elesa+Ganter

New

Quick Release Couplings

DESIGNED
FOR ENGINEERING

GN 1050

Quick Release Couplings

SPECIFICATION

Types

- Type **A**: With threaded stud
- Type **I**: With internal thread

Coding

- **F**: Fixed bearing
- **L**: Floating bearing

Housing
Aluminum
Black anodized **ASS**

Closure mechanism
Steel, tempered
Zinc plated, blue passivated

Fastening bushing (type I)
Stainless steel AISI 431
Tempered

Mounting screw (type A)
Socket cap screw DIN 7984
Property class 8.8

Other screws
Steel, zinc plated, blue passivated

Other parts
Stainless steel

Operating temperature -30 °C to 120 °C

INFORMATION

Quick release couplings GN 1050 position and connect components without tools using studs GN 1050.1 (see page 6) 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 d4 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 (see page 7) are available as an accessory for the assembly of couplings and studs, and provide additional attachment options.

ACCESSORY

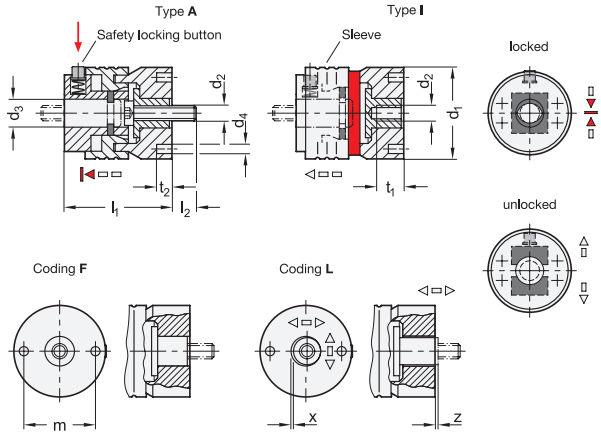
- Studs GN 1050.1 (see page 6)
- Flanges GN 1050.2 (see page 7)

ON REQUEST

- Other colors (anodized) or plain

TECHNICAL INFORMATION

- Stainless Steel characteristics (see catalogue page A26)
- Strength values of screws / nuts (see catalogue page A20)

