

Series **82L2G-2, 82L3.-2, 82L4.-2** Product Overview

Automation power clamps, lightweight design, enclosed model, with and without hand lever

Features:

- Shielded body, dirt-resistant
- Compact design
- High holding torques
- Long life cycle
- Low weight (aluminium body)
- Mounting areas at front, rear and partly lateral
- Toggle action mechanism
- Manual unlocking in case of pressure drop with extra tool
- Inductive sensing module (optional)

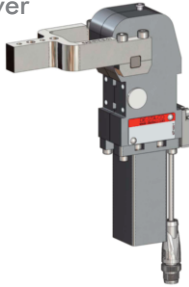
Application:

Clamping, holding, gripping and positioning of metal sheets and other parts, mainly in jigs and handling systems. Your best choice for carefully inserting and clamping components are the clamps with a hand lever.

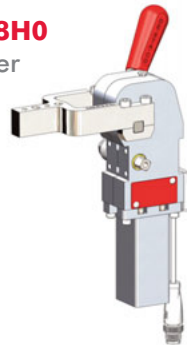
Key areas of application:

Automotive manufacturing and sheet processing industry.

82L2G-203B800
without hand lever
Horizontal
clamping
position



82L2G-203B8H0
with hand lever
Horizontal
clamping
position



Order code for **82L..-2.....**

Example Order No.: **82L3G - 2 03 B8 H 0 B**

B = Base Model. Power clamp without clamping arm. To be marked with an additional "B" Only with clamping arm "03"

Series -2 = Version
2G = pneumatic cylinder Ø25 (G1/8)
3G = pneumatic cylinder Ø32 (G1/8)
3N = pneumatic cylinder Ø32 (1/8-18 NPT)
4G = pneumatic cylinder Ø40 (G1/4)
4N = pneumatic cylinder Ø40 (1/4-18 NPT)

82L~2***H***
82L2*~2*****
82L3*~2*****
82L4*~2*****

Base Models

03 = ordering without clamping arm

03 = U-clamp arm, central 90°

11 = lateral clamp arm, left 90°

12 = lateral clamp arm, right 90°

23 = 2x lateral clamp arm 90°

38 = H-clamp arm 90°

43 = U-clamp arm, central 180°

51 = lateral clamp arm, left 180°

52 = lateral clamp arm, right 180°

63 = 2x lateral clamp arm 180°

78 = H-clamp arm 180°

105° standard opening angle for all models. **Lateral** and **H-clamping** arms not available for **82L2***

Clamp Arms

00 = without sensing system

C8 = sensing system **8EA-097-1** (M8x1)

B7 = sensing system **8EA-096-1** (M12x1)

B8 = sensing system **8EA-100-1** (M12x1)

