	Series	Section.Page	Holding Force at 5 bar: 0 to 100 [N]	100 to 500 [N]	500 to 1000 [N]	1000 to 2000 [N]	2000 to 4000 [N]	Clamping Force (N) at 5 bar: 0 to 100 [N]	100 to 500 [N]	500 to 1000 [N]	1000 to 2000 [N]	2000 to 4000 [N]	Piston Diameter: Less than 25mm	25mm	32mm	40mm	50mm	63mm	80mm	Material: Aluminum	Steel
	81L	15.4	■					■					■							■	
	82L-4	15.6	■					■						■						■	
	82L-2	15.11	■	■				■	■					■	■	■				■	
	82M	15.15		■	■				■							■	■	■		■	
	82G80	15.41					■				■								■		■
	82D	15.49	■	■				■	■											■	
	82U	15.55					■					■								■	
	GDP	15.57										■			■					■	
	82P	15.61										■			■					■	
	870/871	15.67			■				■								■				■

Weight					Air Consumption at 5 bar [dm3]				Application Area													
0 to 2 [Kg]	2-4[Kg]	4-6 [Kg]	6-8 [Kg]	More than 8 [Kg]	0 to 0.5 [dm3]	0.50 to 1.00 [dm3]	1.00 to 2.00 [dm3]	More than 2,00 [dm3]	Welding	Assembly	Dirty Environment	End Effectors	Machining	Duty Cycle	Adjustable Opening Angle	Inductive Sensors Available	Dual Arms	Locating	Manual Version Available	Center Arm	Lateral Arms	Toggle Locking
■					■				⊗	●	○	●	●	○						✓		✓
■					■				●	●	●	●	●	●	✓	✓			✓	✓	✓	✓
■						■			●	●	●	○	●	●	✓	✓			✓	✓	✓	✓
	■	■					■	■	●	●	●	●	●	●	✓	✓			✓	✓	✓	✓
				■				■	●	●	●	⊗	●	●	✓	✓					✓	✓
	■						■	■	●	●	●	○	●	●		✓	✓					✓
	■						■		○	●	○	○	●	●		✓		✓				✓
	■					■			●	●	●	●	●	●		✓		✓				✓
	■					■			○	●	○	●	●	●		✓		✓				✓
	■							■	⊗	●	○	●	●	●						✓		✓

● Excellent/High ○ Fair/Medium ● Poor/Low ⊗ Not Recommended

Series **81L** Product Overview

Features:
- Lightweight, aluminum body
- Two mounting areas: front and side
- Toggle-action mechanism
- Can be quickly retrofitted with magnetic sensing system

Applications:
- Assembly
- Checking fixtures
- Handling systems

Also Available:
82LxG-2 Series: Enclosed version in similar sizes. See page 15.12

81L12-1

81L16-1

81L20-1

81L25-1

Series **81L** Technical Information, Ordering Information

Model	Max. Holding Torque Nm [lb ft]	Max. Clamping Torque @5 bar [72 psi] Nm [lb ft]	Weight kg [lb]	Air Consumption @5 bar [72 psi] dm^3 [ft^3]	Max. Added Load (@ Position, "X) g [oz]
81L12-101	25 [18.4]	4,5 [3.3]	0,16 [0.4]	0,25 [0.01]	50 [1.8]
81L12-141	20 [14.8]	4,5 [3.3]	0,17 [0.4]	0,25 [0.01]	50 [1.8]
81L16-101	60 [44]	6 [4.4]	0,25 [0.6]	0,27 [0.01]	80 [2.8]
81L16-141	40 [29.5]	6,5 [4.8]	0,27 [0.6]	0,26 [0.01]	80 [2.8]
81L20-101	100 [73.8]	18 [13.3]	0,50 [1.1]	0,40 [0.01]	90 [3.2]
81L20-141	80 [59]	17 [12.5]	0,52 [1.2]	0,35 [0.01]	90 [3.2]
81L25-101	100 [73.8]	18 [13.3]	0,52 [1.2]	0,40 [0.01]	100 [3.5]

Example Order No.: **81L12-1** **01** **00**

00 = Standard Design

81L12-10100 81L16-10100 81L20-10100 81L25-10100

Base Model: Size

01 = clamping arm, horizontal (120° standard-opening angle)

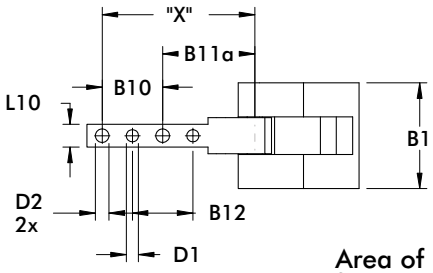
41 = clamping arm, vertikal (90° standard-opening angle)

Arm Style

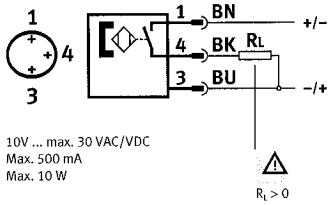
Series 81L Standard Clamp Dimensions, Accessories, Spare Parts

Accessories:

Part #	Description	Notes
8EA-109-1	Sensor	3-wire cable, M8x1 connector, 3-pin
82ZB-004-1	Adapter	Adapter for mounting 81L20-1, 81L25-1 to 25mm dia. bar

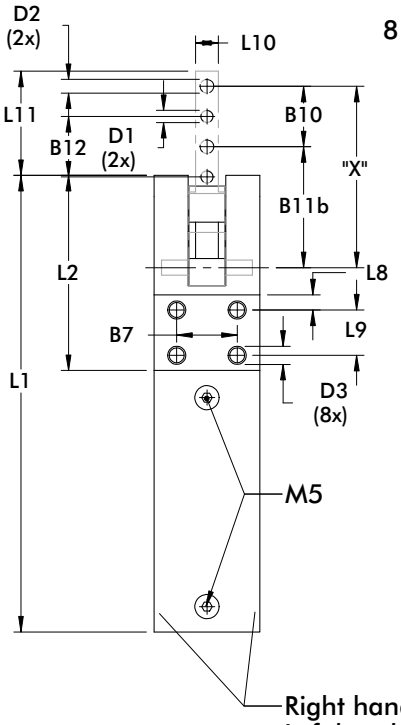


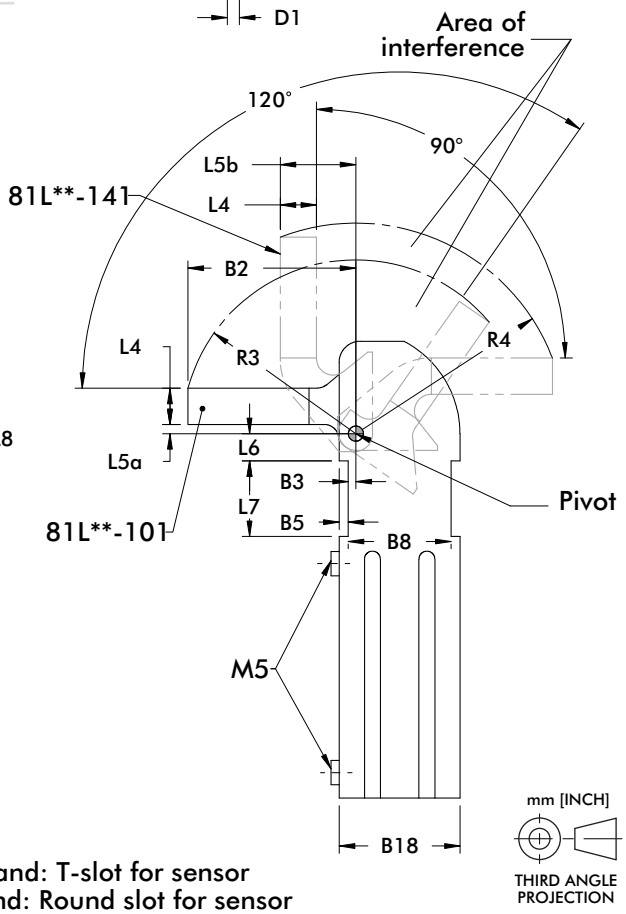
8EA-109-1



BN = Brown
BK = Black
BU = Blue
RL = Load

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





Spare Parts:

Model	Seal Kit
81L12-1	81L12-1-00
81L16-1	81L16-1-00
81L20-1	81L20-1-00
81L25-1	81L20-1-00

Model	D1 Ø [H7]	D2 Ø	D3 Ø	B1	B2	B3	B5	B7	B8	B10	B11a	B11b	B12
81L12-1	[0.12] 3	[0.13] 3,3	M4x6	[0.94] 24	[1.57] 40	[0.10] 2,5	[0.06] 1,5	[0.59] 15	[0.98] 25	[0.35] 9	[1.06] 27	[1.24] 31,5	[0.35] 9
81L16-1	[0.12] 3	0.17] 4,3	M5x5	[1.12] 30	[1.97] 50	[0.08] 2	[0.08] 2	[0.79] 20	[1.02] 26	[0.59] 15	[1.18] 30	[1.56] 39,5	[0.59] 15
81L20-1	[0.16] 4	[0.18] 4,5	M6x8	[1.38] 35	[2.12] 55,5	[0.10] 2,5	[0.12] 3	[0.79] 20	[1.34] 34	[0.79] 20	[1.20] 30,5	[1.57] 40	[0.79] 20
81L25-1	[0.16] 4	[0.26] 6,5	M6x8	[1.38] 35	[2.58] 65,5	[0.10] 2,5	[0.12] 3	[0.79] 20	[1.34] 34	[0.79] 20	[1.59] 40,5	[1.97] 50	[0.79] 20

