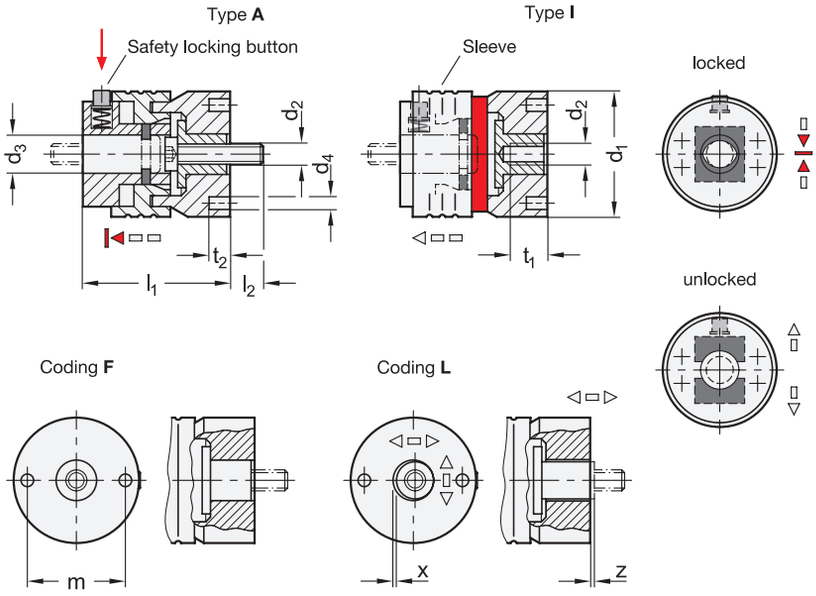
JW WINCO®
A Ganter Company

Highlights

Quick Release Couplings

Standard Parts. Winco.



Metric

3 Type

A With threaded stud insert
I With tapped insert

4 Coding

F Fixed bearing
L Floating bearing

Metric table

1 Nominal size	2 d_2 Thread	d_1	d_3 H7	d_4 Bore ±0.03	d_4 Inserts GN 1050.1 ±0.03	l_1	l_2	m	t_1 min.	t_2	x +0.05 Radial offset Coding L	z ±0.1 Axial offset Coding L
2N	M 10	53 *2.09*	6 *0.236*	18.5 *0.728*	18.25 *0.719*	70.1 *2.76*	15 *0.59*	40 *1.57*	18 *0.71*	10 *0.39*	0.75 *0.030*	0.4 *0.016*
2N	M 12	53 *2.09*	6 *0.236*	18.5 *0.728*	18.25 *0.719*	70.1 *2.76*	20 *0.79*	40 *1.57*	18 *0.71*	10 *0.39*	0.75 *0.030*	0.4 *0.016*

Specification

5

- Housing
  Aluminum
  Black anodized finish **ASS**
- Closure mechanism
  Steel, tempered
  Zinc plated, blue passivated finish
- Tapped insert (Type I)
  Stainless steel AISI 431
  Tempered
- Threaded stud insert (Type A)
  Socket cap screw DIN 7984
  Property class 8.8
- Other screws
  Steel, zinc plated, blue passivated finish
- Other parts
  Stainless steel
- Operating temperature -22 °F to 248 °F
  (-30 °C to 120 °C)
- *Strength Values of Screws*
  → *Standard Parts Handbook page 2127*
- *Stainless Steel Characteristics*
  → *Standard Parts Handbook page 2143*
- RoHS compliant

Accessory

- Inserts GN 1050.1 → *page 4*
- Flanges GN 1050.2 → *page 5*

On request

- Other colors (anodized finish) or plain finish

Information

GN 1050 quick release couplings, position and connect components without tools using studs GN 1050.1 for a tight and repeatable fit. For repeated machine set ups or assemblies that require the inconvenient use of a screwdriver, quick release couplings can be used on fixtures or production lines to efficiently mount guide rails, covers or additional devices.

A safety locking button protects against accidental opening of the coupling. When pressing the button, the sleeve can be moved axially to unlock a stud inserted into the notch on the inside. At the same time, a red ring becomes visible on the outside to indicate the unlocked state.