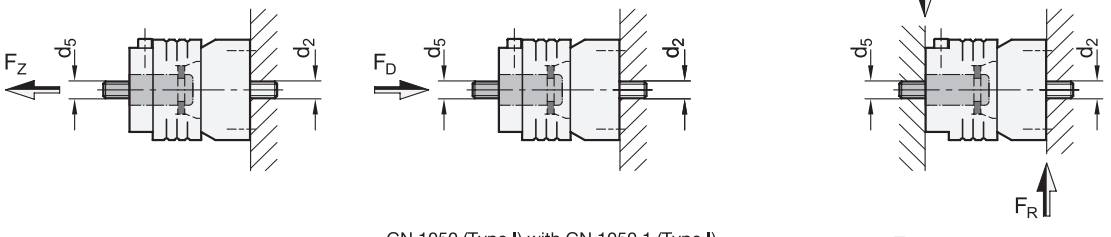


GN 1050

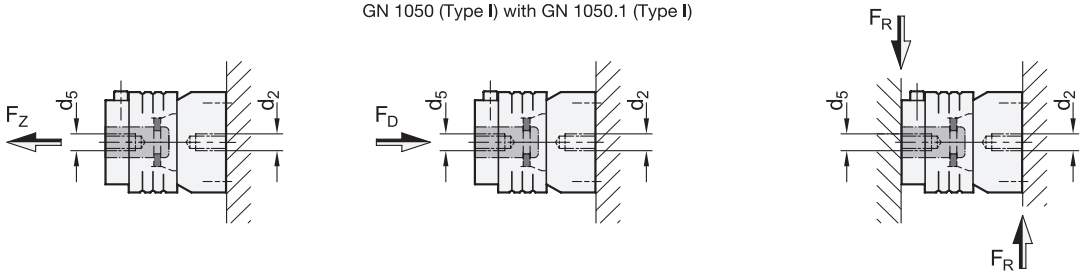
Description	Nominal size	d2	d1	d3 Bore ±0.03	d3 Studs GN 1050.1 ±0.03	d4 H7	l1	l2	m	t1 Min.	t2	x +0.05 Radial offset	z ±0.1 Axial offset	⚖
GN 1050-2N-M10-A-F-ASS	2N	M 10	53	18.5	18.25	6	70.1	15	40	-	10	-	-	430
GN 1050-2N-M10-A-L-ASS	2N	M 10	53	18.5	18.25	6	70.1	15	40	-	10	0.75	0.4	397
GN 1050-2N-M12-A-F-ASS	2N	M 12	53	18.5	18.25	6	70.1	20	40	-	10	-	-	437
GN 1050-2N-M12-A-L-ASS	2N	M 12	53	18.5	18.25	6	70.1	20	40	-	10	0.75	0.4	390
GN 1050-2N-M10-I-F-ASS	2N	M 10	53	18.5	18.25	6	70.1	-	40	18	10	-	-	407
GN 1050-2N-M10-I-L-ASS	2N	M 10	53	18.5	18.25	6	70.1	-	40	18	10	0.75	0.4	404
GN 1050-2N-M12-I-F-ASS	2N	M 12	53	18.5	18.25	6	70.1	-	40	18	10	-	-	403
GN 1050-2N-M12-I-L-ASS	2N	M 12	53	18.5	18.25	6	70.1	-	40	18	10	0.75	0.4	397

Mounting and load information

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



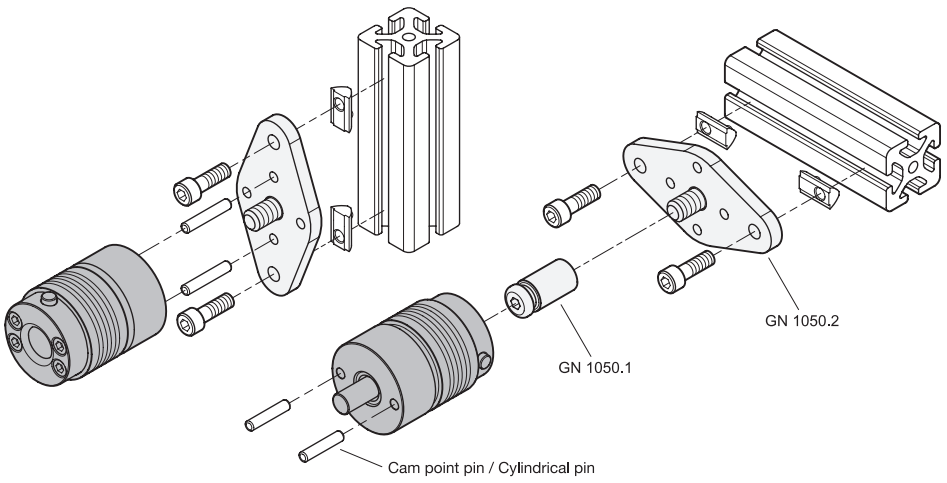
GN 1050 (Type **I**) with GN 1050.1 (Type **I**)



Nominal Size	**d_2** Mounting thread Quick release couplings	**d_5** Mounting thread Studs GN 1050.1	**F_Z** Max. tensile load in kN	**F_D** Max. compressive load in kN	**F_R** Max. shear load in kN
2N	M 10	M 10	25	25	19
2N	M 10	M 12	25	25	19
2N	M 12	M 10	25	25	19
2N	M 12	M 12	35	35	28

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



GN 1050.1

Studs

for Quick Release Couplings GN 1050 and Flanges GN 1050.2

SPECIFICATION

Types

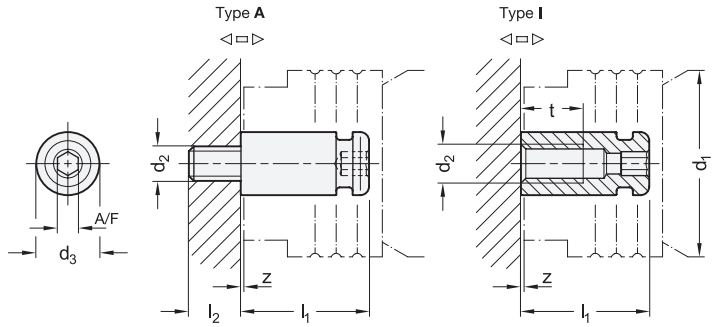
- Type **A**: With threaded stud
- Type **I**: With internal thread

