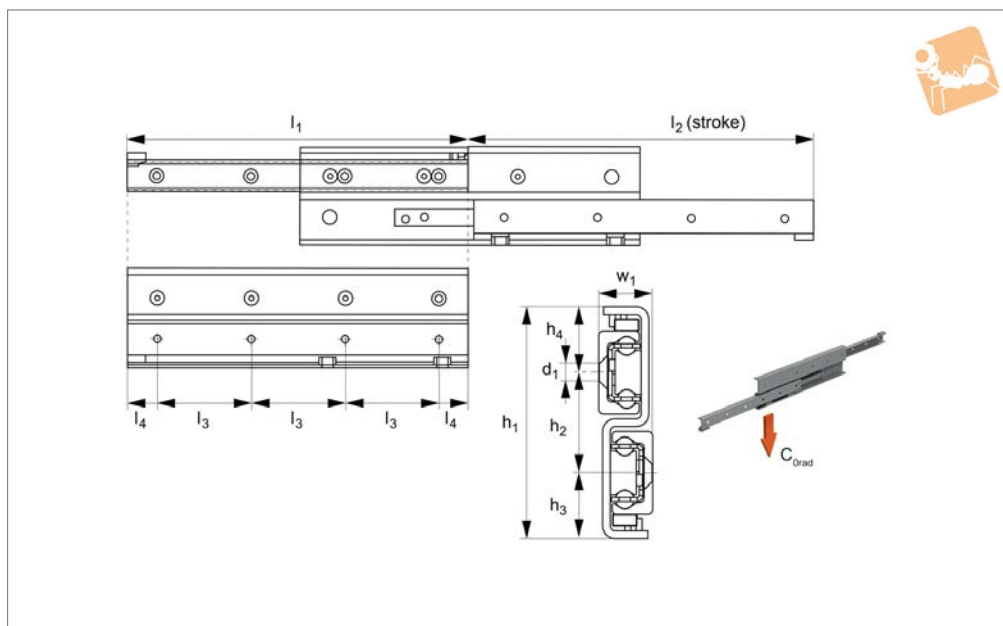
### Rail types

Our range of telescopic rails covers partial, full stroke and over-extension.

For more information refer to our product specifications pages or call our technical department.



## L1984.28S



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid teles-

copic slides with high load capacities and have very low deflection characteristics. Temperature range: -30°C to +110°C. This is the single direction stroke version - the moving member can extend out of only one side of the slide. Moving rail must be lower rail (unless technical department consulted).

$C_{Orad}$  is the load rating for a single teles-

copic slide.

### Tips

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

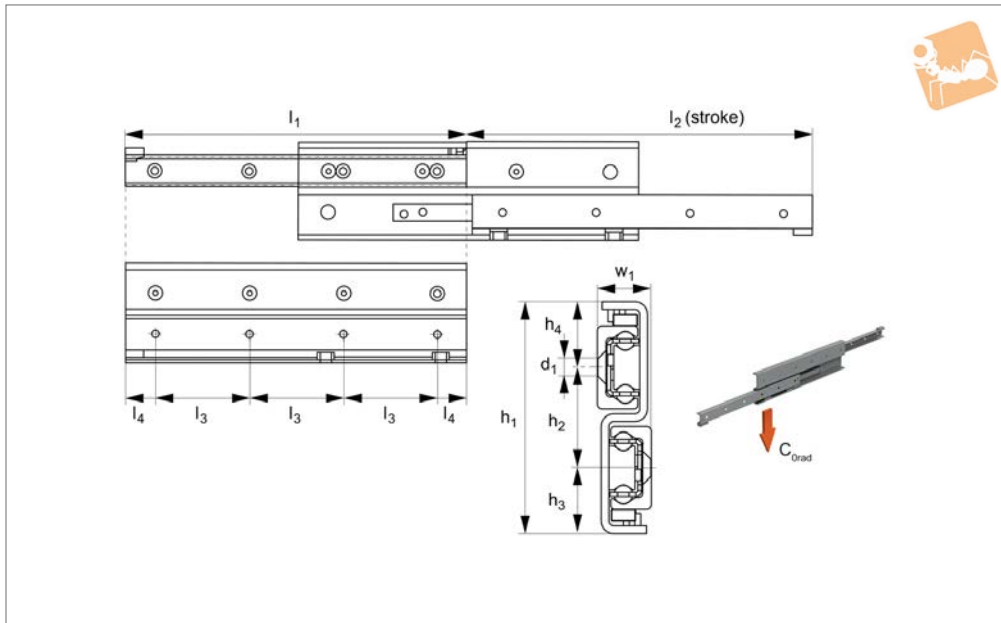
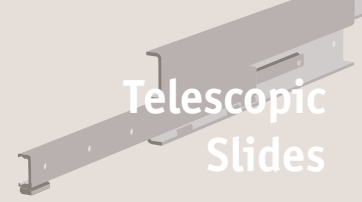
Special strokes up to 130% of the closed length can be provided on request. Only to be used for horizontal movements.

Order No.	$h_1$	$h_2$	$h_3$	$h_4$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	For screws $d_1$	Accessible holes/total	Load (per rail) $C_{Orad}$ N max.	Weight kg
L1984.28S-0290	84	35	24,5	24,5	290	296	80	25	17	M5	3/4	570	1,9
L1984.28S-0370	84	35	24,5	24,5	370	380	80	25	17	M5	4/5	769	2,4
L1984.28S-0450	84	35	24,5	24,5	450	464	80	25	17	M5	4/6	969	2,9
L1984.28S-0530	84	35	24,5	24,5	530	548	80	25	17	M5	6/7	1170	3,4
L1984.28S-0610	84	35	24,5	24,5	610	630	80	25	17	M5	6/8	1376	3,9
L1984.28S-0690	84	35	24,5	24,5	690	714	80	25	17	M5	7/9	1577	4,4
L1984.28S-0770	84	35	24,5	24,5	770	798	80	25	17	M5	7/10	1778	4,9
L1984.28S-0850	84	35	24,5	24,5	850	864	80	25	17	M5	9/11	2111	5,4
L1984.28S-0930	84	35	24,5	24,5	930	950	80	25	17	M5	9/12	2240	5,6
L1984.28S-1010	84	35	24,5	24,5	1010	1034	80	25	17	M5	10/13	2054	6,4
L1984.28S-1090	84	35	24,5	24,5	1090	1118	80	25	17	M5	10/14	1896	7,0
L1984.28S-1170	84	35	24,5	24,5	1170	1202	80	25	17	M5	12/15	1761	7,4
L1984.28S-1250	84	35	24,5	24,5	1250	1266	80	25	17	M5	12/16	1695	8,0
L1984.28S-1330	84	35	24,5	24,5	1330	1350	80	25	17	M5	13/17	1586	8,5
L1984.28S-1410	84	35	24,5	24,5	1410	1434	80	25	17	M5	13/18	1490	9,0
L1984.28S-1490	84	35	24,5	24,5	1490	1518	80	25	17	M5	15/19	1405	9,5



# Fully Telescopic Slides, size 35

single direction stroke



**L1984.35S**

TELESCOPIC SLIDES

**Material**

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.  
Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

**Technical Notes**

These are extremely strong and rigid teles-

copic slides with high load capacities and have very low deflection characteristics. Temperature range: -30°C to +110°C. This is the single direction stroke version - the moving member can extend out of only one side of the slide. Moving rail must be lower rail (unless technical department consulted).  $C_{0rad}$  is the load rating for a single teles-

copic slide.

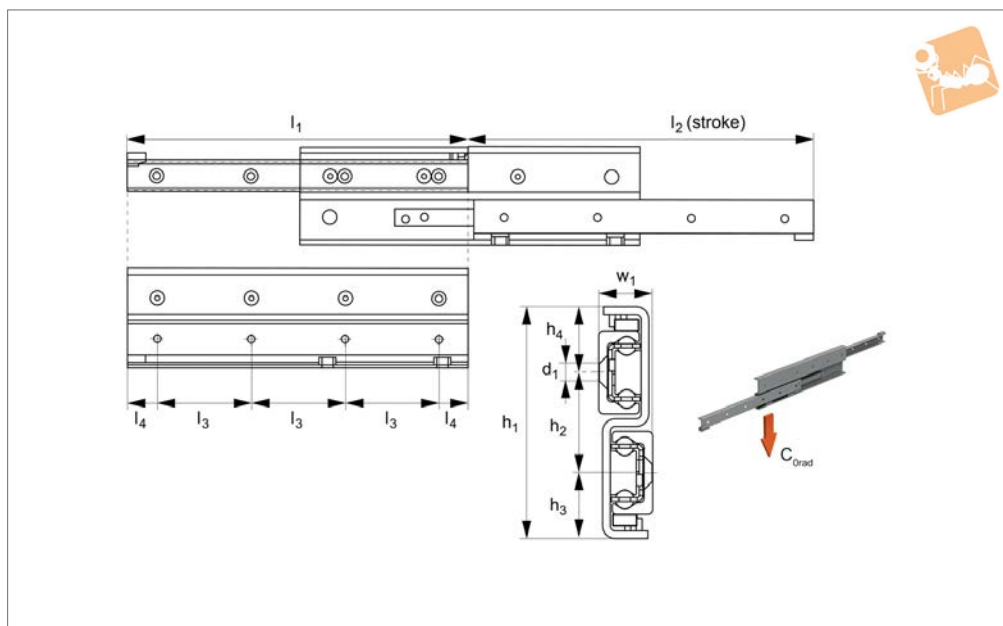
**Tips**

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this. Special strokes up to 130% of the closed length can be provided on request. Only to be used for horizontal movements.

Order No.	$h_1$	$h_2$	$h_3$	$h_4$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	For screws $d_1$	Accessible holes/total	Load (per rail) $C_{0rad}$ N max.	Weight kg
L1984.35S-0450	104	43	30,5	30,5	450	494	80	25	22,5	M6	5/6	1250	4,5
L1984.35S-0530	104	43	30,5	30,5	530	558	80	25	22,5	M6	6/7	1685	5,4
L1984.35S-0610	104	43	30,5	30,5	610	646	80	25	22,5	M6	6/8	1908	6,2
L1984.35S-0690	104	43	30,5	30,5	690	734	80	25	22,5	M6	7/9	2132	9,9
L1984.35S-0770	104	43	30,5	30,5	770	798	80	25	22,5	M6	8/10	2579	7,7
L1984.35S-0850	104	43	30,5	30,5	850	886	80	25	22,5	M6	9/11	2801	8,9
L1984.35S-0930	104	43	30,5	30,5	930	974	80	25	22,5	M6	9/12	3024	9,4
L1984.35S-1010	104	43	30,5	30,5	1010	1038	80	25	22,5	M6	10/13	3476	10,2
L1984.35S-1090	104	43	30,5	30,5	1090	1126	80	25	22,5	M6	11/14	3508	11,0
L1984.35S-1170	104	43	30,5	30,5	1170	1214	80	25	22,5	M6	12/15	3240	11,8
L1984.35S-1250	104	43	30,5	30,5	1250	1278	80	25	22,5	M6	12/16	3121	12,6
L1984.35S-1330	104	43	30,5	30,5	1330	1366	80	25	22,5	M6	13/17	2907	13,4
L1984.35S-1410	104	43	30,5	30,5	1410	1454	80	25	22,5	M6	14/18	2721	14,2
L1984.35S-1490	104	43	30,5	30,5	1490	1518	80	25	22,5	M6	15/19	2636	15,0
L1984.35S-1570	104	43	30,5	30,5	1570	1606	80	25	22,5	M6	15/20	2482	15,9
L1984.35S-1650	104	43	30,5	30,5	1650	1694	80	25	22,5	M6	16/21	2345	16,6
L1984.35S-1730	104	43	30,5	30,5	1730	1758	80	30,5	22,5	M6	17/22	2282	17,5



## L1984.43S



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid teles-

copic slides with high load capacities and have very low deflection characteristics. Temperature range: -30°C to +110°C. This is the single direction stroke - the moving member can extend out of only one side of the slide.

Moving rail must be lower rail (unless technical department consulted).

$C_{Grad}$  is the load rating for a single teles-

copic slide.

### Tips

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

Special strokes up to 130% of the closed length can be provided on request.

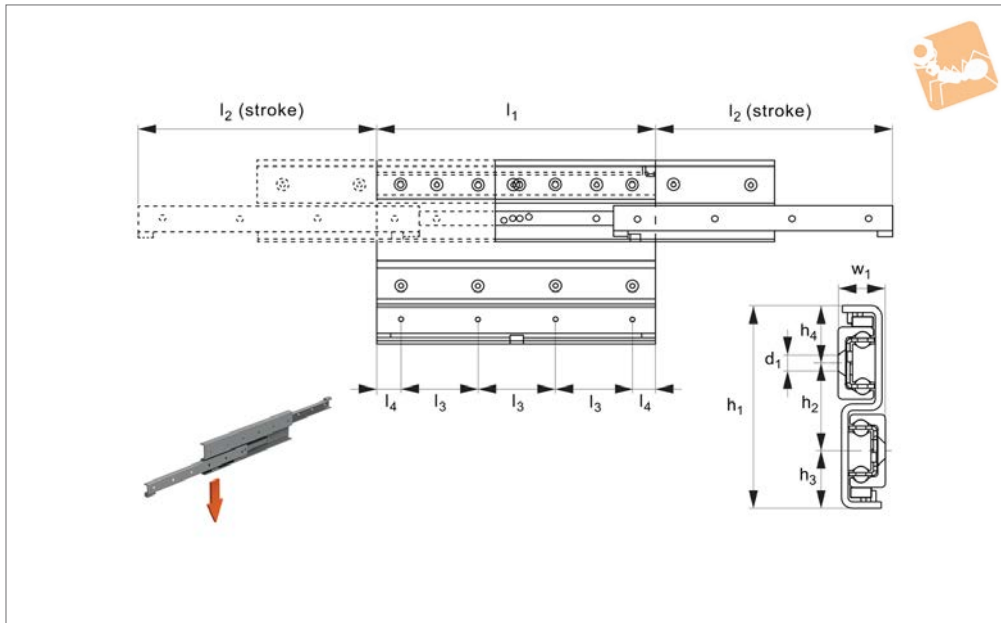
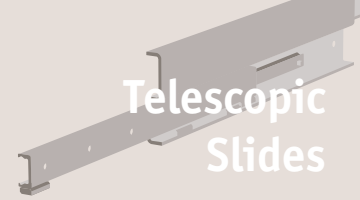
Only to be used for horizontal movements.

Order No.	$h_1$	$h_2$	$h_3$	$h_4$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	For screws $d_1$	Accessible holes/ total	Load (per rail) $N$ max.	$C_{0rad}$	Weight kg
L1984.43S-0530	120	52	34	34	530	556	80	25	28	M8	6/7	2061		7,7
L1984.43S-0610	120	52	34	34	610	626	80	25	28	M8	6/8	2603		8,9
L1984.43S-0690	120	52	34	34	690	726	80	25	28	M8	7/9	2775		10,1
L1984.43S-0770	120	52	34	34	770	796	80	25	28	M8	7/10	3319		11,2
L1984.43S-0850	120	52	34	34	850	866	80	25	28	M8	9/11	3873		12,4
L1984.43S-0930	120	52	34	34	930	966	80	25	28	M8	9/12	4036		13,6
L1984.43S-1010	120	52	34	34	1010	1036	80	25	28	M8	10/13	4590		14,8
L1984.43S-1090	120	52	34	34	1090	1106	80	25	28	M8	11/14	4908		15,9
L1984.43S-1170	120	52	34	34	1170	1206	80	25	28	M8	12/15	4610		17,1
L1984.43S-1250	120	52	34	34	1250	1276	80	25	28	M8	12/16	4398		18,3
L1984.43S-1330	120	52	34	34	1330	1376	80	25	28	M8	13/17	4027		19,4
L1984.43S-1410	120	52	34	34	1410	1446	80	25	28	M8	13/18	3864		20,6
L1984.43S-1490	120	52	34	34	1490	1516	80	25	28	M8	15/19	3713		21,8
L1984.43S-1570	120	52	34	34	1570	1616	80	25	28	M8	15/20	3445		22,9
L1984.43S-1650	120	52	34	34	1650	1686	80	25	28	M8	16/21	3325		24,1
L1984.43S-1730	120	52	34	34	1730	1756	80	25	28	M8	16/22	3213		25,3
L1984.43S-1810	120	52	34	34	1810	1856	80	25	28	M8	18/23	3011		26,4
L1984.43S-1890	120	52	34	34	1890	1926	80	25	28	M8	18/24	2919		27,6
L1984.43S-1970	120	52	34	34	1970	2026	80	25	28	M8	19/25	2750		28,8



# Fully Telescopic Slides, size 28

double direction stroke



**L1984.28D**

TELESCOPIC SLIDES

### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.  
Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$  is the load rating for a single telescopic

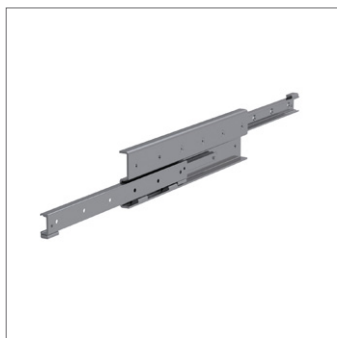
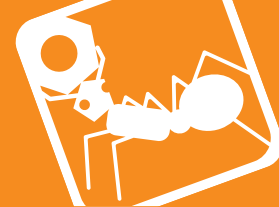
slide. They have very low deflection characteristics.  
Temperature range: -30°C to +110°C.  
This is the double direction stroke version - the moving member can extend out of both sides of the slide.  
Moving rail must be lower rail (unless technical department consulted).

### Tips

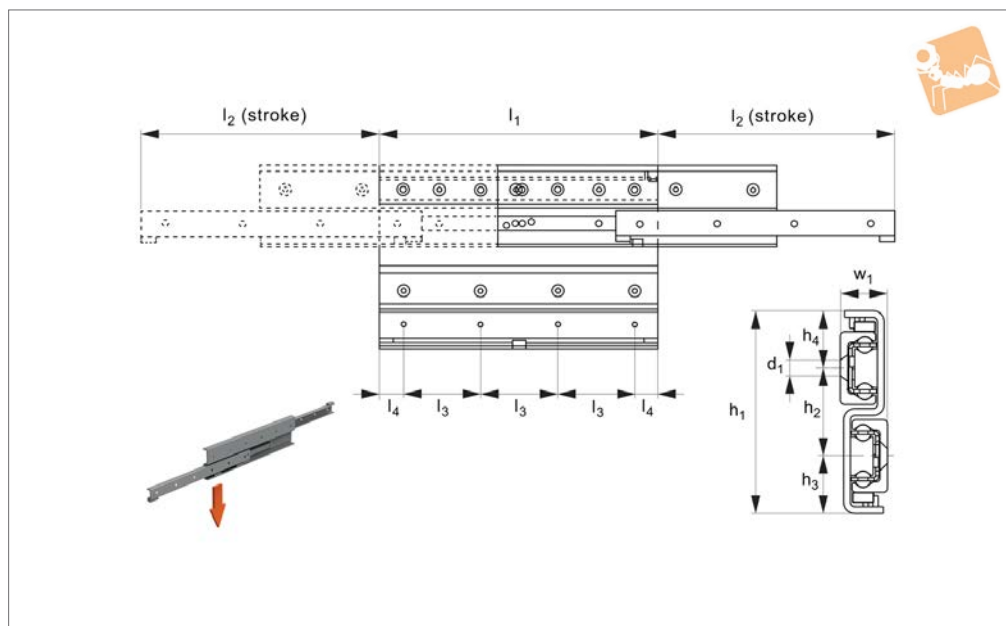
When closing a D version slide, the return of the intermediate member is not auto-

matic. When the moving element has started the stroke in the opposite direction it will catch the intermediate member and force it to return.  
The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.  
Only to be used for horizontal movements.

Order No.	$h_1$	$h_2$	$h_3$	$h_4$	$l_1$	$l_2$	$l_3$	$l_4$	$w_1$	For screws $d_1$	No. of holes	Load (per rail) $C_{0rad}$ N max.	Weight kg
L1984.28D-0290	84	35	24.5	24.5	290	246	80	25	17	M5	4	895	1.9
L1984.28D-0370	84	35	24.5	24.5	370	326	80	25	17	M5	5	1105	2.4
L1984.28D-0450	84	35	24.5	24.5	450	406	80	25	17	M5	6	1317	2.9
L1984.28D-0530	84	35	24.5	24.5	530	486	80	25	17	M5	7	1626	3.4
L1984.28D-0610	84	35	24.5	24.5	610	566	80	25	17	M5	8	1837	3.9
L1984.28D-0690	84	35	24.5	24.5	690	646	80	25	17	M5	9	2050	4.4
L1984.28D-0770	84	35	24.5	24.5	770	726	80	25	17	M5	10	2262	4.9
L1984.28D-0850	84	35	24.5	24.5	850	806	80	25	17	M5	11	2475	5.4
L1984.28D-0930	84	35	24.5	24.5	930	886	80	25	17	M5	12	2581	5.6
L1984.28D-1010	84	35	24.5	24.5	1010	966	80	25	17	M5	13	2357	6.4
L1984.28D-1090	84	35	24.5	24.5	1090	1046	80	25	17	M5	14	2168	7.0
L1984.28D-1170	84	35	24.5	24.5	1170	1126	80	25	17	M5	15	2008	7.4
L1984.28D-1250	84	35	24.5	24.5	1250	1206	80	25	17	M5	16	1870	8.0
L1984.28D-1330	84	35	24.5	24.5	1330	1286	80	25	17	M5	17	1749	8.5
L1984.28D-1410	84	35	24.5	24.5	1410	1366	80	25	17	M5	18	1644	9.0
L1984.28D-1490	84	35	24.5	24.5	1490	1446	80	25	17	M5	19	1550	9.5



## L1984.35D



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$  is the load rating for a single telescopic

slide. They have very low deflection characteristics.

Temperature range:  $-30^{\circ}\text{C}$  to  $+110^{\circ}\text{C}$ .

This is the double direction stroke version - the moving member can extend out of both sides of the slide.

Moving rail must be lower rail (unless technical department consulted).

### Tips

When closing a D version slide, the return of the intermediate member is not auto-

matic. When the moving element has started the stroke in the opposite direction it will catch the intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

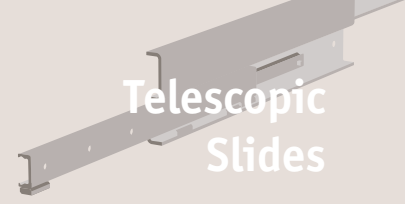
Only to be used for horizontal movements.

Order No.	$h_1$	$h_2$	$h_3$	$h_4$	$l_1$	$l_2$	$l_3$	$l_4$	$w_1$	For screws $d_1$	No. of holes	Load (per rail) $C_{0rad}$ N max.	Weight kg
L1984.35D-0450	104	43	30.5	30.5	450	350	80	25	22.5	M6	6	1500	4.5
L1984.35D-0530	104	43	30.5	30.5	530	430	80	25	22.5	M6	7	2022	5.4
L1984.35D-0610	104	43	30.5	30.5	610	510	80	25	22.5	M6	8	2290	6.2
L1984.35D-0690	104	43	30.5	30.5	690	590	80	25	22.5	M6	9	2558	9.9
L1984.35D-0770	104	43	30.5	30.5	770	670	80	25	22.5	M6	10	3095	7.7
L1984.35D-0850	104	43	30.5	30.5	850	750	80	25	22.5	M6	11	3361	8.9
L1984.35D-0930	104	43	30.5	30.5	930	830	80	25	22.5	M6	12	3629	9.4
L1984.35D-1010	104	43	30.5	30.5	1010	910	80	25	22.5	M6	13	4171	10.2
L1984.35D-1090	104	43	30.5	30.5	1090	990	80	25	22.5	M6	14	3859	11.0
L1984.35D-1170	104	43	30.5	30.5	1170	1070	80	25	22.5	M6	15	3564	11.8
L1984.35D-1250	104	43	30.5	30.5	1250	1150	80	25	22.5	M6	16	3433	12.6
L1984.35D-1330	104	43	30.5	30.5	1330	1230	80	25	22.5	M6	17	3198	13.4
L1984.35D-1410	104	43	30.5	30.5	1410	1310	80	25	22.5	M6	18	2993	14.2
L1984.35D-1490	104	43	30.5	30.5	1490	1390	80	25	22.5	M6	19	2900	15.0
L1984.35D-1570	104	43	30.5	30.5	1570	1470	80	25	22.5	M6	20	2730	15.9
L1984.35D-1650	104	43	30.5	30.5	1650	1550	80	25	22.5	M6	21	2580	16.6
L1984.35D-1730	104	43	30.5	30.5	1730	1630	80	30.5	22.5	M6	22	2510	17.5

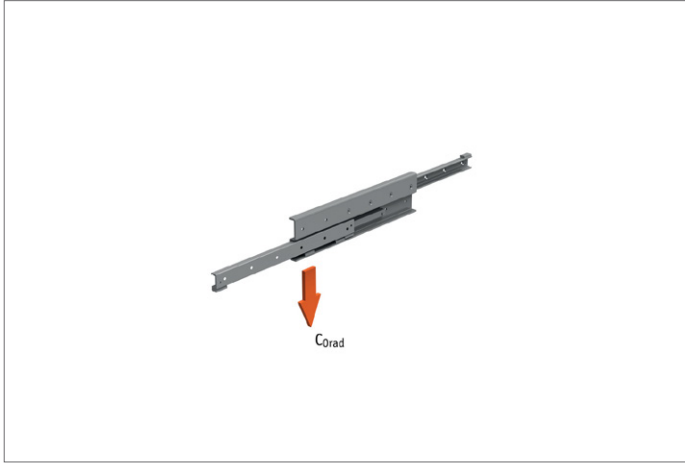


# Fully Telescopic Slides, size 35

double direction stroke



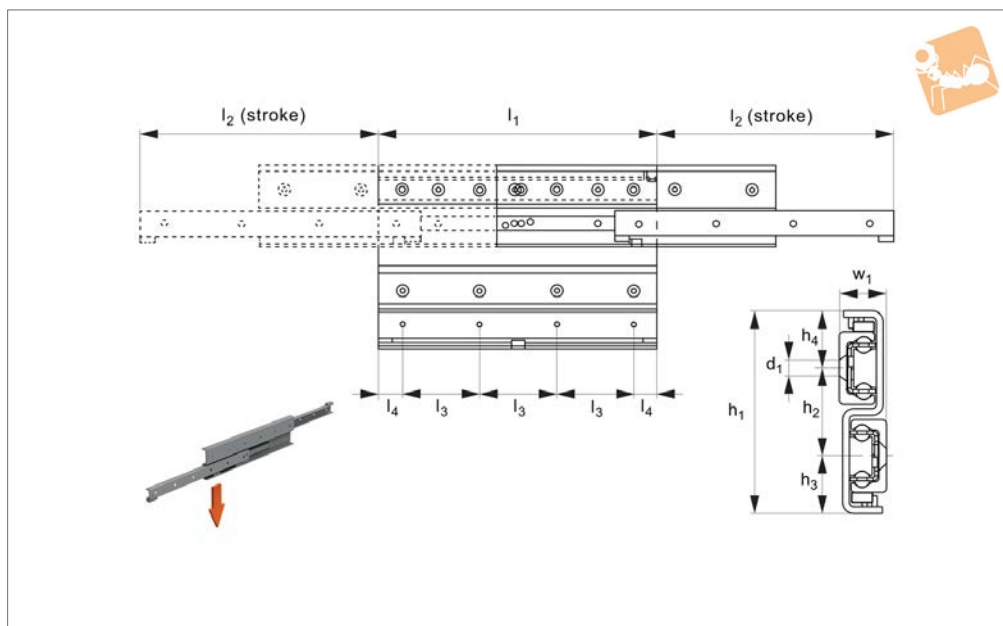
Telescopic Slides



TELESCOPIC SLIDES



## L1984.43D



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$  is the load rating for a single telescopic

slide. They have very low deflection characteristics.

Temperature range:  $-30^{\circ}\text{C}$  to  $+110^{\circ}\text{C}$ .

This is the double direction stroke version - the moving member can extend out of both sides of the slide.

Moving rail must be lower rail (unless technical department consulted).

### Tips

When closing a D version slide, the return of the intermediate member is not auto-

matic. When the moving element has started the stroke in the opposite direction it will catch the intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

Only to be used for horizontal movements.

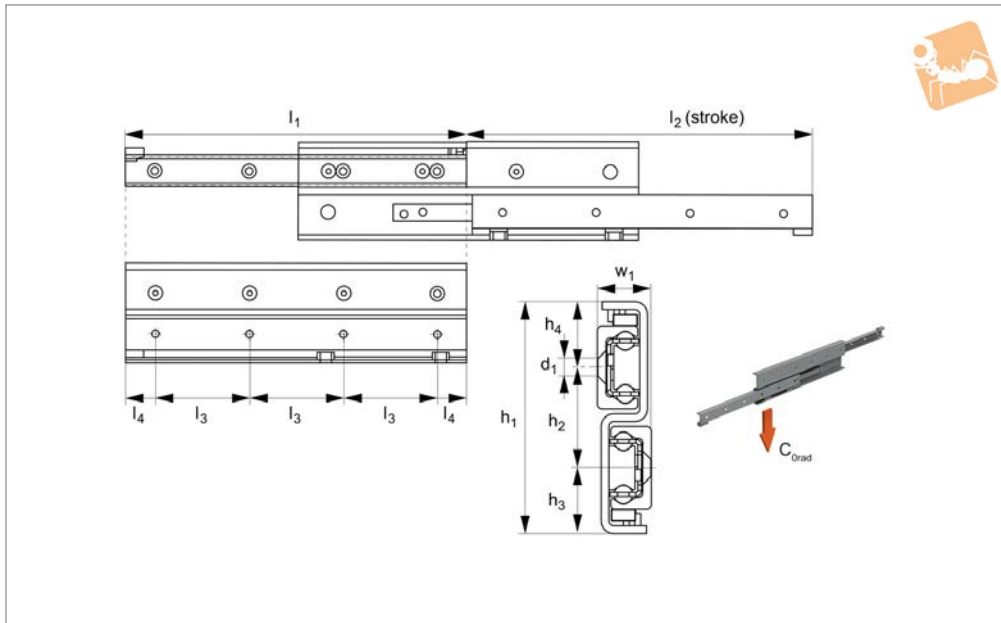
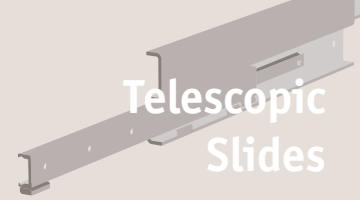
Order No.	$h_1$	$h_2$	$h_3$	$h_4$	$l_1$	$l_2$	$l_3$	$l_4$	$w_1$	For screws $d_1$	No. of holes	Load (per rail) $C_{0rad}$ N max.	Weight kg
L1984.43D-0530	120	52	34	34	530	476	80	25	28	M8	7	3018	7.7
L1984.43D-0610	120	52	34	34	610	556	80	25	28	M8	8	3265	8.9
L1984.43D-0690	120	52	34	34	690	636	80	25	28	M8	9	3781	10.1
L1984.43D-0770	120	52	34	34	770	716	80	25	28	M8	10	4297	11.2
L1984.43D-0850	120	52	34	34	850	796	80	25	28	M8	11	4547	12.4
L1984.43D-0930	120	52	34	34	930	876	80	25	28	M8	12	5063	13.6
L1984.43D-1010	120	52	34	34	1010	956	80	25	28	M8	13	5578	14.8
L1984.43D-1090	120	52	34	34	1090	1036	80	25	28	M8	14	5830	15.9
L1984.43D-1170	120	52	34	34	1170	1116	80	25	28	M8	15	5392	17.1
L1984.43D-1250	120	52	34	34	1250	1196	80	25	28	M8	16	5014	18.3
L1984.43D-1330	120	52	34	34	1330	1276	80	25	28	M8	17	4686	19.4
L1984.43D-1410	120	52	34	34	1410	1356	80	25	28	M8	18	4398	20.6
L1984.43D-1490	120	52	34	34	1490	1436	80	25	28	M8	19	4143	21.8
L1984.43D-1570	120	52	34	34	1570	1516	80	25	28	M8	20	3917	22.9
L1984.43D-1650	120	52	34	34	1650	1596	80	25	28	M8	21	3713	24.1
L1984.43D-1730	120	52	34	34	1730	1676	80	25	28	M8	22	3530	25.3
L1984.43D-1810	120	52	34	34	1810	1756	80	25	28	M8	23	3364	26.4
L1984.43D-1890	120	52	34	34	1890	1836	80	25	28	M8	24	3213	27.6
L1984.43D-1970	120	52	34	34	1970	1916	80	25	28	M8	25	3075	28.8





# Fully Telescopic Slides, size 63

single direction stroke



**L1984.63S**

TELESCOPIC SLIDES

### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.  
Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid teles-

copic slides with high load capacities and have very low deflection characteristics. Temperature range: -30°C to +110°C. This is the single direction stroke version - the moving member can extend out of only one side of the slide. Moving rail must be lower rail (unless technical department consulted).  $C_{0rad}$  is the load rating for a single teles-

copic slide.