The couplings do not transmit any torque. If multiple couplings are used on the same unit, coding L can be used to compensate for a radial and axial offset. The bores d_3 can hold cylinder or cam point pins to position the coupling, if needed. For coding L, the pin holes on the application must be proportionally larger to allow for radial adjustments.

Flanges GN 1050.2 are available as an accessory for the assembly of couplings and studs, and provide additional attachment options.

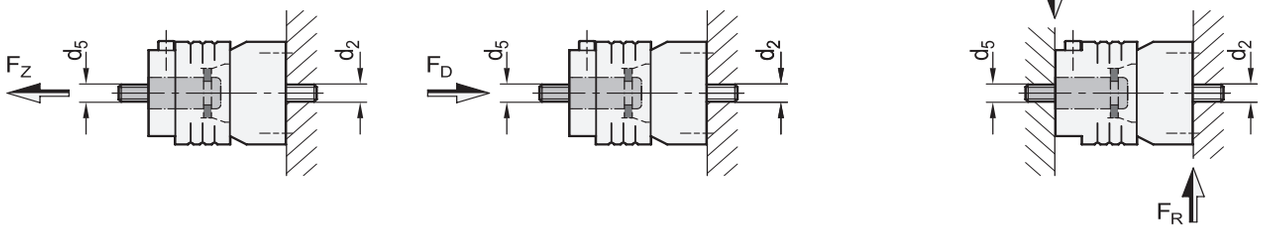
How to order

1 2 3 4 5
GN 1050-2N-M10- I -L-ASS

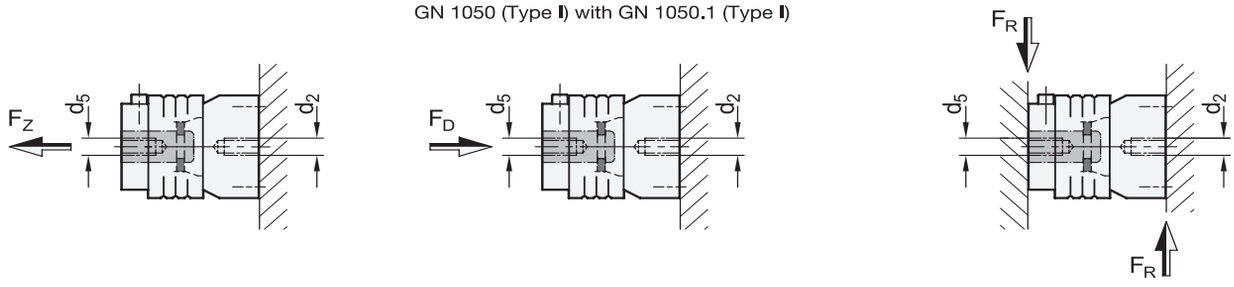
1	Nominal size
2	Thread d_2
3	Type
4	Coding
5	Finish

Mounting and load information

GN 1050 (Type **A**) with GN 1050.1 (Type **A**)



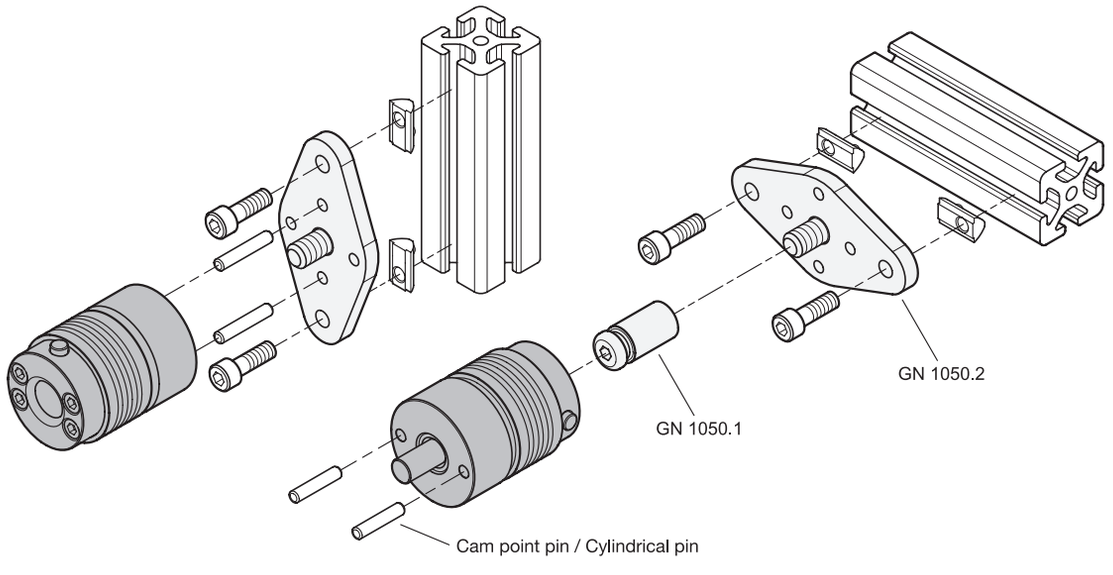
GN 1050 (Type **I**) with GN 1050.1 (Type **I**)