Model	B18	L1	L2	L4	L5a	L5b	L6	L7	L8	L9	L10	L11	R3	R4
81L12-1	[1.10] 28	[4.09] 104	[1.59] 40,5	[0.28] 7	[0.10] 2,5	[0.7] 17,5	[0.18] 4,5	[0.59] 15	[0.12] 3	[0.35] 9	[0.24] 6	[0.93] 23,5	[1.61] 41	[1.89] 48
81L16-1	[1.18] 30	[4.69] 119	[1.95] 49,5	[0.35] 9	0.09] 2,3	[0.8] 20,5	[0.23] 5,8	[0.79] 20	[0.16] 4	[0.47] 12	[0.31] 8	[1.41] 35,8	[2.00] 51	[2.48] 63
81L20-1	[1.57] 40	[5.94] 151	[2.54] 64,5	[0.47] 12	[0.12] 3	[0.98] 25	[0.35] 9	[0.98] 25	[0.19] 5	[0.59] 15	[0.29] 7,5	[1.36] 34,5	[2.26] 57,5	[2.75] 70
81L25-1	[1.57] 40	[5.94] 151	[2.54] 64,5	[0.47] 12	[0.12] 3	[0.98] 25	[0.35] 9	[0.98] 25	[0.19] 5	[0.59] 15	[0.47] 12	[1.75] 44,5	[2.64] 67	[3.11] 79

Series **82L..-4** Product Overview

Features:
- Lightweight, enclosed aluminum body
- Two mounting areas: front and side
- Toggle-action mechanism
- Compatible with magnetic sensing system

Applications:
- Assembly
- Checking fixtures
- Handling systems

Also Available:
82Lxx-2 Series: Enclosed version in larger sizes

See page 15.12

82L..-**403.**
Horizontal clamping position

82L..-**443.**
Vertical clamping position

Series **82L..-4...** Technical Information, Ordering Information

Model	Max. Holding Torque Nm [lb ft]	Max. Clamping Torque @5 bar [72 psi] Nm [lb ft]	Weight [with arm] kg [lb]	Air Consumption @5 bar [72 psi] dm^3 [ft^3]	Max. Added Load (@ Position, "X) g [oz]
82L12-403	35 [18.4]	10,4 [3.3]	0,23 [0.4]	0,25 [0.01]	50 [1.8]
82L12-443	35 [18.4]	8,7 [3.3]	0,23 [0.4]	0,25 [0.01]	50 [1.8]
82L16-403	40 [29.5]	12,4 [4.4]	0,33 [0.6]	0,27 [0.01]	80 [2.8]
82L16-443	40 [29.5]	11,0 [4.8]	0,33 [0.6]	0,27 [0.01]	80 [2.8]
82L20-403	50 [73.8]	21,0 [13.3]	0,42 [1.1]	0,35 [0.01]	90 [3.2]
82L20-443	50 [73.8]	19,3 [12.5]	0,42 [1.2]	0,35 [0.01]	90 [3.2]
82L25-403	80 [59]	31,8 [13.3]	0,66 [1.2]	0,40 [0.01]	100 [3.5]
82L25-443	80 [59]	28,5 [12.5]	0,66 [1.2]	0,40 [0.01]	100 [3.5]

Example Order No.: **82L12-4** **03** **0**

82L12-4
82L16-4
82L20-4
82L25-4

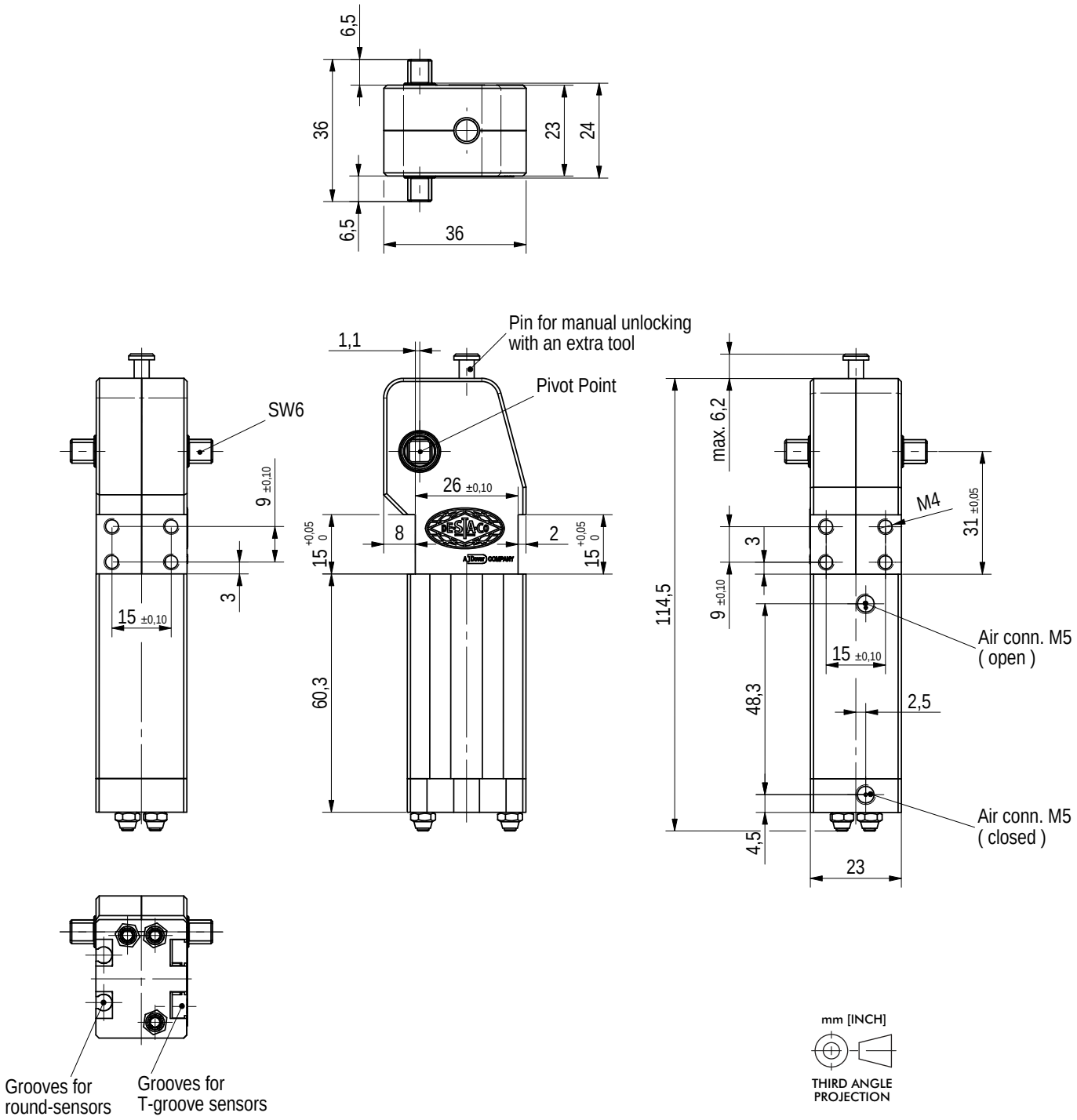
00 = without clamping arm
03 = U-bar, central 90°