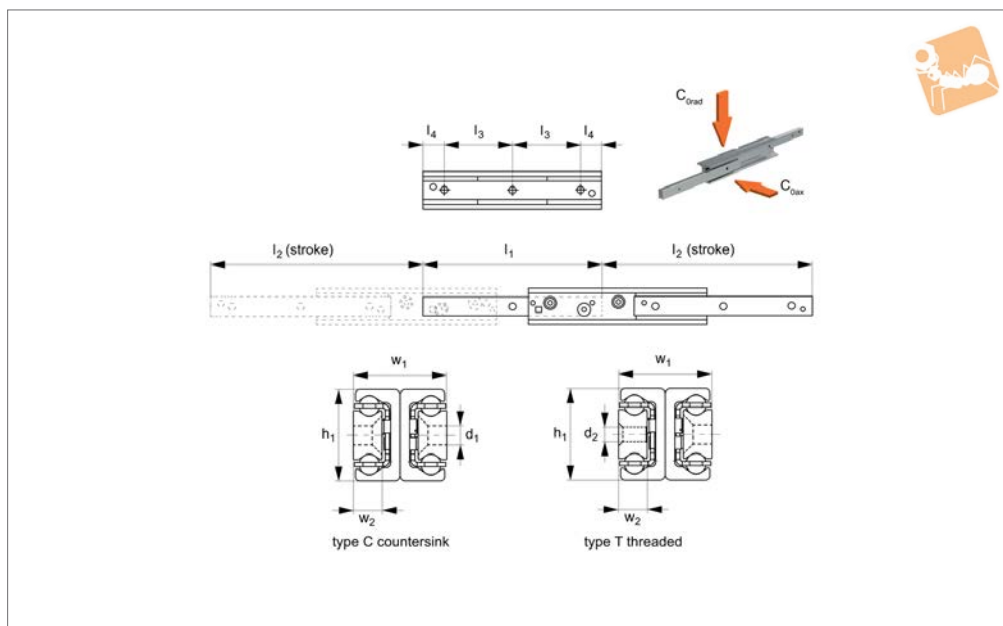
### Tips

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this. Special strokes up to 130% of the closed length can be provided on request. Only to be used for horizontal movements.

Order No.	$h_1$	$h_2$	$h_3$	$h_4$	$l_1$	$l_2$	$l_3$	$l_4$	$w_1$	For screws $d_1$	Accessible holes/total	Load (per rail) $N$ max.	$C_{0rad}$	Weight kg
L1984.63S-0610	208	80	64	64	610	666	80	25	40	M10	6/8	3502	19.9	
L1984.63S-0690	208	80	64	64	690	746	80	25	40	M10	8/9	4252	22.5	
L1984.63S-0770	208	80	64	64	770	826	80	25	40	M10	8/10	5012	25.1	
L1984.63S-0850	208	80	64	64	850	906	80	25	40	M10	9/11	5780	27.7	
L1984.63S-0930	208	80	64	64	930	986	80	25	40	M10	9/12	6552	30.3	
L1984.63S-1010	208	80	64	64	1010	1066	80	25	40	M10	11/13	7329	32.9	
L1984.63S-1090	208	80	64	64	1090	1146	80	25	40	M10	11/14	8109	35.5	
L1984.63S-1170	208	80	64	64	1170	1226	80	25	40	M10	12/15	8892	38.1	
L1984.63S-1250	208	80	64	64	1250	1306	80	25	40	M10	12/16	9677	40.8	
L1984.63S-1330	208	80	64	64	1330	1386	80	25	40	M10	14/17	10464	43.4	
L1984.63S-1410	208	80	64	64	1410	1466	80	25	40	M10	14/18	11252	46.0	
L1984.63S-1490	208	80	64	64	1490	1546	80	25	40	M10	15/19	12041	48.6	
L1984.63S-1570	208	80	64	64	1570	1626	80	25	40	M10	15/20	12832	51.2	
L1984.63S-1650	208	80	64	64	1650	1706	80	25	40	M10	17/21	12364	53.8	
L1984.63S-1730	208	80	64	64	1730	1786	80	25	40	M10	17/22	11827	56.4	
L1984.63S-1810	208	80	64	64	1810	1866	80	25	40	M10	18/23	11334	59.0	
L1984.63S-1890	208	80	64	64	1890	1946	80	25	40	M10	18/24	10881	61.6	
L1984.63S-1970	208	80	64	64	1970	2026	80	25	40	M10	20/25	10463	64.2	



## L1986.22



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$

is the load rating for a single telescopic slide.

Temperature range: -30°C to +170°C.

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in

the opposite direction it will catch the intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

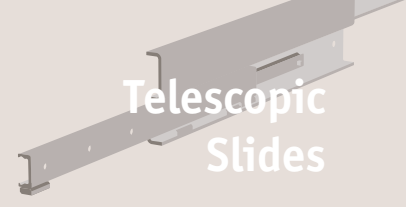
Only to be used for horizontal movements. Special strokes up to 130% of the closed length can be provided on request.

Order No.	$h_1$	$l_1$	$l_2$	$l_3$	$l_4$	$w_1$	$w_2$	For screws $d_1$ & $d_2$	No. of holes	Hole type	Load (per rail) $N$ max.	Load (per rail) $C_{0ax}$	Load (per rail) $N$ max.	Load (per rail) $C_{0rad}$	Weight kg
L1986.22C-0130	22	130	152	80	25	22	6,5	M4	2	C'sunk	83		119		0,32
L1986.22C-0210	22	210	222	80	25	22	6,5	M4	3	C'sunk	196		281		0,52
L1986.22C-0290	22	290	308	80	25	22	6,5	M4	4	C'sunk	273		390		0,72
L1986.22C-0370	22	370	392	80	25	22	6,5	M4	5	C'sunk	263		501		0,92
L1986.22C-0450	22	450	462	80	25	22	6,5	M4	6	C'sunk	230		674		1,12
L1986.22C-0530	22	530	548	80	25	22	6,5	M4	7	C'sunk	193		571		1,32
L1986.22C-0610	22	610	632	80	25	22	6,5	M4	8	C'sunk	167		494		1,52
L1986.22C-0690	22	690	702	80	25	22	6,5	M4	9	C'sunk	153		453		1,72
L1986.22C-0770	22	770	788	80	25	22	6,5	M4	10	C'sunk	135		401		1,92
L1986.22T-0130	22	130	152	80	25	22	6,5	M4	2	Thread	83		119		0,32
L1986.22T-0210	22	210	222	80	25	22	6,5	M4	3	Thread	196		281		0,52
L1986.22T-0290	22	290	308	80	25	22	6,5	M4	4	Thread	273		390		0,72
L1986.22T-0370	22	370	392	80	25	22	6,5	M4	5	Thread	263		501		0,92
L1986.22T-0450	22	450	462	80	25	22	6,5	M4	6	Thread	230		674		1,12
L1986.22T-0530	22	530	548	80	25	22	6,5	M4	7	Thread	193		571		1,32
L1986.22T-0610	22	610	632	80	25	22	6,5	M4	8	Thread	167		494		1,52
L1986.22T-0690	22	690	702	80	25	22	6,5	M4	9	Thread	153		453		1,72
L1986.22T-0770	22	770	788	80	25	22	6,5	M4	10	Thread	135		401		1,92

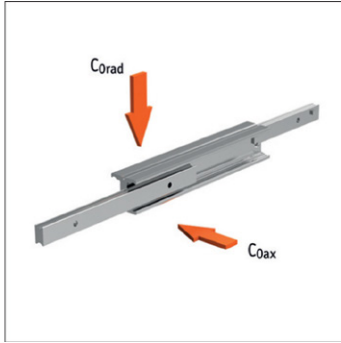


# Fully Telescopic Slides

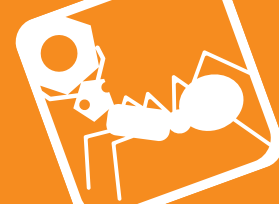
size 22



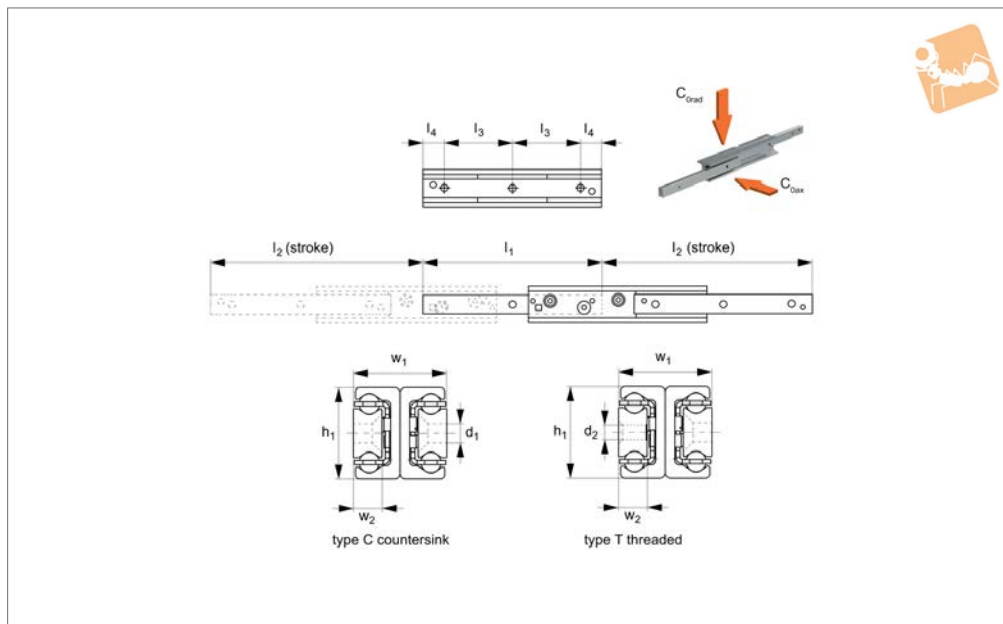
Telescopic Slides



TELESCOPIC SLIDES



## L1986.28



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$

is the load rating for a single telescopic slide.

Temperature range: -30°C to +170°C.

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in

the opposite direction it will catch the intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

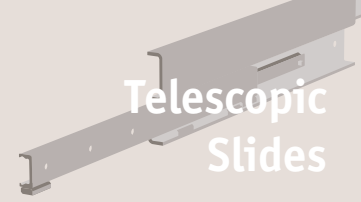
Only to be used for horizontal movements. Special strokes up to 130% of the closed length can be provided on request.

Order No.	$h_1$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	$w_2$	For screws $d_1$ & $d_2$	No. of holes	Hole type	Load (per rail) N max.	$C_{0ax}$	Load (per rail) N max.	$C_{0rad}$	Weight kg
L1986.28C-0130	28	130	148	80	25	26	7,5	5,5	2	C'sunk	164		235		0,52
L1986.28C-0210	28	210	232	80	25	26	7,5	5,5	3	C'sunk	302		432		0,84
L1986.28C-0290	28	290	296	80	25	26	7,5	5,5	4	C'sunk	537		767		1,16
L1986.28C-0370	28	370	380	80	25	26	7,5	5,5	5	C'sunk	471		968		1,48
L1986.28C-0450	28	450	464	80	25	26	7,5	5,5	6	C'sunk	385		1169		1,80
L1986.28C-0530	28	530	548	80	25	26	7,5	5,5	7	C'sunk	325		1107		2,12
L1986.28C-0610	28	610	633	80	25	26	7,5	5,5	8	C'sunk	280		964		2,44
L1986.28C-0690	28	690	717	80	25	26	7,5	5,5	9	C'sunk	247		849		2,76
L1986.28C-0770	28	770	801	80	25	26	7,5	5,5	10	C'sunk	221		758		3,08
L1986.28C-0850	28	850	866	80	25	26	7,5	5,5	11	C'sunk	208		713		3,40
L1986.28C-0930	28	930	950	80	25	26	7,5	5,5	12	C'sunk	189		646		3,72
L1986.28C-1010	28	1010	1034	80	25	26	7,5	5,5	13	C'sunk	174		592		4,04
L1986.28C-1090	28	1090	1118	80	25	26	7,5	5,5	14	C'sunk	160		547		4,36
L1986.28C-1170	28	1170	1202	80	25	26	7,5	5,5	15	C'sunk	149		508		4,68
L1986.28T-0130	28	130	148	80	25	26	7,5	5,5	2	Thread	164		235		0,52
L1986.28T-0210	28	210	232	80	25	26	7,5	5,5	3	Thread	302		432		0,84
L1986.28T-0290	28	290	296	80	25	26	7,5	5,5	4	Thread	537		767		1,16
L1986.28T-0370	28	370	380	80	25	26	7,5	5,5	5	Thread	471		968		1,48
L1986.28T-0450	28	450	464	80	25	26	7,5	5,5	6	Thread	385		1169		1,80
L1986.28T-0530	28	530	548	80	25	26	7,5	5,5	7	Thread	325		1107		2,12
L1986.28T-0610	28	610	633	80	25	26	7,5	5,5	8	Thread	280		964		2,44
L1986.28T-0690	28	690	717	80	25	26	7,5	5,5	9	Thread	247		849		2,76
L1986.28T-0770	28	770	801	80	25	26	7,5	5,5	10	Thread	221		758		3,08
L1986.28T-0850	28	850	866	80	25	26	7,5	5,5	11	Thread	208		713		3,40
L1986.28T-0930	28	930	950	80	25	26	7,5	5,5	12	Thread	189		646		3,72



# Fully Telescopic Slides

size 28



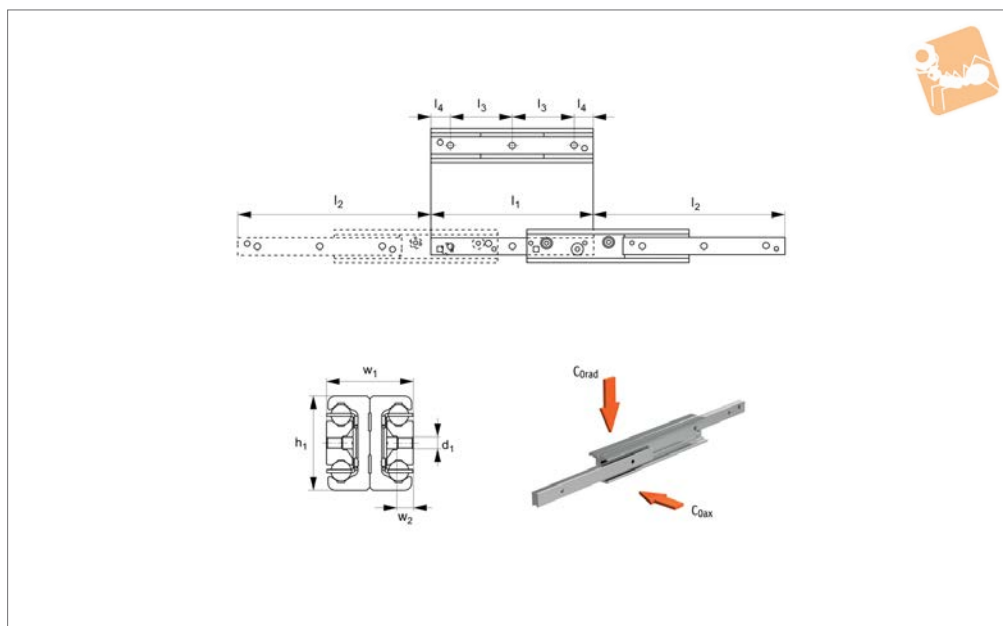
Telescopic Slides

Order No.	$h_1$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	$w_2$	For screws $d_1$ & $d_2$	No. of holes	Hole type	Load (per rail) N max.	$C_{0\text{ ax}}$	Load (per rail) N max.	$C_{0\text{ rad}}$	Weight kg
<b>L1986.28T-1010</b>	28	1010	1034	80	25	26	7,5	5,5	13	Thread	174		592		4,04
<b>L1986.28T-1090</b>	28	1090	1118	80	25	26	7,5	5,5	14	Thread	160		547		4,36
<b>L1986.28T-1170</b>	28	1170	1202	80	25	26	7,5	5,5	15	Thread	149		508		4,68

TELESCOPIC SLIDES



## L1986.63



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$

is the load rating for a single telescopic slide.

Temperature range:  $-30^{\circ}\text{C}$  to  $+170^{\circ}\text{C}$ .

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in

the opposite direction it will catch the intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

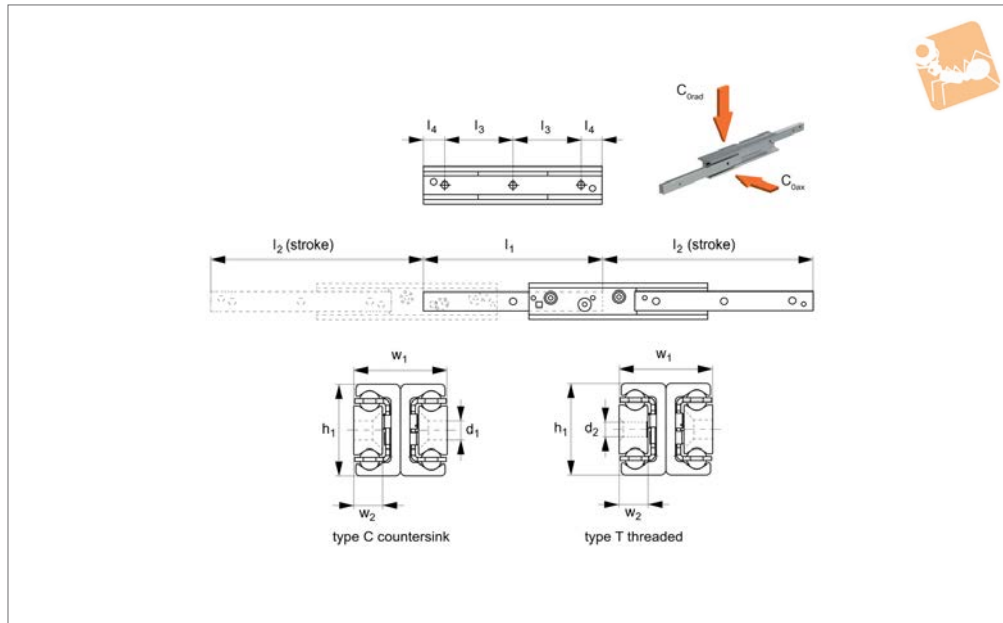
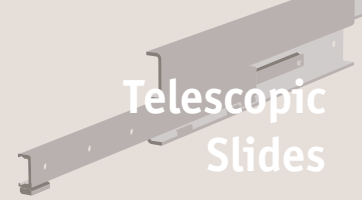
Only to be used for horizontal movements. Special strokes up to 130% of the closed length can be provided on request.

Order No.	$h_1$	$l_1$	$l_2$	$l_3$	$l_4$	$w_1$	$w_2$	For screws $d_1$	No. of holes	Hole type	Load (per rail) $C_{0ax}$	Load (per rail) $C_{0rad}$	Weight kg
											N max.	N max.	
L1986.63T-0610	63	610	666	80	25	58	10,5	M8	8	Thread	2863	4090	12,56
L1986.63T-0690	63	690	746	80	25	58	10,5	M8	9	Thread	3062	4859	14,21
L1986.63T-0770	63	770	826	80	25	58	10,5	M8	10	Thread	2784	5635	15,86
L1986.63T-0850	63	850	906	80	25	58	10,5	M8	11	Thread	2553	6415	17,51
L1986.63T-0930	63	930	986	80	25	58	10,5	M8	12	Thread	2357	7198	19,15
L1986.63T-1010	63	1010	1066	80	25	58	10,5	M8	13	Thread	2189	6885	20,80
L1986.63T-1090	63	1090	1146	80	25	58	10,5	M8	14	Thread	2043	6427	22,45
L1986.63T-1170	63	1170	1226	80	25	58	10,5	M8	15	Thread	1916	6026	24,10
L1986.63T-1250	63	1250	1306	80	25	58	10,5	M8	16	Thread	1803	5672	25,75
L1986.63T-1330	63	1330	1386	80	25	58	10,5	M8	17	Thread	1703	5357	27,39
L1986.63T-1410	63	1410	1466	80	25	58	10,5	M8	18	Thread	1614	5076	29,04
L1986.63T-1490	63	1490	1546	80	25	58	10,5	M8	19	Thread	1533	4822	30,69
L1986.63T-1570	63	1570	1626	80	25	58	10,5	M8	20	Thread	1460	4593	32,34
L1986.63T-1650	63	1650	1706	80	25	58	10,5	M8	21	Thread	1394	4384	33,39
L1986.63T-1730	63	1730	1786	80	25	58	10,5	M8	22	Thread	1333	4194	35,63
L1986.63T-1810	63	1810	1866	80	25	58	10,5	M8	23	Thread	1278	4019	37,28
L1986.63T-1890	63	1890	1946	80	25	58	10,5	M8	24	Thread	1227	3859	38,93
L1986.63T-1970	63	1970	2026	80	25	58	10,5	M8	25	Thread	1180	3710	40,58



# Fully Telescopic Slides

size 35



## L1986.35

TELESCOPIC SLIDES

### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$

is the load rating for a single telescopic slide.

Temperature range: -30°C to +170°C.

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in

the opposite direction it will catch the intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

Only to be used for horizontal movements. Special strokes up to 130% of the closed length can be provided on request.

Order No.	$h_1$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	$w_2$	For screws $d_1$ & $d_2$	No. of holes	Hole type	Load (per rail) N max.	$C_{0ax}$	Load (per rail) N max.	$C_{0rad}$	Weight kg
L1986.35C-0210	35	210	254	80	25	33	10	6,5	3	C'sunk	281		402		1,28
L1986.35C-0290	35	290	318	80	25	33	10	6,5	4	C'sunk	560		800		1,76
L1986.35C-0370	35	370	406	80	25	33	10	6,5	5	C'sunk	718		1025		2,25
L1986.35C-0450	35	450	494	80	25	33	10	6,5	6	C'sunk	793		1250		2,74
L1986.35C-0530	35	530	558	80	25	33	10	6,5	7	C'sunk	728		1685		3,23
L1986.35C-0610	35	610	646	80	25	33	10	6,5	8	C'sunk	626		1908		3,72
L1986.35C-0690	35	690	734	80	25	33	10	6,5	9	C'sunk	548		1689		4,20
L1986.35C-0770	35	770	798	80	25	33	10	6,5	10	C'sunk	516		1591		4,69
L1986.35C-0850	35	850	886	80	25	33	10	6,5	11	C'sunk	463		1425		5,18
L1986.35C-0930	35	930	974	80	25	33	10	6,5	12	C'sunk	419		1291		5,67
L1986.35C-1010	35	1010	1038	80	25	33	10	6,5	13	C'sunk	400		1233		6,16
L1986.35C-1090	35	1090	1126	80	25	33	10	6,5	14	C'sunk	367		1131		6,64
L1986.35C-1170	35	1170	1214	80	25	33	10	6,5	15	C'sunk	339		1045		7,13
L1986.35C-1250	35	1250	1278	80	25	33	10	6,5	16	C'sunk	327		1006		7,62
L1986.35C-1330	35	1330	1366	80	25	33	10	6,5	17	C'sunk	308		937		8,11
L1986.35C-1410	35	1410	1454	80	25	33	10	6,5	18	C'sunk	285		877		8,60
L1986.35C-1490	35	1490	1518	80	25	33	10	6,5	19	C'sunk	276		850		9,08
L1986.35T-0210	35	210	254	80	25	33	10	6,5	3	Thread	281		402		1,28
L1986.35T-0290	35	290	318	80	25	33	10	6,5	4	Thread	560		800		1,76
L1986.35T-0370	35	370	406	80	25	33	10	6,5	5	Thread	718		1025		2,25
L1986.35T-0450	35	450	494	80	25	33	10	6,5	6	Thread	793		1250		2,74
L1986.35T-0530	35	530	558	80	25	33	10	6,5	7	Thread	728		1685		3,23
L1986.35T-0610	35	610	646	80	25	33	10	6,5	8	Thread	626		1908		3,72
L1986.35T-0690	35	690	734	80	25	33	10	6,5	9	Thread	548		1689		4,20
L1986.35T-0770	35	770	798	80	25	33	10	6,5	10	Thread	516		1591		4,69



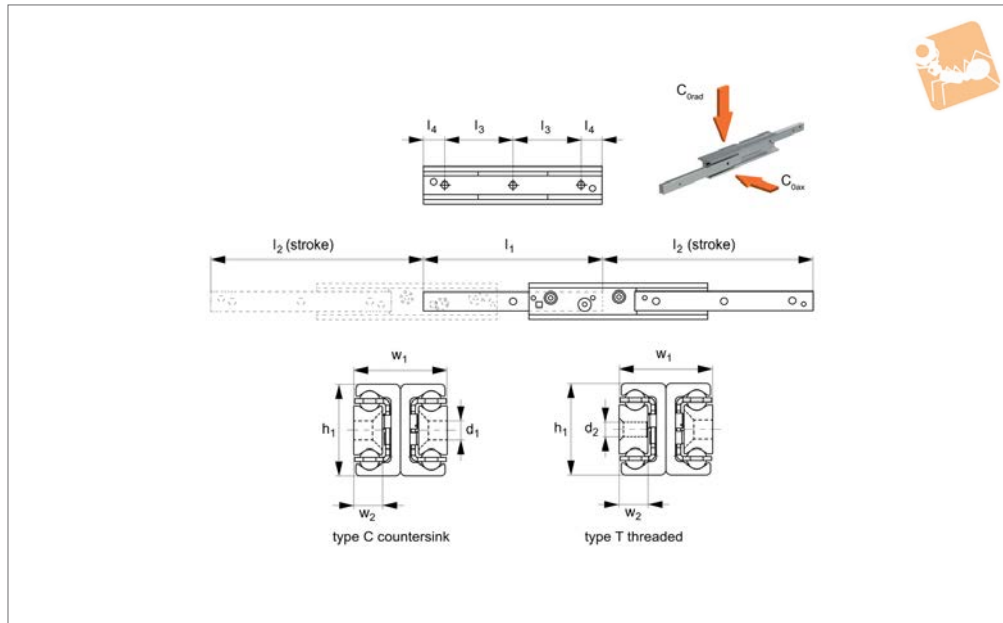
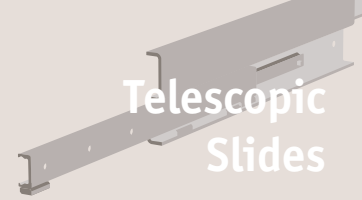
Order No.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub> stroke	l <sub>3</sub>	l <sub>4</sub>	w <sub>1</sub>	w <sub>2</sub>	For screws d <sub>1</sub> & d <sub>2</sub>	No. of holes	Hole type	Load (per rail)		Weight kg
											C <sub>0 ax</sub> N max.	C <sub>0 rad</sub> N max.	
<b>L1986.35T-0850</b>	35	850	886	80	25	33	10	6,5	11	Thread	463	1425	5,18
<b>L1986.35T-0930</b>	35	930	974	80	25	33	10	6,5	12	Thread	419	1291	5,67
<b>L1986.35T-1010</b>	35	1010	1038	80	25	33	10	6,5	13	Thread	400	1233	6,16
<b>L1986.35T-1090</b>	35	1090	1126	80	25	33	10	6,5	14	Thread	367	1131	6,64
<b>L1986.35T-1170</b>	35	1170	1214	80	25	33	10	6,5	15	Thread	339	1045	7,13
<b>L1986.35T-1250</b>	35	1250	1278	80	25	33	10	6,5	16	Thread	327	1006	7,62
<b>L1986.35T-1330</b>	35	1330	1366	80	25	33	10	6,5	17	Thread	308	937	8,11
<b>L1986.35T-1410</b>	35	1410	1454	80	25	33	10	6,5	18	Thread	285	877	8,60
<b>L1986.35T-1490</b>	35	1490	1518	80	25	33	10	6,5	19	Thread	276	850	9,08





# Fully Telescopic Slides

size 43



## L1986.43

TELESCOPIC SLIDES

### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$

is the load rating for a single telescopic slide.

Temperature range: -30°C to +170°C.

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in

the opposite direction it will catch the intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

Only to be used for horizontal movements. Special strokes up to 130% of the closed length can be provided on request.

Order No.	$h_1$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	$w_2$	For screws $d_1$ & $d_2$	No. of holes	Hole type	Load (per rail) $C_0$		Weight kg
											$C_{0ax}$ max.	$C_{0rad}$ max.	
L1986.43C-0210	43	210	246	80	25	44	13,5	8,5	3	C'sunk	424	605	2,20
L1986.43C-0290	43	290	316	80	25	44	13,5	8,5	4	C'sunk	780	1114	3,04
L1986.43C-0370	43	370	416	80	25	44	13,5	8,5	5	C'sunk	910	1300	3,88
L1986.43C-0450	43	450	486	80	25	44	13,5	8,5	6	C'sunk	1279	1828	4,72
L1986.43C-0530	43	530	556	80	25	44	13,5	8,5	7	C'sunk	1434	2375	5,56
L1986.43C-0610	43	610	626	80	25	44	13,5	8,5	8	C'sunk	1300	2934	6,40
L1986.43C-0690	43	690	726	80	25	44	13,5	8,5	9	C'sunk	1096	3091	7,24
L1986.43C-0770	43	770	796	80	25	44	13,5	8,5	10	C'sunk	1016	3055	8,08
L1986.43C-0850	43	850	866	80	25	44	13,5	8,5	11	C'sunk	946	2847	8,92
L1986.43C-0930	43	930	966	80	25	44	13,5	8,5	12	C'sunk	833	2506	9,97
L1986.43C-1010	43	1010	1036	80	25	44	13,5	8,5	13	C'sunk	786	2364	10,60
L1986.43C-1090	43	1090	1106	80	25	44	13,5	8,5	14	C'sunk	744	2238	11,44
L1986.43C-1170	43	1170	1206	80	25	44	13,5	8,5	15	C'sunk	672	2022	12,28
L1986.43C-1250	43	1250	1276	80	25	44	13,5	8,5	16	C'sunk	641	1928	13,12
L1986.43C-1330	43	1330	1376	80	25	44	13,5	8,5	17	C'sunk	587	1766	13,96
L1986.43C-1410	43	1410	1446	80	25	44	13,5	8,5	18	C'sunk	563	1694	14,80
L1986.43C-1490	43	1490	1516	80	25	44	13,5	8,5	19	C'sunk	541	1628	15,64
L1986.43C-1570	43	1570	1586	80	52	44	13,5	8,5	20	C'sunk	521	1567	16,48
L1986.43C-1650	43	1650	1686	80	25	44	13,5	8,5	21	C'sunk	485	1458	17,32
L1986.43C-1730	43	1730	1756	80	25	44	13,5	8,5	22	C'sunk	468	1409	18,16
L1986.43C-1810	43	1810	1856	80	25	44	13,5	8,5	23	C'sunk	439	1320	19,00
L1986.43C-1890	43	1890	1926	80	25	44	13,5	8,5	24	C'sunk	425	1280	19,84
L1986.43C-1970	43	1970	2026	80	25	44	13,5	8,5	25	C'sunk	401	1206	20,68
L1986.43T-0210	43	210	246	80	25	44	13,5	8,5	3	Thread	424	605	2,20
L1986.43T-0290	43	290	316	80	25	44	13,5	8,5	4	Thread	780	1114	3,04

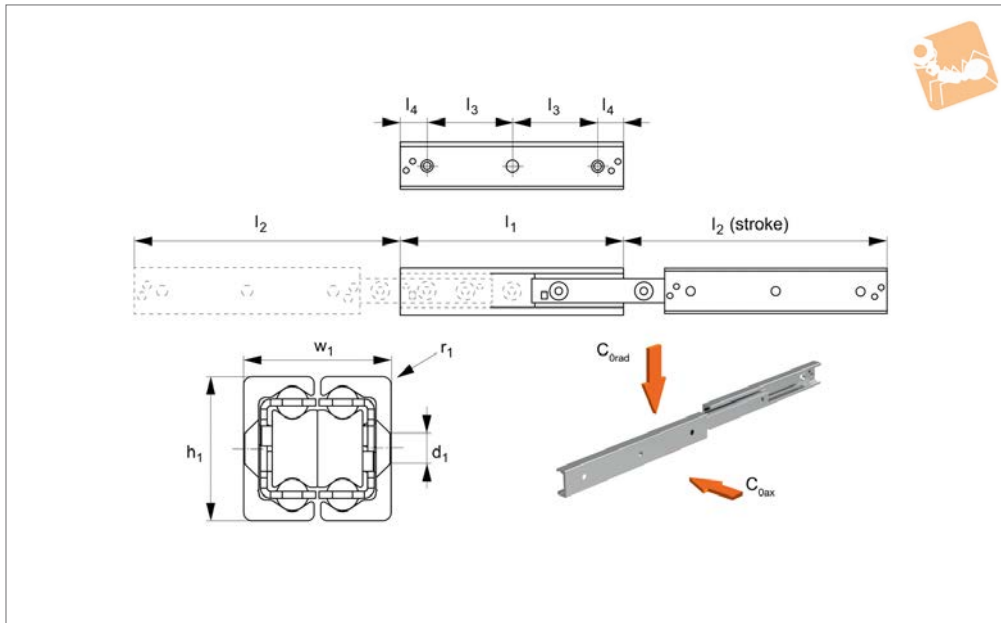
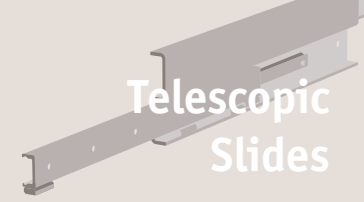


Order No.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub> stroke	l <sub>3</sub>	l <sub>4</sub>	w <sub>1</sub>	w <sub>2</sub>	For screws d <sub>1</sub> & d <sub>2</sub>	No. of holes	Hole type	Load (per rail) C <sub>0</sub>	Load (per rail) C <sub>0</sub>	Weight kg
											ax N max.	rad N max.	
L1986.43T-0370	43	370	416	80	25	44	13,5	8,5	5	Thread	910	1300	3,88
L1986.43T-0450	43	450	486	80	25	44	13,5	8,5	6	Thread	1279	1828	4,72
L1986.43T-0530	43	530	556	80	25	44	13,5	8,5	7	Thread	1434	2375	5,56
L1986.43T-0610	43	610	626	80	25	44	13,5	8,5	8	Thread	1300	2934	6,40
L1986.43T-0690	43	690	726	80	25	44	13,5	8,5	9	Thread	1096	3091	7,24
L1986.43T-0770	43	770	796	80	25	44	13,5	8,5	10	Thread	1016	3055	8,08
L1986.43T-0850	43	850	866	80	25	44	13,5	8,5	11	Thread	946	2847	8,92
L1986.43T-0930	43	930	966	80	25	44	13,5	8,5	12	Thread	833	2506	9,97
L1986.43T-1010	43	1010	1036	80	25	44	13,5	8,5	13	Thread	786	2364	10,60
L1986.43T-1090	43	1090	1106	80	25	44	13,5	8,5	14	Thread	744	2238	11,44
L1986.43T-1170	43	1170	1206	80	25	44	13,5	8,5	15	Thread	672	2022	12,28
L1986.43T-1250	43	1250	1276	80	25	44	13,5	8,5	16	Thread	641	1928	13,12
L1986.43T-1330	43	1330	1376	80	25	44	13,5	8,5	17	Thread	587	1766	13,96
L1986.43T-1410	43	1410	1446	80	25	44	13,5	8,5	18	Thread	563	1694	14,80
L1986.43T-1490	43	1490	1516	80	25	44	13,5	8,5	19	Thread	541	1628	15,64
L1986.43T-1570	43	1570	1586	80	25	44	13,5	8,5	20	Thread	521	1567	16,48
L1986.43T-1650	43	1650	1686	80	25	44	13,5	8,5	21	Thread	485	1458	17,32
L1986.43T-1730	43	1730	1756	80	25	44	13,5	8,5	22	Thread	468	1409	18,16
L1986.43T-1810	43	1810	1856	80	25	44	13,5	8,5	23	Thread	439	1320	19,00
L1986.43T-1890	43	1890	1926	80	25	44	13,5	8,5	24	Thread	425	1280	19,84
L1986.43T-1970	43	1970	2026	80	25	44	13,5	8,5	25	Thread	401	1206	20,68



# Fully Telescopic Slides

size 22



**L1988.22**

TELESCOPIC SLIDES

### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.  
Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$  is the load rating for a single telescopic slide.