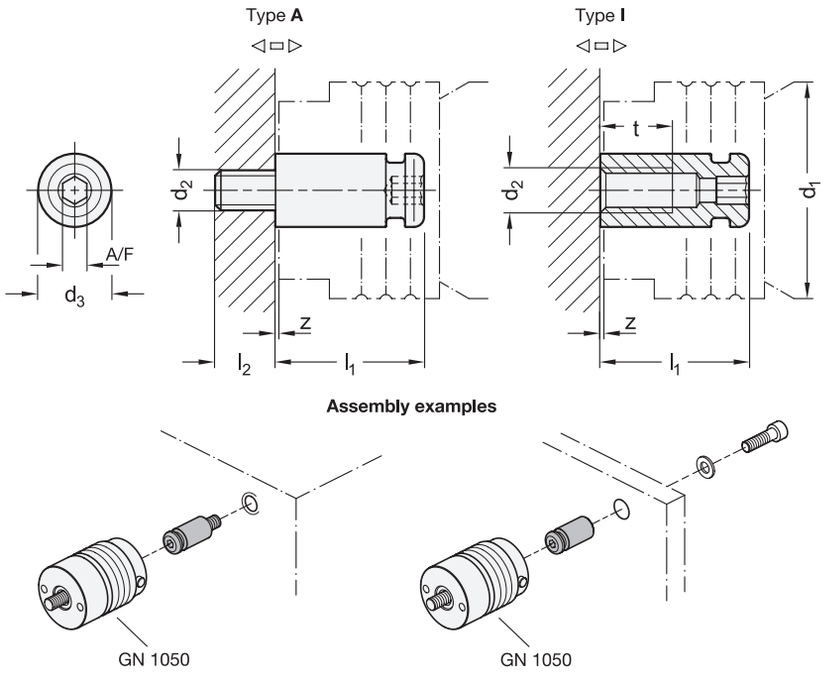


Nominal size	**d_2** Mounting thread Quick release couplings	**d_5** Mounting thread inserts GN 1050.1	**F_Z** Max. tensile load	**F_D** Max. compressive load	**F_R** Max. shear load
2N	M 10	M 10	25 kN *5620 lbf*	25 kN *5620 lbf*	19 kN *4271 lbf*
2N	M 10	M 12	25 kN *5620 lbf*	25 kN *5620 lbf*	19 kN *4271 lbf*
2N	M 12	M 10	25 kN *5620 lbf*	25 kN *5620 lbf*	19 kN *4271 lbf*
2N	M 12	M 12	35 kN *7868 lbf*	35 kN *7868 lbf*	28 kN *6295 lbf*

Safety instructions: The load capacities can only be achieved if the surrounding structure is capable of supporting these loads. Any threaded holes on the application or inserted nuts and screws require at least property class 8. Depending on the application, additional safety factors should be added.

Application example for profile systems





Metric

3 Type

A With threaded stud insert
I With tapped insert

Metric table

Dimensions in: millimeters - *inches*

1 **Nominal size** Quick release coupling GN 1050	2 d_2 Thread	d_1	d_3 ±0.03	l_1	l_2	A/F	t min.	z ±0.1 Axial offset
2	M 10	53 *2.09*	18.25 *0.719*	37.1 *1.46*	15 *0.59*	6 *0.24*	18 *0.71*	0.4 *0.016*
2	M 12	53 *2.09*	18.25 *0.719*	37.1 *1.46*	18 *0.71*	6 *0.24*	18 *0.71*	0.4 *0.016*

Specification

4

- Steel **ST**
  - Tempered
  - Zinc plated, blue passivated finish
- RoHS compliant

Information

GN 1050.1 inserts, position and attach components without tools using quick release couplings GN 1050 for a tight and repeatable fit. The dimensions and material properties of the studs have been precisely adapted to the couplings to ensure proper functionality.