Sensing System

0 = without hand lever
H = with hand lever

Hand Lever

0 = standard opening angle 105°

3 = 90° opening angle

4 = 75° opening angle

5 = 60° opening angle

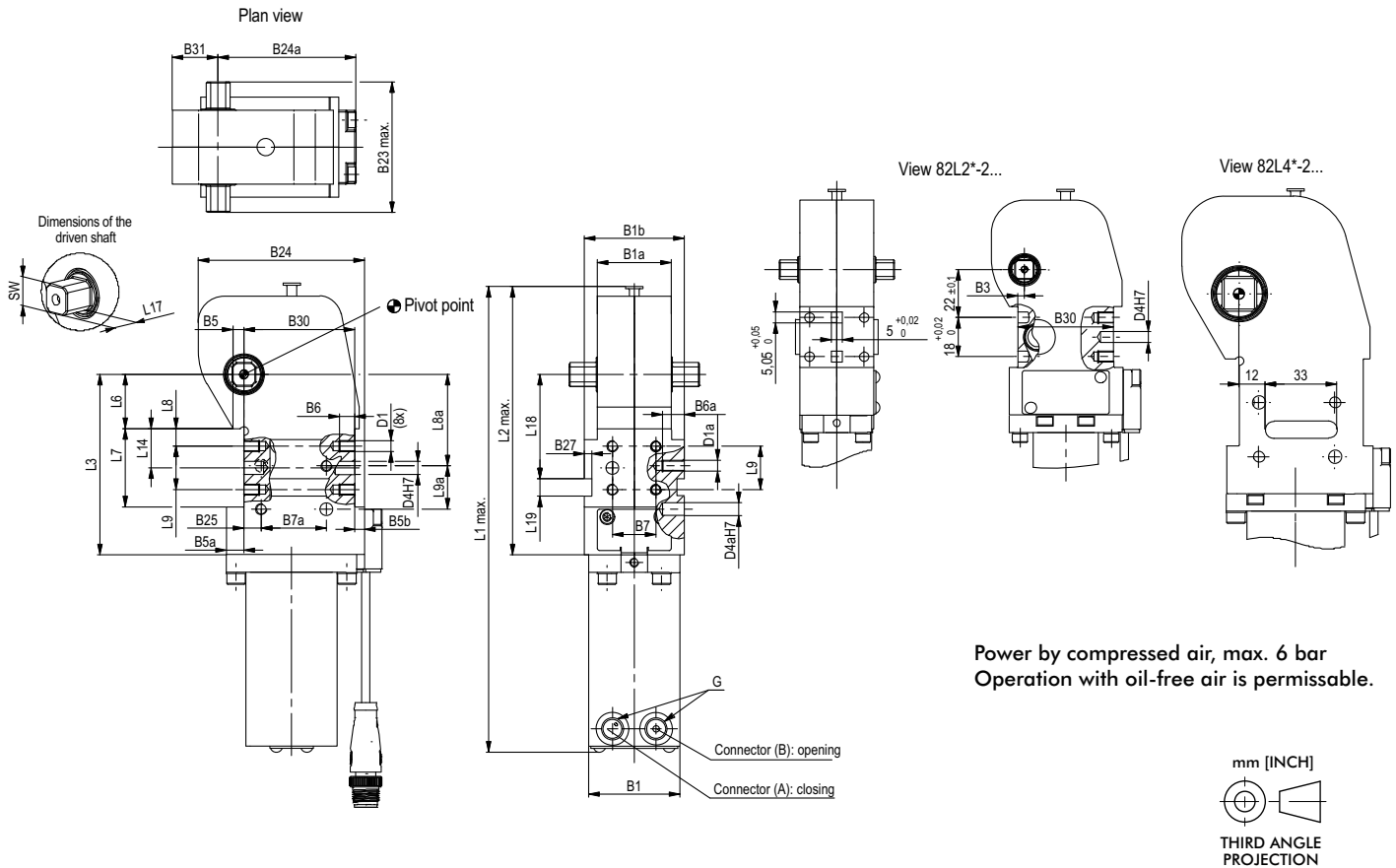
6 = 45° opening angle

7 = 30° opening angle

8 = 15° opening angle

Opening Angle

Series 82L2G-2, 82L3.-2, 82L4.-2 Technical Information, Standard Clamp Dimensions



Series 82L2G-2, 82L3.-2, 82L4.-2 Technical Information, Model without Hand Lever

Model	Max. holding torque Nm [lb ft]	Clamping torque at 5 bar [72 psi] Nm [lb ft]	Piston Ø mm	Weight kg [lbs]	Air consumption per double stroke at 5 bar [72 psi] dm ³ [ft ³]	Connection G
82L2G-2...	75 [55]	25 [18]	25	1,0 [2.20]	0,4 [0.01]	G1/8
82L3G-2... 82L3N-2...	180 [133]	55 [41]	32	1,3 [2.86]	0,8 [0.03]	G1/8 1/8-18 NPT
82L4G-2... 82L4N-2...	380 [280]	120 [89]	40	1,9 [4.18]	1,2 [0.04]	G1/4 1/4-18 NPT