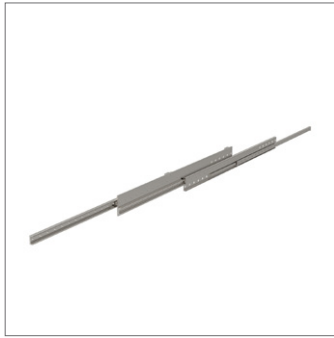
Temperature range:  $-30^{\circ}\text{C}$  to  $+170^{\circ}\text{C}$ .  
The strong intermediate member allows the rail to be mounted with the load acting radially or axially with nearly the same load capacity.

### Tips

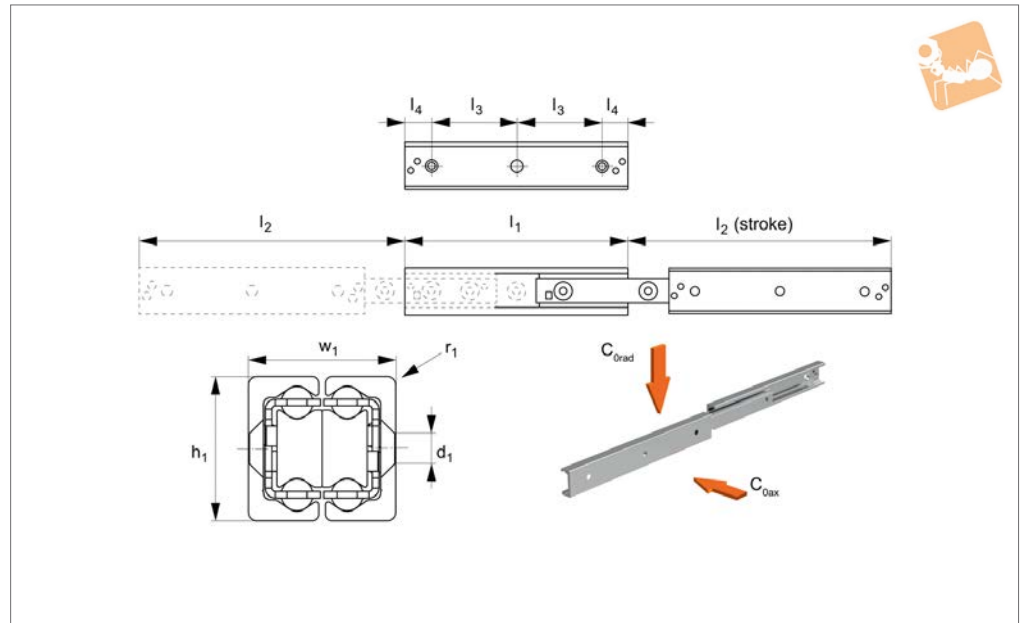
A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.  
For double direction strokes, when the moving element has started the stroke in

the opposite direction it will catch the intermediate member and force it to return.  
The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.  
Only to be used for horizontal movements. Special strokes up to 130% of the closed length can be provided on request.

Order No.	$h_1$	$l_1$	$l_2$	$l_3$	$l_4$	$w_1$	$r_1$	For screws $d_1$	No. of holes	Load (per rail) $C_{0ax}$	Load (per rail) $C_{0rad}$	Weight kg
										N max.	N max.	
L1988.22-0130	22	130	152	80	25	22	3	M4	2	83	119	0.32
L1988.22-0210	22	210	222	80	25	22	3	M4	3	196	281	0.52
L1988.22-0290	22	290	308	80	25	22	3	M4	4	236	236	0.72
L1988.22-0370	22	370	392	80	25	22	3	M4	5	186	186	0.92
L1988.22-0450	22	450	462	80	25	22	3	M4	6	162	162	1.12
L1988.22-0530	22	530	548	80	25	22	3	M4	7	136	136	1.32
L1988.22-0610	22	610	632	80	25	22	3	M4	8	117	117	1.52
L1988.22-0690	22	690	702	80	25	22	3	M4	9	108	108	1.72
L1988.22-0770	22	770	788	80	25	22	3	M4	10	95	95	1.92



## L1988.28



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.  
Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$  is the load rating for a single telescopic slide.

Temperature range:  $-30^{\circ}\text{C}$  to  $+170^{\circ}\text{C}$ .

The strong intermediate member allows the rail to be mounted with the load acting radially or axially with nearly the same load capacity.

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in

the opposite direction it will catch the intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

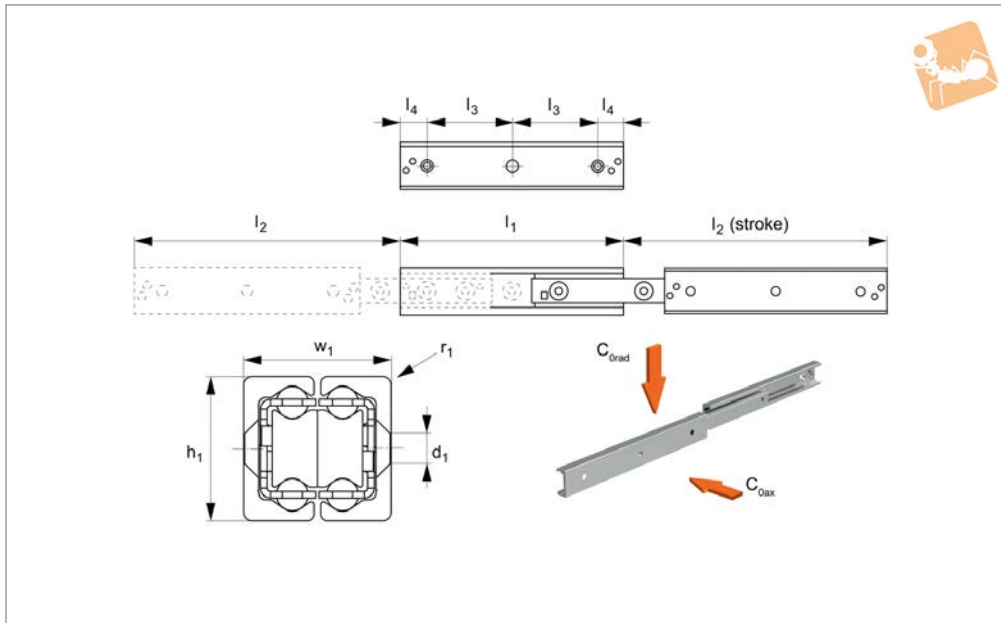
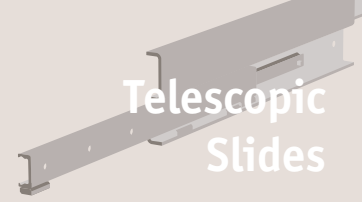
Only to be used for horizontal movements. Special strokes up to 130% of the closed length can be provided on request.

Order No.	$h_1$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	$r_1$	For screws $d_1$	No. of holes	Load (per rail) $C_{0ax}$	Load (per rail) $C_{0rad}$	Weight kg
										N max.	N max.	
L1988.28-0130	28	130	148	80	25	26	1	M5	2	172	244	0.47
L1988.28-0210	28	210	232	80	25	26	1	M5	3	313	444	0.92
L1988.28-0290	28	290	296	80	25	26	1	M5	4	545	632	1.28
L1988.28-0370	28	370	380	80	25	26	1	M5	5	490	496	1.63
L1988.28-0450	28	450	464	80	25	26	1	M5	6	405	405	1.98
L1988.28-0530	28	530	548	80	25	26	1	M5	7	342	342	2.33
L1988.28-0610	28	610	633	80	25	26	1	M5	8	298	298	2.68
L1988.28-0690	28	690	717	80	25	26	1	M5	9	263	263	3.04
L1988.28-0770	28	770	801	80	25	26	1	M5	10	234	234	3.39
L1988.28-0850	28	850	866	80	25	26	1	M5	11	220	230	3.74
L1988.28-0930	28	930	950	80	25	26	1	M5	12	200	200	4.09
L1988.28-1010	28	1010	1034	80	25	26	1	M5	13	183	183	4.44
L1988.28-1090	28	1090	1118	80	25	26	1	M5	14	170	170	4.80
L1988.28-1170	28	1170	1202	80	25	26	1	M5	15	157	157	5.15



# Fully Telescopic Slides

size 35



## L1988.35

TELESCOPIC SLIDES

### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.  
Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$  is the load rating for a single telescopic slide.

Temperature range:  $-30^{\circ}\text{C}$  to  $+170^{\circ}\text{C}$ .  
The strong intermediate member allows the rail to be mounted with the load acting radially or axially with nearly the same load capacity.

### Tips

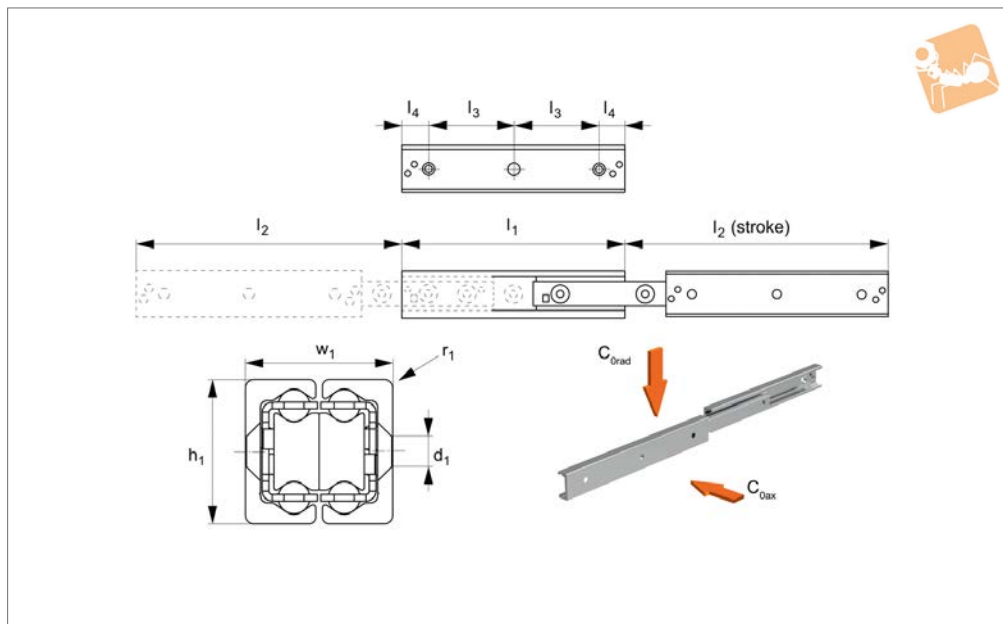
A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.  
For double direction strokes, when the moving element has started the stroke in

the opposite direction it will catch the intermediate member and force it to return.  
The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.  
Only to be used for horizontal movements. Special strokes up to 130% of the closed length can be provided on request.

Order No.	$h_1$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	$r_1$	For screws $d_1$	No. of holes	Load (per rail) $C_{0ax}$	Load (per rail) $C_{0rad}$	Weight kg
										N max.	N max.	
L1988.35-0210	34	210	254	80	25	35	2	M6	3	286	409	1.15
L1988.35-0290	34	290	318	80	25	35	2	M6	4	569	684	1.60
L1988.35-0370	34	370	406	80	25	35	2	M6	5	534	534	2.05
L1988.35-0450	34	450	494	80	25	35	2	M6	6	439	439	2.55
L1988.35-0530	34	530	558	80	25	35	2	M6	7	403	403	3.00
L1988.35-0610	34	610	646	80	25	35	2	M6	8	346	346	3.55
L1988.35-0690	34	690	734	80	25	35	2	M6	9	304	304	3.90
L1988.35-0770	34	770	798	80	25	35	2	M6	10	286	286	4.45
L1988.35-0850	34	850	886	80	25	35	2	M6	11	256	256	4.90
L1988.35-0930	34	930	974	80	25	35	2	M6	12	232	232	5.30
L1988.35-1010	34	1010	1038	80	25	35	2	M6	13	221	221	5.80
L1988.35-1090	34	1090	1126	80	25	35	2	M6	14	205	205	6.25
L1988.35-1170	34	1170	1214	80	25	35	2	M6	15	187	187	6.70
L1988.35-1250	34	1250	1278	80	25	35	2	M6	16	181	181	7.15
L1988.35-1330	34	1330	1366	80	25	35	2	M6	17	169	169	7.60
L1988.35-1410	34	1410	1454	80	25	35	2	M6	18	160	160	8.10
L1988.35-1490	34	1490	1518	80	25	35	2	M6	19	153	153	8.65



## L1988.43



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities.  $C_{0rad}$  is the load rating for a single telescopic slide.

Temperature range:  $-30^{\circ}\text{C}$  to  $+170^{\circ}\text{C}$ .

The strong intermediate member allows the rail to be mounted with the load acting radially or axially with nearly the same load capacity.

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in

the opposite direction it will catch the intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

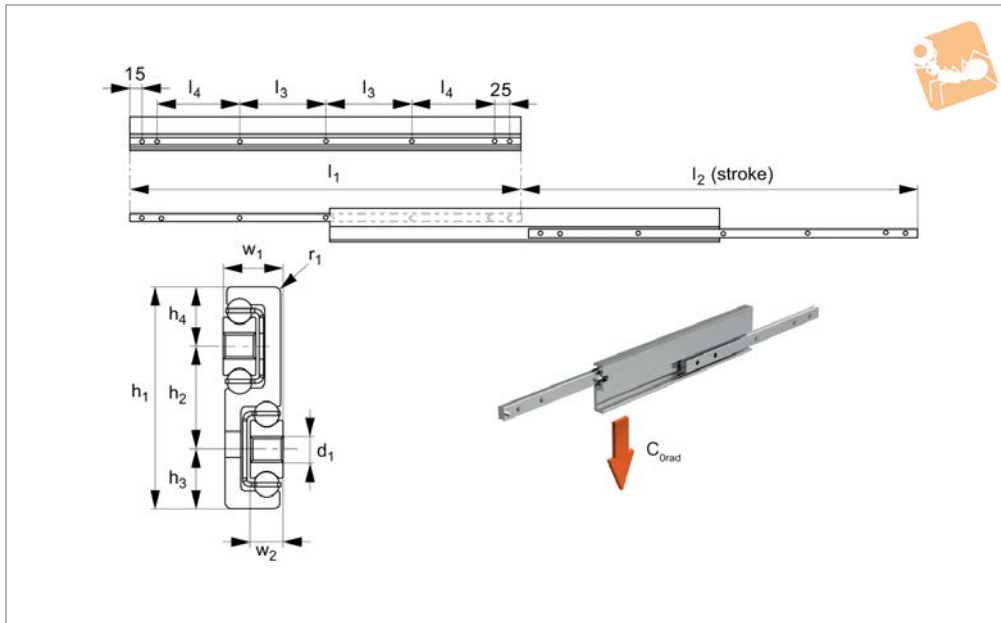
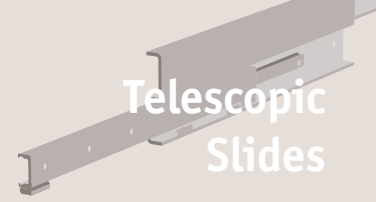
Only to be used for horizontal movements. Special strokes up to 130% of the closed length can be provided on request.

Order No.	$h_1$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	$r_1$	For screws $d_1$	No. of holes	Load (per rail) $C_{0ax}$	Load (per rail) $C_{0rad}$	Weight kg
										N max.	N max.	
L1988.43-0210	43	210	246	80	25	44	2.5	M8	3	449	631	2.33
L1988.43-0290	43	290	316	80	25	44	2.5	M8	4	819	1158	3.212
L1988.43-0370	43	370	316	80	25	44	2.5	M8	5	954	1349	4.11
L1988.43-0450	43	450	486	80	25	44	2.5	M8	6	1298	1370	5.00
L1988.43-0530	43	530	556	80	25	44	2.5	M8	7	1229	1229	5.88
L1988.43-0610	43	610	626	80	25	44	2.5	M8	8	1115	1115	6.77
L1988.43-0690	43	690	726	80	25	44	2.5	M8	9	939	939	7.66
L1988.43-0770	43	770	796	80	25	44	2.5	M8	10	870	870	8.55
L1988.43-0850	43	850	866	80	25	44	2.5	M8	11	812	812	9.44
L1988.43-0930	43	930	966	80	25	44	2.5	M8	12	714	714	10.32
L1988.43-1010	43	1010	1036	80	25	44	2.5	M8	13	674	674	11.21
L1988.43-1090	43	1090	1106	80	25	44	2.5	M8	14	629	629	12.10
L1988.43-1170	43	1170	1206	80	25	44	2.5	M8	16	576	576	12.99
L1988.43-1250	43	1250	1276	80	25	44	2.5	M8	17	546	546	13.88
L1988.43-1330	43	1330	1376	80	25	44	2.5	M8	18	503	503	14.76
L1988.43-1410	43	1410	1446	80	25	44	2.5	M8	19	473	473	15.65
L1988.43-1490	43	1490	1516	80	25	44	2.5	M8	20	464	464	16.54
L1988.43-1570	43	1570	1586	80	25	44	2.5	M8	21	443	443	17.43
L1988.43-1650	43	1650	1686	80	25	44	2.5	M8	23	415	415	18.32
L1988.43-1730	43	1730	1756	80	25	44	2.5	M8	24	397	397	19.20
L1988.43-1810	43	1810	1856	80	25	44	2.5	M8	25	376	376	20.09
L1988.43-1890	43	1890	1926	80	25	44	2.5	M8	26	364	364	21.00
L1988.43-1970	43	1970	2026	80	25	44	2.5	M8	27	344	344	21.87



# Fully Telescopic Slides LTF

## Telescopic Slides



## L1992

TELESCOPIC SLIDES

### Material

Cold drawn bearing steel, raceways are not hardened. Balls - hardened steel. Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings on request.

### Technical Notes

This is a lower cost slide with non-hardened raceways but still providing high

load capacity.

Temperature range: -30°C to +170°C.

More suited for less frequent opening applications.

Only to be used for horizontal movements.

$C_{Orad}$  is the load rating for a single telescopic slide.

### Tips

The fixed top member must be mounted to

the fixed structure and the moving member to the mobile structure - using all of the threaded holes.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

Order No.	$h_1$	$h_2$	$h_3$	$h_4$	$l_1$	$l_2$ stroke	$l_3$	$l_4$	$w_1$	$w_2$	$r_1$	For screws $d_1$	No. of holes	Load (per rail) $C_0$ rad N max.	Weight kg
L1992.44-0200	43	20	11,5	11,5	200	210		60	12	6,5	1,5	M5	5	114	0,54
L1992.44-0225	43	20	11,5	11,5	225	235		72,5	12	6,5	1,5	M5	5	130	0,59
L1992.44-0250	43	20	11,5	11,5	250	260		85	12	6,5	1,5	M5	5	144	0,67
L1992.44-0275	43	20	11,5	11,5	275	285		97,5	12	6,5	1,5	M5	5	162	0,74
L1992.44-0300	43	20	11,5	11,5	300	310		110	12	6,5	1,5	M5	5	180	0,81
L1992.44-0325	43	20	11,5	11,5	325	335		122,5	12	6,5	1,5	M5	5	196	0,87
L1992.44-0350	43	20	11,5	11,5	350	360		135	12	6,5	1,5	M5	5	210	0,94
L1992.44-0375	43	20	11,5	11,5	375	385		147,5	12	6,5	1,5	M5	5	226	1,01
L1992.44-0400	43	20	11,5	11,5	400	410		160	12	6,5	1,5	M5	5	246	1,08
L1992.44-0425	43	20	11,5	11,5	425	435		172,5	12	6,5	1,5	M5	5	262	1,14
L1992.44-0450	43	20	11,5	11,5	450	460		185	12	6,5	1,5	M5	7	276	1,21
L1992.44-0500	43	20	11,5	11,5	500	510	110	100	12	6,5	1,5	M5	7	312	1,35
L1992.44-0550	43	20	11,5	11,5	550	560	135	100	12	6,5	1,5	M5	7	342	1,48
L1992.44-0600	43	20	11,5	11,5	600	610	160	100	12	6,5	1,5	M5	7	384	1,62
L1992.44-0650	43	20	11,5	11,5	650	660	185	100	12	6,5	1,5	M5	7	408	1,75
L1992.44-0700	43	20	11,5	11,5	700	710	160	150	12	6,5	1,5	M5	7	444	1,89
L1992.44-0750	43	20	11,5	11,5	750	760	185	150	12	6,5	1,5	M5	7	474	2,02
L1992.44-0800	43	20	11,5	11,5	800	810	210	150	12	6,5	1,5	M5	7	510	2,16
L1992.44-0850	43	20	11,5	11,5	850	860	235	150	12	6,5	1,5	M5	7	540	2,29
L1992.44-0900	43	20	11,5	11,5	900	910	260	150	12	6,5	1,5	M5	7	576	2,43
L1992.44-0950	43	20	11,5	11,5	950	960	285	150	12	6,5	1,5	M5	7	612	2,56
L1992.44-1000	43	20	11,5	11,5	1000	1010	310	150	12	6,5	1,5	M5	7	648	2,70



### Specifications

- Generally all our telescopic rails have induction hardened raceways.
- Cold drawn roller bearing steel.
- Maximum operating speed 0,8 m/s.
- Temperature range (mainly -30°C to +170°C).
- Electrolytic galvanised to ISO 2081, other anti-corrosion finishes on request.
- High load ratings with low deflection characteristics.
- Minimum play (even at maximum load ratings).
- Smooth, free running movement.
- Long strokes and heavy load ratings.
- Can be used in horizontal applications only (due to the use of a ball cage), with the exception of part number L1985 which uses roller bearings.
- Light duty “cage stops” are included on the telescopic rails to prevent damage to the ball cage. External end stops must be designed into your application (to protect the rails from high forces and possible damage on opening and closing).
- For telescopic rails with an “upper” and “lower” rail, the moving rail should be the lower one. Using the upper rail as the moving element effects the smooth running and the load capacity of the telescopic sliders.
- All load capacity figures are given for a single rail, and based on continuous use.
- Fix to structures using screws of strength class 10,9.
- Anti-corrosion option. We have a highly effective anti-corrosive coating option, and we utilise stainless steel ball bearings in this version.

### Applications



#### Special purpose & packaging machines

Precision positioning systems  
handling units  
robotic systems • cutting machines



#### Seating

Sliding seats  
disability ramps  
seat extensions



#### Safety guarding

Extending protective systems  
sliding gates  
automatic pick & place



#### Logistics solutions

Container extensions  
heavy duty extending systems  
sliding doors



#### Disability vehicles

Sliding seats  
extension ramps



#### Transport (naval)

Sliding hatches  
pull-out storage



#### Transport (rail)

Seat adjustment  
sliding doors  
battery removal units



#### Transport (automotive)

Ambulance sliding systems  
fire fighting vehicles  
sliding panels



#### Transport (military)

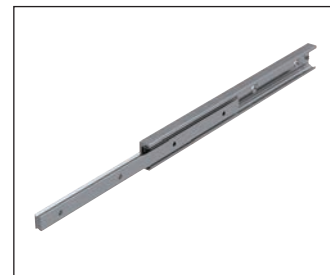
Sliding seats  
protective hatches  
stretcher extensions



### Partial extension telescopic slides

**L1994** - these are extremely compact rails with a simple design and very high load ratings. They have high radial and axial load capacity as well as the ability to take considerable moment loads.

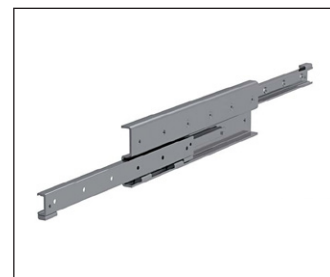
Standard extension	50%
Special extension range	up to 65% (on request)
Single & double direction?	Yes (remove end stop)
Number of rail sizes	5
Maximum extension (at 50%)	1010 mm
Maximum load (per rail)	4500 Kg



### Full extension telescopic slides

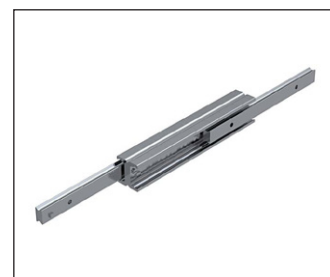
**L1984** - these are very thin rails with high levels of rigidity and load capacity. Very low deflection even when fully loaded and in an open position.

Standard extension	100%
Special extension range	up to 130% (on request)
Single & double direction?	Yes (specify on ordering)
Number of rail sizes	4
Maximum extension (at 100%)	2020 mm
Maximum load (per rail)	1200 Kg



**L1986** - a very low height rail gives the slide very rigid capabilities. The double T cross section allows a compact size with low radial loading deflection and axial load capability too.

Standard extension	100%
Special extension range	up to 130% (on request)
Single & double direction?	Yes (remove end stop)
Number of rail sizes	5
Maximum extension (at 100%)	2020 mm
Maximum load (per rail)	700 Kg



**L1988** - the compact, low profile, square shaped configuration gives the slides similar load capacities for radial and axial loads.

Standard extension	100%
Special extension range	up to 130% (on request)
Single & double direction?	Yes (remove end stop)
Number of rail sizes	4
Maximum extension (at 100%)	2020 mm
Maximum load (per rail)	1250 Kg



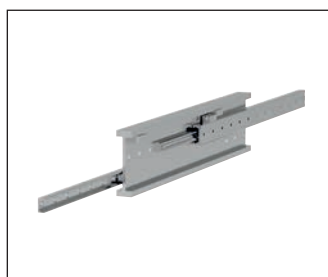


**L1992** - our lightest duty telescopic slides. Still from cold-drawn steel but with unhardened raceways making these parts robust but less expensive than our other telescopic rails.



Standard extension	100%
Special extension range	No
Single & double direction?	No
Number of rail sizes	1
Maximum extension (at 100%)	1010 mm
Maximum load (per rail)	60 Kg

**L1996** - these are ultra heavy-duty telescopic slides, for very heavy loads. An extremely rigid double T profile acts as an intermediate element providing a high load capacity and minimum deflection.



Standard extension	100%
Special extension range	up to 130% (on request)
Single & double direction?	On request
Number of rail sizes	1
Maximum extension (at 100%)	2250 mm
Maximum load (per rail)	1900 Kg

**L1995** - these are compact design, heavy duty full stroke telescopic rails. They have a relatively light weight, and have induction hardened raceways for long-life.



Standard extension	100%
Special extension range	up to 130% (on request)
Single & double direction?	Yes (remove end stop)
Number of rail sizes	4
Maximum extension (at 100%)	2020 mm
Maximum load (per rail)	550 Kg

**L1985** - these are full extension slides to be used where dirt or other contaminants might be present. The ball bearings are replaced with large roller bearings (with wipers to clear the rail). Based on our compact rail system.



Standard extension	100%
Special extension range	No
Single & double direction?	No
Number of rail sizes	1
Maximum extension (at 100%)	1980 mm
Maximum load (per rail)	275 Kg

**L1989** - these are full extension slides made from 316L stainless steel. For use in applications where corrosion may be a problem.

Standard extension	100%
Special extension range	No
Single & double direction?	No
Number of rail sizes	1
Maximum extension (at 100%)	1120 mm
Maximum load (per rail)	35 Kg



### Extended stroke telescopic rails

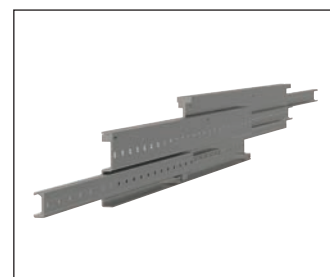
**L1997** - these are extended stroke (150%), heavy duty telescopic rails, with high load capacity and stiffness.

Standard extension	150%
Special extension range	On request
Single & double direction?	No
Number of rail sizes	1
Maximum extension (at 150%)	3030 mm
Maximum load (per rail)	240 Kg



**L1998** - these are extended stroke (150%), heavy duty telescopic rails. They have a solid steel intermediate element. They are our heaviest duty extended stroke units.

Standard extension	150%
Special extension range	On request
Single & double direction?	No
Number of rail sizes	1
Maximum extension (at 150%)	3020 mm
Maximum load (per rail)	480 Kg





### How to select a telescopic rail

Firstly, these telescopic rails are for heavy duty applications, they are not made from pressed steel but from cold-drawn steel, with hardened raceways.

As a result they can be used in demanding applications and for repetitive applications or for applications where a high degree of product reliability is required as well as smooth and consistent operation. They have smooth movement, minimal play and a low coefficient of friction. There are no better telescopic rails available!

#### Stroke required

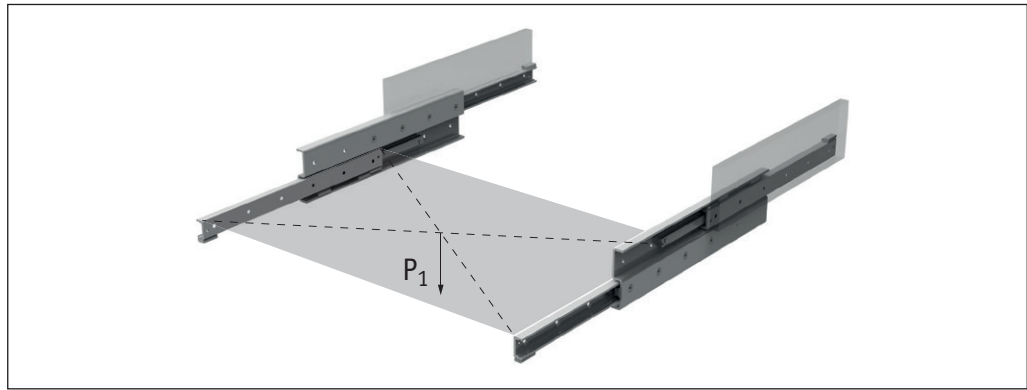
In general the partial extension (strokes of 50% of overall rail length) telescopic rails are less expensive than the full extension rails and over-extension rails.