The studs can be purchased individually so that multiple studs can be paired with a coupling in alternation, such as to efficiently position fixtures in different locations depending on the workpiece. The studs are fastened with threaded stud insert or tapped insert, depending on the type.

To achieve the indicated load capacities, threaded holes on the application or inserted nuts and screws must meet at least property class 8.

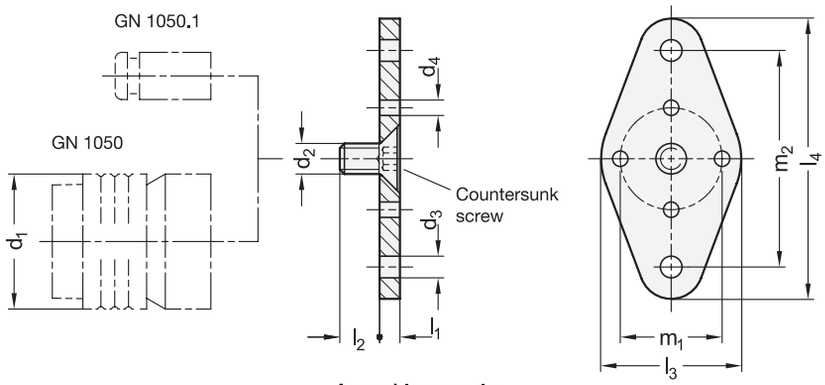
Flanges GN 1050.2 are available as an accessory for mounting the inserts and provide additional attachment options.

see also...
- *Quick Release Couplings GN 1050 → page 2*
- *Flanges GN 1050.2 → page 5*

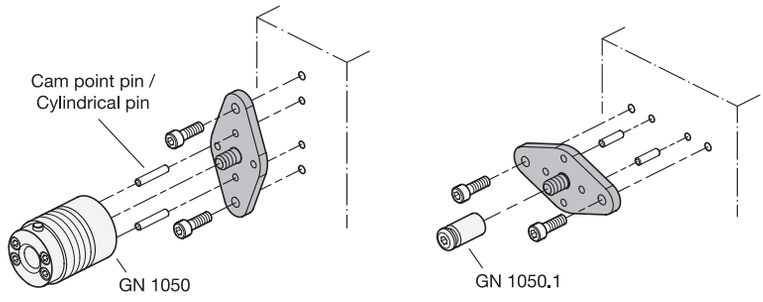
How to order

1 2 3 4
GN 1050.1-2-M12-I-ST

1	**Nominal size**
2	**Thread d_2**
3	**Type**
4	**Material**



Assembly examples



Metric

2 Coding

F Fixed bearing
L Floating bearing

Metric table

Dimensions in: millimeters - *inches*

Nominal size Quick release coupling GN 1050	d_1	d_2 Thread	d_3	d_4 Coding F	d_4 Coding L	l_1	l_2	l_3	l_4	m_1	m_2
2	53 *2.09*	M 12	8.5 *0.33*	6.05 *0.24*	8.5 *0.33*	10 *0.39*	15 *0.59*	55 *2.17*	110 *4.33*	40 *1.57*	85 *3.35*

Specification

	3	4
• Steel	**ST**	
Zinc plated, blue passivated finish		**ZB**
• Countersunk screw ISO 10642 Steel, property class 8.8 Zinc plated, blue passivated finish		
• *Strength Values of Screws* → *Standard Parts Handbook page QVX*		
• RoHS compliant		

On request

• Other finishes e.g. powder coated

Information

GN 1050.2 flanges are available as accessories for mounting quick release couplings GN 1050 and inserts GN 1050.1 to expand the attachment options of both fastening elements.

They are used wherever the standard fastening method of the couplings or inserts using the central tapped thread or threaded stud is not possible or suboptimal due to the surrounding structure. This can happen with aluminum profile systems or thin-walled parts that have insufficient strength to bear a point load.