Steel **ST**

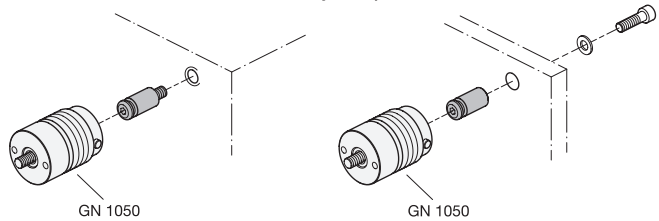
- Tempered
- Zinc plated, blue passivated

INFORMATION

Studs GN 1050.1 position and attach components without tools using quick release couplings GN 1050 (see page 4) 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 or internal thread, 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 (see page 7) are available as an accessory for mounting the studs and provide additional attachment options.



Assembly examples



GN 1050.1

Description	Nominal size Quick release Coupling GN 1050	d_2	d_1	d_3 ±0.03	l_1	l_2	A/F	t Min.	z ±0.1 Axial offset	⚖
GN 1050.1-2-M10-A-ST	2	M 10	53	18.25	37.1	15	6	-	0.4	80
GN 1050.1-2-M12-A-ST	2	M 12	53	18.25	37.1	18	6	-	0.4	85
GN 1050.1-2-M10-I-ST	2	M 10	53	18.25	37.1	-	6	18	0.4	60
GN 1050.1-2-M12-I-ST	2	M 12	53	18.25	37.1	-	6	18	0.4	55

GN 1050.2

Flanges

for Quick Release Couplings GN 1050 and Studs GN 1050.1

SPECIFICATION

Coding

- **F**: Fixed bearing
- **L**: Floating bearing

Steel **ST**
Zinc plated, blue passivated **ZB**

Countersunk screw ISO 10642
Steel, property class 8.8
Zinc plated, blue passivated

INFORMATION

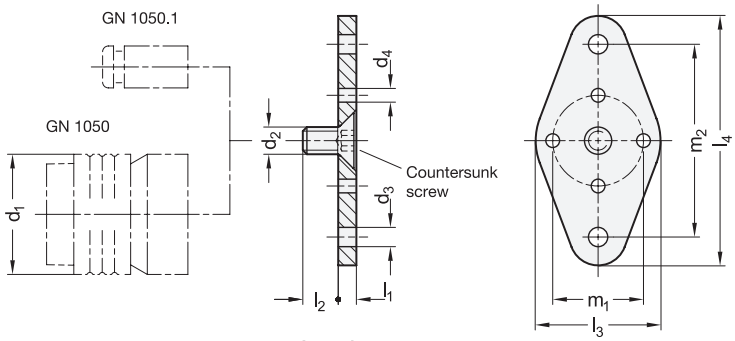
Flanges GN 1050.2 are available as accessories for mounting quick release couplings GN 1050 (see page 4) and studs GN 1050.1 (see page 6) to expand the attachment options of both fastening elements.
They are used wherever the standard fastening method of the couplings or studs using the central internal thread or threaded stud is not possible or suboptimal due to the surrounding structure. This can happen with aluminum profile systems or thinwalled 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 d3 to prevent unintended twisting. For coding L (floating bearing), the pin holes are designed to avoid restricting the radial offset of the coupling.

ON REQUEST

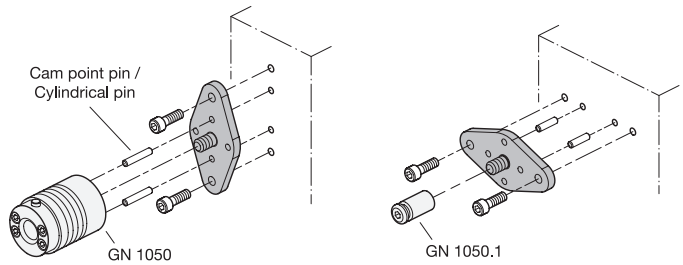
- Other finishes e.g. powder coated

TECHNICAL INFORMATION

- Strength values of screws / nuts (see catalogue page A20)