00 = without clamping arm
43 = U-bar, central 180°

0 = opening angle standard 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

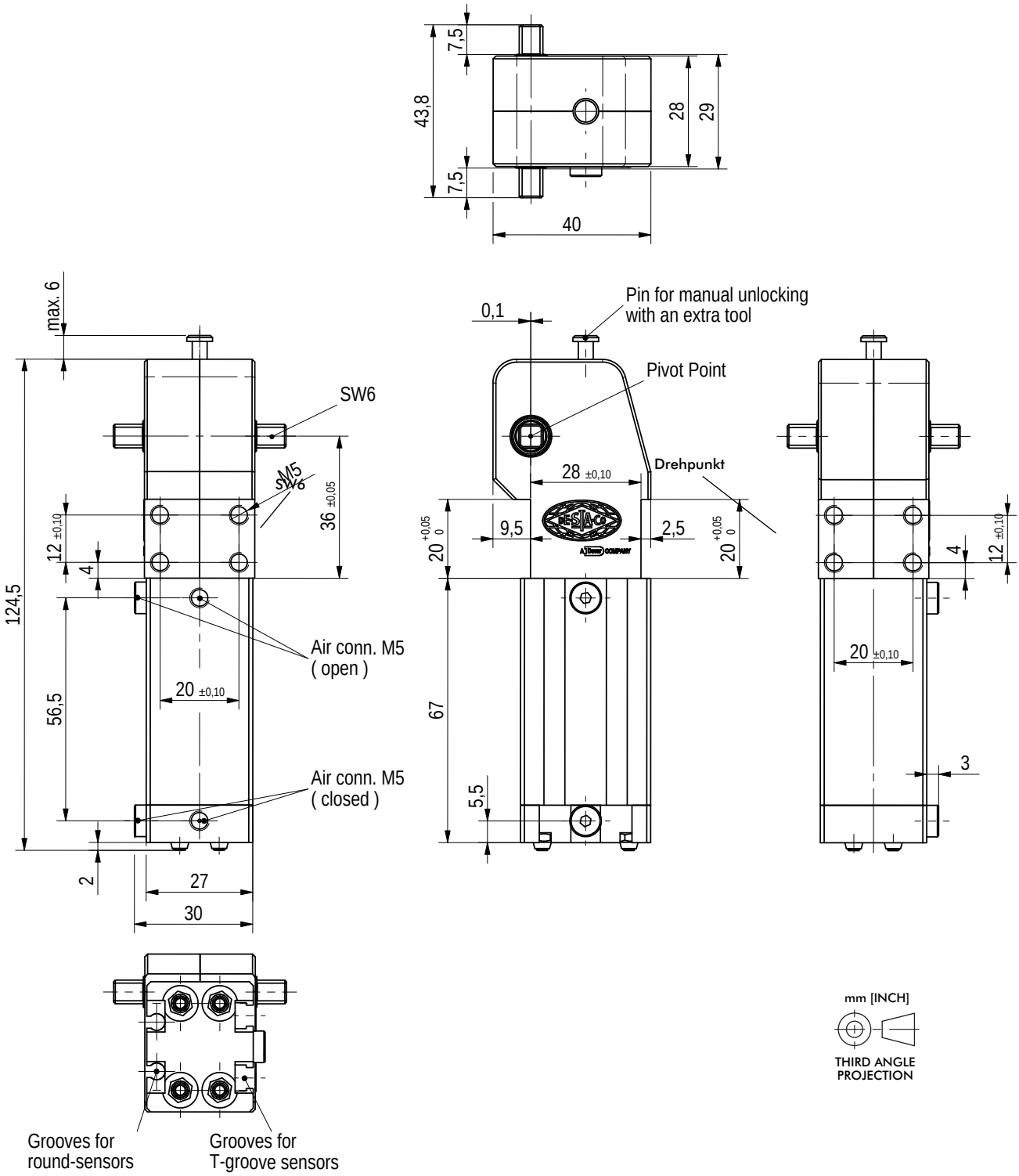
105° standard opening angle

Series 82L12-4 Standard Clamp Dimensions



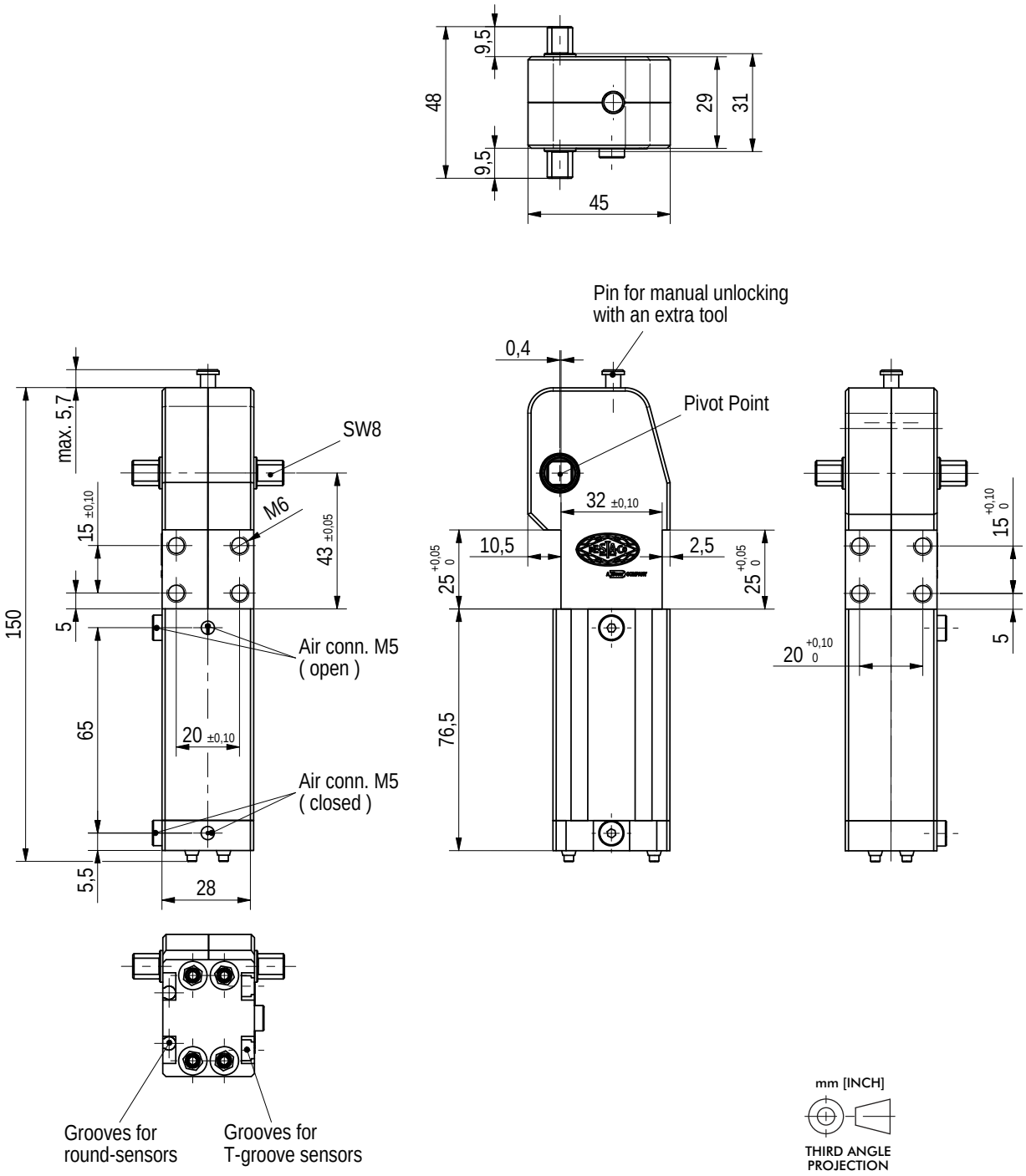
Power by compressed air, max. 6 bar
Operation with oil-free air is permissable.

Series **82L16-4** Standard Clamp Dimensions



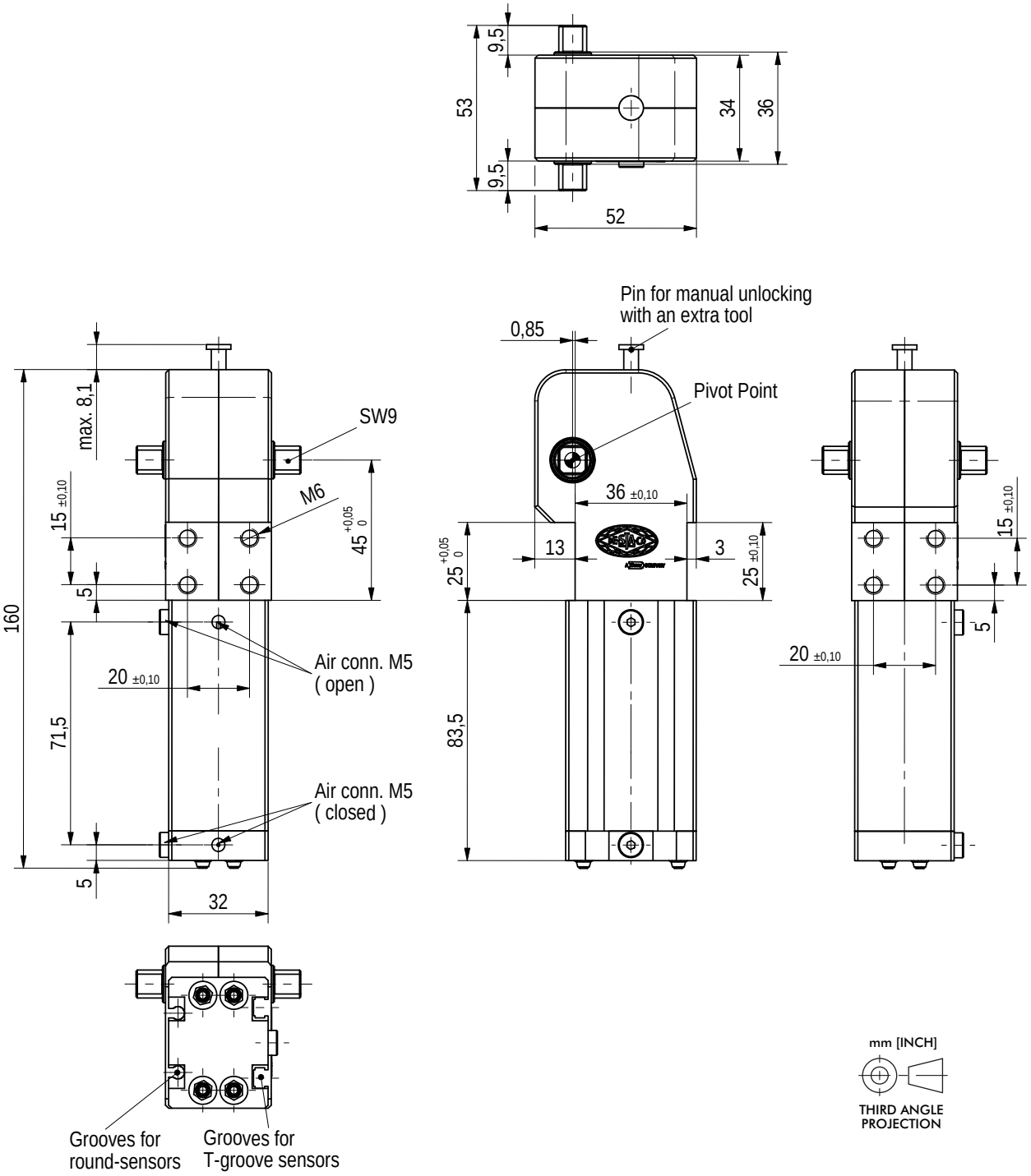
Power by compressed air, max. 6 bar
Operation with oil-free air is permissable.