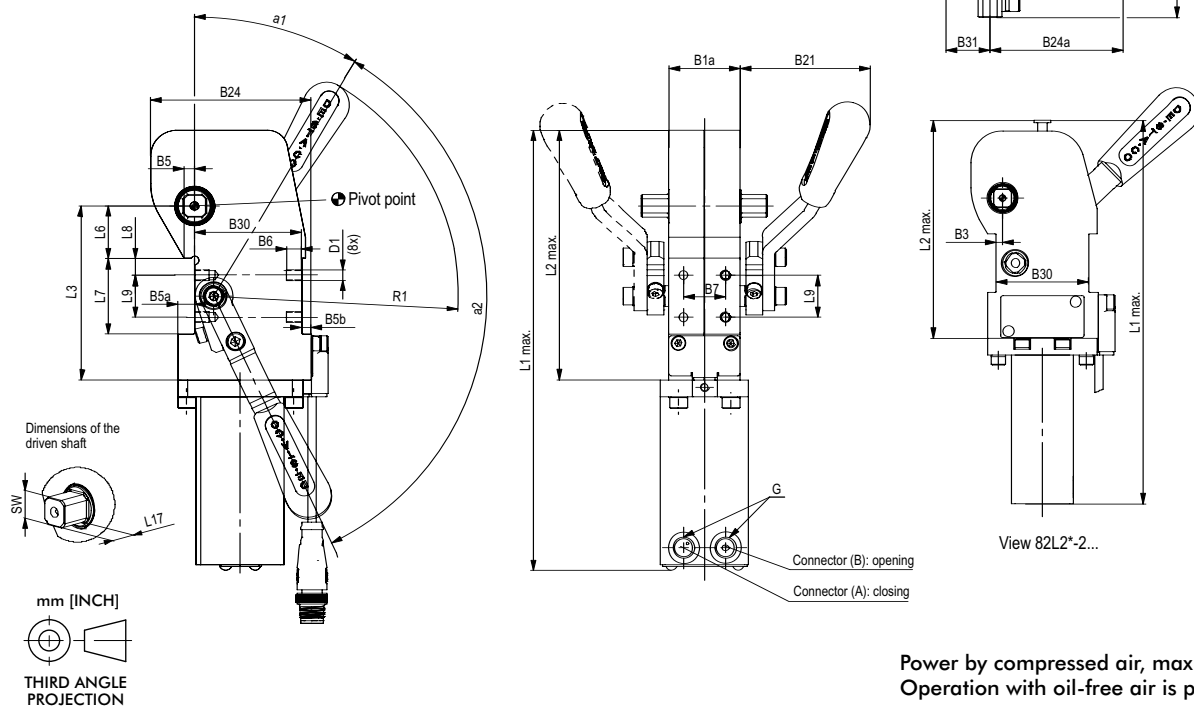
Model	B1	B1a	B1b	B3	B5	B5a	B5b	B6	B6a	B7 ± 0,1	B7a** ± 0,1	B23 max.	B24	B24a	B25 +0,1	B27	B30 ± 0,1	B31
82L2G-2...	32	34	-	3	4	4	4,5	7	-	25	-	53	60,5	53,5	-	-	44	15
82L3*-2...	42	34	46	-	5	8	4,5	7	10	20	30	60	76,5	63,5	8	3,5	51	21
82L4*-2...	45	40	-	-	6,5	6	4,5	10	10	25	35	74	88	69,5	9	3,5	57	26,5

Model	D1	D1a	D4 H7	D4a H7	L1 max.	L2 max.	L3	L6 ± 0,05	L7 + 0,1	L8 ± 0,1	L8a ± 0,1	L9 ± 0,1	L9a** ± 0,1	L14 ± 0,1	L17	L18	L19 N9	SW h9
82L2G-2...	M5	M5	5	-	183,5	104,5	67	17	28	5	-	18	-	14	8,5	-	-	9
82L3*-2...	M5	M5	6	6	215	124	83	25	36	8	42	20	20	18	12,5	48	8	11
82L4*-2...	M6	M6	6	6	245	141	92	30	40	10	50	20	25	20	16	58,5	8	16

**Tolerance for distance to dowel hole ±0,02

Series **82L2G-2, 82L3-2, 82L4-2** Technical Information, Standard Clamp Dimensions

Automation power clamps, lightweight design enclosed model, with hand lever



Power by compressed air, max. 6 bar
Operation with oil-free air is permissible.