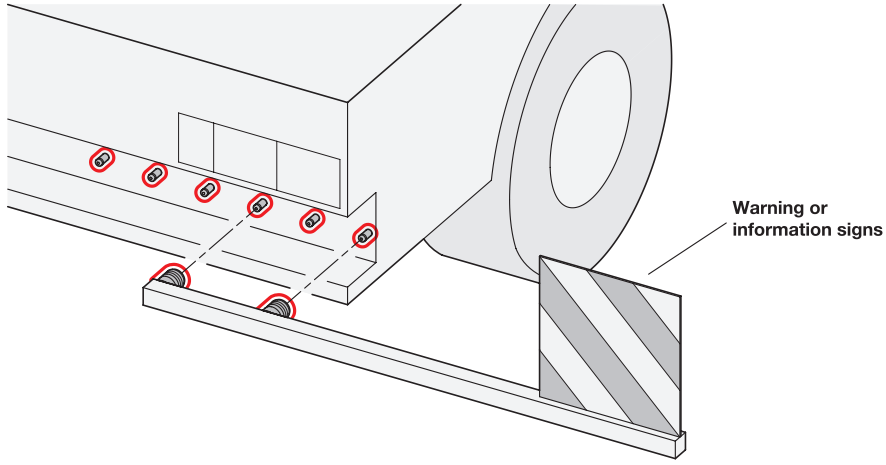
Assembly examples

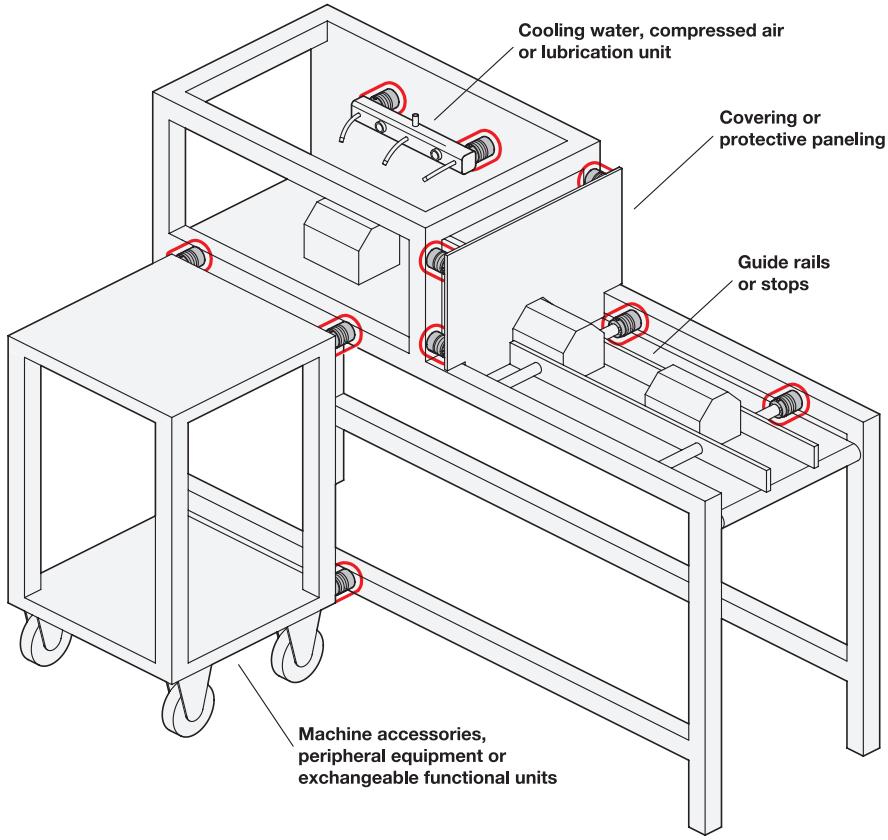


GN 1050.2

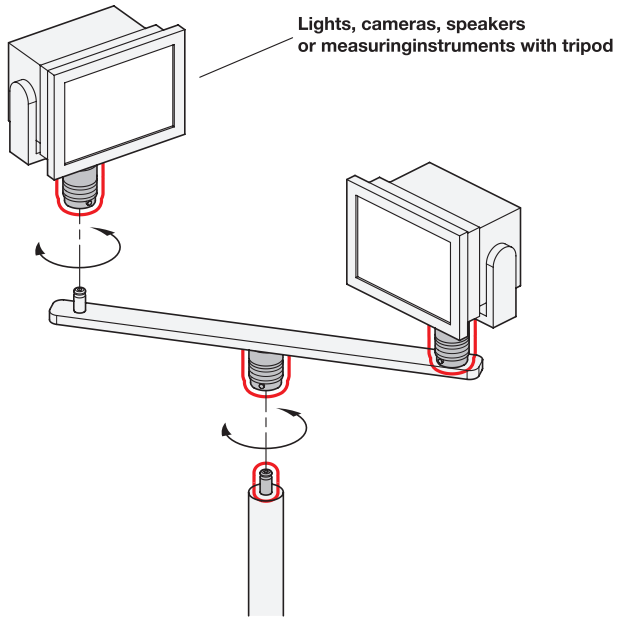
Description	Nominal size Quick release Coupling GN 1050	d1	d2	d3	d4	l1	l2	l3	l4	m1	m2	⚖