Where possible the use of a double direction rail (i.e. can stroke forward and backwards) can be very cost-effective, allowing twice the stroke for the same rail length, but this may not suit many applications.

#### Load capacity

The next consideration is based on the load to be carried. All loads given are for a single rail and assume the load is centred in the mid-point of the moveable rail, in its extended position.

**Important: In cases where the rail has an upper and lower rail, the receiving rail should be the lower one.**



Typically, a pair of rails is used and the load acts in the centre of both rails. In this case the load capacity of the pair of rails is calculated as follows:

$$P_1 = 2 \cdot C_{0rad}$$

Some rails are more suited to axial loads and moment loads than others, dependent on their cross sectional form.

#### Rail shape

The different rail profiles and sizes allow rails to be chosen to suit various applications e.g.

**L1984** - thin section.

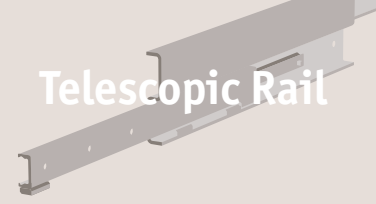
**L1992** - thin section (but lighter duty).

**L1986** - low height.

**L1988** - low height.

**L1995** - very heavy duty.

**L1996** - very heavy duty.



### Anti-corrosion treatments

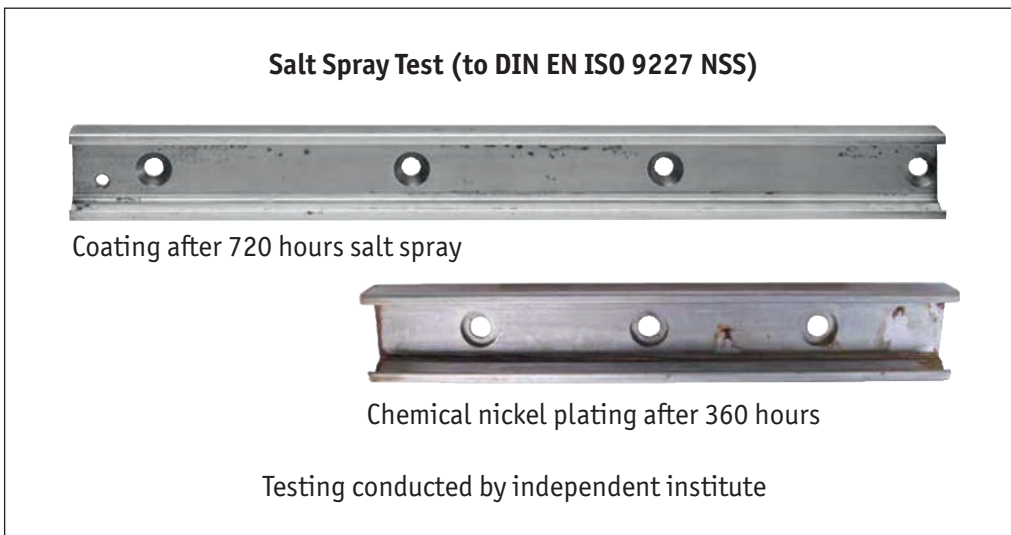
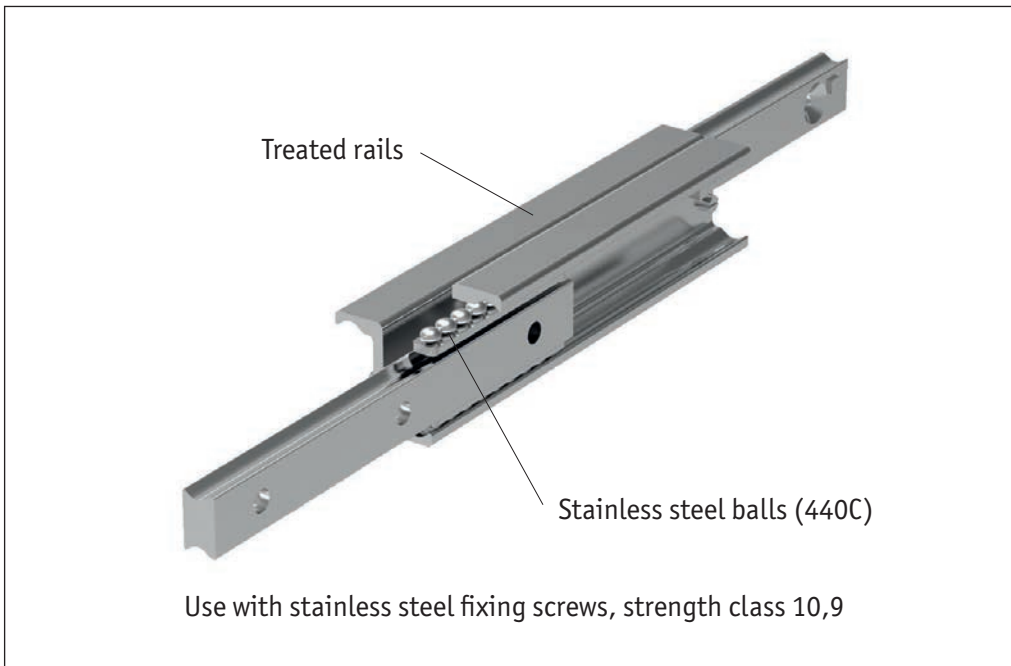
The telescopic slides have a standard electrolytic zinc plate coating (to ISO 2081).

We offer a number of alternatives to increase the anti-corrosion protection including nickel plating.

However, our preferred and most effective solution to inhibit corrosion is to apply a special corrosion resistant (Lanthane) plating to the rails and sliders and to combine this with stainless steel ball bearings.

This coating is applied after the zinc plating process and is a special trivalent chromium passivation that is approximately 15 microns thick (and is free of Chromium VI).

This applies a nano-particle coating and has extremely good results of 200 hours in salt spray tests before any signs of white rust.



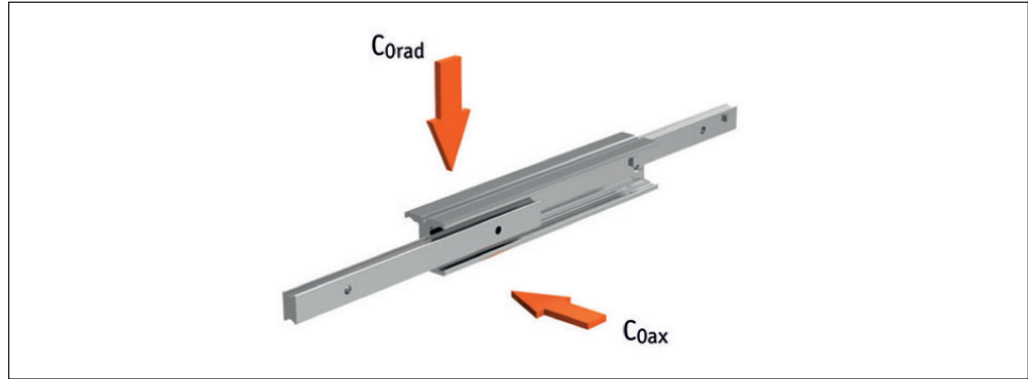
The coating on the telescopic slides is a soft coating and will (over time) wear off the raceways (which are subject to loads from the ball bearings) – this can be seen sometimes by a thin line on the raceways.

However lubricating the raceways with grease (as recommended) ensures, as far as possible, the good corrosion properties of the overall coating.

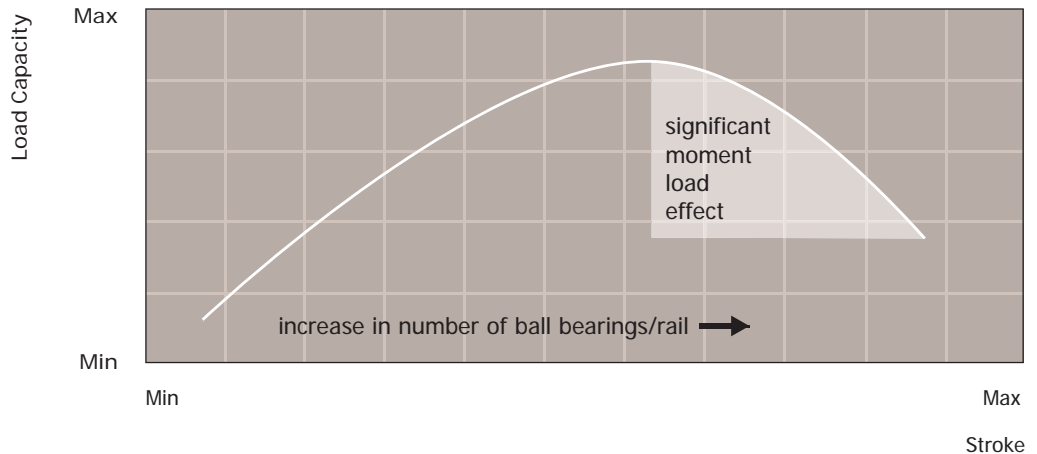


Wherever possible the telescopic rails should be used so that the main load applied is a radial load on the telescopic rail. Only certain types of our telescopic rails can accept axial loads.

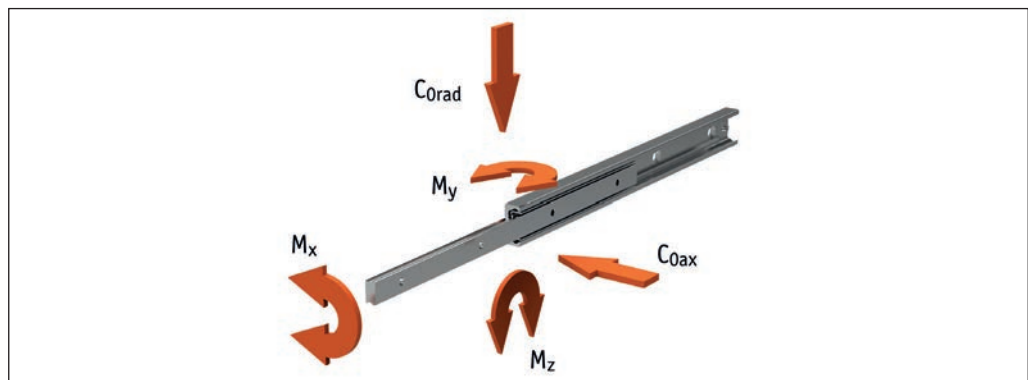
Typically the radial load is around an extra 60% to 100% of the axial load. All our load figures are shown per rail and assume that the load is centred about the mid-extended position of the rails.



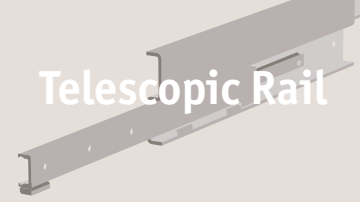
For telescopic rails with an upper and lower element, the moving element should be the lower element. A typical telescopic rail size will have then following load capacity profile:-



Partially telescopic rails will have a considerably higher load capacity than fully telescopic rails, so if you have space to fit a partially telescopic rail (say 50% extension) then choosing this type can allow a smaller profile size rail to be chosen, reducing the cost. Partially telescopic rails can also accept some moment loads.



For the load ratings to apply the structure to which they are mounted must be rigid and not distorted, and all the fixing holes for the mounting screws should be used.



### Increasing the stroke

The stroke of many of the rails can be increased slightly from the standard.

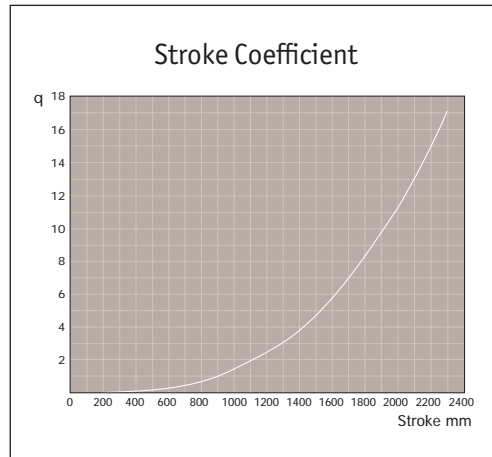
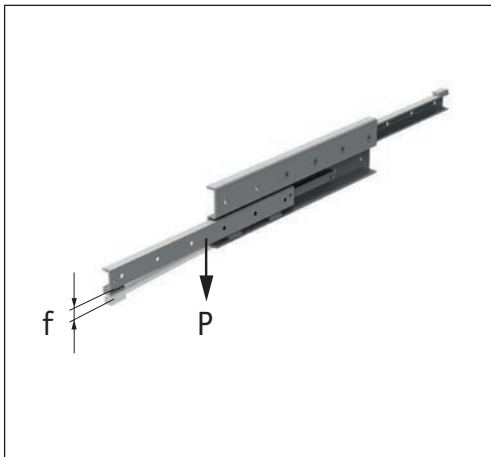
This is achieved by reducing the length of the ball cage in the rail. This will have the effect of reducing the load capacity of the rail - in this case for a correct load rating please consult our Technical Department.

Typically a 100% stroke rail can be increased to a maximum stroke of 130% (of the closed length of the rail) and a partial extension stroke rail (50% extension) can be increased to a maximum of 65%.

Please see the table in the technical pages which shows how special stroke rails can be specified.

### Deflection

The maximum deflection allowed should also be considered.



If the load P acts vertically on the rail, then the expected elastic deflection of the individual telescopic rail in the extended state can be found by:

$$f = \frac{q}{t} \cdot P$$

f = expected elastic deflection (in mm)

q = stroke coefficient (see graph)

t = factor depending on the model of the telescopic rail (see below)

P = actual load acting on the centre of a rail, in N

L1984.28	t = 180	L1986.63	t = 540
L1984.35	t = 470	L1988.22	t = 3
L1984.43	t = 800	L1988.28	t = 8
L1984.43	t = 4000	L1988.35	t = 13
L1986.22	t = 8	L1988.43	t = 56
L1986.28	t = 17	L1992.LTF44	t = 25
L1986.35	t = 54	L1985.43	t = 3500
L1986.43	t = 120	L1985.43	t = 800

Note: This formula applies to a single rail. When using a rail pair, the load of the single rail is  $P = P_{total}/2$ . This estimated value assumes an absolutely rigid adjacent construction. If this rigidity is not present, the actual deflection will deviate from the calculation.

Important: With the partial extensions series, the deflection is almost completely determined by the rigidity (i.e. by the moment of inertia) of the adjacent construction.



### Example of a special stroke

Product series	Maximum stroke as % of closed length
L1984	130%
L1986	130%
L1988	130%
L1994	65%

E.g. a standard stroke for L1984.435-0070 is 796mm.

This can be increased to 130% of 770 i.e. 1001 mm, but is limited by the factor in the table below (in this example the stroke modification is 30mm):

<p><b>Standard stroke: 796mm</b></p> <p><b>Stroke modification: 30mm (ball spacing)</b></p> <p><b>e.g. extra ... 826, 856, 886, 916... 976</b></p>
--

Therefore the part number for the maximum stroke would be:

### Special strokes

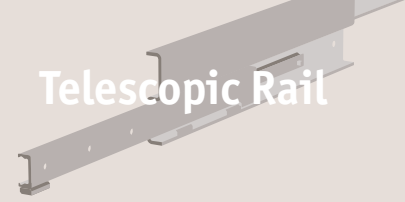
Special strokes are defined as deviations from standard stroke  $l_2$ . Increasing the stroke involves reducing the length of the ball cage and number of balls. This in turn reduces the rail load capacity. To confirm the reduced rail load capacity figures, please contact our Technical Department.

These values are dependent on the spacing of the ball cage (i.e. by reducing the number of balls the stroke can be increased).

Type	Size	Stroke modification mm
L1984	28	19
L1986	35	24
L1988	43	30
L1994	28	9,5
	35	12
	43	15

No stroke modification is possible for series L1984 and L1985. Each stroke modification influences the load capabilities stated in the catalogue. It can happen that after a stroke modification, important fastening holes are no longer accessible. For more information, please consult our Technical Department. Stroke modification of series L1996 on request.

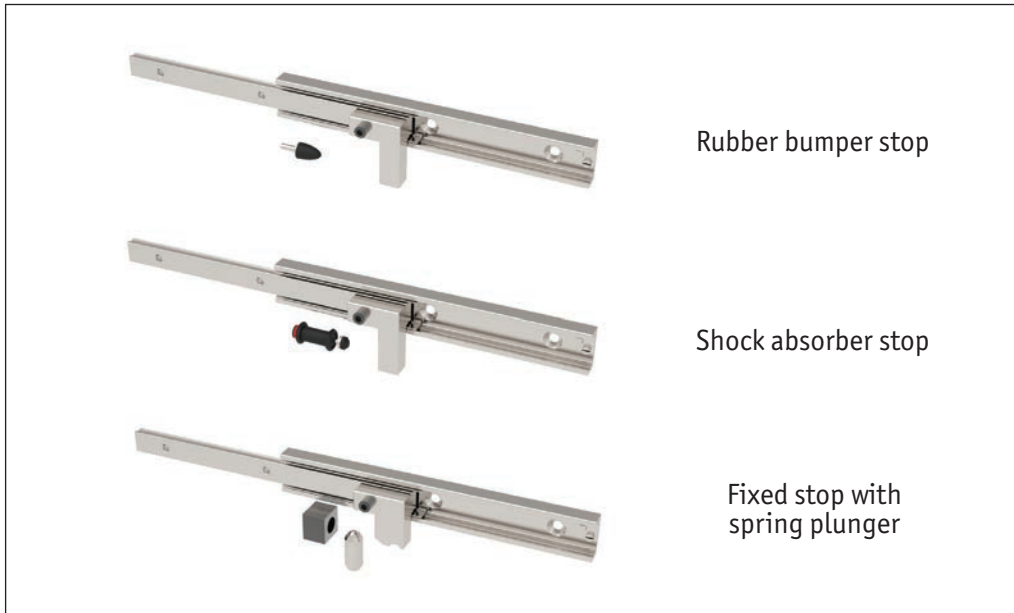




### External stops

On many of our rails, light duty end stops are built into the rail. These are only to stop movement when not loaded - they are not designed to stop a moving, loaded slide.

External end stops must be designed into systems to prevent any damage to the telescopic rails (some examples are shown below).



Rubber bumper stop

Shock absorber stop

Fixed stop with spring plunger

### Locking systems

For the L1984 series telescopic rails, there is an optional locking system unit (for locking in the closed position). This would be used for example in transport sector applications (military, rail etc.) where there is often a need to have the slide locked off during vehicle movement.

For locking in the up position (if required) customers design their own locking system (in built in their designed structure).

### Rigidity and alignment of structure

To get the best life, minimum rail deflection, and smoothness of movement, it is very important that the slides are installed (using all the accessible mounting holes) onto a rigid, parallel, plane structure.

The fixed and moving part of the slides assume the rigidity of the mounting structure.

### Lubrication

Recommended lubrication intervals are heavily dependent upon the ambient conditions, speed and temperature. Under normal conditions, lubrication is recommended after 100 Km of operational performance or after an operating period of six months. In critical application cases the interval should be shorter.

Please clean the raceways carefully before lubrication. Raceways and spaces of the ball cage are lubricated with a lithium lubricant of average consistency (roller bearing lubricant).

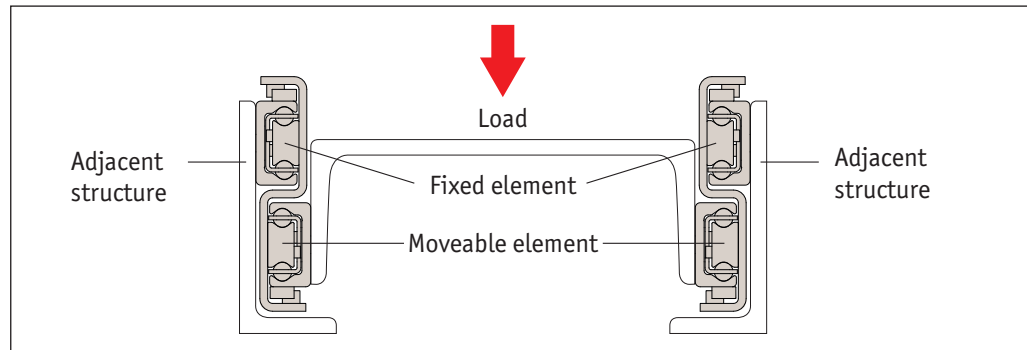
Different lubricants for special applications are available upon request, e.g. lubricant with FDA approval is available for use in the food industry.

Telescopic Rail from Automotion Components

TELESCOPIC SLIDES



### Installation instructions



#### General

- Internal stops are used to stop the unloaded slider and the ball cage. Please use external stops as end stops for a loaded system.
- To achieve optimum running properties, high service life and rigidity, it is necessary to fix the telescopic rails with all accessible holes onto a rigid and level surface. When using two telescopic rails, please observe the parallelism of the installation surfaces. The fixed and moveable rails fit to the rigid assembly construction.
- Our telescopic rails are suitable for continuous use in automatic systems. For this, the stroke should remain constant in all moving cycles and the operating speed must be checked. The movement of the telescopic rails is enabled by internal ballcages, which may experience an offset from the original position with differing strokes. This phase offset can have a negative effect on the running properties or limit the stroke. If differing strokes occur in an application, the drive force must be sufficient to appropriately synchronise the ball cage offset. Otherwise, an additional maximum stroke must be planned regularly to ensure the correct position of the ballcage.

#### L1994

- The L1994 series accepts radial and axial loads as well as moment loads in all principle directions.
- Horizontal preferred (vertical application is possible, but prior to vertical installation, we recommend you consult our Technical Department).
- The installation of two partial extensions on a single profile provides a very high load capacity full extension, please consult our Technical Department.

#### L1986 and L1988

- The L1986 and L1988 series accept radial and axial loads.
- Horizontal preferred (vertical application is possible, but prior to vertical installation, we recommend you consult our Technical Department).

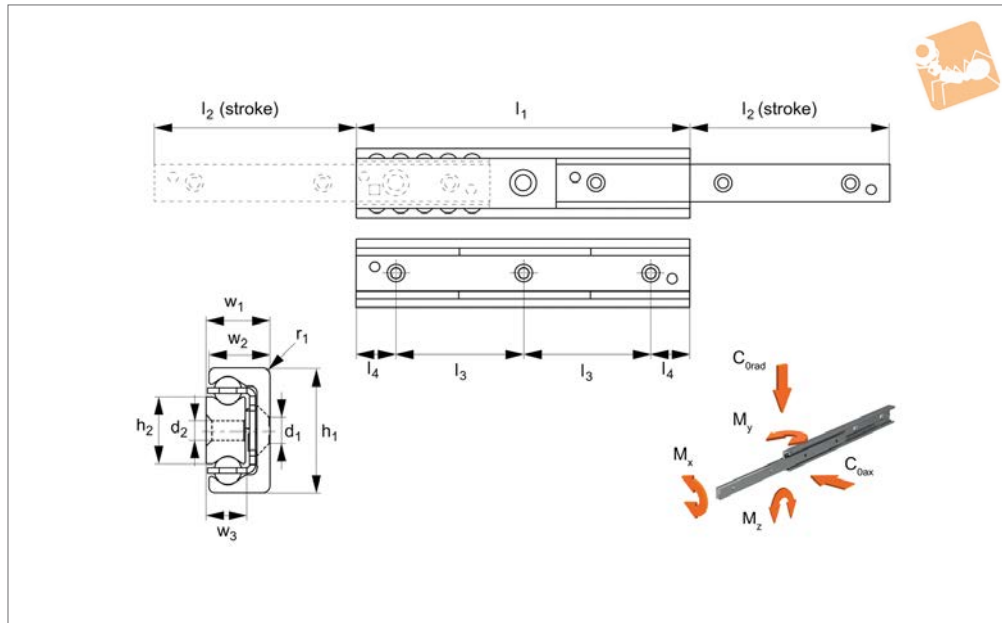
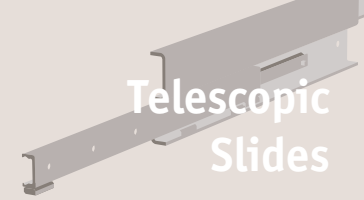
#### L1984, L1992, L1996, L1985 and L1989

- The L1984, L1992, L1996, L1995 and L1989 series accept radial loads. This should act in the vertical cross-sectional axis on the moveable rails.
- Horizontal preferred (vertical application is possible, but prior to vertical installation, we recommend you consult our Technical Department).
- When installing make sure that the load is placed on the moveable element (the lower rail). The opposite assembly negatively affects smooth movement and load capacity of the telescopic stroke.
- Installation must be done on a rigid, adjacent construction using all accessible fixing holes.
- Pay attention to the parallel alignment during assembly with a paired application.



# Partially Telescopic Slides

size 22



**L1994.22**

TELESCOPIC SLIDES

### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities, offering a semi-telescopic movement.  $C_{0rad}$  is the load rating for a single telescopic slide.

They have very low deflection characteristics.

Weight 1,32 Kg/m.

Temperature range: -30°C to +170°C.

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in the opposite direction it will catch the

intermediate member and force it to return.

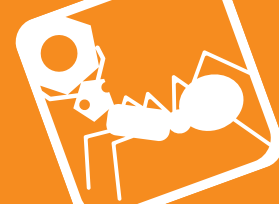
The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

Special strokes up to 65% of the closed length can be provided on request.

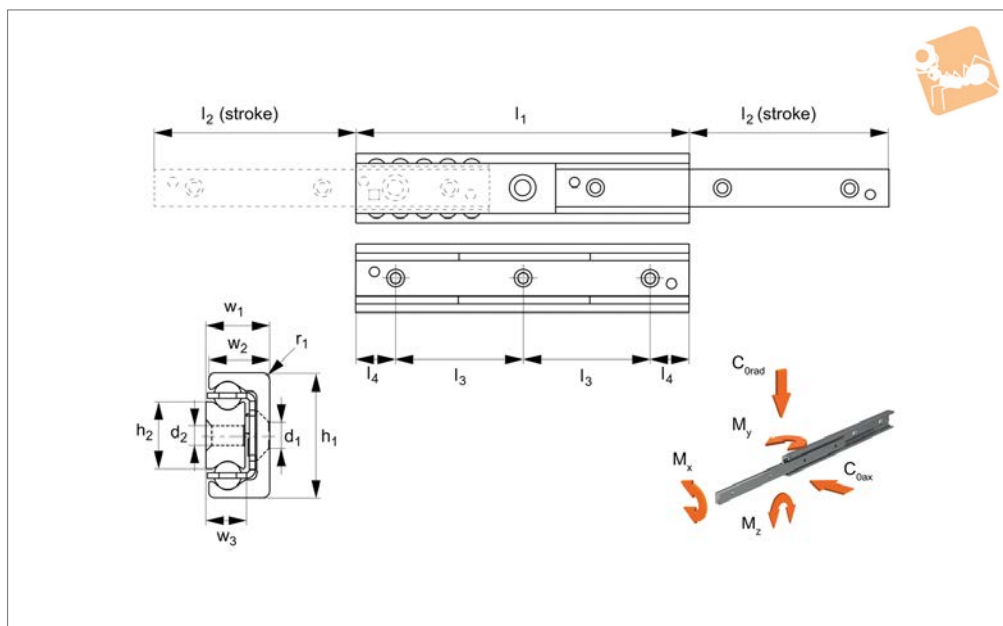
### Important Notes

$d_1$  and  $d_2$  for M4 threads.  
 $r = 3$ .

Order No.	$l_1$	$l_2$	$h_1$	$w_1$	$l_3$	$l_4$	$h_2$	$w_2$	$w_3$	No. of holes	Load (per rail) $C_{0ax}$ N max.	Load (per rail) $C_{0rad}$ N max.	$M_x$ Nm	$M_y$ Nm	$M_z$ Nm
L1994.22-0130	130	76	22	11	80	25	11,3	10,25	6,5	2	219	313	5,7	10	15
L1994.22-0210	210	111	22	11	80	25	11,3	10,25	6,5	3	501	715	10,7	36	51
L1994.22-0290	290	154	22	11	80	25	11,3	10,25	6,5	4	696	994	14,9	69	99
L1994.22-0370	370	196	22	11	80	25	11,3	10,25	6,5	5	895	1278	19	113	162
L1994.22-0450	450	231	22	11	80	25	11,3	10,25	6,5	6	1190	1701	24	180	258
L1994.22-0530	530	274	22	11	80	25	11,3	10,25	6,5	7	1385	1979	28,2	248	355
L1994.22-0610	610	316	22	11	80	25	11,3	10,25	6,5	8	1584	2262	32,3	327	467
L1994.22-0690	690	351	22	11	80	25	11,3	10,25	6,5	9	1882	2689	37,3	436	623
L1994.22-0770	770	394	22	11	80	25	11,3	10,25	6,5	10	2077	2967	41,5	539	769



## L1994.28



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities, offering a semi-telescopic movement.  $C_{0rad}$  is the load rating for a single telescopic slide.

They have very low deflection characteristics.  
Weight 2,02 Kg/m.  
Temperature range: -30°C to +170°C.

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in the opposite direction it will catch the

intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

Special strokes up to 65% of the closed length can be provided on request.

### Important Notes

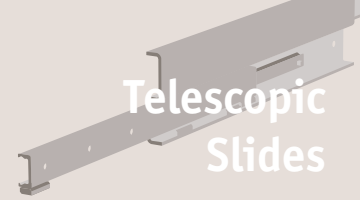
$d_1 = \emptyset 5.5$  and  $d_2 = M5$ .  
 $r = 1$ .

Order No.	$l_1$	$l_2$ stroke	$h_1$	$w_1$	$l_3$	$l_4$	$h_2$	$w_2$	$w_3$	No. of holes	Load (per rail) $C_{0ax}$ N max.	Load (per rail) $C_{0rad}$ N max.	$M_x$ Nm max.	$M_y$ Nm max.	$M_z$ Nm max.
L1994.28-0130	130	74	28	13	80	25	15	12,3	7,5	2	452	645	17	23	30
L1994.28-0210	210	116	28	13	80	25	15	12,3	7,5	3	816	1165	27,5	60	86
L1994.28-0290	290	148	28	13	80	25	15	12,3	7,5	4	1413	2019	41	135	190
L1994.28-0370	370	190	28	13	80	25	15	12,3	7,5	5	1780	2543	52	215	309
L1994.28-0450	450	232	28	13	80	25	15	12,3	7,5	6	2148	3069	64	316	450
L1994.28-0530	530	274	28	13	80	25	15	12,3	7,5	7	2517	3595	74	438	625
L1994.28-0610	610	316	28	13	80	25	15	12,3	7,5	9	2906	4151	83,5	579	822
L1994.28-0690	690	358	28	13	80	25	15	12,3	7,5	9	3266	4666	95	738	1055
L1994.28-0770	770	400	28	13	80	25	15	12,3	7,5	10	3634	5192	107	916	1310
L1994.28-0850	850	433	28	13	80	25	15	12,3	7,5	11	4232	6045	120	1166	1667
L1994.28-0930	930	475	28	13	80	25	15	12,3	7,5	12	4584	6549	129	1392	1991
L1994.28-1010	1010	517	28	13	80	25	15	12,3	7,5	13	4952	7074	141	1637	2333
L1994.28-1090	1090	559	28	13	80	25	15	12,3	7,5	14	5267	7709	151	1896	2709
L1994.28-1170	1170	601	28	13	80	25	15	12,3	7,5	15	5688	8125	162	2178	3111

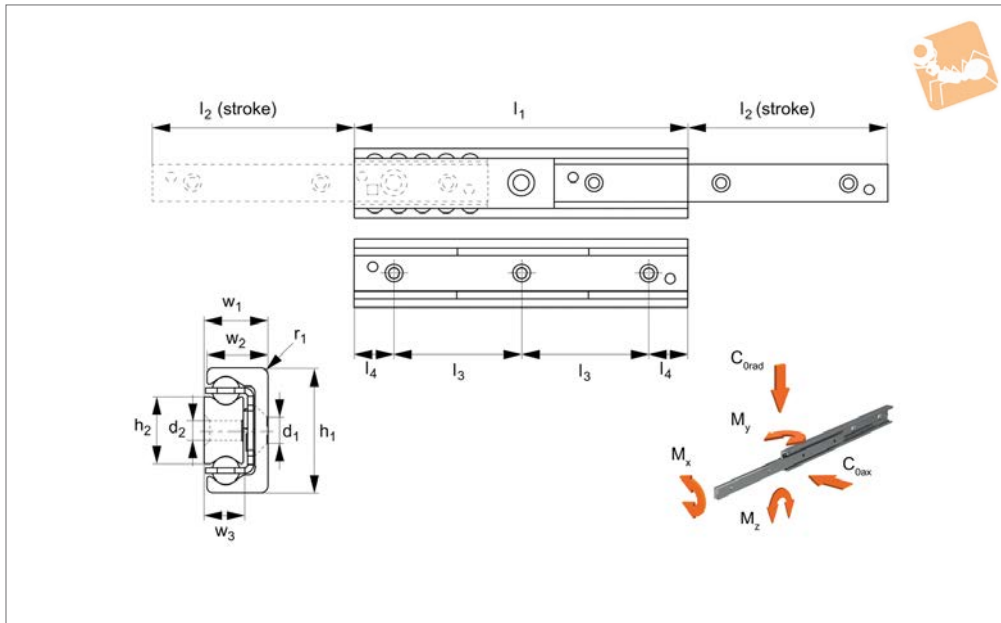


# Partially Telescopic Slides

size 35



## Telescopic Slides



### L1994.35

TELESCOPIC SLIDES

#### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

#### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities, offering a semi-telescopic movement.  $C_{0rad}$  is the load rating for a single telescopic slide.