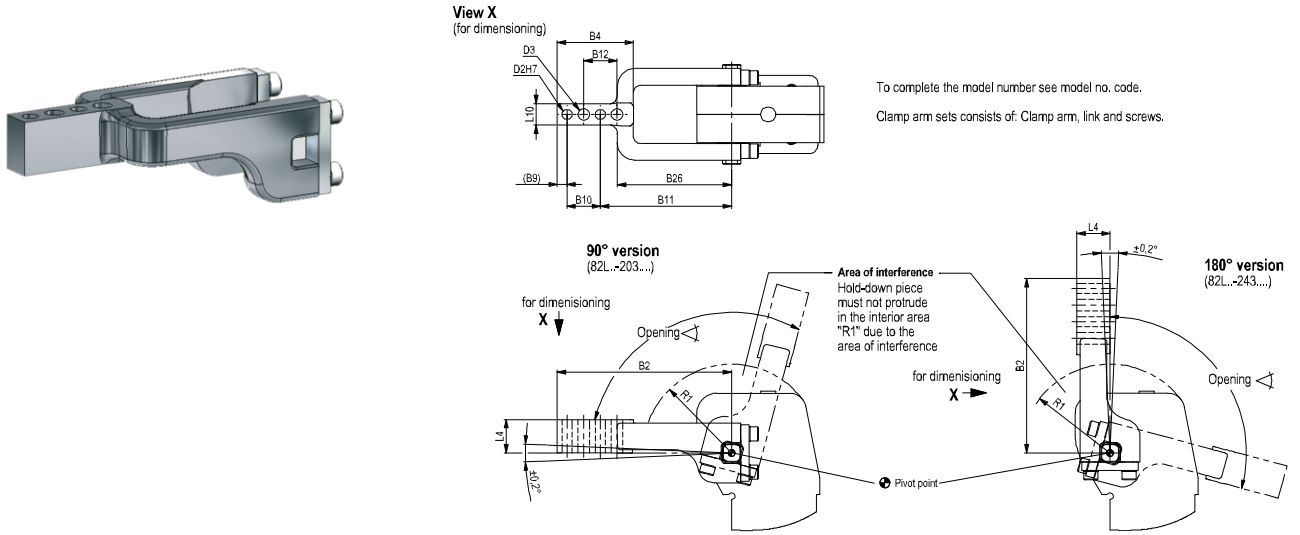
Series **82L2G-2, 82L3-2, 82L4-2** Technical Information, Model with Hand Lever

Model	Max. holding torque Nm [lb ft]	Clamping torque at 5 bar [72 psi] Nm [lb ft]	Piston Ø mm	Weight kg [lbs]	Opening angle	Air consumption per double stroke at 5 bar [72 psi] dm ³ [ft ³]	Connection G	B1	B1α	B3	B5	B5α
82L2G-2...	75 [55]	25 [18]	25	1,1 [2.42]		0,4 [0.01]	G1/8	32	34	3	4	4
82L3G-2... 82L3N-2...	180 [133]	55 [41]	32	1,5 [3.30]	105°	0,8 [0.03]	G1/8 1/8-18NPT	42	34	-	5	8
82L4G-2... 82L4N-2...	380 [280]	120 [89]	40	2,1 [4.62]		1,2 [0.04]	G1/4 1/4-18NPT	45	40	-	6,5	6

Model	B5b	B6	B7	B21	B23	B24	B24α	B30	B31	D1	L1	L2	L3	L6	L7	L8	L9	L17	SW	α1	α2	R1
			±0,1	~	max			±0,1			max.	max.		±0,05	+0,1	±0,1	±0,1		h9	~	~	~
82L2G-2...	4,5	7	25	62	53	60,5	53,5	44	15	M5	183,5	104,5	67	17	28	5	18	8,5	9	36°	131°	117
82L3G-2... 82L3N-2...	4,5	7	20	62	60	76,5	63,5	51	21	M5	210	119	83	25	36	8	20	12,5	11	31°	124°	117
82L4G-2... 82L4N-2...	4,5	10	25	62	74	88	69,5	57	26,5	M6	241	137	92	30	40	10	20	16	16	31°	131°	117