GN 1050.2-2-F-ST-ZB	2	53	M 12	8.5	6.05	10	15	55	110	40	85	240
GN 1050.2-2-L-ST-ZB	2	53	M 12	8.5	8.5	10	15	55	110	40	85	240

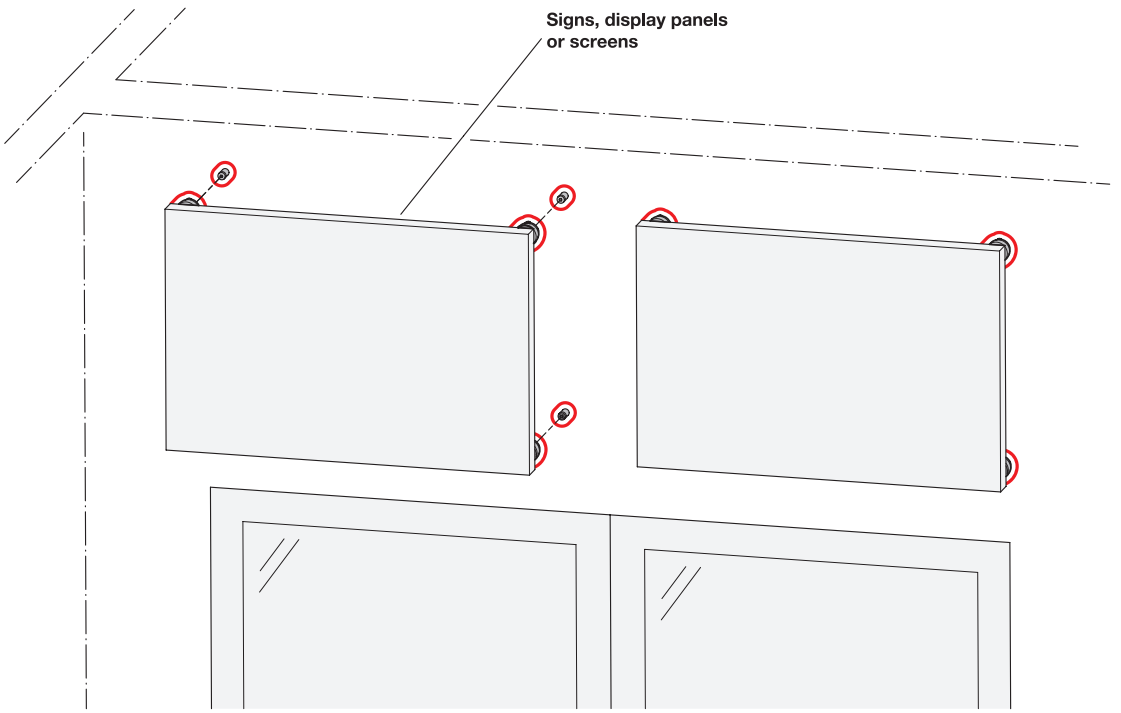
Application examples





Quick Release Couplings





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