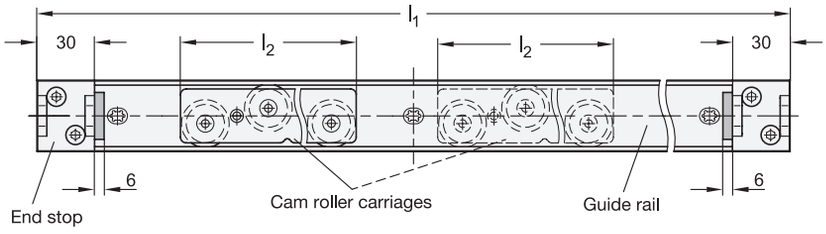
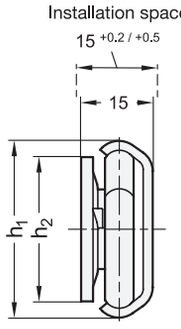
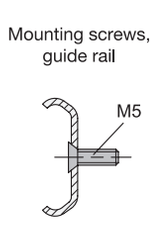
GN 1490 | Cam Roller Linear Guide Rail Systems

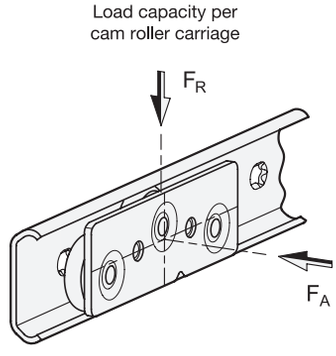
Steel / Stainless Steel, Formed Rail Profile

JW WINCO® A Ganter Company









Metric

SS Stainless Steel | FDA

3 Type

A3 With one cam roller carriage with 3 rollers
A5 With one cam roller carriage with 5 rollers
B3 With two cam roller carriages with 3 rollers
B5 With two cam roller carriages with 5 rollers

4 Identification no.

0 Without end stop
1 With one end stop
2 With two end stops

Metric table

Dimensions in: millimeters - *inches*

1 h_1	2 l_1 ±1						b	h_2	l_2 Cam roller carriage		F_R per cam roller carriage		F_A per cam roller carriage	
									3 rollers	5 rollers	3 rollers	5 rollers	3 rollers	5 rollers
29 *1.14*	394 *15.51*	474 *18.66*	554 *21.81*	634 *24.96*	714 *28.11*	794 *31.26*	29 *1.14*	23 *0.91*	92 *3.62*	158 *6.22*	425 N *95.54 lbf*	650 N *146 lbf*	175 N *39.34 lbf*	350 N *78.68 lbf*
29 *1.14*	874 *34.41*	954 *37.56*	1034 *40.71*	1194 *47.01*	1434 *56.46*	-	29 *1.14*	23 *0.91*	92 *3.62*	158 *6.22*	425 N *95.54 lbf*	650 N *146 lbf*	175 N *39.34 lbf*	350 N *78.68 lbf*
37 *1.46*	394 *15.51*	474 *18.66*	554 *21.81*	634 *24.96*	714 *28.11*	794 *31.26*	37 *1.46*	30 *1.18*	92 *3.62*	158 *6.22*	800 N *180 lbf*	1150 N *259 lbf*	200 N *44.96 lbf*	400 N *89.92 lbf*
37 *1.46*	874 *34.41*	954 *37.56*	1034 *40.71*	1194 *47.01*	1434 *56.46*	-	37 *1.46*	30 *1.18*	92 *3.62*	158 *6.22*	800 N *180 lbf*	1150 N *259 lbf*	200 N *44.96 lbf*	400 N *89.92 lbf*

Specification

5

- Guide rail
  - Steel **ZB**
    Zinc plated, blue passivated finish
  - Stainless steel AISI 430 **NI**
    Plain finish
- Cam roller carriage
  - Base body
    Stainless steel AISI 304
  - Cam roller
    Ball-bearing, 2RS
    Stainless steel AISI 440C
  - Roller bearing grease
    FDA compliant, class H1
    Lifetime-lubricated
- End stop
  Stainless steel AISI 304
  Rubber stop (TPU) ≈ 80 shore A
- Operating temperature
  -4 °F to +212 °F (-20 °C to +100 °C)
- RoHS compliant

Information

GN 1490 cam roller linear guide rail systems are usually side-mounted and installed in pairs, either in a vertical (as shown) or a horizontal position. They are used for simple, linear movements, such as in automation or in vehicle and machine engineering.

Optimal travel properties combined with low maintenance requirements can be achieved with cam roller carriages matched to the guide rails without any play. The system is ready for use immediately after insertion of the cam roller carriage.

The cam roller linear guide rail systems consist of a guide rail, one or two cam roller carriages and the selected number of end stops. The parts are delivered unassembled. The guide rail can be installed on either the left or right side of the application. When installing the cam roller carriages, the direction in which the load is received (marking notch) must be taken into account. The lubrication and maintenance instructions must be followed.