Series **82L2G-2, 82L3.-2, 82L4.-2** Clamp Arm Variants

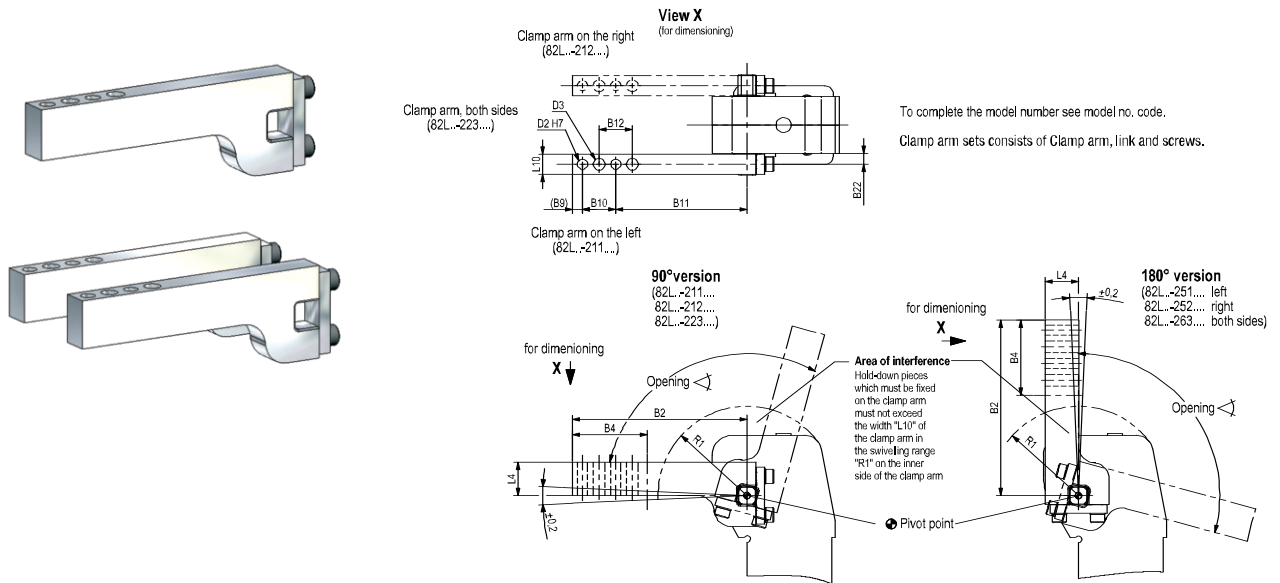
U-type central clamping arms Technical Information



To complete the model number see model no. code.
Clamp arm sets consists of: Clamp arm, link and screws.

Model	Order no. for set of U-type central clamping arms	Opening angle for 90° - Version	Opening angle for 180° - Version	Weight [kg]	B2	B4	B9	B10	B11	B12	B26	D2	D3	L4	L10	R1
		max.	max.										H7			
82L2G-2...	8JG-075-3-01	105°	105°	0,3	93	45	8	20	65	20	58	4	6,5	20	12	45
82L3*-2...	8JG-065-2-01	105°	105°	0,37	105	45	6	20	79	20	69	6	7	20	12*	55
82L4*-2...	8JG-067-2-01	105°	105°	0,5	110	45	6	20	84	20	78	6	7	22	15*	58

Lateral clamping arms Technical Information

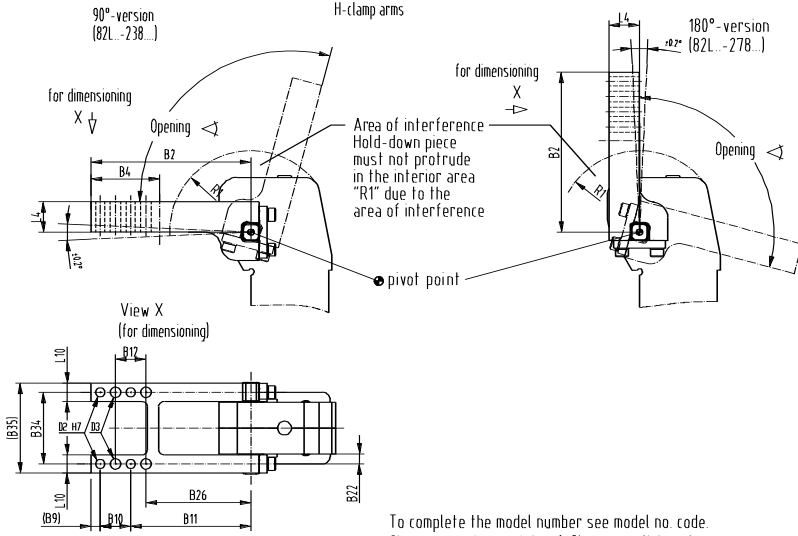


To complete the model number see model no. code.
Clamp arm sets consists of: Clamp arm, link and screws.