Series **82L20-4** Standard Clamp Dimensions



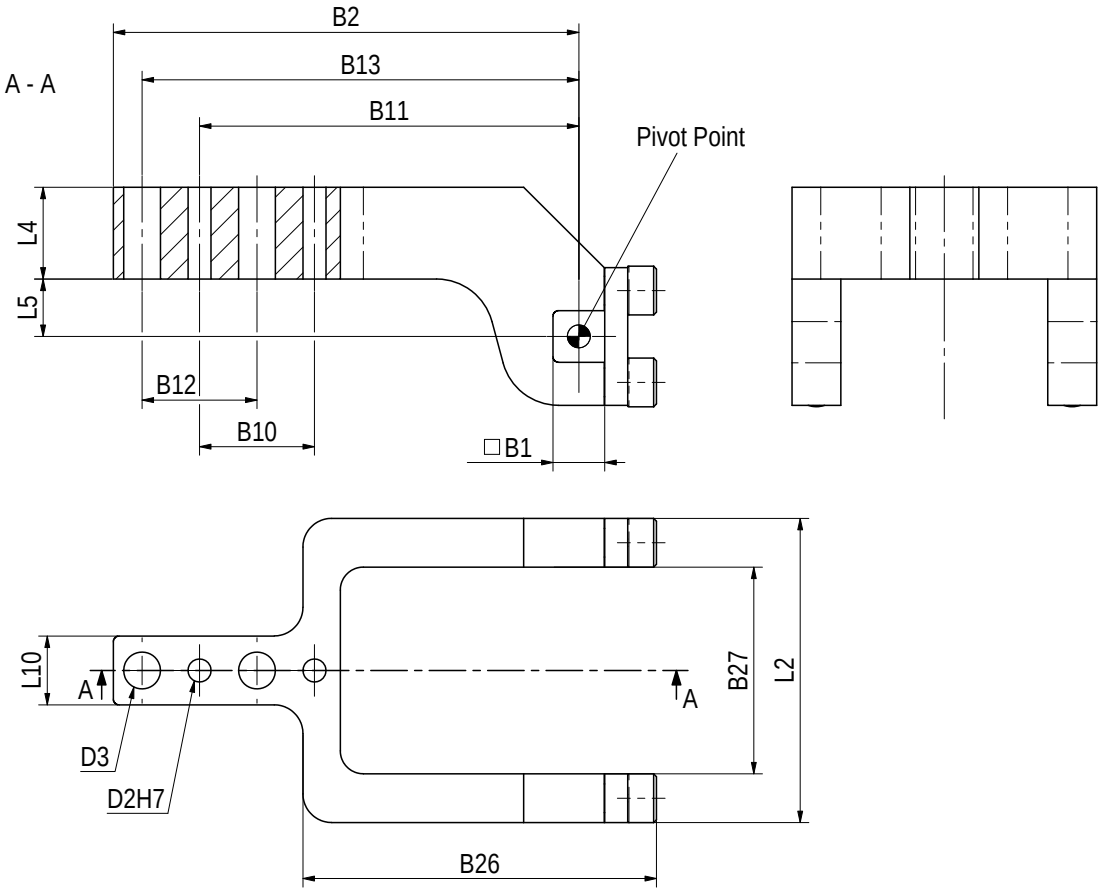
Power by compressed air, max. 6 bar
Operation with oil-free air is permissable.

Series **82L25-4** Standard Clamp Dimensions



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

Series 82L...-4... Clamp Arm Dimensions

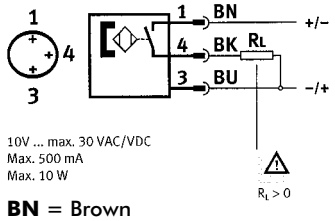


Model	Order no. for Arm	Max. Opening angle	B1	B2	B10 ±0,02	B11 ±0,02	B12 ±0,1	B13 ±0,1	B26	B27	D2 H7	D3	L2	L4	L5	L10
82L12-4...	**8JG-401-1-01**	105°	6	54	9	45.5	9	50	48.5	24	3	3.3	36	7	10	6
82L16-4...	**8JG-402-1-01**	105°	6	63	15	50.5	15	58	48.1	29	3	4.5	44	9.5	10	10
82L20-4...	**8JG-403-1-01**	105°	8	78	20	63	20	73	58	31	4	4.5	48	14	10	8
82L25-4...	**8JG-404-1-01**	105°	9	81	20	66	20	76	61.5	36	4	6.4	53	16	10	12

Accessories (order separately)

Part no.	Description	Notes
8EA-109-1	Sensor	3-wire cable, M8x1 connector, 3-pin
82ZB-004-1	Adapter	Adapter for mounting 81L20-1, 81L25-1 to 25mm dia. bar

8EA-109-1



BN = Brown
BK = Black
BU = Blue
RL = Load

Series **82L2G-2, 82L3G-2, 82L4G-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 and rear
- toggle action mechanism
- manual unlocking in case of pressure drop
- 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.: 82L | 3G | - | 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

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

- 2 = Version

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°

Clamp Arms

0 = without sensing system

C8 = 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

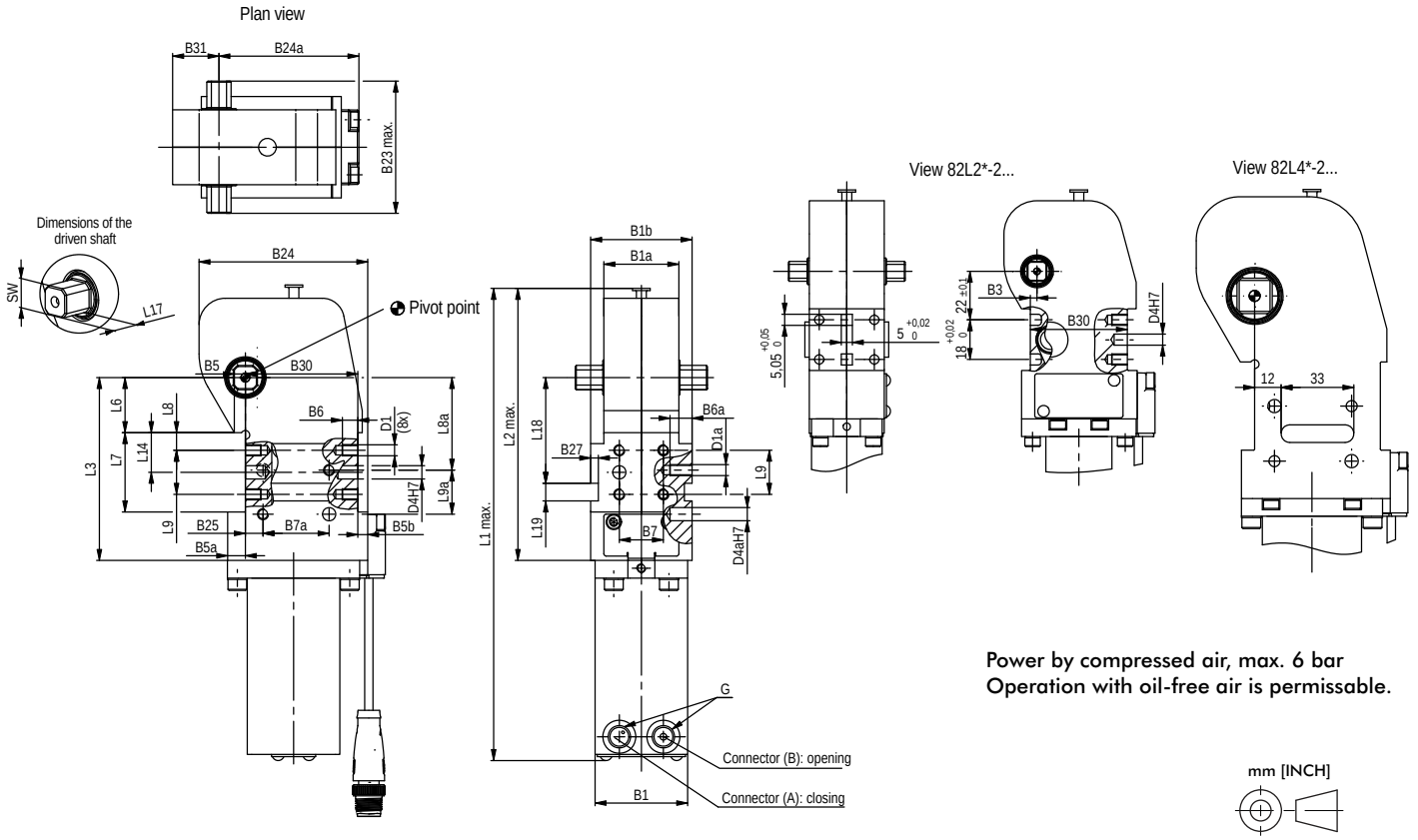
H = with hand lever

Hand Lever

0 = 105° standard opening angle
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, 82L3G-2, 82L4G-2** Technical Information, Standard Clamp Dimensions



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

mm [INCH]

THIRD ANGLE PROJECTION

Series **82L2G-2, 82L3G-2, 82L4G-2** Technical Information, Model without Hand Lever

Model	Max. holding torque Nm [lb ft]	Clamping torque at 5 bar Nm [lb ft]	Piston Ø mm [in]	Weight kg [lbs]	Air consumption per double stroke at 5 bar dm3 [ft3]	Connection G
82L2G-2...	75 [55]	25 [18]	25 [18]	1,0 [2.20]	0,4 [0.01]	G1/8 1/8-18 NPT
82L3G-2... **82L3N-2...**	180 [133]	55 [41]	32 [24]	1,3 [2.86]	0,8 [0.03]	G1/8 1/8-18 NPT
82L4G-2... **82L4N-2...**	380 [280]	120 [89]	40 [30]	1,9 [4.18]	1,2 [0.04]	G1/4 1/4-18 NPT