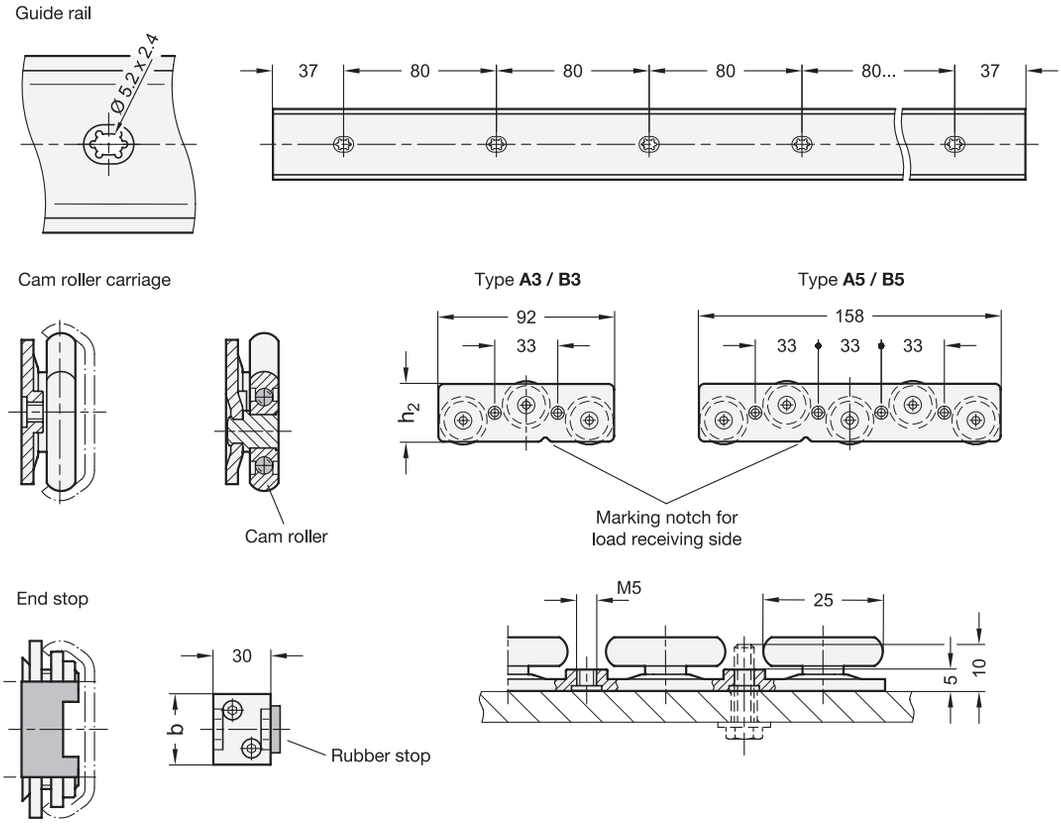
On request

- Other guide rail lengths, up to 157 inches (3,994 mm)
- Other hole distances / finishes

How to order

1 2 3 4 5
GN 1490-29-1034-B3-2-NI

1	Height h_1
2	Length l_1
3	Type
4	Identification no.
5	Material (Finish)



Mounting holes, mounting screws

During assembly, all slotted holes provided in the guide rail and the mounting threads in the cam roller carriage must be used. This ensures that the forces resulting from the maximum load F_L / F_A are reliably transferred to the surrounding construction. Failure to use mounting screws reduces the load capacity accordingly. Other production-related holes in the guide rails are not shown.

Various screws with M5 thread can be used for mounting the cam roller carriages. In contrast, the guide rail must be mounted with the screws listed in the table. It is generally recommended to use screws of property class 8.8 in accordance with the specified tightening torque. The maximum torque for the included countersunk screws of the end stops is 4-5 Nm, which results in the highest retaining force without deforming the guide rails. The pre-assembled rubber stops are automatically clamped by the countersunk screws and thus dampen the stop of the cam roller carriages in the respective end position.

Designation - Standard		Inner slide
Socket countersunk head screw	DIN 7991	M 4 / M 5
Phillips countersunk flat head screw	DIN 965	M 4 / M 5
Phillips countersunk flat head self-tapping screw	DIN 7997	Size 4.5 / 5

Lubrication and maintenance

The running surfaces of the guide rails must be lubricated with roller bearing grease before the first use. Possible lubricating greases include Cassida Grease GTX 2, Shell Gadus S2 V220 or Alvania EP 1, and Klüberplex BE 31-222. In the food or pharmaceutical sector, FDA compliant lubricating greases of class H1 or higher must be used. The grease should be distributed evenly over the entire length of the rail using a paintbrush.

After 50,000 cycles, the rails should be cleaned with a clean cloth and relubricated. If there is a risk of contamination, the maintenance intervals should be shortened. However, contamination should generally be avoided with, for example, suitable covers or optimal positioning of the cam roller linear guide rail systems.