Model	Order no. for set of Lateral clamping arms	Opening angle for 90° - Version	Opening angle for 180° - Version	Weight [kg]	B2	B4	B9	B10	B11	B12	B22	D2	D3	L4	L10	R1
		max.	max.										H7			
82L3*-2...	8JG-066-1-01	105°	105°	0,25	105	45	6	20	79	20	6,5	6	7	20	12	55
82L4*-2...	8JG-068-1-01	105°	105°	0,3	92	45	6	20	66	20	8,5	6	7	22	15	58

Series **82L2G-2, 82L3.-2, 82L4.-2** Clamp Arm Variants

H- clamping arms Technical Information



Model	Order no. for set of H-clamping arms	Opening angle for 90° - Version	Opening angle for 180° - Version	Weight [kg]	B2	B4	B9	B10	B11	B12	B26	B34	B35	D2	D3	L4	L10	R1
		max.	max.		±0,02	+0,1	±0,2	±0,1	H7	±0,1								
82L3*-2*8...	8JG-363-1-01	105°	105°	0,52	105	45	6	20	79	20	69	47,1	59,1	6	7	20	12	55
82L4*-2*8...	8JG-364-1-01	105°	105°	0,77	110	45	6	20	84	20	78	57,1	72,1	6	7	22	15	58

Concept guidelines

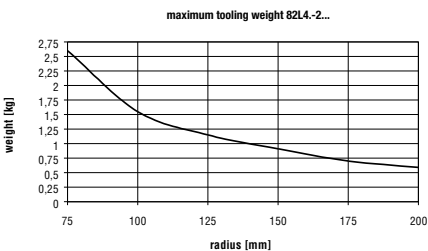
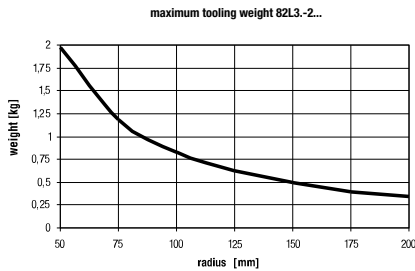
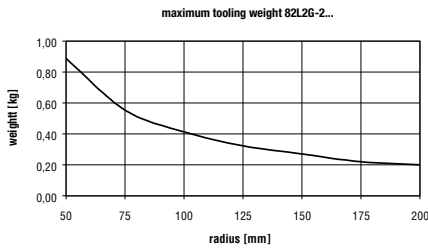
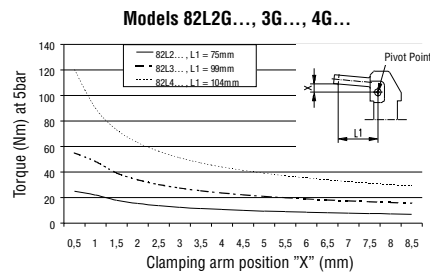


Diagram of Clamping Force (at 5 bar)

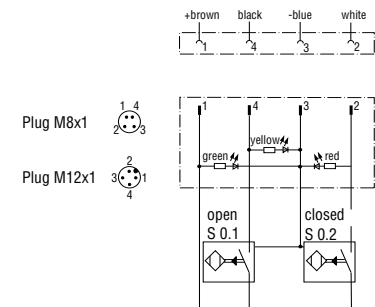


Wiring diagram of electrical sensing system

Sensing system immune to interference from d.c. arc welding and a.c. arc welding

Inductive version: B8, B7, C8

Pin Assignment



All data refers to a pneumatic pressure of 6 bar and to a opening and closing time of 1 second, as well as to the center of gravity of the complete construction directly attached to the clamp arm related to the fixed fulcrum.