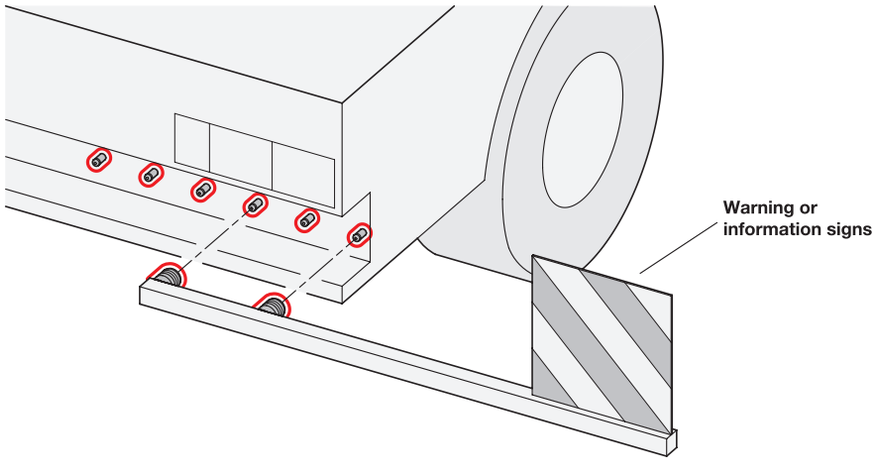
Both the flange and the coupling can be positioned by inserting cam point pins or cylinder pins into the bores d_4 to prevent unintended twisting. For coding L (floating bearing), the pin holes are designed to avoid restricting the radial offset of the coupling.

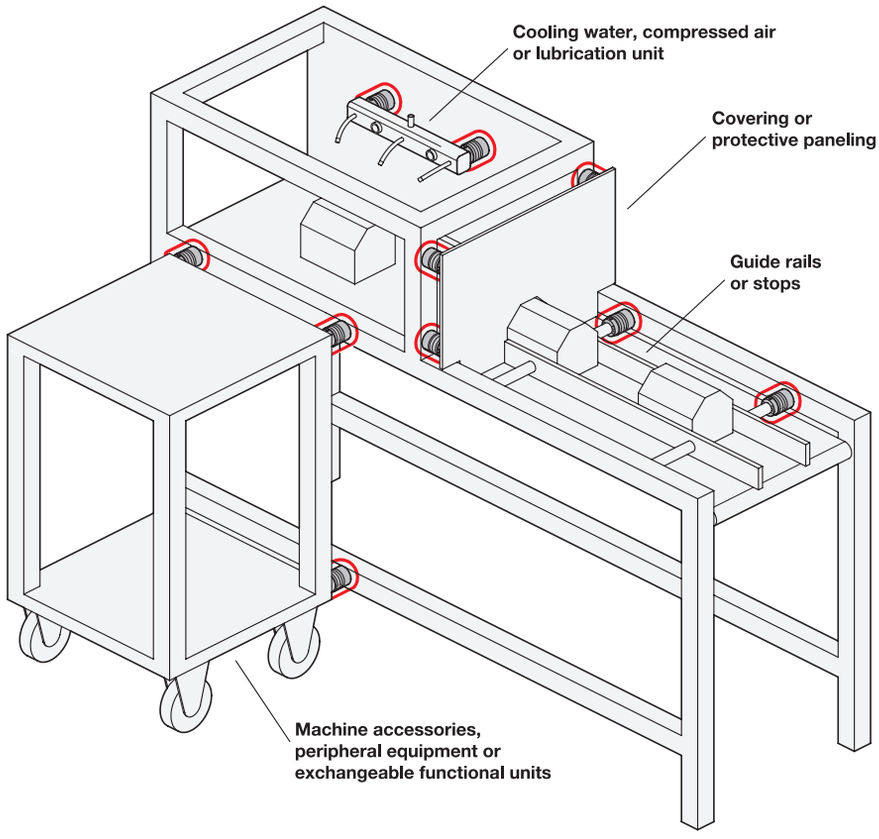
see also...
• *Quick Release Couplings GN 1050 → page 2*
• *Inserts GN 1050.1 → page 4*