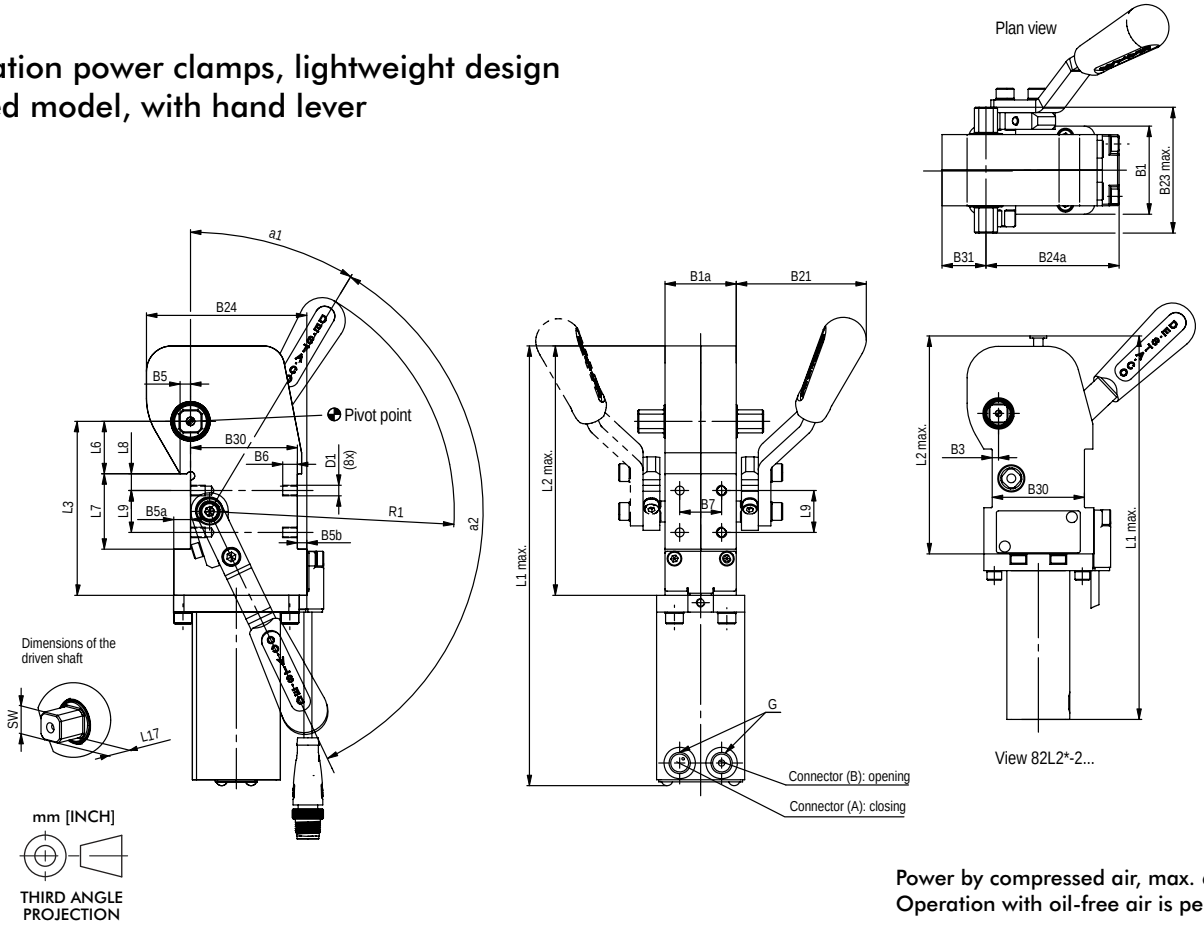
Model	B1	B1a	B1b	B3	B5	B5a	B5b	B6	B6a	B7 ± 0,1	B7a** ± 0,1	B23 max.	B24	B24a	B25 +0,1	B27	B30 ± 0,1	B31
82L2*-2...	32	34	-	3	4	4	4.5	7	-	25	-	53	60.5	53.5	-	-	44	15
82L3*-2...	42	34	46	-	5	8	4.5	7	10	20	30	60	76.5	63.5	8	3.5	51	21
82L4*-2...	45	40	-	-	6.5	6	4.5	10	10	25	35	74	88	69.5	9	3.5	57	26.5

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
82L2*-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, 82L3G-2, 82L4G-2** 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 permissable.

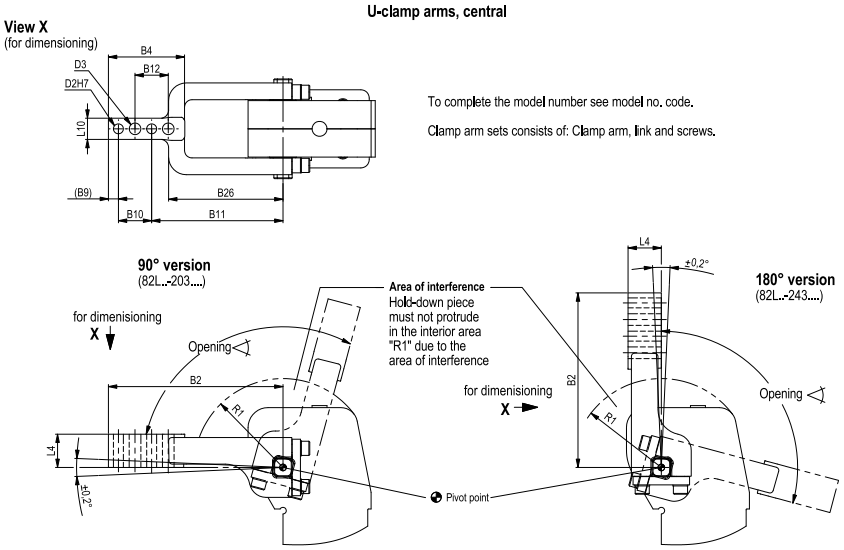
Series **82L2G-2, 82L3G-2, 82L4G-2** Technical Information, Model with Hand Lever

Model	Max. holding torque Nm [lb ft]	Clamping torque at 5 bar Nm [lb ft]	Piston Ø mm [in]	Weight kg [lbs]	Opening angle	Air consumption per double stroke at 5 bar dm3 [ft3]	Connection G	B1	B1a	B3	B5	B5a
82L2G-2...	75 [55]	25 [18]	25 [18]	1,1 [2.42]	105°	0,4 [0.01]	G1/8 1/8-18NPT	32	34	3	4	4
82L3G-2... **82L3N-2...**	180 [133]	55 [41]	32 [24]	1,5 [3.30]		0,8 [0.03]	G1/8 1/8-18NPT	42	34	–	5	8
82L4G-2... **82L4N-2...**	380 [280]	120 [89]	40 [30]	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	B24a	B30	B31	D1	L1	L2	L3	L6	L7	L8	L9	L17	SW	a1	a2	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

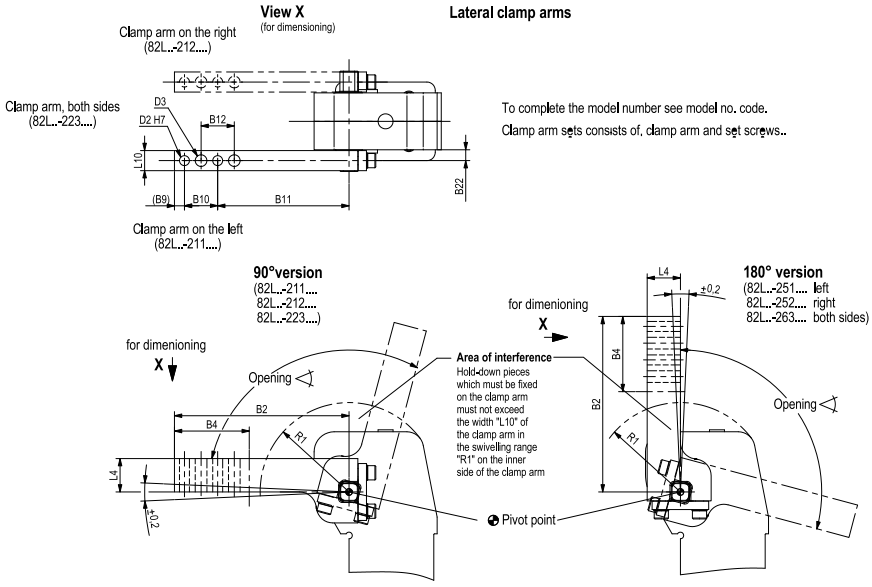
Series 82L2G-2, 82L3G-2, 82L4G-2 Clamp Arm Dimensions

U-bar for 82L__-2



Model	Order no. for U-bar	Opening angle for 90° - Version	Opening angle for 180° - Version	Weight	B2	B4	B9	B10	B11	B12	B26	D2	D3	L4	L10	R1
		max.	max.	[kg]				±0,02	±0,1	±0,2		H7		±0,1		
82L2*-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-065-2-02	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	20	12	58

Lateral arms for 82L__-2



Model	Order no. for U-bar	Opening angle for 90° - Version	Opening angle for 180° - Version	Weight	B2	B4	B9	B10	B11	B12	B22	D2	D3	L4	L10	R1
		max.	max.	[kg]				±0,02	±0,1	±0,2		H7		±0,1		
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 **82M-1** Product Overview

Features:
- modular design
- shielded body, dirt-resistant
- compact design
- high holding torques
- long life cycle
- low weight (aluminium body)
- wide range of clamping arm variants
- adjustable opening angle without need for accessory parts
- mounting areas at front, back and sides
- toggle action mechanism
- manual unlocking in case of pressure drop
- inductive sensing module with LED display

Application:
Clamping, holding, gripping and positioning of metal sheets and other parts, mainly in jigs and handling systems.

Key areas of application:
Automotive manufacturing, sheet processing industry, jig and general mechanical engineering.