They have very low deflection characteristics.

Weight 3,05 Kg/m.

Temperature range: -30°C to +170°C.

#### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in the opposite direction it will catch the

intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

Special strokes up to 65% of the closed length can be provided on request.

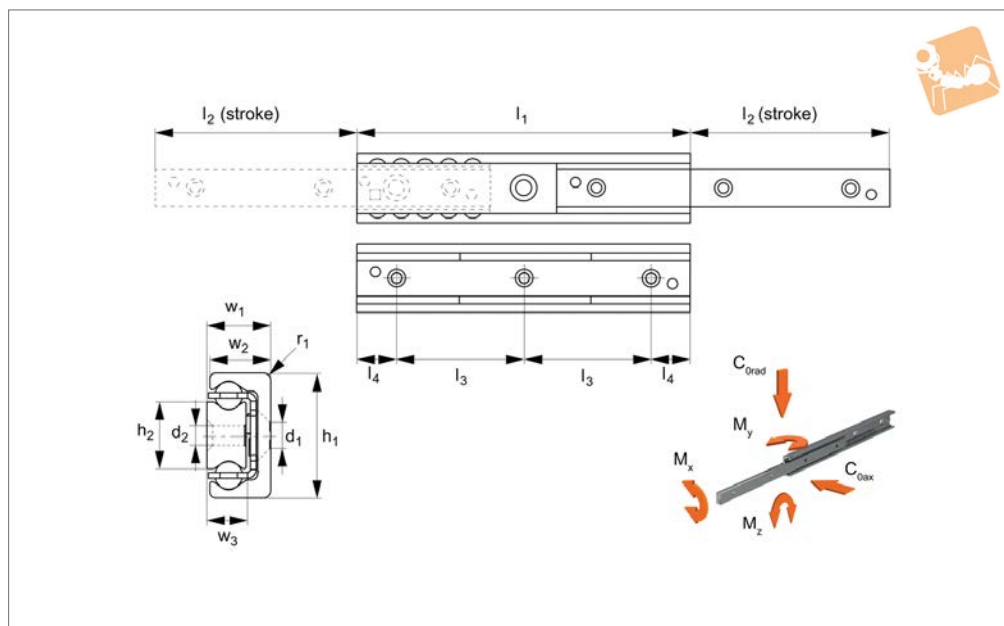
#### Important Notes

$d_1 = \varnothing 6.5$  and  $d_2 = M6$   
 $r = 2$ .

Order No.	$l_1$	$l_2$ stroke	$h_1$	$w_1$	$l_3$	$l_4$	$h_2$	$w_2$	$w_3$	No. of holes	Load (per rail) $C_{0ax}$ N max.	Load (per rail) $C_{0rad}$ N max.	$M_x$ Nm max.	$M_y$ Nm max.	$M_z$ Nm max.	Weight kg
L1994.35-0210	210	127	35	17	80	25	15,8	16,5	10	3	763	1090	37	63	90	0,63
L1994.35-0290	290	159	35	17	80	25	15,8	16,5	10	4	1471	2101	56	155	218	0,87
L1994.35-0370	370	203	35	17	80	25	15,8	16,5	10	5	1880	2686	69	247	348	1,11
L1994.35-0450	450	247	35	17	80	25	15,8	16,5	10	6	2289	3271	80,5	365	515	1,35
L1994.35-0530	530	279	35	17	80	25	15,8	16,5	10	7	3045	4350	101	553	787	1,59
L1994.35-0610	610	323	35	17	80	25	15,8	16,5	10	8	3452	4932	113	722	1027	1,85
L1994.35-0690	690	367	35	17	80	25	15,8	16,5	10	9	3860	5514	125	914	1296	2,07
L1994.35-0770	770	399	35	17	80	25	15,8	16,5	10	10	4629	6614	143,5	1203	1711	2,31
L1994.35-0850	850	443	35	17	80	25	15,8	16,5	10	11	5035	7192	157	1446	2063	2,55
L1994.35-0930	930	487	35	17	80	25	15,8	16,5	10	12	5440	7773	170	1713	2441	2,79
L1994.35-1010	1010	519	35	17	80	25	15,8	16,5	10	13	6218	8882	186	2104	3002	3,03
L1994.35-1090	1090	563	35	17	80	25	15,8	16,5	10	14	6609	9504	201	24122	3457	3,27
L1994.35-1170	1170	607	35	17	80	25	15,8	16,5	10	15	7026	10037	215	2764	3946	3,51
L1994.35-1250	1250	639	35	17	80	25	15,8	16,5	10	16	7798	11288	232	3256	4648	3,75
L1994.35-1330	1330	683	35	17	80	25	15,8	16,5	10	17	8209	11728	244,5	3652	5211	3,99
L1994.35-1410	1410	727	35	17	80	25	15,8	16,5	10	18	8726	12338	257	4070	5809	3,99
L1994.35-1490	1490	759	35	17	80	25	15,8	16,5	10	19	9396	13423	273	4663	6654	4,47



## L1994.43



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities, offering a semi-telescopic movement.  $C_{0rad}$  is the load rating for a single telescopic slide.

They have very low deflection characteristics.  
Weight 5,25 Kg/m.  
Temperature range: -30°C to +170°C.

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in the opposite direction it will catch the

intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

Special strokes up to 65% of the closed length can be provided on request.

### Important Notes

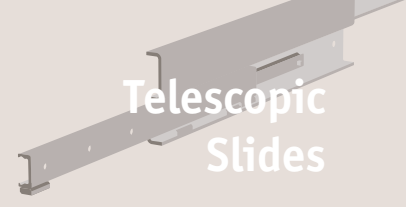
$d_1 = \varnothing 8.5$  and  $d_2 = M8$ .  
 $r = 2,5$ .

Order No.	$l_1$	$l_2$ stroke	$h_1$	$w_1$	$l_3$	$l_4$	$h_2$	$w_2$	$w_3$	No. of holes	Load (per rail) $C_0$		$M_x$ Nm max.	$M_y$ Nm max.	$M_z$ Nm max.
											$N$ ax max.	$N$ rad max.			
L1994.43-0210	210	123	43	22	80	25	23	21	13,5	3	1190	1700	62	89	123
L1994.43-0290	290	158	43	22	80	25	23	21	13,5	4	2123	3033	96,5	204	294
L1994.43-0370	370	208	43	22	80	25	23	21	13,5	5	2482	3546	119	313	444
L1994.43-0450	450	243	43	22	80	25	23	21	13,5	6	3436	4909	151	514	735
L1994.43-0530	530	278	43	22	80	25	23	21	13,5	7	4415	6308	184	766	1092
L1994.43-0610	610	313	43	22	80	25	23	21	13,5	8	5410	7728	210	1069	1525
L1994.43-0690	690	363	43	22	80	25	23	21	13,5	9	5730	8185	240	1297	1853
L1994.43-0770	770	398	43	22	80	25	23	21	13,5	10	6533	9490	273	1687	2405
L1994.43-0850	850	433	43	22	80	25	23	21	13,5	11	7432	10617	305	2120	3030
L1994.43-0930	930	483	43	22	80	25	23	21	13,5	12	8034	11477	331	2442	3489
L1994.43-1010	1010	518	43	22	80	25	23	21	13,5	13	9031	12902	362,5	2964	4233
L1994.43-1090	1090	568	43	22	80	25	23	21	13,5	14	9904	13360	384	3343	4775
L1994.43-1170	1170	603	43	22	80	25	23	21	13,5	15	10342	14774	417	3945	5636
L1994.43-1250	1250	638	43	22	80	25	23	21	13,5	16	11198	16048	450	4602	6575
L1994.43-1330	1330	688	43	22	80	25	23	21	13,5	17	11654	16649	470,5	5067	7237
L1994.43-1410	1410	723	43	22	80	25	23	21	13,5	18	12618	17963	505	5809	8300
L1994.43-1490	1490	758	43	22	80	25	23	21	13,5	19	13366	19094	538	6601	9427
L1994.43-1570	1570	793	43	22	80	25	23	21	13,5	20	14532	20704	572	7442	10630
L1994.43-1650	1650	843	43	22	80	25	23	21	13,5	21	14964	21378	593,5	8032	11476
L1994.43-1730	1730	878	43	22	80	25	23	21	13,5	22	15962	22796	626	8961	12799
L1994.43-1810	1810	928	43	22	80	25	23	21	13,5	23	16274	23249	650	9603	13722
L1994.43-1890	1890	963	43	22	80	25	23	21	13,5	24	17142	24213	684	10619	15170



# Partially Telescopic Slides

size 43



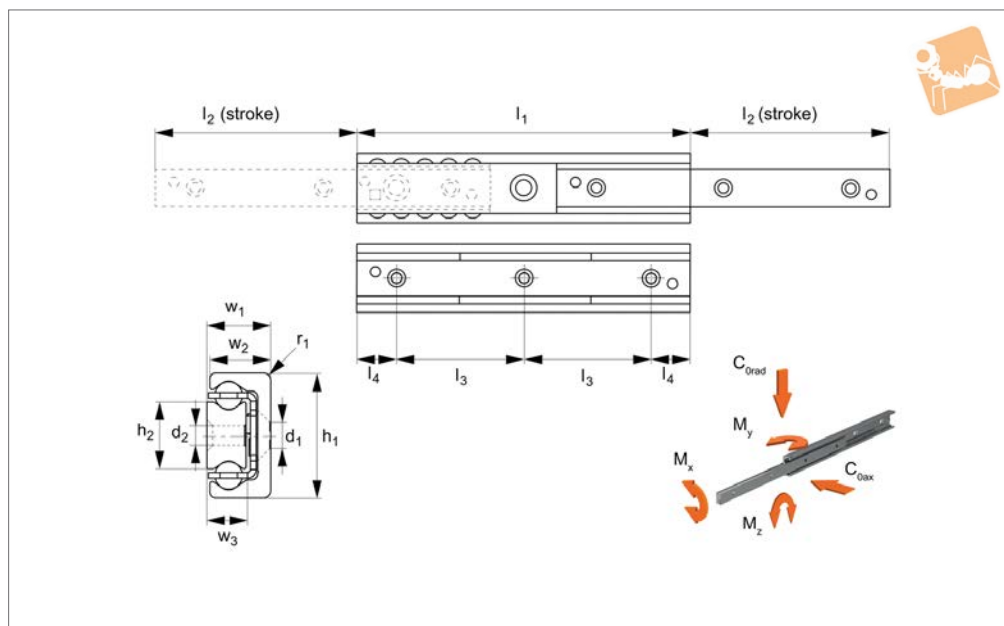
## Telescopic Slides

Order No.	$l_1$	$l_2$ stroke	$h_1$	$w_1$	$l_3$	$l_4$	$h_2$	$w_2$	$w_3$	No. of holes	Load (per rail) $C_0$ ax N max.	Load (per rail) $C_0$ rad N max.	$M_x$ Nm max.	$M_y$ Nm max.	$M_z$ Nm max.
<b>L1994.43-1970</b>	1970	1013	43	22	80	25	23	21	13,5	25	17585	25122	709	11320	16169

TELESCOPIC SLIDES



## L1994.63



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are extremely strong and rigid telescopic slides with high load capacities, offering a semi-telescopic movement.  $C_{0rad}$  is the load rating for a single telescopic slide.

They have very low deflection characteristics.

Weight 10,3 Kg/m.

Temperature range: -30°C to +170°C.

### Tips

A double direction stroke can be obtained by removing the end stops screws at the end of each side of the intermediate member.

For double direction strokes, when the moving element has started the stroke in the opposite direction it will catch the

intermediate member and force it to return.

The slides have end stops, but these are not designed to stop a moving, loaded slide. External end stops should be used for this.

Special strokes up to 65% of the closed length can be provided on request.

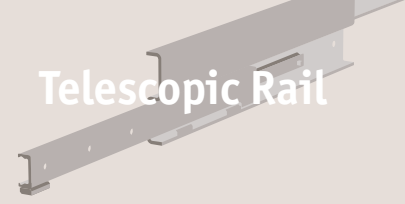
### Important Notes

$d_1$  (for DIN7984 cap screws) and  $d_2$  for M8 threads.

$h_3 = 2 \times 45^\circ$ .

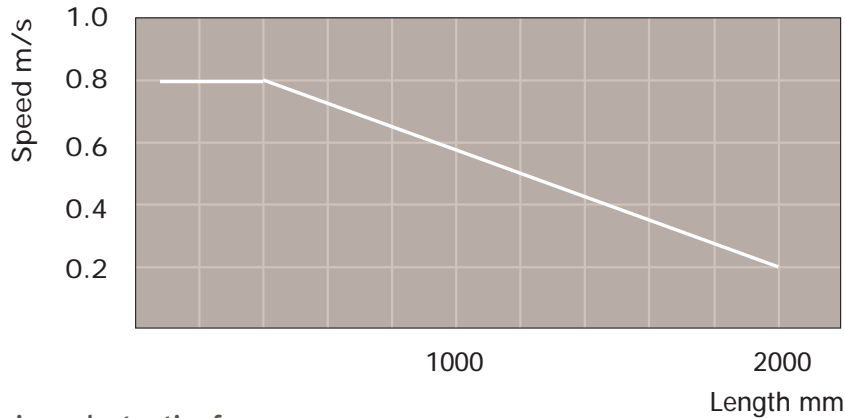
Order No.	$l_1$	$l_2$	$h_1$	$w_1$	$l_3$	$l_4$	$h_2$	$w_2$	$w_3$	No. of holes	Load (per rail) $C_{0ax}$ N max.	Load (per rail) $C_{0rad}$ N max.	$M_x$ Nm max.	$M_y$ Nm max.	$M_z$ Nm max.
L1994.63-0610	610	333	63	29	80	25	29,3	28	10,5	8	7414	10591	474	1553	2219
L1994.63-0690	690	373	63	29	80	25	29,3	28	10,5	9	8774	12534	547	2072	2960
L1994.63-0770	770	413	63	29	80	25	29,3	28	10,5	10	10142	14489	621	2666	3808
L1994.63-0850	850	453	63	29	80	25	29,3	28	10,5	11	11516	16452	694	3334	4763
L1994.63-0930	930	493	63	29	80	25	29,3	28	10,5	12	12985	18421	768	4077	5824
L1994.63-1010	1010	533	63	29	80	25	29,3	28	10,5	13	14277	20395	841	4894	6992
L1994.63-1090	1090	573	63	29	80	25	29,3	28	10,5	14	15661	22373	914	5787	8267
L1994.63-1170	1170	613	63	29	80	25	29,3	28	10,5	15	17048	24354	988	6754	9648
L1994.63-1250	1250	653	63	29	80	25	29,3	28	10,5	16	18436	26337	1061	7795	11136
L1994.63-1330	1330	693	63	29	80	25	29,3	28	10,5	17	19825	28322	1135	8912	12731
L1994.63-1410	1410	733	63	29	80	25	29,3	28	10,5	18	21216	30309	1208	10102	14432
L1994.63-1490	1490	773	63	29	80	25	29,3	28	10,5	19	22608	32297	1282	11368	16240
L1994.63-1570	1570	813	63	29	80	25	29,3	28	10,5	20	24001	34287	1355	12708	18155
L1994.63-1650	1650	853	63	29	80	25	29,3	28	10,5	21	25394	36277	1429	14123	20176
L1994.63-1730	1730	893	63	29	80	25	29,3	28	10,5	22	26788	38268	1502	15631	22304
L1994.63-1810	1810	933	63	29	80	25	29,3	28	10,5	23	28182	40261	1576	17177	24539
L1994.63-1890	1890	973	63	29	80	25	29,3	28	10,5	24	29577	42253	16479	18816	26880
L1994.63-1970	1970	1013	63	29	80	25	29,3	28	10,5	25	30973	44247	1723	20530	29328





### Speed

The maximum operating speed is determined by the mass of the intermediate element, which moves with the movable rail. This reduces the maximum permissible operating speed with the increasing length.



### Extension and extraction force

The required actuation forces of a telescopic rail depend on the acting load and the deflection in the extended state. The force required for opening is principally determined by the coefficient of friction of the linear bearing, with correct assembly and lubrication, this is 0,01.

During the extension, the force is reduced with the elastic deflection of the loaded telescopic rail. A higher force is required to close a telescopic extension, since, based on the elastic deflection, even if it is minimal, the moveable rail must move against an inclined plane.

### Double-sided stroke

For all designs allowing double-sided stroke, it must be carefully noted that the position of the intermediate element is defined only in the extended state.

In the extracted state, the intermediate element may protrude by half of its length on each side (with the exception of both the L1994 series, (which comes out as a partial extension without the intermediate element) and the custom design of series L1986 which can be supplied with special driving disc on request.

The double-sided stroke in series L1994, L1986 and L1988 is achieved by removing the set screw.

For series L1984 version D, the double-sided stroke is achieved with a special set-up so that two types of rails are shown in the catalogue L1986 (single extension) and L1986 (double extension).

The double-sided stroke for series DMS is available on request. Series L1984.DSB (locking version), L1985 and L1992 are not available with double-sided stroke.

### Temperature range

- Series L1994, L1986, L1988 and L1992 can be used up to an ambient temperature of +170°C. A lithium lubricant for high operating temperature is recommended for temperatures above 130°C.
- Series L1984 and L1985 have a useable range of -30°C to +110°C due to the rubber stop.



### Service life

The service life is defined as the time span between commissioning and the first fatigue or wear indications on the raceway. The service life of a telescopic rail is dependent on several factors, such as the effective load, the installation precision, occurring shocks and vibrations, the operating temperature, the ambient conditions and the lubrication.

Calculation of the service life is based exclusively on the loaded rows of balls.

In practice, the decommissioning of the bearing, due to its destruction or extreme wear of a component, represents the end of service life.

This is taken into account by an application coefficient ( $f_i$ ), so the service life consists of:

$$L_{Km} = 100 \cdot \left( \frac{\delta}{W} \cdot \frac{1}{f_i} \right)^3$$

$L$  = calculated service life in Km

$\delta$  = load capacity factor in N (see tables on following pages)

$W$  = equivalent load in N

$f_i$  = application coefficient

### Application coefficient $f_i$

Operating conditions	Safety factor ( $f_i$ )
Neither shocks or vibrations, smooth and low-frequency direction change, clean environment	1,3 - 1,8
Light vibrations and average direction change	1,8 - 2,3
Shocks and vibrations, high-frequency direction change, very dirty environment	2,3 - 3,5

If the external load,  $P$ , is the same as the dynamic load capacity,  $C_{0rad}$  (which of course must never be exceeded), the service life at ideal operating conditions ( $f_i = 1$ ) is 100Km.

For a single load  $P$ , the following applies:  $W = P$ .

If several external loads occur simultaneously, the equivalent load is calculated as follows:

$$W = P_{rad} + \left( \frac{P_{ax}}{C_{0ax}} + \frac{M_1}{M_x} + \frac{M_2}{M_y} + \frac{M_3}{M_z} \right) \cdot C_{0rad}$$



### Static load

The telescopic extension of the various series accept different forces and moments loads.

During the static tests the radial load capacity,  $C_{0rad}$ , the axial load capacity,  $C_{0ax}$ , and the moments  $M_x$ ,  $M_y$  and  $M_z$  indicate the maximum permissible values of the loads; higher loads negatively effect the running properties and the mechanical strength.

A safety factor,  $z$ , is used to check the static load, which takes into account the basic parameters of the application and is defined in more detail in the following table.

### Safety factor Z

Basic parameters of the application	Safety factor, $z$
Neither shocks or vibrations, smooth and low-frequency reverse, high assembly accuracy, no elastic deformations	1 - 1,5
Normal installation conditions	1,5 - 2
Shocks and vibrations, high-frequency, significant elastic deformation	2 - 3,5

The ratio of the actual load to maximum permissible load may be as large as the reciprocal of the accepted safety factor,  $z$ , at the most.

$$\frac{P_{0rad}}{C_{0rad}} \leq \frac{1}{z} \quad \frac{P_{0ax}}{C_{0ax}} \leq \frac{1}{z} \quad \frac{M_1}{M_x} \leq \frac{1}{z} \quad \frac{M_2}{M_y} \leq \frac{1}{z} \quad \frac{M_3}{M_z} \leq \frac{1}{z}$$

The above formulae are valid for a single load case. If two or more of the described forces act simultaneously, the following check must be made:

$$\frac{P_{0rad}}{C_{0rad}} + \frac{P_{0ax}}{C_{0ax}} + \frac{M_1}{M_x} + \frac{M_2}{M_y} + \frac{M_3}{M_z} \leq \frac{1}{z}$$

$P_{0rad}$  = effective radial load  
 $C_{0rad}$  = permissible radial load  
 $P_{0ax}$  = effective axial load  
 $C_{0ax}$  = permissible axial load  
 $M_1$  = effective moment in the X direction  
 $M_x$  = permissible moment in the X direction  
 $M_2$  = effective moment in the Y direction  
 $M_y$  = permissible moment in the Y direction  
 $M_3$  = effective moment in the Z direction  
 $M_z$  = permissible moment in the Z direction



Length mm	L1984		
	28	35	43
	$\delta$ N		
290	863		
370	1164	1533	2288
450	1466	1892	4055
530	1768	2540	3120
610	2078	2878	3929
690	2381	3217	4197
770	2684	3881	5010
850	3180	4218	5836
930	3474	4555	6090
1010	3778	5226	6916
1090	4081	5561	7750
1170	4384	5897	7646
1250	4896	6573	8829
1330	5193	6907	9077
1410	5496	7242	9909
1490	5806	7920	10746
1570		8253	10988
1650		8588	11825
1730		9268	12665
1810			12904
1890			13743
1970			13983

Data to be used for service life ( $L_{km}$ ) calculations.

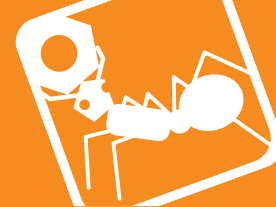
# Telescopic Rail from Automation Components



Length mm	L1986 and L1988		
	28	35	43
	$\delta$ N		
130	357		
210	655	614	923
290	1153	1211	1687
370	1456	1552	1974
450	1759	1892	2764
530	2063	2540	3580
610	2372	2878	4414
690	2675	3217	4661
770	2979	3881	5493
850	3487	4218	6335
930	3783	4555	6572
1010	4086	5226	7411
1090	4388	5561	8257
1170	4691	5897	8489
1250		6573	9332
1330		6907	9568
1410		7242	10409
1490		7920	11255
1570			12105
1650			12330
1730			13178
1810			13406
1890			14252
1970			14483

Data to be used for service life ( $L_{km}$ ) calculations.

# Telescopic Rail from Automation Components



## Telescopic Rail from Automation Components

Length mm	L1985
	43
	$\delta$ N
770	5160
850	5306
930	5424
1010	5522
1090	5605
1170	5675
1250	5736
1330	5789
1410	5836
1490	5878
1570	5915
1650	5948
1730	5978
1810	6005
1890	6030
1970	6053
2050	29341
2130	28763
2210	30595

Data to be used for service life ( $L_{km}$ ) calculations.

Length mm	L1992
	43
	$\delta$ N
200	163
225	191
250	215
275	243
300	267
325	295
350	319
375	347
400	372
425	400
450	424
500	476
550	529
600	581
650	633
700	686
750	738
800	791
850	843
900	896
950	948
1000	1000

Data to be used for service life ( $L_{km}$ ) calculations.



Length mm	L1994		
	28	35	43
	$\delta$ N		
130	872		
210	1577	1533	2288
290	2692	2906	4055
370	3405	3721	4794
450	4119	4537	6602
530	4832	5990	8451
610	5557	6803	10325
690	6271	7617	11005
770	6984	9093	12877
850	8111	9903	14762
930	8811	10714	15429
1010	9524	12201	17310
1090	10237	13009	17981
1170	10950	13818	19860
1250		15311	21747
1330		16118	22411
1410		16925	24295
1490		18423	26186
1570			28083
1650			28733
1730			30626
1810			31281
1890			33172
1970			33829

Data to be used for service life ( $L_{km}$ ) calculations.

Telescopic Rail from Automation Components

TELESCOPIC SLIDES



#### Tightening torques of the standard fixing screws to be used

Property class	Size	Tightening torque Nm
10,9	28	8,5
	35	14,6
	43	34,7

#### L1985.43 roller telescopic slides

Size	Screw type	d <sub>1</sub>	d <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	s
43	M8 x 16	M8 x 1,25	16	16	3	T40

The L1985.43 telescopic slide must be fixed with a custom design of Torx® screws with low cap head. The screws are included.

All other rails are fixed with countersunk or cap head screws as per DIN 7991 or 7984.

In size 63 of the ASN and DMS series, Torx® screws with low head cap screws are available on request.



#### Technical support

We have a team of experienced technical support staff. It is often the case that we can provide a more cost-effective solution than customers could do simply by selecting parts from the catalogue. Please don't hesitate to ask for advice which we will be happy to provide.

#### CAD models

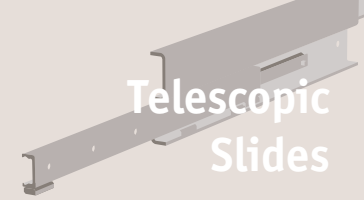
To speed up your design process, most of our telescopic rails have corresponding 3D CAD files directly downloadable from our website in a full range of CAD formats.



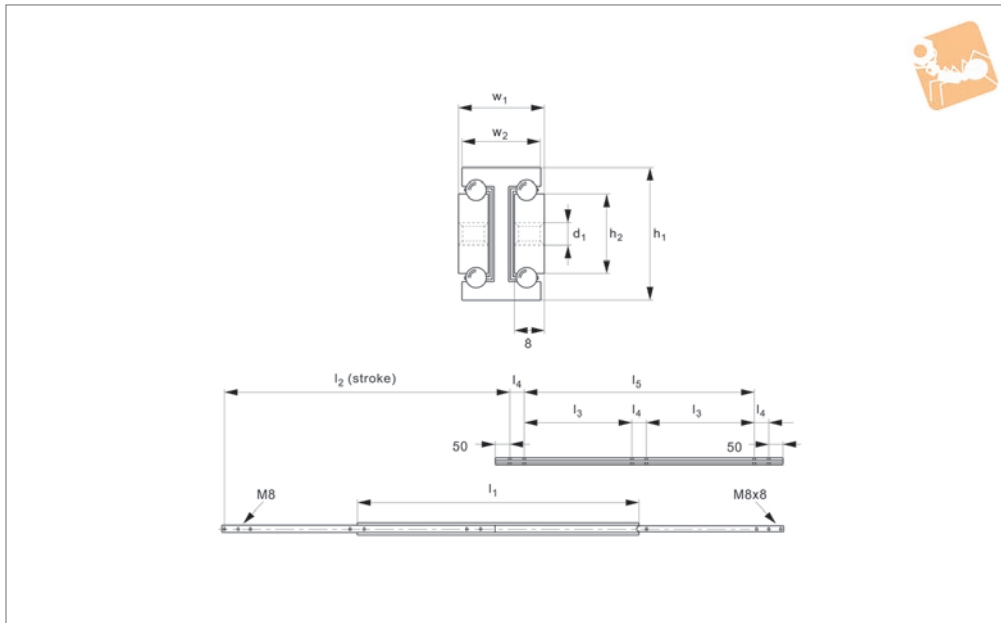


# Aluminium Telescopic Slides

fully telescopic, size 40



Telescopic Slides



**L2041**

TELESCOPIC SLIDES

### Material

High quality grade aluminium (EN-AW-6082 T6, anodised), with steel ball bearings and cage.

### Technical Notes

Ideal for applications requiring lightweight

yet robust telescopic slides (eg. aircraft seating).

Total length: = Installation length ( $l_1$ ) + extension length ( $l_2$ ).

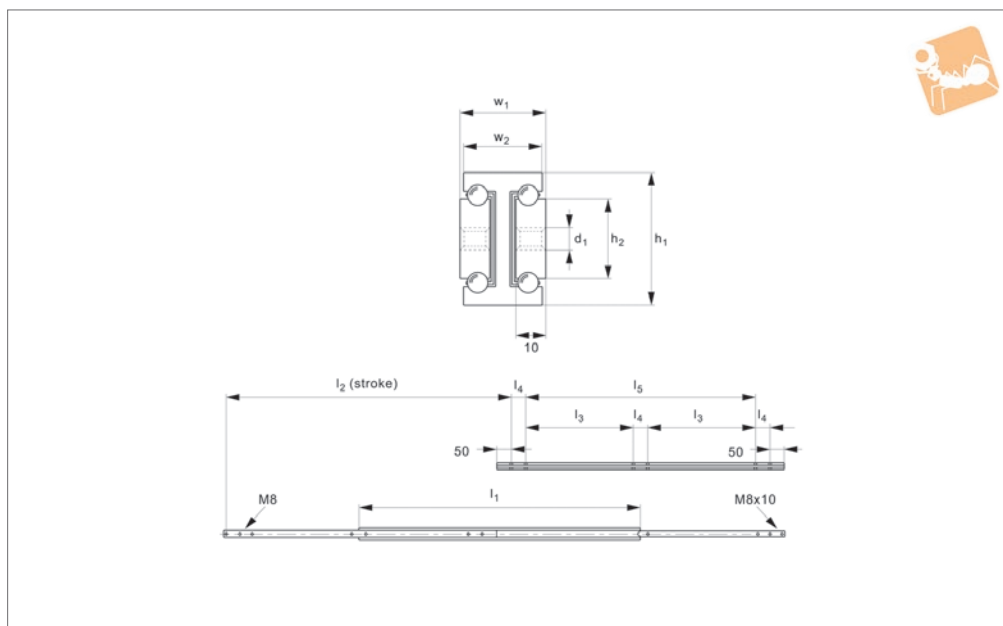
The maximum safe load is given for a fully extended pair of slides, mounted on the

major axis, with a load spread uniformly along the inner beam.

Order No.	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$d_1$	$l_3$	$l_4$	$l_5$	$w_1$	$w_2$	Load/pair kg max.
L2041.0200	200	200	40	25	M8	-	-	50	24	22	70
L2041.0250	250	250	40	25	M8	-	50	50	24	22	75
L2041.0300	300	300	40	25	M8	-	100	50	24	22	80
L2041.0350	350	350	40	25	M8	-	150	50	24	22	85
L2041.0400	400	400	40	25	M8	-	200	50	24	22	90
L2041.0450	450	450	40	25	M8	-	250	50	24	22	95
L2041.0500	500	500	40	25	M8	-	300	50	24	22	100
L2041.0550	550	550	40	25	M8	150	-	50	24	22	105
L2041.0600	600	600	40	25	M8	175	-	50	24	22	110
L2041.0650	650	650	40	25	M8	200	-	50	24	22	105
L2041.0700	700	700	40	25	M8	225	-	50	24	22	100
L2041.0750	750	750	40	25	M8	250	-	50	24	22	95
L2041.0800	800	800	40	25	M8	275	-	50	24	22	90
L2041.0850	850	850	40	25	M8	300	-	50	24	22	85
L2041.0900	900	900	40	25	M8	325	-	50	24	22	80
L2041.0950	950	950	40	25	M8	350	-	50	24	22	75
L2041.1000	1000	1000	40	25	M8	375	-	50	24	22	70



## L2042



### Material

High quality grade aluminium (EN-AW-6082 T6, anodised), with steel ball bearings and cage.

### Technical Notes

Ideal for applications requiring lightweight

yet robust telescopic slides (eg. aircraft seating).

Total length: = Installation length ( $l_1$ ) + extension length ( $l_2$ ).

The maximum safe load is given for a fully extended pair of slides, mounted on the

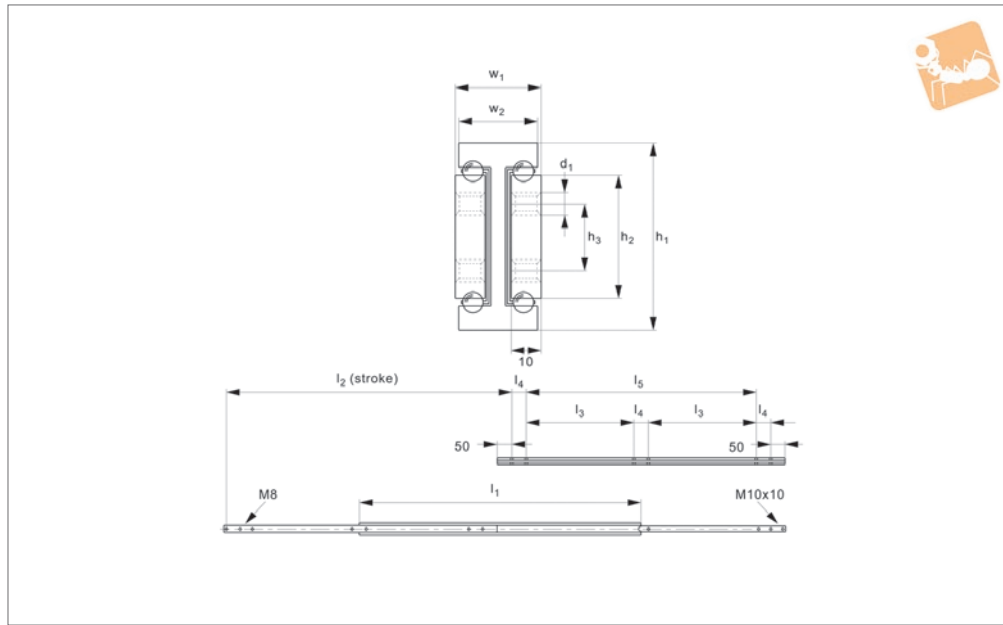
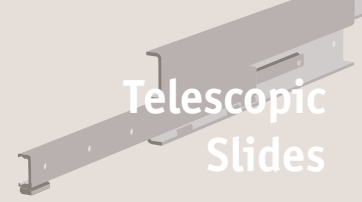
major axis, with a load spread uniformly along the inner beam.