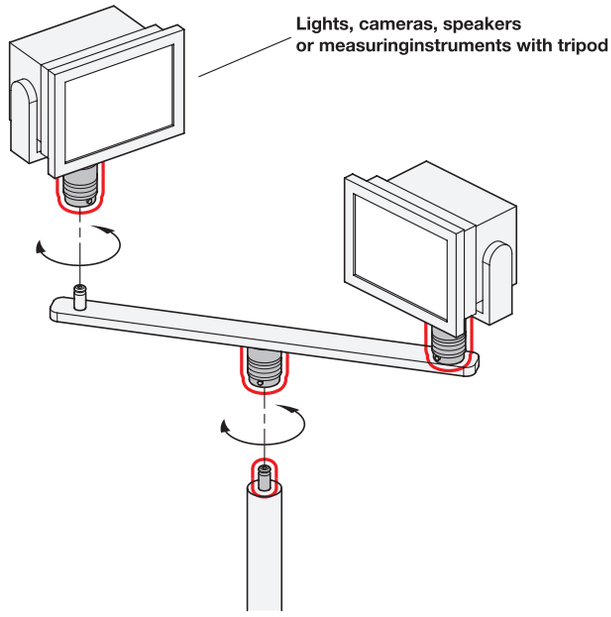
How to order

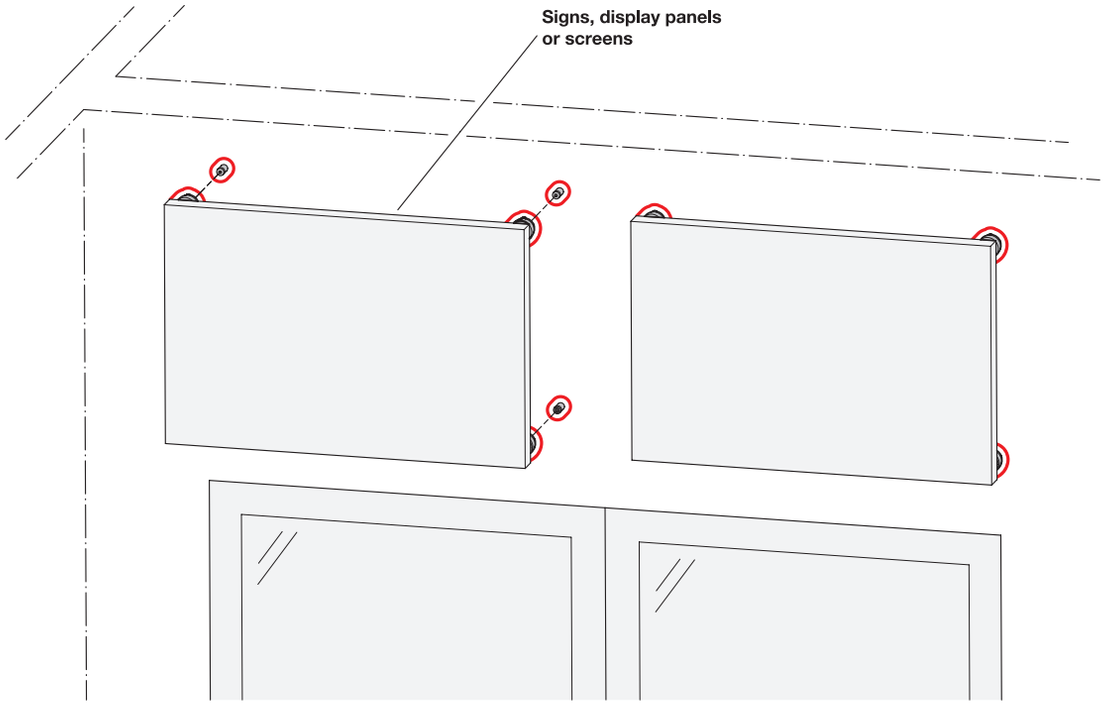
GN 1050.2-2-L-ST-ZB

1	Nominal size
2	Coding
3	Material
4	Finish


Warning or
information signs


Cooling water, compressed air
or lubrication unit
Covering or
protective paneling
Guide rails
or stops
Machine accessories,
peripheral equipment or
exchangeable functional units


Lights, cameras, speakers
or measuringinstruments with tripod


Signs, display panels
or screens

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