82M-1**23040C8**
Lightwieght, enclosed Modular automation power clamp

Simple adjusting of opening angle (pictures show sensor-box separated from clamp)

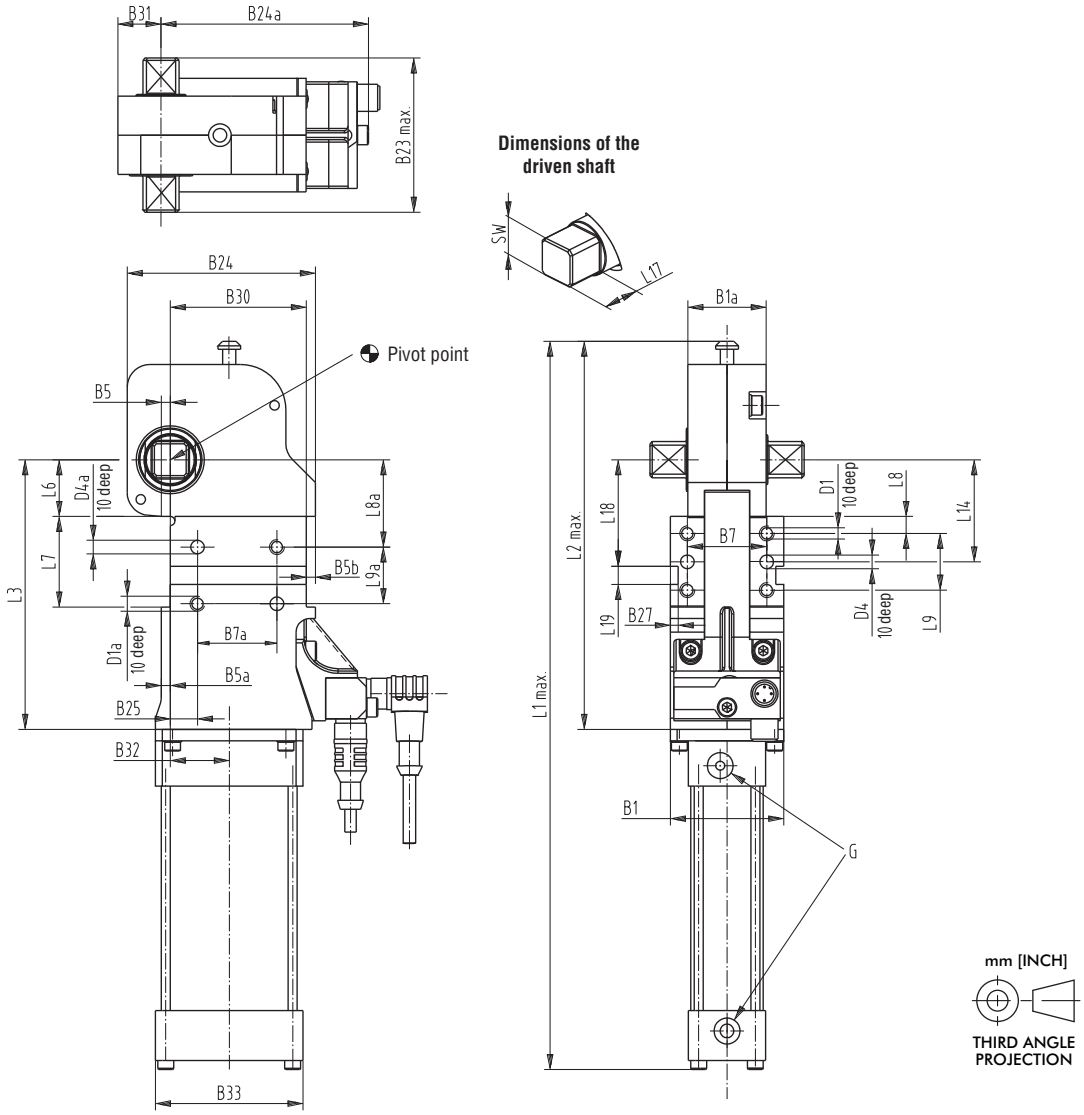
120° Opening angle (delivery condition)

Click-out of bumper

Click-in in new position (60°) (sensor box fit for reassembling to clamp)

Model			Standard opening angle	Max. holding torque Nm [lb ft]	Clamping torque at 5 bar Nm [lb ft]	Drive shaft for clamping arm variant	Clamping position	Cylinder Ø mm [in]	Air consumption per double stroke at 5 bar dm^3 [ft^3]	Weight ~ kg [lbs]
w/o sensing	w/ ind. sensing Connector M12x1, fixed									
	Turck	Pepperl & Fuchs								
82M-12304000	82M-123040C8	82M-123040D8	120°	380 [280]	120 [89]	lateral, U-central	horizontal/ vertical	40 [1.57]	1,2 [0.04]	2 [4.40]

Series 82M-1 Standard Clamp Dimensions



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

Model	Piston Ø	Connection G	B1 ±0,1	B1a	B5	B5a	B5b	B7[1] ±0,1	B7a[1] ±0,1	B23 max.	B24
82M-123040_ _	40	G 1/4	50	34,5	4	4	4	35	35	68	83

Model	B24a	B25 ±0,1	B27	B30 ±0,1	B31	B32	B33	D1	D1a	D4 H7 Ø	D4a H7 Ø	L1 max.	L2 max.
82M-123040_ _	91,5	12	3,5	60	19	25,8	65	M6	M6	6	6	323	173

Model	L3	L6 ±0,05	L7 +0,1	L8 ±0,1	L8a ±0,1	L9 ±0,1	L9a[1] ±0,1	L14 ±0,1	L17	L18	L19 N9	SW h9
82M-123040_ _	119	25	40	7,5	38,5	25	25	45	16	47	8	16

1) Tolerance for distance to dowel hole ±0,02

Series **82M-1** Clamping Arm Variants

Clamping arm design
U-type central clamping arm

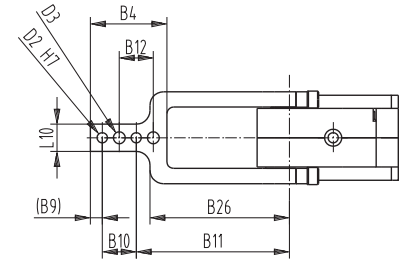
Clamping position
horizontal or vertical

Central clamping arm, horizontal clamping position

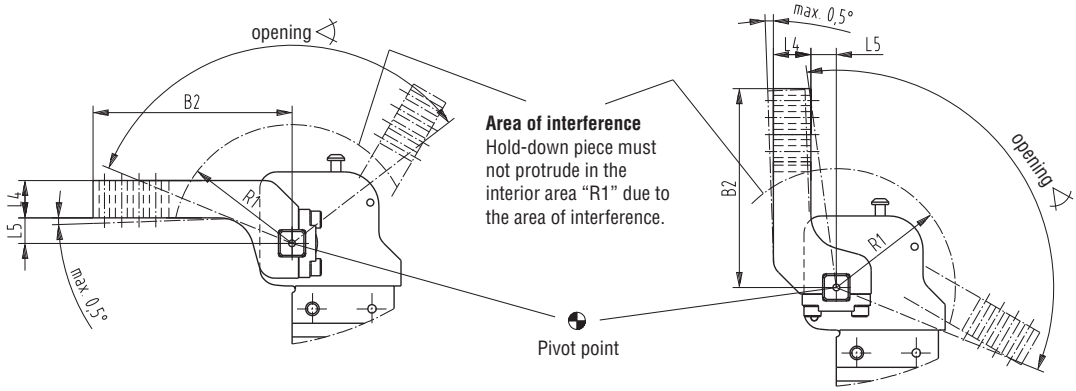
U-type central clamping arm Technical Information

Model	Order no. for set of U-type central clamping arms	Opening angle for clamping position horizontal	vertical	Weght (kg)	B2	B4	B9	B10 ±0,02	B11 +0,1	B12 ±0,2	B26	D2 H7 Ø	D3 Ø	L4	L5 (-0,5° max.)	L10	R1
82M-1...040..	8UM401-15-117	120°	120°	0,47	117	45	7	20	90	20	82	6	7	22	15	16	70
	8UM401-25-117	120°	120°	0,46	117	45	7	20	90	20	82	6	7	22	25	16	70
	8UM401-00-117	120°	105°	0,43	117	45	7	20	90	20	82	6	7	22	0	16	70
	8UM401-45-107	120°	120°	0.50	107	45	7	20	80	20	72	6	7	22	45	16	70

Horizontal clamping arm position



Vertical clamping arm position



Series **82M-1** Clamping Arm Variants

Lateral clamping arm, horizontal clamping position

Clamping arm design	Clamping position
lateral / left	horizontal or vertical
lateral / right	horizontal or vertical
lateral / both sides	horizontal or vertical

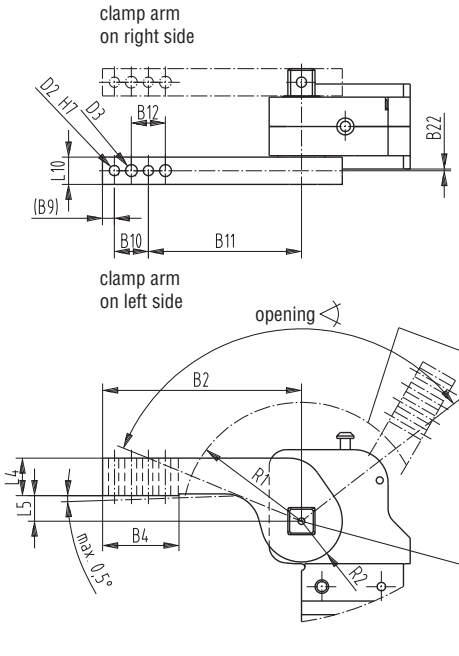
Lateral clamping arm, horizontal clamping position