Order No.	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$d_1$	$l_3$	$l_4$	$l_5$	$w_1$	$w_2$	Load/pair kg max.
L2042.0200	200	200	50	30	M8	-	-	50	30	25	100
L2042.0250	250	250	50	30	M8	-	50	50	30	25	105
L2042.0350	350	350	50	30	M8	-	150	50	30	25	115
L2042.0400	400	400	50	30	M8	-	200	50	30	25	120
L2042.0450	450	450	50	30	M8	-	250	50	30	25	125
L2042.0500	500	500	50	30	M8	-	300	50	30	25	130
L2042.0550	550	550	50	30	M8	150	-	50	30	25	135
L2042.0600	600	600	50	30	M8	175	-	50	30	25	140
L2042.0650	650	650	50	30	M8	200	-	50	30	25	135
L2042.0700	700	700	50	30	M8	225	-	50	30	25	130
L2042.0750	750	750	50	30	M8	250	-	50	30	25	125
L2042.0800	800	800	50	30	M8	275	-	50	30	25	120
L2042.0850	850	850	50	30	M8	300	-	50	30	25	115
L2042.0900	900	900	50	30	M8	325	-	50	30	25	110
L2042.0950	950	950	50	30	M8	350	-	50	30	25	105
L2042.1000	1000	1000	50	30	M8	375	-	50	30	25	100
L2042.1050	1050	1050	50	30	M8	400	-	50	30	25	95
L2042.1100	1100	1100	50	30	M8	425	-	50	30	25	90
L2042.1150	1150	1150	50	30	M8	450	-	50	30	25	85
L2042.1200	1200	1200	50	30	M8	475	-	50	30	25	80
L2042.1250	1250	1250	50	30	M8	500	-	50	30	25	75
L2042.1300	1300	1300	50	30	M8	525	-	50	30	25	70
L2042.1350	1350	1350	50	30	M8	550	-	50	30	25	65
L2042.1400	1400	1400	50	30	M8	575	-	50	30	25	60



# Aluminium Telescopic Slides

fully telescopic, size 70



**L2044**

TELESCOPIC SLIDES

**Material**

High quality grade aluminium (EN-AW-6082 T6, anodised), with steel ball bearings and cage.

yet robust telescopic slides (eg. aircraft seating).

Total length: = Installation length ( $l_1$ ) + extension length ( $l_2$ ).

major axis, with a load spread uniformly along the inner beam.

**Technical Notes**

Ideal for applications requiring lightweight

The maximum safe load is given for a fully extended pair of slides, mounted on the

Order No.	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$h_3$	$d_1$	$l_3$	$l_4$	$l_5$	$w_1$	$w_2$	Load/pair kg max.
L2044.0400	400	400	70	45	25	M8	-	200	50	32	30	200
L2044.0450	450	450	70	45	25	M8	-	250	50	32	30	205
L2044.0500	500	500	70	45	25	M8	-	300	50	32	30	210
L2044.0550	550	550	70	45	25	M8	-	350	50	32	30	215
L2044.0600	600	600	70	45	25	M8	-	400	50	32	30	220
L2044.0650	650	650	70	45	25	M8	200	-	50	32	30	225
L2044.0700	700	700	70	45	25	M8	225	-	50	32	30	250
L2044.0750	750	750	70	45	25	M8	250	-	50	32	30	265
L2044.0800	800	800	70	45	25	M8	275	-	50	32	30	280
L2044.0850	850	850	70	45	25	M8	300	-	50	32	30	290
L2044.0900	900	900	70	45	25	M8	325	-	50	32	30	300
L2044.0950	950	950	70	45	25	M8	350	-	50	32	30	310
L2044.1000	1000	1000	70	45	25	M8	375	-	50	32	30	320
L2044.1050	1050	1050	70	45	25	M8	400	-	50	32	30	330
L2044.1100	1100	1100	70	45	25	M8	425	-	50	32	30	330
L2044.1150	1150	1150	70	45	25	M8	450	-	50	32	30	330
L2044.1200	1200	1200	70	45	25	M8	475	-	50	32	30	320
L2044.1250	1250	1250	70	45	25	M8	500	-	50	32	30	310
L2044.1300	1300	1300	70	45	25	M8	525	-	50	32	30	300
L2044.1350	1350	1350	70	45	25	M8	550	-	50	32	30	290
L2044.1400	1400	1400	70	45	25	M8	575	-	50	32	30	280
L2044.1450	1450	1450	70	45	25	M8	600	-	50	32	30	270
L2044.1500	1500	1500	70	45	25	M8	625	-	50	32	30	260
L2044.1550	1550	1550	70	45	25	M8	650	-	50	32	30	250
L2044.1600	1600	1600	70	45	25	M8	675	-	50	32	30	240
L2044.1650	1650	1650	70	45	25	M8	700	-	50	32	30	230
L2044.1700	1700	1700	70	45	25	M8	650	-	100	32	30	220
L2044.1750	1750	1750	70	45	25	M8	675	-	100	32	30	210
L2044.1800	1800	1800	70	45	25	M8	700	-	100	32	30	200
L2044.1850	1850	1850	70	45	25	M8	725	-	100	32	30	190

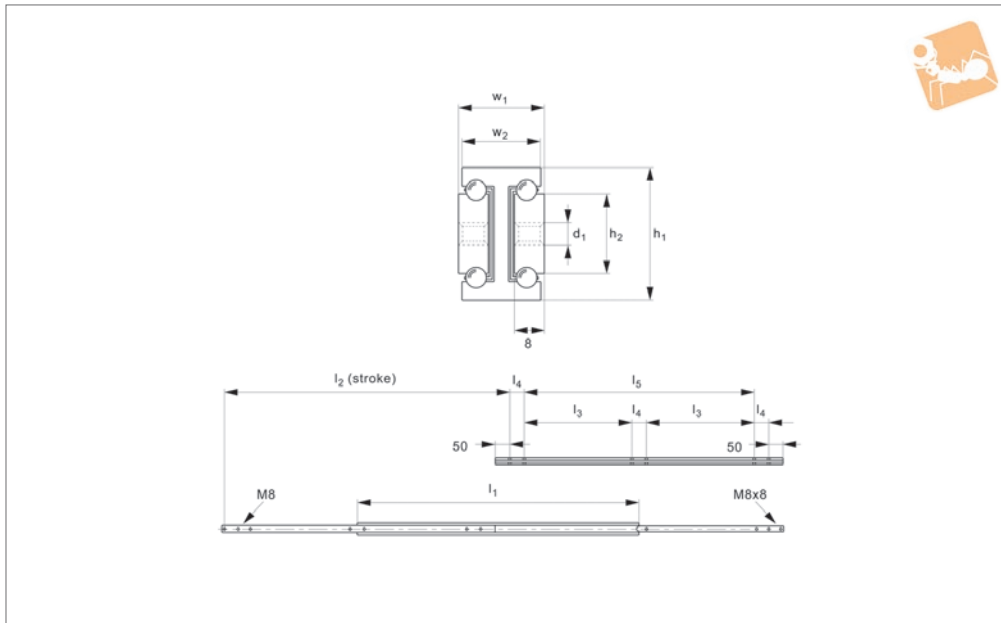
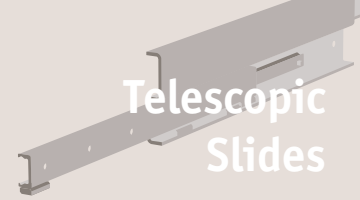


Order No.	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$h_3$	$d_1$	$l_3$	$l_4$	$l_5$	$w_1$	$w_2$	Load/pair kg max.
<b>L2044.1900</b>	1900	1900	70	45	25	M8	750	-	100	32	30	180
<b>L2044.1950</b>	1950	1950	70	45	25	M8	775	-	100	32	30	170
<b>L2044.2000</b>	2000	2000	70	45	25	M8	800	-	100	32	30	160



# Stainless AISI 316 Slides

fully telescopic, size 40



**L2051**

TELESCOPIC SLIDES

**Material**

Stainless steel (A4, AISI 316) - rail, balls and ball cage.

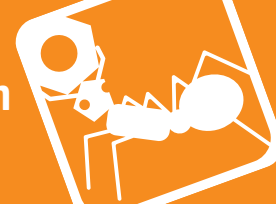
an evenly distributed load centred around the mid extension point of the slide. Other sizes on request.

**Technical Notes**

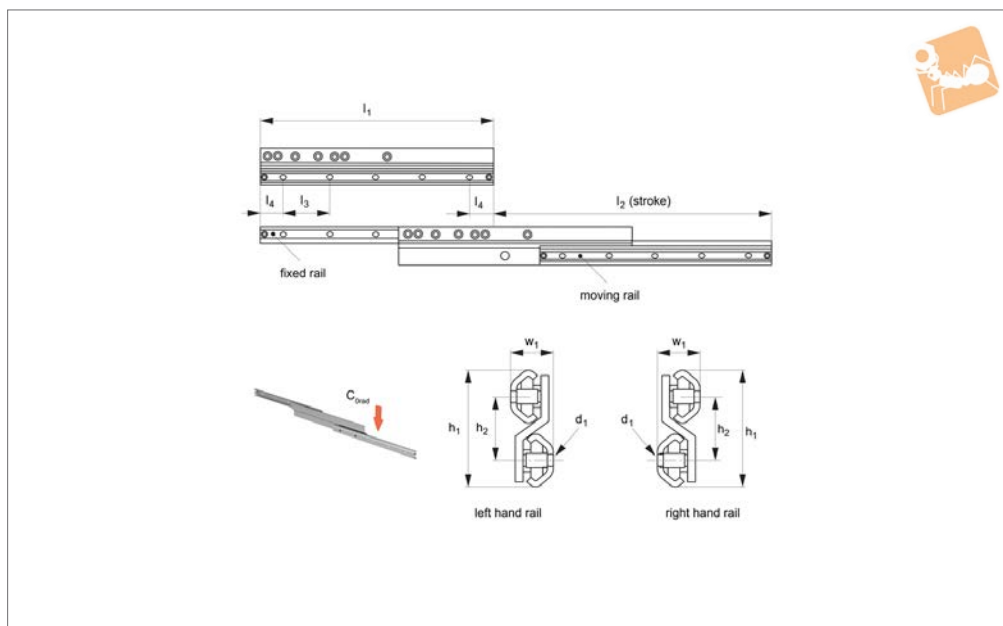
Full extension. Load ratings are based on

Ideal for applications requiring a high degree of corrosion resistance.

Order No.	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$d_1$	$l_3$	$l_4$	$l_5$	$w_1$	$w_2$	Load/pair kg max.
L2051.0200	200	200	40	25	M8	-	-	50	24	22	250
L2051.0250	250	250	40	25	M8	-	50	50	24	22	245
L2051.0300	300	300	40	25	M8	-	100	50	24	22	240
L2051.0350	350	350	40	25	M8	-	150	50	24	22	235
L2051.0400	400	400	40	25	M8	-	200	50	24	22	230
L2051.0450	450	450	40	25	M8	-	250	50	24	22	225
L2051.0500	500	500	40	25	M8	-	300	50	24	22	220
L2051.0550	550	550	40	25	M8	150	-	50	24	22	210
L2051.0600	600	600	40	25	M8	175	-	50	24	22	205
L2051.0650	650	650	40	25	M8	200	-	50	24	22	200
L2051.0700	700	700	40	25	M8	225	-	50	24	22	195
L2051.0750	750	750	40	25	M8	250	-	50	24	22	190
L2051.0800	800	800	40	25	M8	275	-	50	24	22	180
L2051.0850	850	850	40	25	M8	300	-	50	24	22	170
L2051.0900	900	900	40	25	M8	325	-	50	24	22	160
L2051.0950	950	950	40	25	M8	350	-	50	24	22	150
L2051.1000	1000	1000	40	25	M8	375	-	50	24	22	140



## L1989



### Material

Stainless steel (AISI 316L), bearings stainless steel (AISI 440). Bearings seals, type 2RS (splash-proof).

### Technical Notes

Full stainless steel rails for washdown,

pharmaceutical, medical and other applications.

Fixing screw - low height ISO 7380 or Torx screws on request.

Temperature range from  $-30^{\circ}$  to  $+100^{\circ}\text{C}$ .

### Tips

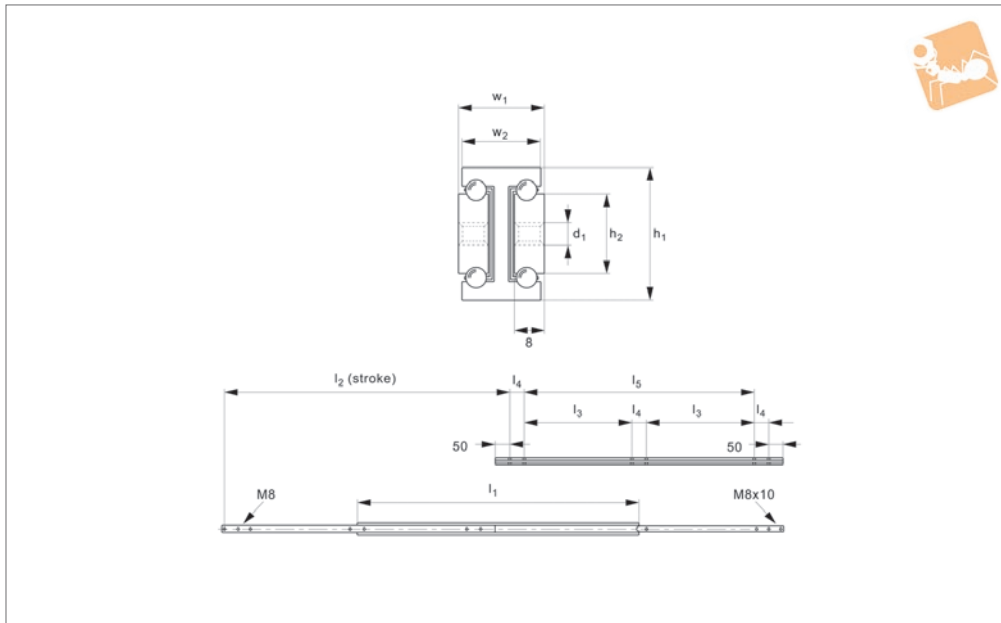
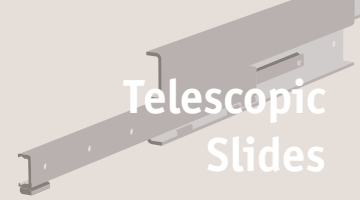
The bearings and wiper arrangement (rather than small ball bearings) provide a robust defence to dirt and other contaminants.

Order No.	Type	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$l_3$	$l_4$	$w_1$	For screws $d_1$	No. of fixing holes (2 rails)	Load (per rail) $C_{0,rad}$ N max.	Weight kg
L1989.30-0400L	Left	400	480	65,5	36	80	40	24,3	M5	10	150	1,36
L1989.30-0480L	Left	480	560	65,5	36	80	40	24,3	M5	12	200	1,63
L1989.30-0560L	Left	560	640	65,5	36	80	40	24,3	M5	14	240	1,90
L1989.30-0640L	Left	640	720	65,5	280	80	40	24,3	M5	16	280	2,18
L1989.30-0720L	Left	720	800	65,5	36	80	40	24,3	M5	18	320	2,45
L1989.30-0800L	Left	800	880	65,5	36	80	40	24,3	M5	20	360	2,72
L1989.30-0880L	Left	880	960	65,5	36	80	40	24,3	M5	22	350	2,99
L1989.30-0960L	Left	960	1040	65,5	36	80	40	24,3	M5	24	310	3,26
L1989.30-1040L	Left	1040	1120	65,5	36	80	40	24,3	M5	26	250	3,54
L1989.30-0400R	Right	400	480	65,5	36	80	40	24,3	M5	10	150	1,36
L1989.30-0480R	Right	480	560	65,5	36	80	40	24,3	M5	12	200	1,63
L1989.30-0560R	Right	560	640	65,5	36	80	40	24,3	M5	14	240	1,90
L1989.30-0640R	Right	640	720	65,5	36	80	40	24,3	M5	16	280	2,18
L1989.30-0720R	Right	720	800	65,5	36	80	40	24,3	M5	18	320	2,45
L1989.30-0800R	Right	800	880	65,5	36	80	40	24,3	M5	20	360	2,72
L1989.30-0880R	Right	880	960	65,5	36	80	40	24,3	M5	22	350	2,99
L1989.30-0960R	Right	960	1040	65,5	36	80	40	24,3	M5	24	310	3,26
L1989.30-1040R	Right	1040	1120	65,5	36	80	40	24,3	M5	26	250	3,54



# Stainless AISI 316 Slides

fully telescopic, size 50



**L2052**

TELESCOPIC SLIDES

**Material**

Stainless steel (A4, AISI 316) - rail, balls and ball cage.

an evenly distributed load centred around the mid extension point of the slide. Other sizes on request.

**Technical Notes**

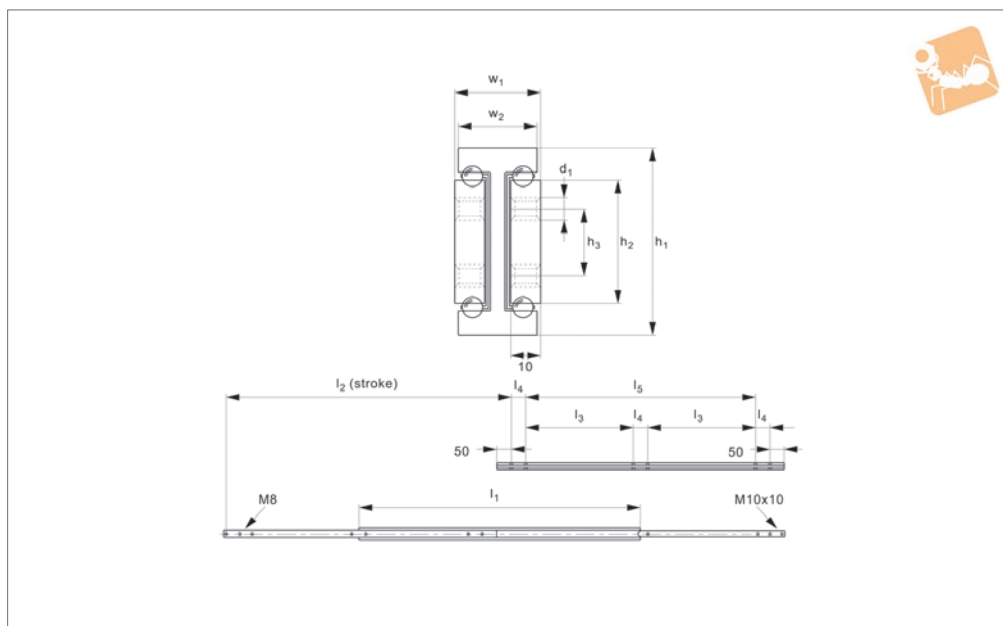
Full extension. Load ratings are based on

Ideal for applications requiring a high degree of corrosion resistance.

Order No.	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$d_1$	$l_3$	$l_4$	$l_5$	$w_1$	$w_2$	Load/pair kg max.
L2052.0200	200	200	50	30	M8	-	-	50	30	25	390
L2052.0250	250	250	50	30	M8	-	50	50	30	25	380
L2052.0350	350	350	50	30	M8	-	150	50	30	25	360
L2052.0400	400	400	50	30	M8	-	200	50	30	25	350
L2052.0450	450	450	50	30	M8	-	250	50	30	25	340
L2052.0500	500	500	50	30	M8	-	300	50	30	25	330
L2052.0550	550	550	50	30	M8	150	-	50	30	25	320
L2052.0600	600	600	50	30	M8	175	-	50	30	25	310
L2052.0650	650	650	50	30	M8	200	-	50	30	25	300
L2052.0700	700	700	50	30	M8	225	-	50	30	25	290
L2052.0750	750	750	50	30	M8	250	-	50	30	25	280
L2052.0800	800	800	50	30	M8	275	-	50	30	25	270
L2052.0850	850	850	50	30	M8	300	-	50	30	25	260
L2052.0900	900	900	50	30	M8	325	-	50	30	25	250
L2052.0950	950	950	50	30	M8	350	-	50	30	25	240
L2052.1000	1000	1000	50	30	M8	375	-	50	30	25	230
L2052.1050	1050	1050	50	30	M8	400	-	50	30	25	220
L2052.1100	1100	1100	50	30	M8	425	-	50	30	25	210
L2052.1150	1150	1150	50	30	M8	450	-	50	30	25	205
L2052.1200	1200	1200	50	30	M8	475	-	50	30	25	200
L2052.1250	1250	1250	50	30	M8	500	-	50	30	25	195
L2052.1300	1300	1300	50	30	M8	525	-	50	30	25	190
L2052.1350	1350	1350	50	30	M8	550	-	50	30	25	185
L2052.1400	1400	1400	50	30	M8	575	-	50	30	25	180



## L2054



### Material

Stainless steel (A4, AISI 316) - rail, balls and ball cage.

an evenly distributed load centred around the mid extension point of the slide. Other sizes on request.

### Technical Notes

Full extension. Load ratings are based on

Ideal for applications requiring a high degree of corrosion resistance.

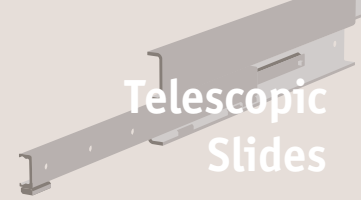
Order No.	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$h_3$	$d_1$	$l_3$	$l_4$	$l_5$	$w_1$	$w_2$	Load/pair kg max.
L2054.0400	400	400	70	45	25	M8	-	200	50	32	30	470
L2054.0450	450	450	70	45	25	M8	-	250	50	32	30	460
L2054.0500	500	500	70	45	25	M8	-	300	50	32	30	450
L2054.0550	550	550	70	45	25	M8	-	350	50	32	30	440
L2054.0600	600	600	70	45	25	M8	-	400	50	32	30	430
L2054.0650	650	650	70	45	25	M8	200	-	50	32	30	420
L2054.0700	700	700	70	45	25	M8	225	-	50	32	30	410
L2054.0750	750	750	70	45	25	M8	250	-	50	32	30	400
L2054.0800	800	800	70	45	25	M8	275	-	50	32	30	390
L2054.0850	850	850	70	45	25	M8	300	-	50	32	30	380
L2054.0900	900	900	70	45	25	M8	325	-	50	32	30	370
L2054.0950	950	950	70	45	25	M8	350	-	50	32	30	360
L2054.1000	1000	1000	70	45	25	M8	375	-	50	32	30	350
L2054.1050	1050	1050	70	45	25	M8	400	-	50	32	30	340
L2054.1100	1100	1100	70	45	25	M8	425	-	50	32	30	330
L2054.1150	1150	1150	70	45	25	M8	450	-	50	32	30	320
L2054.1200	1200	1200	70	45	25	M8	475	-	50	32	30	310
L2054.1250	1250	1250	70	45	25	M8	500	-	50	32	30	300
L2054.1300	1300	1300	70	45	25	M8	525	-	50	32	30	290
L2054.1350	1350	1350	70	45	25	M8	550	-	50	32	30	280
L2054.1400	1400	1400	70	45	25	M8	575	-	50	32	30	270
L2054.1450	1450	1450	70	45	25	M8	600	-	50	32	30	260
L2054.1500	1500	1500	70	45	25	M8	625	-	50	32	30	250
L2054.1550	1550	1550	70	45	25	M8	650	-	50	32	30	240
L2054.1600	1600	1600	70	45	25	M8	675	-	50	32	30	230
L2054.1650	1650	1650	70	45	25	M8	700	-	50	32	30	220
L2054.1700	1700	1700	70	45	25	M8	650	-	100	32	30	210
L2054.1750	1750	1750	70	45	25	M8	675	-	100	32	30	200
L2054.1800	1800	1800	70	45	25	M8	700	-	100	32	30	190
L2054.1850	1850	1850	70	45	25	M8	725	-	100	32	30	180
L2054.1900	1900	1900	70	45	25	M8	750	-	100	32	30	170





# Stainless AISI 316 Slides

fully telescopic, size 70

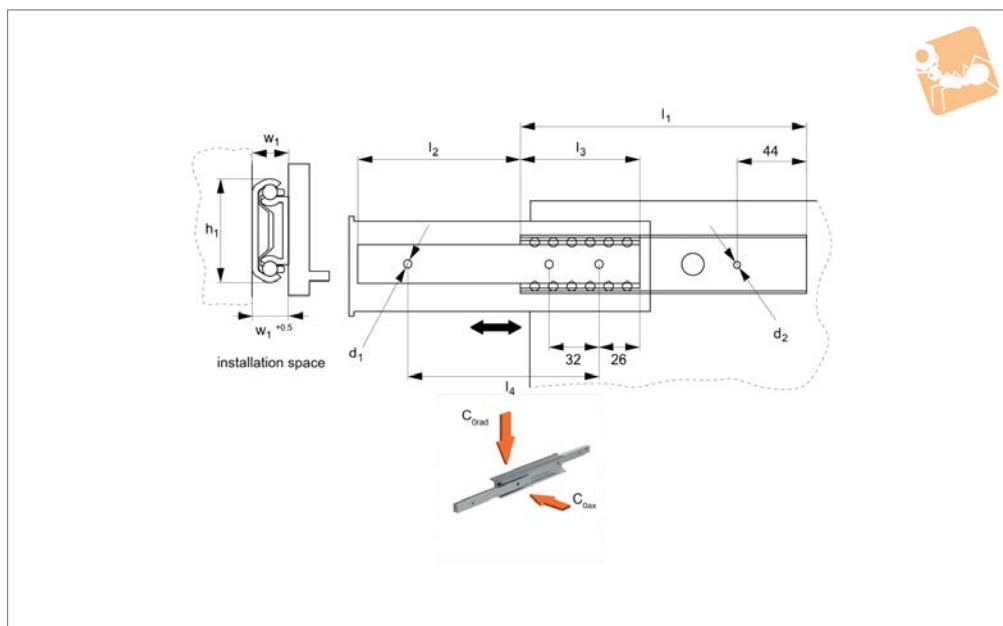


## Telescopic Slides

Order No.	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$h_3$	$d_1$	$l_3$	$l_4$	$l_5$	$w_1$	$w_2$	Load/pair kg max.
<b>L2054.1950</b>	1950	1950	70	45	25	M8	775	-	100	32	30	160
<b>L2054.2000</b>	2000	2000	70	45	25	M8	800	-	100	32	30	150



**L2000**



**Material**

Galvanized steel. Hardened steel balls with plastic ball cage.

slide and based on 100,000 cycles, uniform load distribution and use of all fixing holes to mount the slide. height 2,5 mm).

**Technical Notes**

$C_{0rad}$  is the load rating for a single drawer

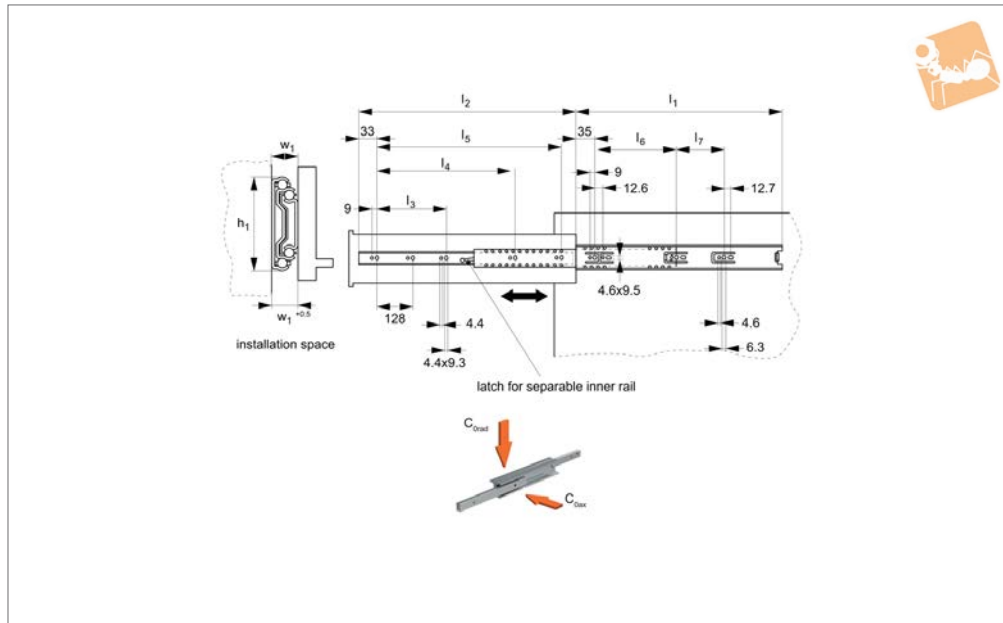
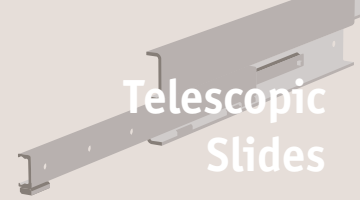
**Tips**

Fix with M5 countersunk screws (head

Order No.	$l_1$	$l_2$ stroke	$h_1$	$d_1$ for	$d_2$ for	$w_1$	$l_3$	$l_4$	Load (per rail) $C_{0ax}$ N max.	Load (per rail) $C_{0rad}$ N max.	Weight kg
L2000.0150	242	154	37.5	M5	M4	13.0	88	192	50	175	0.3
L2000.0230	317	229	37.5	M5	M4	13.0	88	256	50	175	0.4
L2000.0300	398	298	37.5	M5	M4	13.0	100	352	50	175	0.5
L2000.0370	473	373	37.5	M5	M4	13.0	100	416	50	175	0.6



# Fully Telescopic Drawer Slides



## L2010

TELESCOPIC SLIDES

### Material

Steel, zinc-plated. Hardened steel balls with steel and plastic ball cage.

### Technical Notes

With separable inner rail.

$C_{0rad}$  is the load rating for a single drawer slide and based on 50,000 cycles, uniform load distribution and use of all fixing holes to mount the slide.

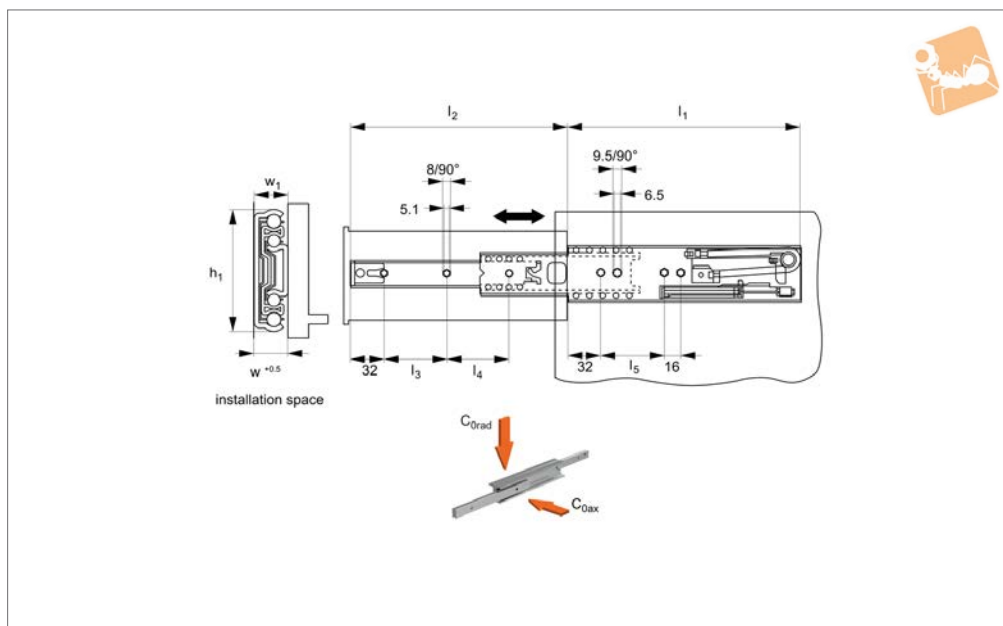
### Tips

Friction locked in closed position. Fix with M4 countersunk screws (head height 2,2 mm).