Lateral clamping arms Technical Information

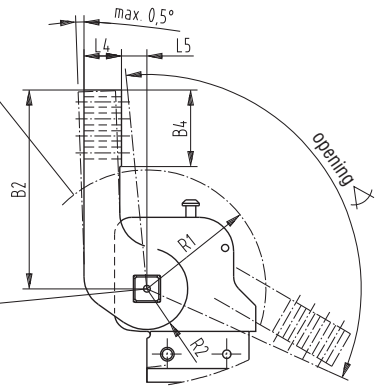
Model	Order no. for set of lateral clamping arms	Opening angle for clamping position horizontal	Opening angle for clamping position vertical	Weght (kg)	B2	B4	B9	B10 ±0,02	B11 +0,1	B12 ±0,2
82M-1...040..	8S401-15-117	120°	120°	0,5	117	45	7	20	90	20

Model	Order no. for set of lateral clamping arms	B22	D2 H7 Ø	D3 Ø	L4 ±0,1	L5 (-0,5°max)	L10	R1	R2
82M-1..040..	8S401-15-117	1	6	7	22	15	16	70	24

Horizontal clamping arm position

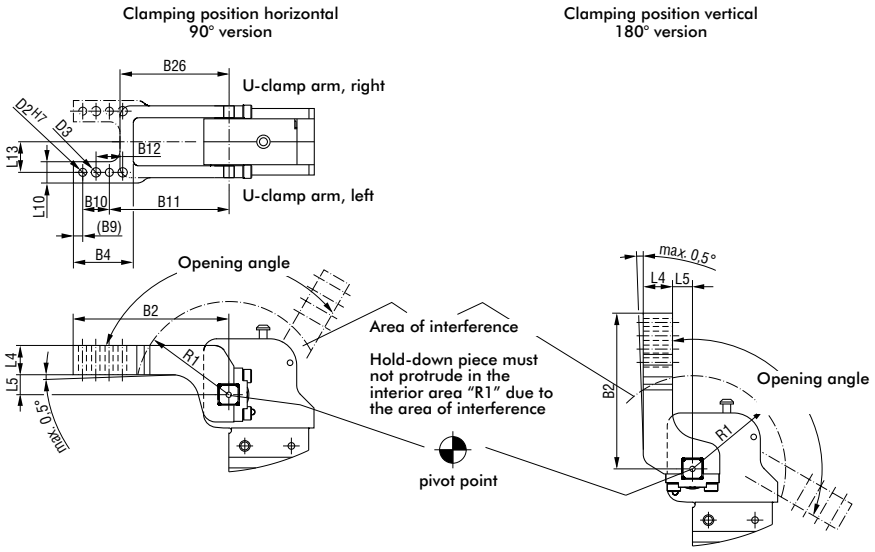


Vertical clamping arm position



Series 82M-1 Clamping Arm Variants

Clamp arm-variants Clamparm design U-type: left, right



U-type left
clamping position: horizontal

U-type right
clamping position: horizontal

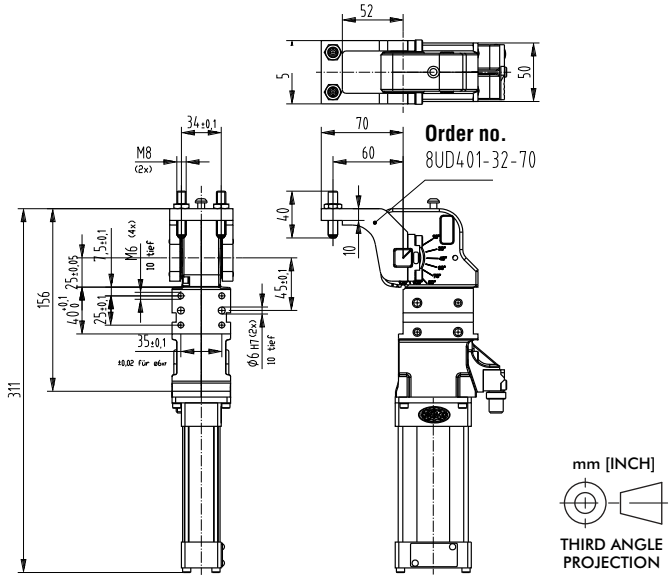
U-clamp arm lateral Technical Information

Order No. for set		Max. opening angle		Weight	B2	B4	B9	B10	B11	B12	B26	D2	D3	L4	L5	L10	L13	R1
U-type clamping arms for 82M-1		in clamping position		(kg)				±0,02		±0,2		H7		±0,1	(-0,5°		±0,1	
left	right	horizontal	vertical									Ø	Ø	Ø	max.)			
8UL401-00..	8UR401-00..	120°	120°	0,47	117	45	7	20	90	20	82	6	7	22	15	16	23	70
8UL401-15..	8UR401-15..	120°	120°	0,5	107	45	7	20	80	20	72	6	7	22	45	16	23	70
8UL401-24..	8UR401-24..	120°	105°	0,43	117	45	7	20	90	20	82	6	7	22	0	16	23	70
8UL401-45..	8UR401-45..	120°	120°	0,47	117	45	7	20	90	20	82	6	7	22	25	16	23	70

Clamping arm special design with pressure bolt Order no. 8UD401-32-70

82M-1 with arm 8UD401-32-70

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



Series **82M-1** Ordering Information, Standard Clamp Dimensions

Order No. code for 82M-1..040..

Example Order No.: **82M-1** **23** **0** **40** **C8**

82M - 1 = Basic model

without hand lever
without cylinder
without sensing system

Basic model

23 = drive shaft for lateral clamp arms and U-clamp arm

Drive shaft

0 = without hand lever

40 = pneumatic cylinder Ø40

Cylinder

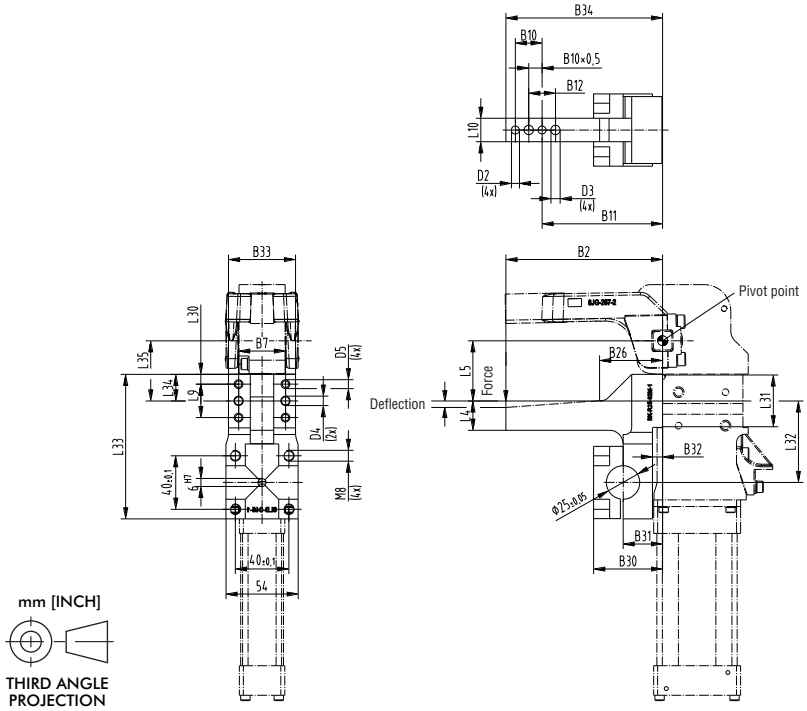
00 = without sensing system

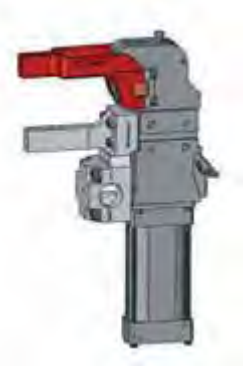
C8 = inductive sensing system
82M-000040C8
Fabr. Turck

D8 = inductive sensing system
82M-000040D8
Fabr. Pepperl & Fuchs

Sensing system

Accessory: Counter Support



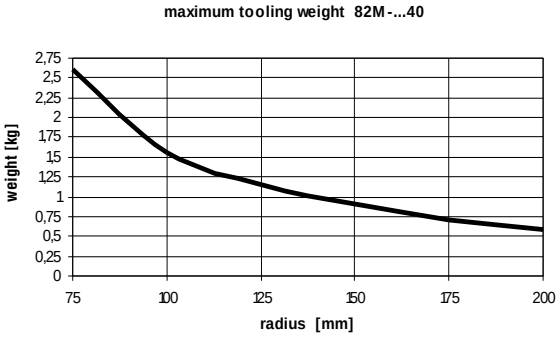


BK-R25-82M-1

Model	B2	B7 ±0,1	B10 ±0,02	B11	B12	B26	B30	B31	B32	B33	B34	D2 Ø H7 ±0,02	D3 Ø	D4 Ø H7	D5 Ø	L4 ±0,1	L5	L9 ±0,1	L10	L30	L31 ±0,1	L32	L33	L34 ±0,02	L35
BK-R25-82M-1	117	35	20	90	20	47	53	29,5	7,5	50	117	6	7	6	6,6	22	45	25	17,5	7,35	39,7	61	108	19,85	45

Series 82M-1 Technical Information

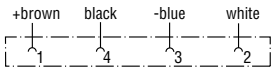
Concept guideline
(with reference to axis of clamping arm rotation)



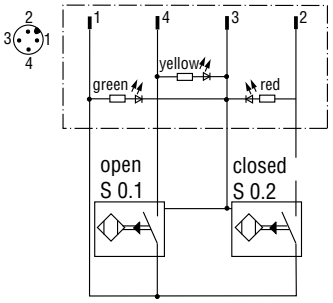
All details apply under an air pressure of 6 bar and opening and closure times of 1 second each.