Order No.	$l_1$	$l_2$ stroke	$h_1$	$w_1$	$l_3$	$l_4$	$l_5$	$l_6$	$l_7$	Load (per rail) $C_{0ax}$ N max.	Load (per rail) $C_{0rad}$ N max.	Weight kg
L2010.0300	300	305	45.5	12.7	-	-	242	192	-	50	150	0.48
L2010.0400	400	406	45.5	12.7	-	256	342	160	96	50	175	0.64
L2010.0450	450	457	45.5	12.7	-	256	392	160	160	50	175	0.71
L2010.0500	500	508	45.5	12.7	-	352	442	224	128	50	175	0.79
L2010.0550	550	559	45.5	12.7	224	416	492	224	192	50	200	0.88
L2010.0600	600	610	45.5	12.7	224	416	542	224	224	50	200	0.95



**L2011**



**Material**

Galvanized steel. Hardened steel balls with zinc-plated cage.

**Technical Notes**

$C_{0rad}$  is the load rating for a single drawer slide and based on 100,000 cycles, uniform

load distribution and use of all fixing holes to mount the slide.

Flat installation not suited due to the soft-close damping system.

**Tips**

Soft close over last 50mm, for smooth full

retraction to closed position.

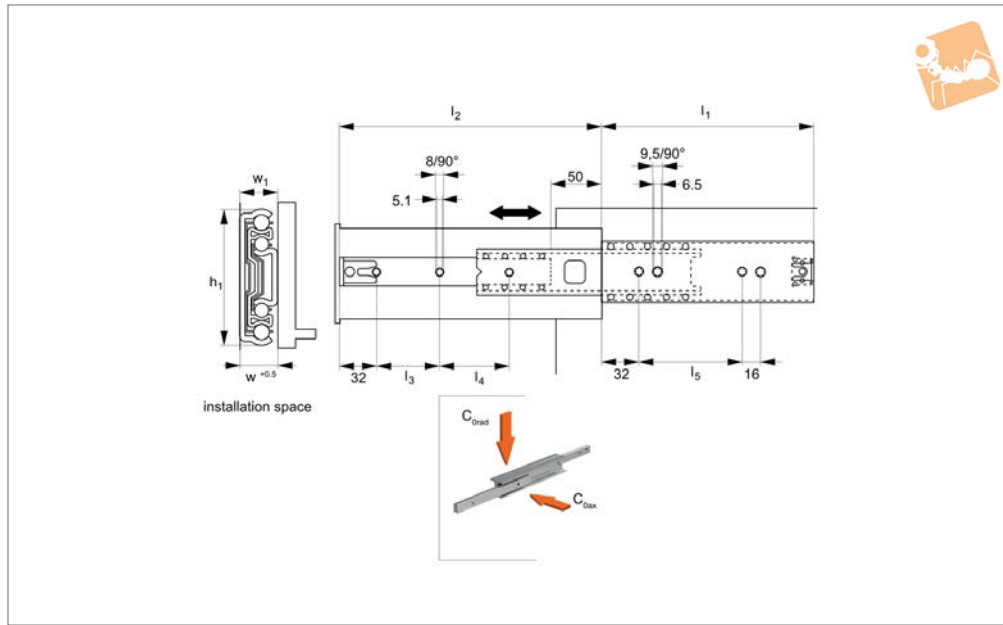
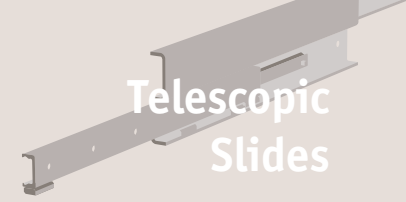
Fix inner rail with M4 countersunk screws (head height 2,2 mm).

Fix outer rail with M5 countersunk screws (head height 2,5 mm).

Order No.	$l_1$	$l_2$ stroke	$h_1$	$w_1$	$l_3$	$l_4$	$l_5$	Load (per rail) $C_{0rad}$ N max.	Weight kg
L2011.0400	400	434	57.5	16.0	128	128	224	200	1.10
L2011.0450	450	484	57.5	16.0	160	160	256	250	1.25
L2011.0500	500	534	57.5	16.0	160	192	320	275	1.40
L2011.0550	550	584	57.5	16.0	192	192	320	300	1.55



# Fully Telescopic Drawer Slide



**L2012**

TELESCOPIC SLIDES

### Material

Galvanized steel. Hardened steel balls with zinc-plated ball cage.

slide and based on 100,000 cycles, uniform load distribution and use of all fixing holes to mount the slide.

Fix inner rail with M4 countersunk screws (head height 2,2 mm).

Fix outer rail with M5 countersunk screws (head height 2,5 mm).

### Technical Notes

$C_{rad}$  is the load rating for a single drawer

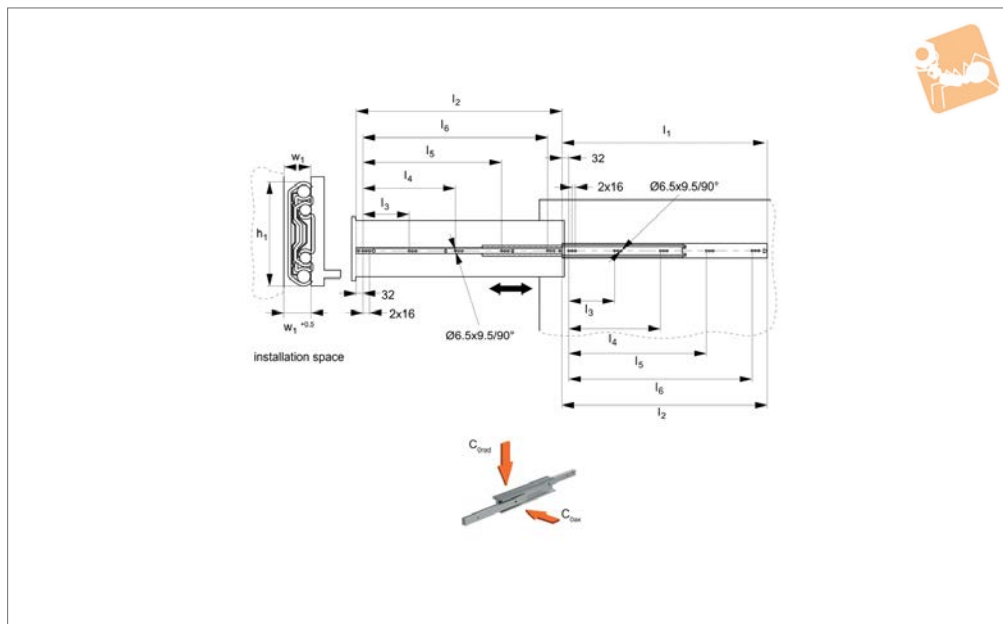
### Tips

Friction locked in closed position.

Order No.	$l_1$	$l_2$ stroke	$h_1$	$w_1$	$l_3$	$l_4$	$l_5$	Load (per rail) $C_{0\ ax}$ N max.	Load (per rail) $C_{0\ rad}$ N max.	Weight kg
L2012.0350	300	350	57.4	17.5	128	104	160	80	250	0.84
L2012.0400	350	400	57.4	17.5	128	152	256	80	300	0.98
L2012.0450	400	450	57.4	17.5	160	168	256	80	325	1.13
L2012.0500	450	500	57.4	17.5	160	224	256	80	350	1.27
L2012.0550	500	550	57.4	17.5	224	208	384	80	375	1.42
L2012.0600	550	600	57.4	17.5	224	256	384	80	375	1.57
L2012.0650	600	650	57.4	17.5	288	240	384	80	400	1.71
L2012.0700	650	700	57.4	17.5	288	288	384	80	400	1.86
L2012.0750	700	750	57.4	17.5	320	312	384	80	400	2.01
L2012.0800	750	800	57.4	17.5	320	360	384	80	400	2.16



**L2013**



**Material**

Galvanized steel. Hardened steel balls with zinc-plated cage.

slide and based on 100,000 cycles, uniform load distribution and use of all fixing holes to mount the slide.

Fix rail with M5 countersunk screws (head height 2,5 mm).

**Technical Notes**

$C_{0rad}$  is the load rating for a single drawer

**Tips**

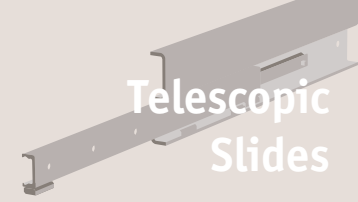
Friction locked in closed position.

Order No.	$l_1$	$l_2$ stroke	$h_1$	$w_1$	$l_3$	$l_4$	$l_5$	$l_6$	Load (per rail) $C_{0ax}$ N max.	Load (per rail) $C_{0rad}$ N max.	Weight kg
L2013.0400	400	400	70.0	18.0	-	-	-	288	150	525	1.55
L2013.0450	450	450	70.0	18.0	-	-	160	320	150	575	1.74
L2013.0500	500	500	70.0	18.0	-	-	192	384	150	650	1.94
L2013.0550	550	550	70.0	18.0	-	-	224	448	150	650	2.13
L2013.0600	600	600	70.0	18.0	-	-	224	448	150	650	2.32
L2013.0700	700	700	70.0	18.0	-	192	384	576	150	650	2.70
L2013.0800	800	800	70.0	18.0	-	224	448	672	150	600	3.10
L2013.1100	1100	1100	70.0	18.0	224	448	672	896	100	450	4.25

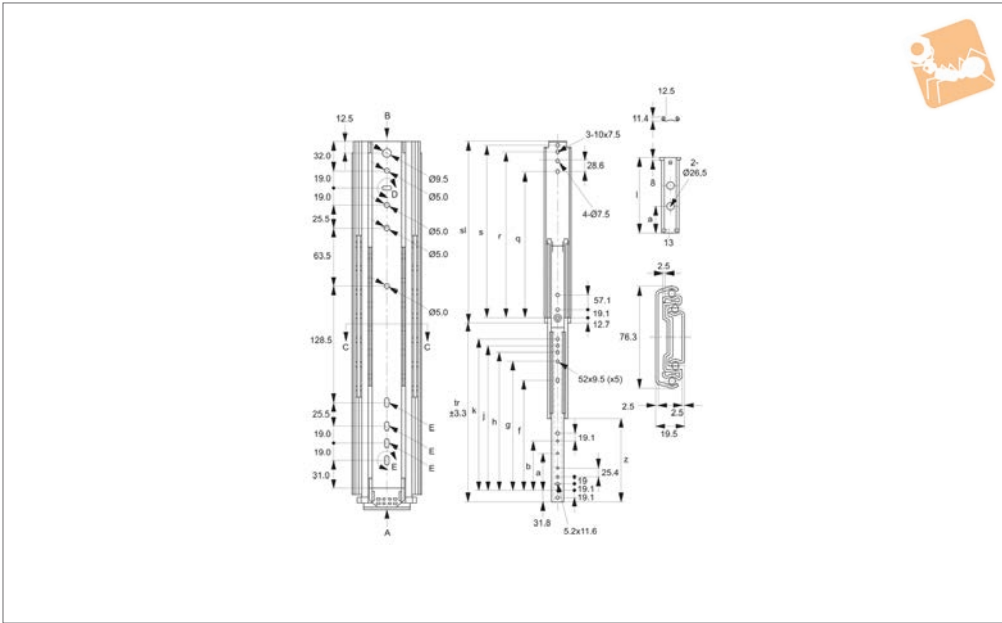


# Drawer Slide - Full Extension

200 Kg load per pair



**L2060**



TELESCOPIC SLIDES

**Material**

Cold rolled steel, zinc plated.

tested to 40,000 usage cycles.

holes. **Sold individually as single slides.**

**Technical Notes**

Positive stop. These slides have been

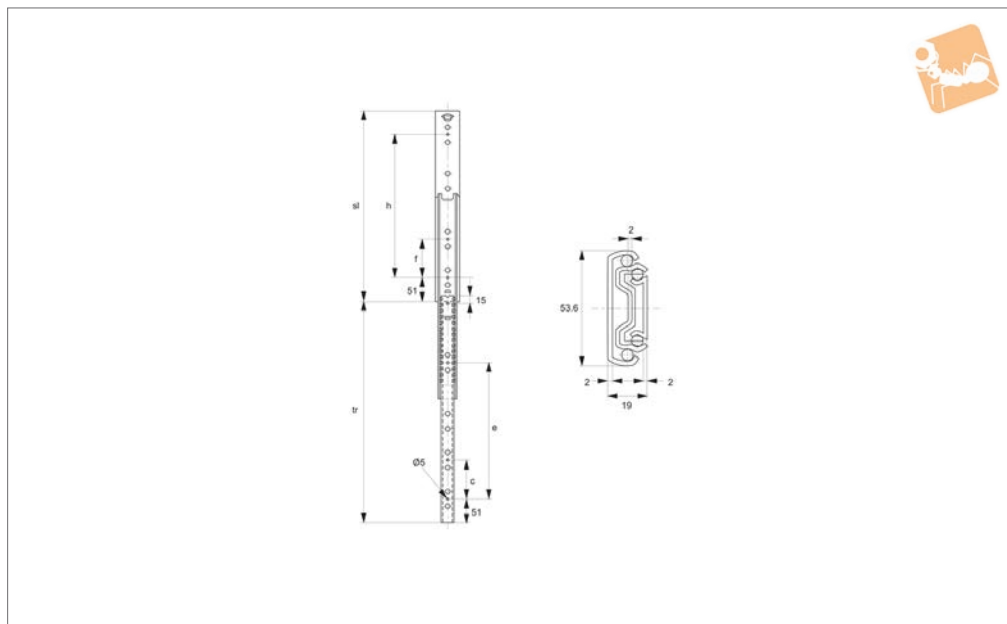
**Important Notes**

Load capacity is static load per pair, at the centre of the rails using all mounting

Order No.	Slide length sl	Slide travel tr ±3.3	a	b	f	g	h	j	k	q	R	s	Load/pair kg max.	Weight g
L2060.AC0025	254	254	-	-	-	103	128	147	166	152	209	228	200	1275
L2060.AC0030	304	304	-	-	-	153	179	198	217	203	260	279	200	1525
L2060.AC0035	355	355	-	-	-	204	230	249	268	254	311	330	200	1775
L2060.AC0040	406	406	127	-	-	255	280	299	319	304	361	381	200	2025
L2060.AC0047	457	457	127	-	246	306	331	350	369	355	412	431	200	2275
L2060.AC0050	508	508	127	190	296	357	382	401	420	406	463	482	200	2525
L2060.AC0055	558	558	127	190	347	407	433	452	471	457	514	533	200	2775
L2060.AC0060	608	608	127	190	398	458	484	503	522	508	565	584	200	3025
L2060.AC0066	660	660	127	190	449	509	534	553	573	558	615	635	200	3275
L2060.AC0071	711	711	127	190	500	560	585	604	623	609	666	685	200	3525



L2062



**Material**  
Cold rolled steel, zinc plated.

stop. These slides have been tested to 80,000 usage cycles.

centre of the rails using all mounting holes. **Sold individually as single slides.**

**Technical Notes**  
Hold-in detent when slide closed. Positive

**Important Notes**  
Load capacity is static load per pair, at the

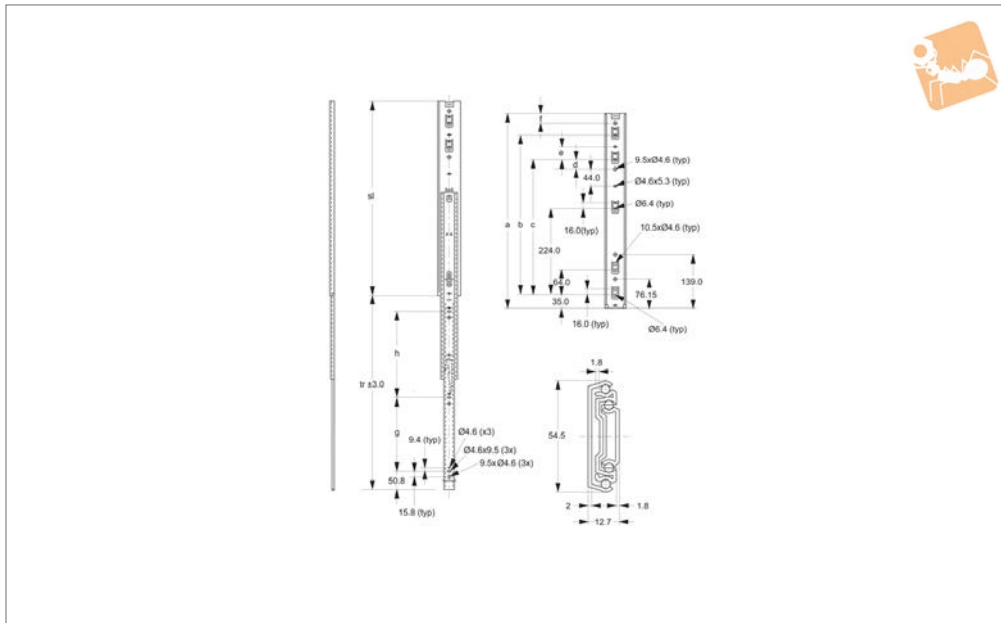
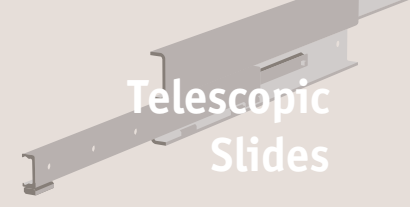
Order No.	Slide length sl	Slide travel tr	c	e	f	h	Load/pair kg max.	Weight g
L2062.AC0030	300	328	-	160	-	160	80	900
L2062.AC0035	350	375	-	224	-	224	80	1000
L2062.AC0040	400	425	128	256	128	256	80	1100
L2062.AC0045	450	475	160	320	160	320	80	1250
L2062.AC0050	500	525	192	352	160	352	80	1400
L2062.AC0055	550	574	192	416	224	416	80	1500
L2062.AC0060	600	610	256	480	256	480	80	1650
L2062.AC0065	650	674	256	512	256	512	80	1950
L2062.AC0070	700	720	288	576	288	574	80	2100





# Drawer Slide - Full Extension

60 Kg load per pair



**L2064**

TELESCOPIC SLIDES

**Material**

Cold rolled steel, zinc plated.

**Technical Notes**

Hold-in detent when slide closed. Positive stop. Rails can be disconnected via pres-

sing disconnect lever.

These slides have been tested to 80,000 usage cycles.

**Important Notes**

Load capacity is static load per pair, at the

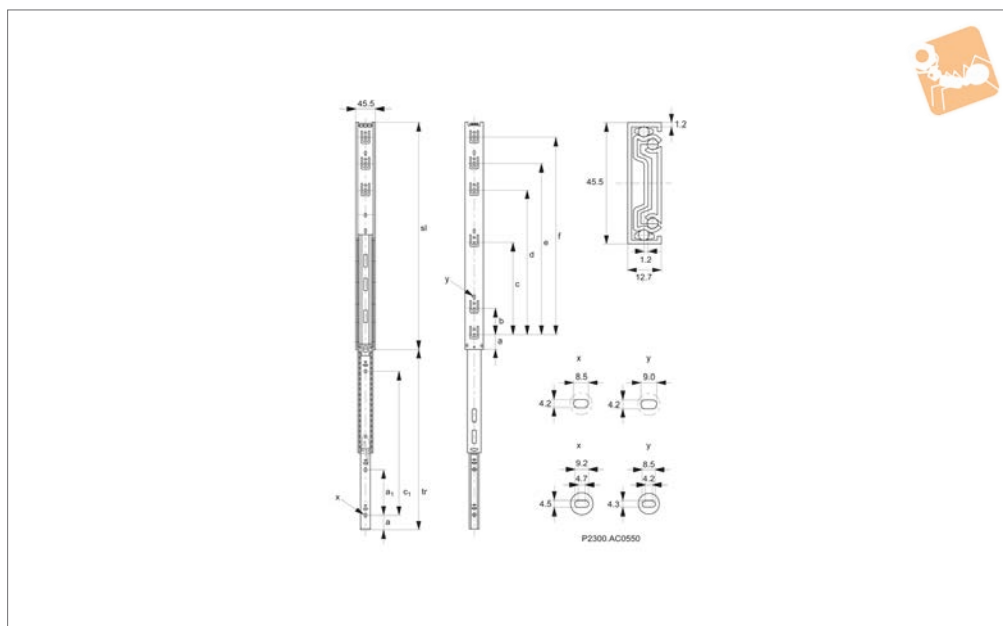
centre of the rails using all mounting holes. **Sold individually as single slides.**

Order No.	Slide length sl	Slide travel tr ±3.0	b	c	d	e	f	g	h	Load/pair kg max.	Weight g
L2064.AC0304	304.8	304.8	-	-	-	-	-	96.0	128.0	60	740
L2064.AC0355	335.6	335.6	-	-	-	-	46.6	128.0	128.0	60	860
L2064.AC0406	406.4	406.4	288.0	-	-	-	33.4	160.0	160.0	60	985
L2064.AC0457	457.2	457.2	352.0	-	25.45	32.15	-	160.0	192.0	60	1110
L2064.AC0508	508.0	508.0	352.0	416.0	25.45	32.15	-	192.0	224.0	60	1250
L2064.AC0558	558.8	558.8	352.0	416.0	25.45	32.15	57.8	224.0	256.0	60	1380
L2064.AC0609	609.6	609.6	352.0	480.0	25.45	32.15	44.8	256.0	256.0	60	1500
L2064.AC0660	660.4	660.4	352.0	544.0	25.45	32.15	-	256.0	320.0	60	1620
L2064.AC0711	711.2	711.2	352.0	544.0	25.45	32.15	82.2	256.0	352.0	60	1750





L2066



Material

Cold rolled steel, zinc plated.

Technical Notes

Hold-in detent when slide closed. Positive stop. Rails can be disconnected via pres-

sing disconnect lever.

These slides have been tested to 60,000 usage cycles.

Important Notes

Load capacity is static load per pair, at the

centre of the rails using all mounting

holes. **Sold individually as single slides.**

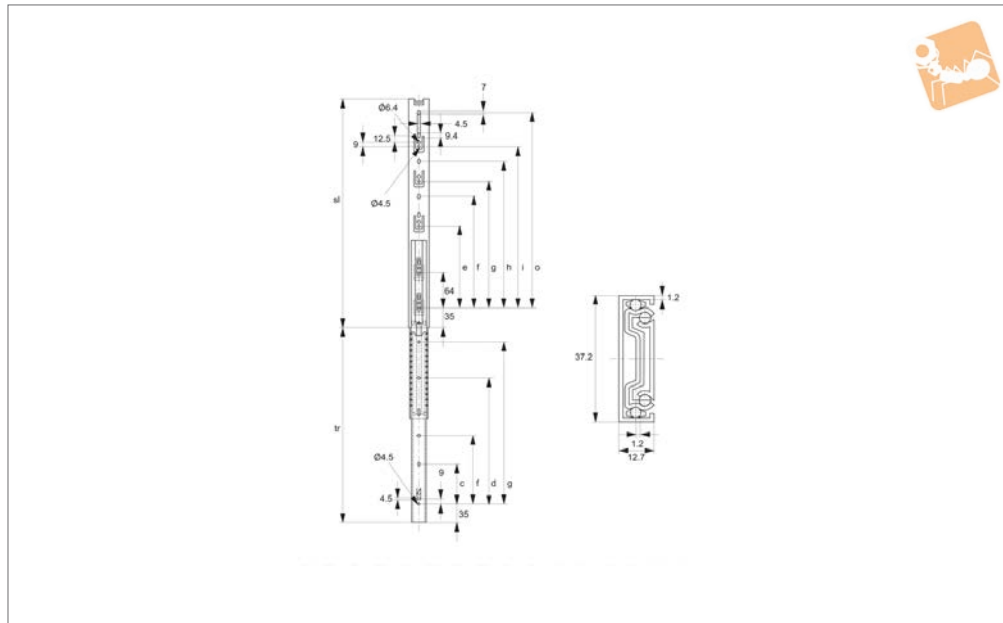
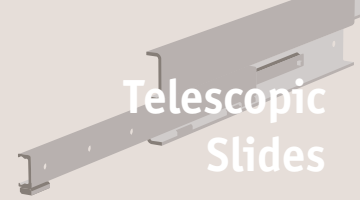
Order No.	Slide length sl	Slide travel tr	a	b	b <sub>1</sub>	c	c <sub>1</sub>	d	e	f	Load/pair kg max.	Weight g
L2066.AC0250	250	250	35	160	160	-	-	-	-	-	45	390
L2066.AC0300	300	300	35	64	96	224	192	-	-	-	45	470
L2066.AC0350	350	350	35	64	128	224	256	-	-	-	45	555
L2066.AC0400	400	400	35	64	128	224	320	288	-	-	45	635
L2066.AC0450	450	450	35	64	160	224	352	352	-	-	45	745
L2066.AC0500	500	500	35	64	192	224	416	352	416	-	45	795
L2066.AC0550	550	550	35	64	224	224	448	352	416	-	45	880
L2066.AC0600	600	600	35	64	224	224	512	352	480	-	45	970
L2066.AC0650	650	650	35	64	256	224	544	352	512	-	45	1050
L2066.AC0700	700	700	35	64	288	224	608	352	480	608	45	1130





# Drawer Slide - Full Extension

30 Kg load per pair



**L2068**

TELESCOPIC SLIDES

**Material**

Cold rolled steel, zinc plated.

**Technical Notes**

Hold-in detent when slide closed. Positive stop. Rails can be disconnected via pres-

sing disconnect lever.

These slides have been tested to 60,000 usage cycles.

**Important Notes**

Load capacity is static load per pair, at the

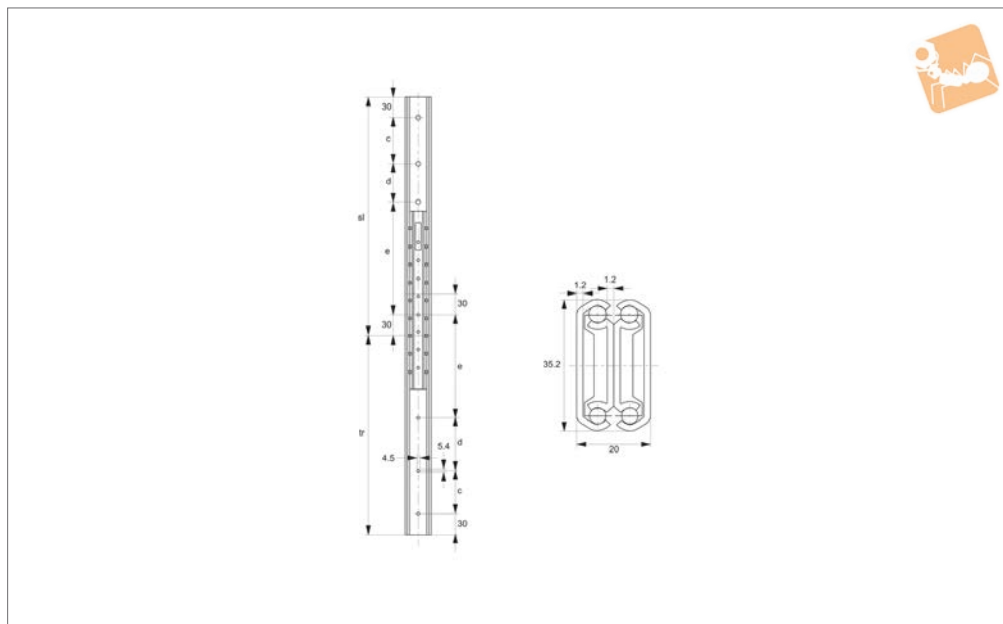
centre of the rails using all mounting holes. **Sold individually as single slides.**

Order No.	Slide length sl	Slide travel tr	c	d	e	f	g	h	i	o	Load/pair kg max.	Weight g
L2068.AC0250	250	254	160	-	-	-	-	-	160	-	30	300
L2068.AC0300	300	305	96	192	160	-	-	-	224	-	30	400
L2068.AC0350	350	356	128	256	150	-	-	-	224	-	30	450
L2068.AC0400	400	406	128	320	150	-	-	224	288	-	30	500
L2068.AC0450	450	457	160	352	150	-	-	224	352	-	30	510
L2068.AC0500	500	508	192	416	160	224	288	352	416	-	30	650
L2068.AC0550	550	552	224	448	160	224	288	352	416	480	30	700





**L2070**



**Material**  
Cold rolled steel, zinc plated.

These slides have been tested to 60,000 usage cycles.

centre of the rails using all mounting holes. **Sold individually as single slides.**

**Technical Notes**  
Positive stop.

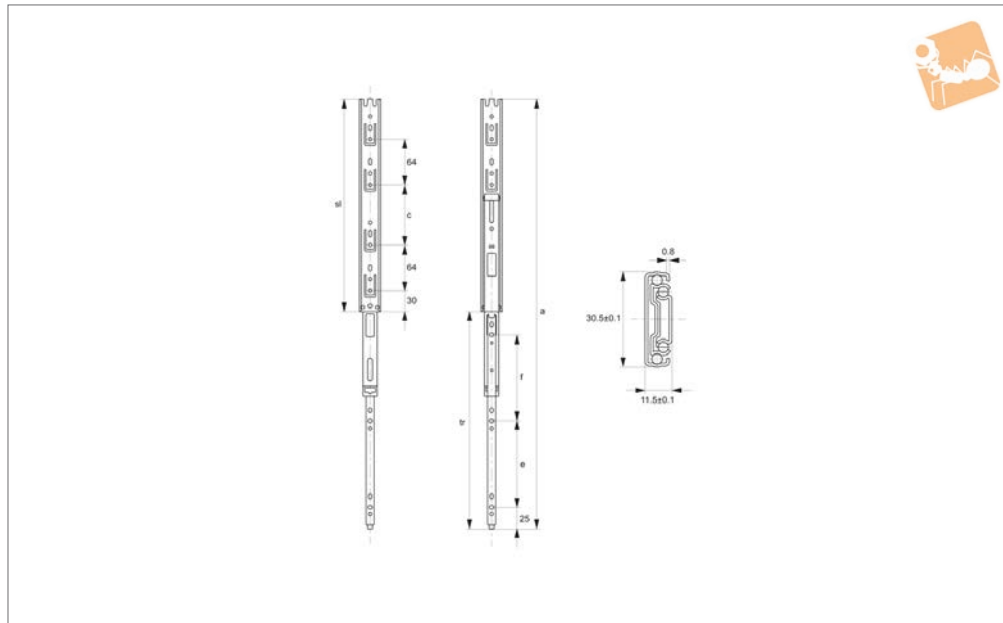
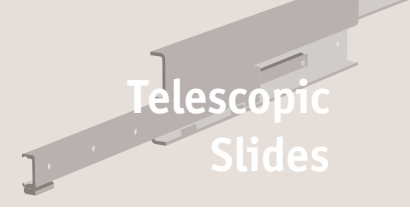
**Important Notes**  
Load capacity is static load per pair, at the

Order No.	Slide length sl	Slide travel tr	c	d	e	Load/pair kg max.	Weight g
L2070.AC0300	300	300	98	49	98	60	600
L2070.AC0350	350	350	98	98	98	60	700
L2070.AC0400	400	400	127	84	126	60	800
L2070.AC0450	450	450	127	135	127	60	900
L2070.AC0500	500	500	160	120	160	60	1000



# Drawer Slide - Full Extension

Lever disconnect - 20 Kg load per pair



**L2072**

TELESCOPIC SLIDES

**Material**

Cold rolled steel. Finishing: black

**Technical Notes**

Hold-in detent when slide closed. Positive stop. Rails can be disconnected via pres-

sing disconnect lever.

These slides have been tested to 60,000 usage cycles.

**Important Notes**

Load capacity is static load per pair, at the

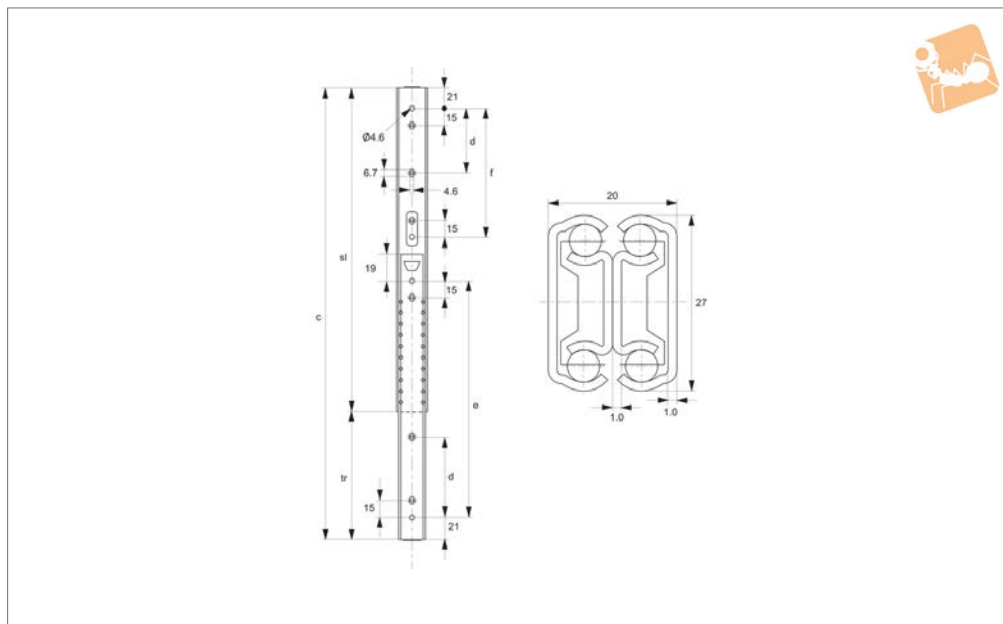
centre of the rails using all mounting holes. **Sold individually as single slides.**

Order No.	Slide length sl	Slide travel tr	a	c	e	f	Load/pair kg max.	Weight g
L2072.AC0200	200	200	400	71	71	71	20	257
L2072.AC0250	250	250	500	99	96	96	20	315
L2072.AC0300	300	300	600	85	121	121	20	370
L2072.AC0350	350	350	700	135	146	146	20	425
L2072.AC0400	400	400	800	185	171	171	20	480
L2072.AC0450	450	450	900	235	191	191	20	532





### L2080



#### Material

Stainless steel AISI 304. Bright finish.

These slides have been tested to 60,000 usage cycles.

centre of the rails using all mounting holes. **Sold individually as single slides.**

#### Technical Notes

Positive stop.

#### Important Notes

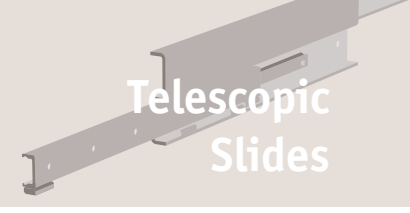
Load capacity is static load per pair, at the

Order No.	Slide length sl	Slide travel tr	c	d	e	f	Load/pair kg max.	Weight g
L2080.AC0200	200	210	415	-	-	-	30	280
L2080.AC0250	250	260	515	85	210	-	30	345
L2080.AC0300	300	310	615	160	260	260	30	415
L2080.AC0350	350	360	715	210	310	310	30	500
L2080.AC0400	400	410	815	180	360	360	30	590
L2080.AC0450	450	460	915	230	410	410	30	645
L2080.AC0500	500	510	1015	280	460	460	30	705
L2080.AC0550	550	560	1100	230	352	352	30	740

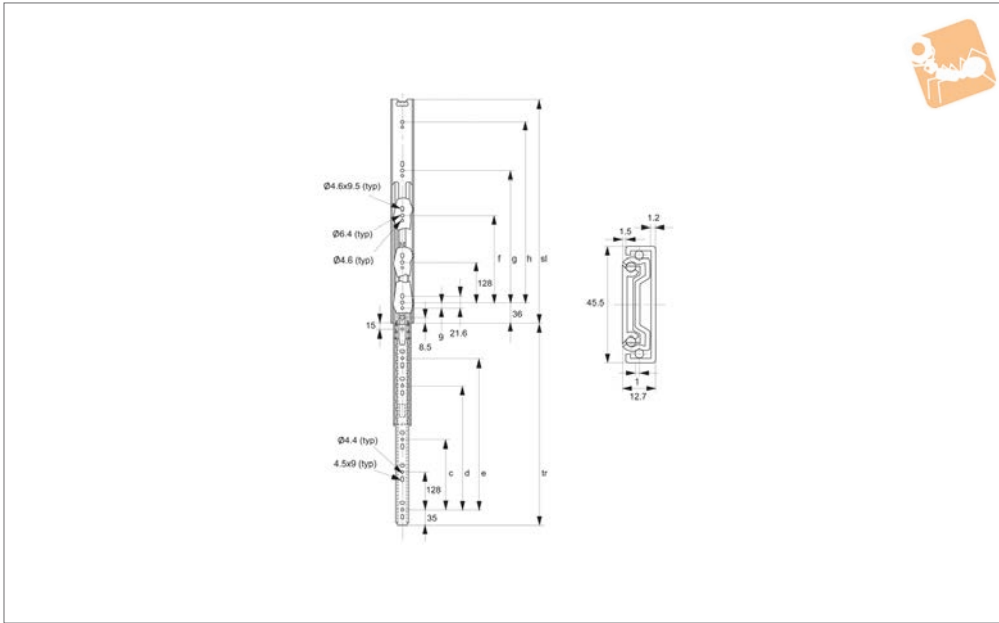


# Drawer Slide - Full Extension

lever disconnect - 45 Kg load per pair - **stainless**



## Telescopic Slides



**L2082**

TELESCOPIC SLIDES

**Material**

Stainless steel AISI 304. Bright finish.

**Technical Notes**

Hold-in detent when slide closed. Positive stop. Rails can be disconnected via pres-

sing disconnect lever.

These slides have been tested to 60,000 usage cycles.

**Important Notes**

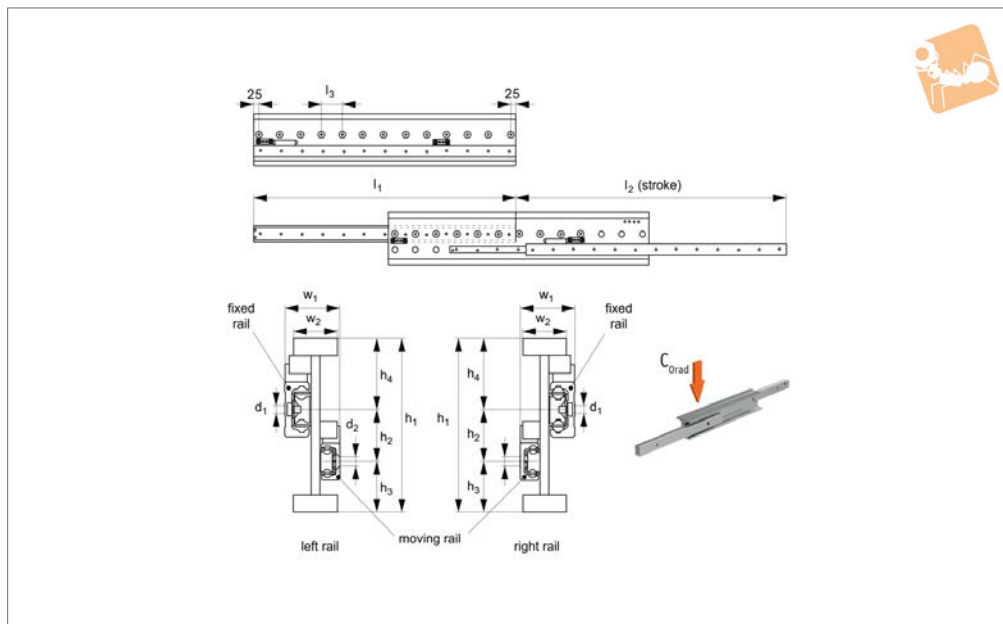
Load capacity is static load per pair, at the

centre of the rails using all mounting holes. **Sold individually as single slides.**

Order No.	Slide length sl	Slide travel tr	c	d	e	f	g	h	Load/pair kg max.	Weight g
L2082.AC0300	300	312	128	-	-	-	-	-	45	500
L2082.AC0350	350	362	128	-	-	-	-	-	45	590
L2082.AC0400	400	412	128	224	-	-	-	-	45	670
L2082.AC0450	450	462	128	224	-	-	-	-	45	775
L2082.AC0500	500	512	128	224	320	-	320	-	45	830
L2082.AC0550	550	562	128	224	352	-	352	-	45	910
L2082.AC0600	600	612	128	224	352	416	352	-	45	990
L2082.AC0700	700	705	320	514	630	255	450	630	45	1100



## L1996



### Material

Cold drawn bearing steel, raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO 2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are ultra-heavy load capacity. They

can support heavy loads with continuous movements 24 hours per day, 7 days a week - even with vibration and high stroke frequency.

Weight: 43 Kg/metre.

$C_{0rad}$  is the load rating for a single telescopic slide.

Moving rail must be lower rail (unless technical department consulted).

### Tips

$d_1$  for low head socket cap screws (DIN 7984),  $d_2$  for countersunk head screws (DIN 7991).

Double direction stroke versions can be provided on request.

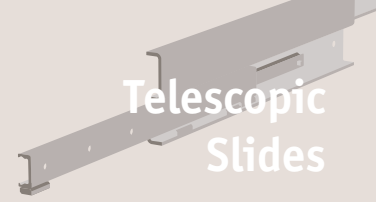
Order No.	Type	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$h_3$	$h_4$	$l_3$	$w_1$	$w_2$	$d_1$ for	$d_2$ for	Fixed part acc. holes /total	Moving part acc. holes /total	Load (per rail) $C_{0rad}$ N max.
L1996.63-1010R	Right	1010	1051	200	60	58,5	81,5	80	63	50	M8	M8	10/13	10/13	8052
L1996.63-1090R	Right	1090	1141	200	60	58,5	81,5	80	63	50	M8	M8	10/14	11/14	8748
L1996.63-1170R	Right	1170	1216	200	60	58,5	81,5	80	63	50	M8	M8	11/15	11/15	9584
L1996.63-1250R	Right	1250	1291	200	60	58,5	81,5	80	63	50	M8	M8	12/16	13/16	10424
L1996.63-1330R	Right	1330	1381	200	60	58,5	81,5	80	63	50	M8	M8	13/17	13/17	11119
L1996.63-1410R	Right	1410	1456	200	60	58,5	81,5	80	63	50	M8	M8	13/18	14/18	11960
L1996.63-1490R	Right	1490	1531	200	60	58,5	81,5	80	63	50	M8	M8	14/19	14/19	12804
L1996.63-1570R	Right	1570	1621	200	60	58,5	81,5	80	63	50	M8	M8	14/20	15/20	13498
L1996.63-1650R	Right	1650	1696	200	60	58,5	81,5	80	63	50	M8	M8	16/21	16/21	14343
L1996.63-1730R	Right	1730	1771	200	60	58,5	81,5	80	63	50	M8	M8	16/22	17/22	15190
L1996.63-1810R	Right	1810	1861	200	60	58,5	81,5	80	63	50	M8	M8	17/23	17/23	15883
L1996.63-1890R	Right	1890	1936	200	60	58,5	81,5	80	63	50	M8	M8	18/24	19/24	16730
L1996.63-1970R	Right	1970	2026	200	60	58,5	81,5	80	63	50	M8	M8	19/25	19/25	17423
L1996.63-2050R	Right	2050	2101	200	60	58,5	81,5	80	63	50	M8	M8	19/26	20/26	18271
L1996.63-2130R	Right	2130	2176	200	60	58,5	81,5	80	63	50	M8	M8	20/27	20/27	19120
L1996.63-2210R	Right	2210	2266	200	60	58,5	81,5	80	63	50	M8	M8	21/28	22/28	19812
L1996.63-1010L	Left	1010	1051	200	60	58,5	81,5	80	63	50	M8	M8	10/13	10/13	8052
L1996.63-1090L	Left	1090	1141	200	60	58,5	81,5	80	63	50	M8	M8	10/14	11/14	8748
L1996.63-1170L	Left	1170	1216	200	60	58,5	81,5	80	63	50	M8	M8	11/15	11/15	9584
L1996.63-1250L	Left	1250	1291	200	60	58,5	81,5	80	63	50	M8	M8	12/16	13/16	10424
L1996.63-1330L	Left	1330	1381	200	60	58,5	81,5	80	63	50	M8	M8	13/17	13/17	11119
L1996.63-1410L	Left	1410	1456	200	60	58,5	81,5	80	63	50	M8	M8	13/18	14/18	11960
L1996.63-1490L	Left	1490	1531	200	60	58,5	81,5	80	63	50	M8	M8	14/19	14/19	12804
L1996.63-1570L	Left	1570	1621	200	60	58,5	81,5	80	63	50	M8	M8	14/20	15/20	13498
L1996.63-1650L	Left	1650	1696	200	60	58,5	81,5	80	63	50	M8	M8	16/21	16/21	14343
L1996.63-1730L	Left	1730	1771	200	60	58,5	81,5	80	63	50	M8	M8	16/22	17/22	15190





# Fully Telescopic Slides

ultra heavy-duty



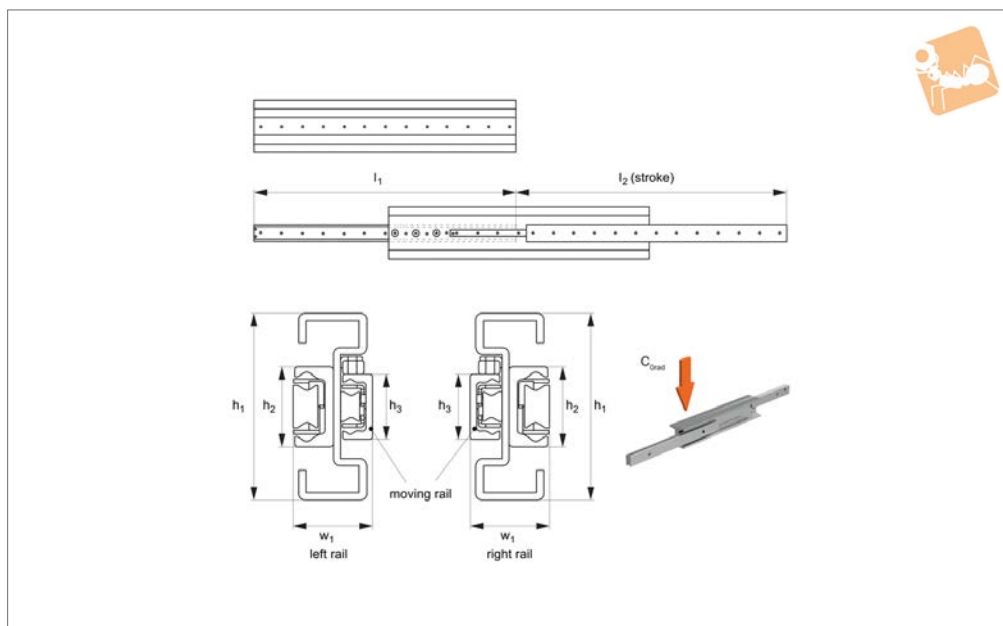
## Telescopic Slides

Order No.	Type	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$h_3$	$h_4$	$l_3$	$w_1$	$w_2$	$d_1$ for	$d_2$ for	Fixed part acc. holes /total	Moving part acc. holes /total	Load (per rail) $C_{0rad}$ N max.
<b>L1996.63-1810L</b>	Left	1810	1861	200	60	58,5	81,5	80	63	50	M8	M8	17/23	17/23	15883
<b>L1996.63-1890L</b>	Left	1890	1936	200	60	58,5	81,5	80	63	50	M8	M8	18/24	19/24	16730
<b>L1996.63-1970L</b>	Left	1970	2026	200	60	58,5	81,5	80	63	50	M8	M8	19/25	19/25	17423
<b>L1996.63-2050L</b>	Left	2050	2101	200	60	58,5	81,5	80	63	50	M8	M8	19/26	20/26	18271
<b>L1996.63-2130L</b>	Left	2130	2176	200	60	58,5	81,5	80	63	50	M8	M8	20/27	20/27	19120
<b>L1996.63-2210L</b>	Left	2210	2266	200	60	58,5	81,5	80	63	50	M8	M8	21/28	22/28	19812

TELESCOPIC SLIDES



## L1995



### Material

Cold drawn bearing steel, raceways hardened to 60 HRC. Balls - hardened steel.

Zinc coating to ISO 2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are ultra heavy load capacity. They

can support heavy loads with continuous movements 24 hours per day, 7 days a week - even with vibration and high stroke frequency.

Optimal balance between high performance and light-weight.

$C_{0rad}$  is the load rating for a single telescopic slide.

Moving rail must be lower rail (unless technical department consulted).

Technical department consulted).

### Tips

Moving element smaller than the fixed one.

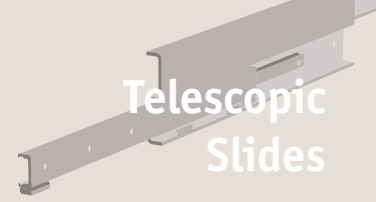
These are handed rails - ie left and right hands to be specified.

Order No.	Type	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$h_3$	$w_1$	Load (per rail) $C_{0rad}$ N max.
L1995.43-0530R	Right	530	552	100	43	35	43	2389
L1995.43-0610R	Right	610	620	100	43	35	43	2960
L1995.43-0690R	Right	690	726	100	43	35	43	3091
L1995.43-0770R	Right	770	793	100	43	35	43	3662
L1995.43-0850R	Right	850	860	100	43	35	43	4242
L1995.43-0930R	Right	930	966	100	43	35	43	4365
L1995.43-1010R	Right	1010	1033	100	43	35	43	4942
L1995.43-1090R	Right	1090	1100	100	43	35	43	5524
L1995.43-1170R	Right	1170	1206	100	43	35	43	5144
L1995.43-1250R	Right	1250	1273	100	43	35	43	4930
L1995.43-1330R	Right	1330	1379	100	43	35	43	4474
L1995.43-1440R	Right	1446	1446	100	43	35	43	4311
L1995.43-1490R	Right	1490	1513	100	43	35	43	4159
L1995.43-1570R	Right	1570	1607	100	43	35	43	4886
L1995.43-1650R	Right	1650	1686	100	43	35	43	3710
L1995.43-1730R	Right	1730	1753	100	43	35	43	3597
L1995.43-1810R	Right	1810	1847	100	43	35	43	3391
L1995.43-1890R	Right	1890	1926	100	43	35	43	3256
L1995.43-1970R	Right	1790	2020	100	43	35	43	3086
L1995.43-0530L	Left	530	552	100	43	35	43	2389
L1995.43-0610L	Left	610	620	100	43	35	43	2960
L1995.43-0690L	Left	690	726	100	43	35	43	3091
L1995.43-0770L	Left	770	793	100	43	35	43	3662
L1995.43-0850L	Left	850	860	100	43	35	43	4242
L1995.43-0930L	Left	930	966	100	43	35	43	4365
L1995.43-1010L	Left	1010	1033	100	43	35	43	4942
L1995.43-1090L	Left	1090	1100	100	43	35	43	5524



# Fully Telescopic Slides

ultra heavy-duty



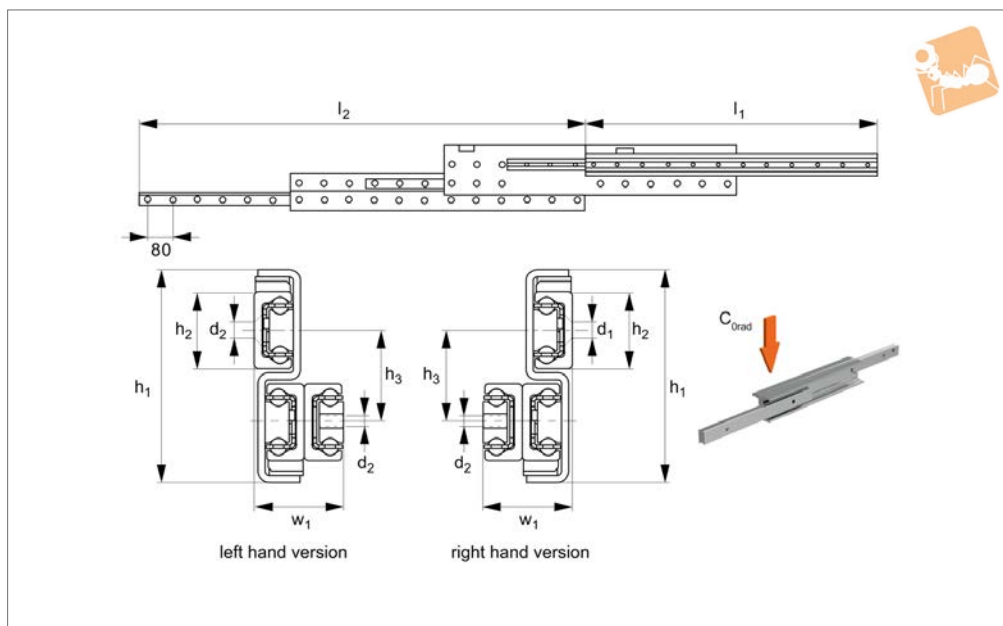
## Telescopic Slides

Order No.	Type	$l_1$	$l_2$ stroke	$h_1$	$h_2$	$h_3$	$w_1$	Load (per rail) $C_{0\ rad}$ N max.
L1995.43-1170L	Left	1170	1206	100	43	35	43	5144
L1995.43-1250L	Left	1250	1273	100	43	35	43	4930
L1995.43-1330L	Left	1330	1379	100	43	35	43	4474
L1995.43-1440L	Left	1446	1446	100	43	35	43	4311
L1995.43-1490L	Left	1490	1513	100	43	35	43	4159
L1995.43-1570L	Left	1570	1607	100	43	35	43	4886
L1995.43-1650L	Left	1650	1686	100	43	35	43	3710
L1995.43-1730L	Left	1730	1753	100	43	35	43	3597
L1995.43-1810L	Left	1810	1847	100	43	35	43	3391
L1995.43-1890L	Left	1890	1926	100	43	35	43	3256
L1995.43-1970L	Left	1790	2020	100	43	35	43	3086

TELESCOPIC SLIDES



## L1997



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.  
Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are very heavy duty telescopic rails with strokes of over 150% of closed length.  $C_{0rad}$  is the load rating for a single telescopic slide.  
Moving rail must be lower rail (unless technical department consulted).

### Tips

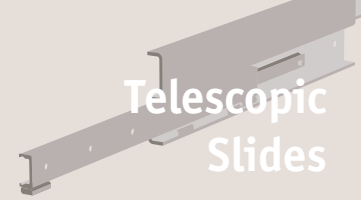
These are handed rails - i.e. left and right hands to be specified.

Order No.	Type	$l_1$	$l_2$	$h_1$	$w_1$	$h_2$	$h_3$	$d_1$	$d_2$	Load (per rail) $C_{0rad}$ N max.
L1997.43-0530R	Right	530	834	120	50	43	52	8.5	M8	1291
L1997.43-0610R	Right	610	939	120	50	43	52	8.5	M8	1632
L1997.43-0690R	Right	690	1089	120	50	43	52	8.5	M8	1735
L1997.43-0770R	Right	770	1194	120	50	43	52	8.5	M8	2077
L1997.43-0850R	Right	850	1299	120	50	43	52	8.5	M8	2426
L1997.43-0930R	Right	930	1449	120	50	43	52	8.5	M8	2506
L1997.43-1010R	Right	1010	1554	120	50	43	52	8.5	M8	2364
L1997.43-1090R	Right	1090	1659	120	50	43	52	8.5	M8	2238
L1997.43-1170R	Right	1170	1809	120	50	43	52	8.5	M8	2022
L1997.43-1250R	Right	1250	1914	120	50	43	52	8.5	M8	1928
L1997.43-1330R	Right	1330	2064	120	50	43	52	8.5	M8	1766
L1997.43-1410R	Right	1410	2169	120	50	43	52	8.5	M8	1694
L1997.43-1490R	Right	1490	2274	120	50	43	52	8.5	M8	1628
L1997.43-1570R	Right	1570	2409	120	50	43	52	8.5	M8	1567
L1997.43-1650R	Right	1650	2529	120	50	43	52	8.5	M8	1458
L1997.43-1730R	Right	1730	2634	120	50	43	52	8.5	M8	1409
L1997.43-1810R	Right	1810	2784	120	50	43	52	8.5	M8	1320
L1997.43-1890R	Right	1890	2889	120	50	43	52	8.5	M8	1280
L1997.43-1970R	Right	1970	3039	120	50	43	52	8.5	M8	1206
L1997.43-0530L	Left	530	834	120	50	43	52	8.5	M8	1291
L1997.43-0610L	Left	610	939	120	50	43	52	8.5	M8	1632
L1997.43-0690L	Left	690	1089	120	50	43	52	8.5	M8	1735
L1997.43-0770L	Left	770	1194	120	50	43	52	8.5	M8	2077
L1997.43-0850L	Left	850	1299	120	50	43	52	8.5	M8	2426
L1997.43-0930L	Left	930	1449	120	50	43	52	8.5	M8	2506
L1997.43-1010L	Left	1010	1554	120	50	43	52	8.5	M8	2364
L1997.43-1090L	Left	1090	1659	120	50	43	52	8.5	M8	2238
L1997.43-1170L	Left	1170	1809	120	50	43	52	8.5	M8	2022
L1997.43-1250L	Left	1250	1914	120	50	43	52	8.5	M8	1928
L1997.43-1330L	Left	1330	2064	120	50	43	52	8.5	M8	1766



# Extended Stroke Telescopic Slides

heavy duty



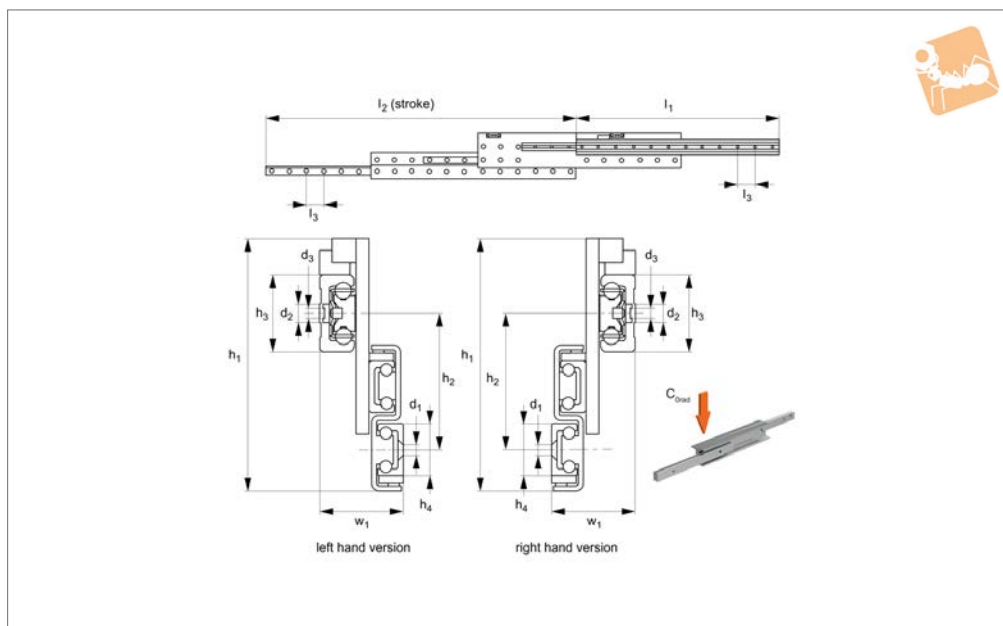
Telescopic Slides

Order No.	Type	$l_1$	$l_2$	$h_1$	$w_1$	$h_2$	$h_3$	$d_1$	$d_2$	Load (per rail) $C_{0\ rad}$ N max.
L1997.43-1410L	Left	1410	2169	120	50	43	52	8.5	M8	1694
L1997.43-1490L	Left	1490	2274	120	50	43	52	8.5	M8	1628
L1997.43-1570L	Left	1570	2409	120	50	43	52	8.5	M8	1567
L1997.43-1650L	Left	1650	2529	120	50	43	52	8.5	M8	1458
L1997.43-1730L	Left	1730	2634	120	50	43	52	8.5	M8	1409
L1997.43-1810L	Left	1810	2784	120	50	43	52	8.5	M8	1320
L1997.43-1890L	Left	1890	2889	120	50	43	52	8.5	M8	1280
L1997.43-1970L	Left	1970	3039	120	50	43	52	8.5	M8	1206

TELESCOPIC SLIDES



## L1998



### Material

Cold drawn bearing steel raceways hardened to 60 HRC. Balls - hardened steel.  
Zinc coating to ISO2081 (excluding raceways). Corrosion resistant coatings available on request.

### Technical Notes

These are very heavy duty telescopic rails with strokes of over 150% of closed length.  $C_{\text{rad}}$  is the load rating for a single telescopic slide.  
Moving rail must be lower rail (unless technical department consulted).

### Tips

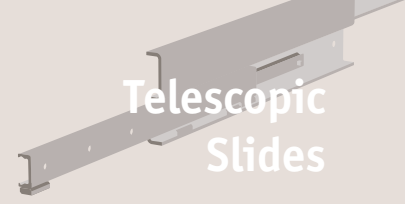
These are handed rails - i.e. left and right hands to be specified.

Order No.	Type	$l_1$	$l_2$ stroke	$l_3$	$h_1$	$w_1$	$h_2$	$h_3$	$h_4$	$d_1$	$d_2$	$d_3$	Load (per rail) $C_{\text{rad}}$ N
<b>L1998.63-0930R</b>	Right	930	1444	80	207.5	68	112	63	43	8.5	15	9	4036
<b>L1998.63-1010R</b>	Right	1010	1554	80	207.5	68	112	63	43	8.5	15	9	4590
<b>L1998.63-1090R</b>	Right	1090	1664	80	207.5	68	112	63	43	8.5	15	9	4908
<b>L1998.63-1170R</b>	Right	1170	1804	80	207.5	68	112	63	43	8.5	15	9	4610
<b>L1998.63-1250R</b>	Right	1250	1914	80	207.5	68	112	63	43	8.5	15	9	4398
<b>L1998.63-1330R</b>	Right	1330	2054	80	207.5	68	112	63	43	8.5	15	9	4027
<b>L1998.63-1410R</b>	Right	1410	2164	80	207.5	68	112	63	43	8.5	15	9	3864
<b>L1998.63-1490R</b>	Right	1490	2274	80	207.5	68	112	63	43	8.5	15	9	3713
<b>L1998.63-1570R</b>	Right	1570	2414	80	207.5	68	112	63	43	8.5	15	9	3445
<b>L1998.63-1650R</b>	Right	1650	2524	80	207.5	68	112	63	43	8.5	15	9	3325
<b>L1998.63-1730R</b>	Right	1730	2634	80	207.5	68	112	63	43	8.5	15	9	3213
<b>L1998.63-1810R</b>	Right	1810	2774	80	207.5	68	112	63	43	8.5	15	9	3011
<b>L1998.63-1890R</b>	Right	1890	2884	80	207.5	68	112	63	43	8.5	15	9	2919
<b>L1998.63-1970R</b>	Right	1970	3024	80	207.5	68	112	63	43	8.5	15	9	2750
<b>L1998.63-0930L</b>	Left	930	1444	80	207.5	68	112	63	43	8.5	15	9	4036
<b>L1998.63-1010L</b>	Left	1010	1554	80	207.5	68	112	63	43	8.5	15	9	4590
<b>L1998.63-1090L</b>	Left	1090	1664	80	207.5	68	112	63	43	8.5	15	9	4908
<b>L1998.63-1170L</b>	Left	1170	1804	80	207.5	68	112	63	43	8.5	15	9	4610
<b>L1998.63-1250L</b>	Left	1250	1914	80	207.5	68	112	63	43	8.5	15	9	4398
<b>L1998.63-1330L</b>	Left	1330	2054	80	207.5	68	112	63	43	8.5	15	9	4027
<b>L1998.63-1410L</b>	Left	1410	2164	80	207.5	68	112	63	43	8.5	15	9	3864
<b>L1998.63-1490L</b>	Left	1490	2274	80	207.5	68	112	63	43	8.5	15	9	3713
<b>L1998.63-1570L</b>	Left	1570	2414	80	207.5	68	112	63	43	8.5	15	9	3445
<b>L1998.63-1650L</b>	Left	1650	2524	80	207.5	68	112	63	43	8.5	15	9	3325
<b>L1998.63-1730L</b>	Left	1730	2634	80	207.5	68	112	63	43	8.5	15	9	3213
<b>L1998.63-1810L</b>	Left	1810	2774	80	207.5	68	112	63	43	8.5	15	9	3011
<b>L1998.63-1890L</b>	Left	1890	2884	80	207.5	68	112	63	43	8.5	15	9	2919
<b>L1998.63-1970L</b>	Left	1970	3024	80	207.5	68	112	63	43	8.5	15	9	2750

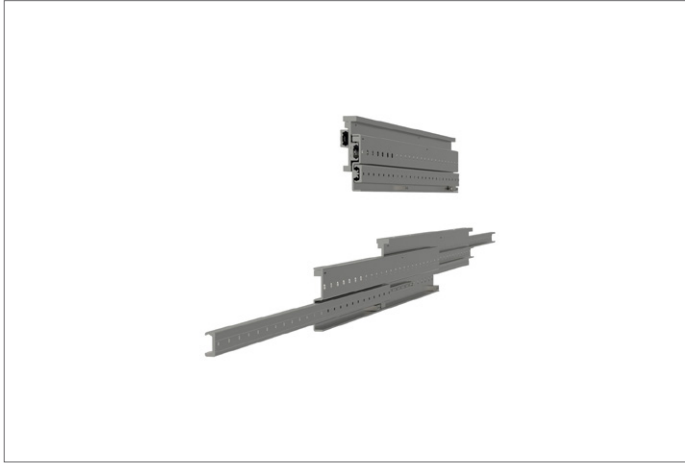


# Extended Stroke Telescopic Slides

ultra heavy duty



Telescopic  
Slides



TELESCOPIC SLIDES