Wiring diagram of electrical sensing system
Sensing system immune to interference from d.c. arc welding and a.c. arc welding

Pin assignment



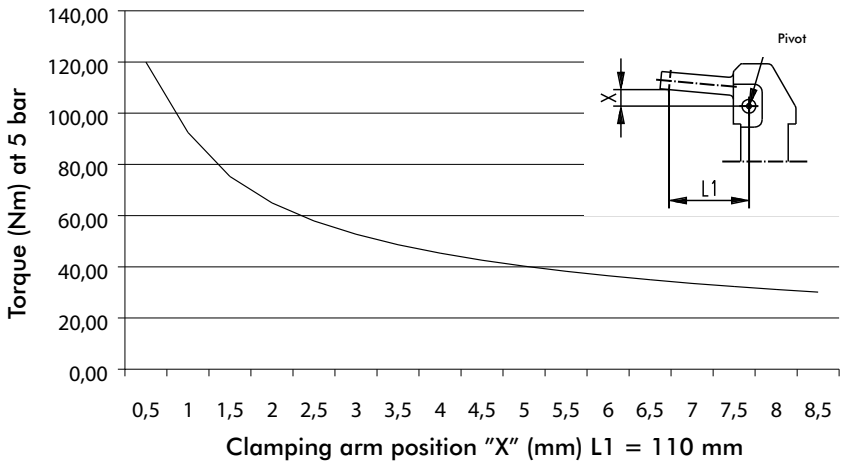
Plug M12x1



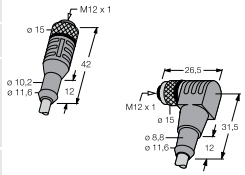
Inductive design:
- C8 Connecting plug M12x1, fixed (Turck)
- D8 Connecting plug M12x1, fixed (Pepperl & Fuchs)

Diagram of clamping force (at 5 bar)

Model 82M-1...40...

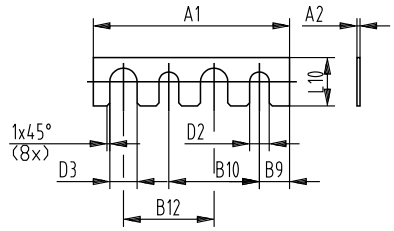


Series 82M-1 Accessories

Specification			Order no. for Set 82M-1..040..	Comment
Clamping arm variant	**Fulcrum distance**	**Clamping position**		
U-central	15	horizontal / vertikal	8UM401-15-117	sets of U-type clamping arms consist of clamping arm, links and screws
U-central	25	horizontal / vertikal	8UM401-25-117	
U-central	45	horizontal / vertikal	8UM401-45-107	
U-central	0	horizontal / vertikal	8UM401-00-117	
U-left	15	horizontal	8UL401-15-117	
U-left	25	horizontal	8UL401-25-117	
U-left	45	horizontal	8UL401-45-107	
U-left	0	horizontal	8UL401-00-117	
U-left	15	vertical	8UR401-15-117	
U-left	25	vertical	8UR401-25-117	
U-left	45	vertical	8UR401-45-107	
U-left	0	vertical	8UR401-00-117	
U-right	15	horizontal	8UR401-15-117	
U-right	25	horizontal	8UR401-25-117	
U-right	45	horizontal	8UR401-45-107	
U-right	0	horizontal	8UR401-00-117	
U-right	15	vertical	8UL401-15-117	
U-right	25	vertical	8UL401-25-117	
U-right	45	vertical	8UL401-45-107	
U-right	0	vertical	8UL401-00-117	
Lateral right/left	15	horizontal / vertikal	8S401-15-117	sets of lateral clamping arms consist of clamping arm & set screws
Lateral both sides	15	horizontal / vertikal	8S401-15-117	need 2 sets of clamping arms
Connector cable (1 connector socket & 5 m cable)				
connector socket M12x1 straight, 5-pin			8EL-002-1	
connector socket M12x1 angular, 4-pin			8EL-003-1	
Counter support			BK-R25-82M-1	

Specification	Structural component	Order no..	Comment
Complete sensor box for D8	82M-123040D8	82M-000040D8	Pepperl & Fuchs
Complete sensor box for C8	82M-123040C8	82M-000040C8	Turck
Limit stop box without sensing system	82M-12304000	82M-00004000	
Complete cylinder, Ø40	82M-123040..	8PW-046-2	
Seal kit and piston, Ø40	82M-123040..	8PW-046-2-00	

Shims for Clamping arm



Model	A1	A2	D2	D3	B9	B10	B12	L10
82ZB-SH4001	42	0,1	6,5	7	6	20	20	12
82ZB-SH4002		0,2						
82ZB-SH4005		0,5						
82ZB-SH4010		1,0						
82ZB-SH4020		2,0						
82ZB-SH4050		5,0						

Series **82M-5** Product Overview

Features:
- Modular design
- Lightweight aluminum body
- Protected from dirty environments
- Field-adjustable opening angle
- Sealed roller bearing
- Multiple mounting surfaces
- Manual versions available

Application:
- Assembly
- Checking fixtures
- Handling systems

82M-5 Series

Simple adjusting of opening angle (pictures show sensor-box separated from clamp)

120° Opening angle
(delivery condition)

Click-out of bumper

Click-in in new position (60°)
(sensor box fit for reassembling to clamp)

Model	Max. holding torque Nm [lb ft]	Max. Clamping Torque @5 bar [72 psi] Nm [lb ft]	Weight kg [lb]	Max Opening Angle	Cylinder Size mm [in]	Air Consumption (per double stroke) @5 bar [72 psi] dm^3 [ft^3]
82M-5	800 [590]	270Nm [199]	50 [1.97]	120°	50 [1.97]	2,2 [0.08]

82M-5 Pre-Configured Clamp Quick-Order Numbers

Quick Order	Sensor	Handle
82M-5230050000		
82M-5230050C80	X	
82M-523KR50000		X
82M-523KR50C80	X	X

Series **82M-5** Ordering Information, Standard Clamp Dimensions

Order No. code for 82M-5...

Example Order No.: 82M-5 | 23 | K | R | 50 | C8 | 0

82M - 5

Basic Model

03 = drive shaft for U-clamp arm

23 = drive shaft for lateral clamp arms

Drive Shaft

0 = ohne Handhebel

K = with hand lever, welded 8KB-053-1

S = hand lever, attached (weldable) 8KB-052-1

Hand Lever

0 = without hand lever

L = spring assembly "left"

R = spring assembly "right"

50 = G1/4 pneum. cylinder Ø50

5N = 1/4-18 NPT pneum. cylinder Ø50

Cylinder

00 = without sensors

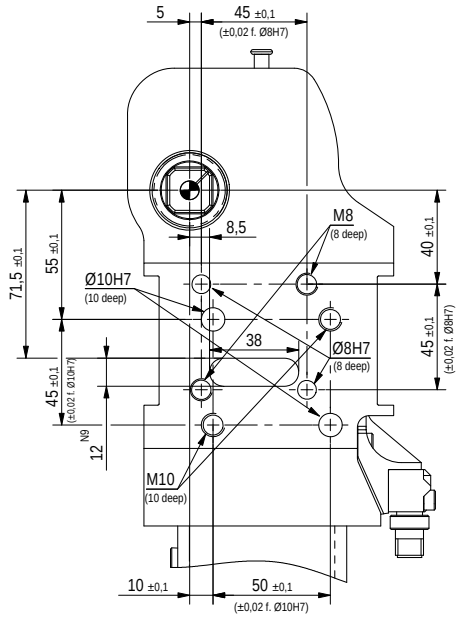
C8 = inductive sensing system

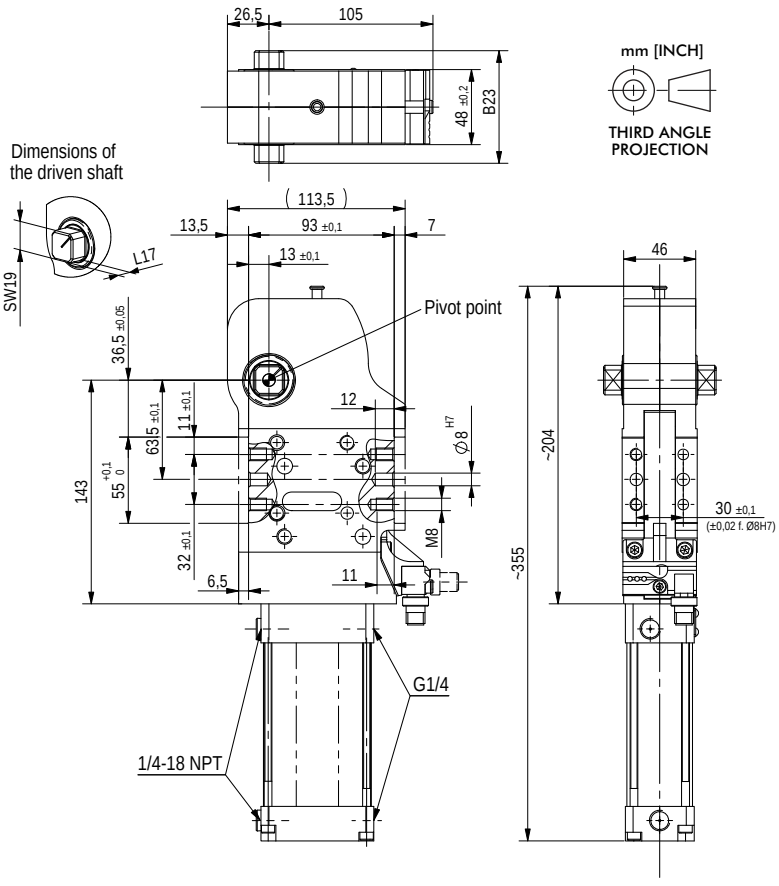
D8 = inductive sensing system

Inductive Sensing System

1 = without pin

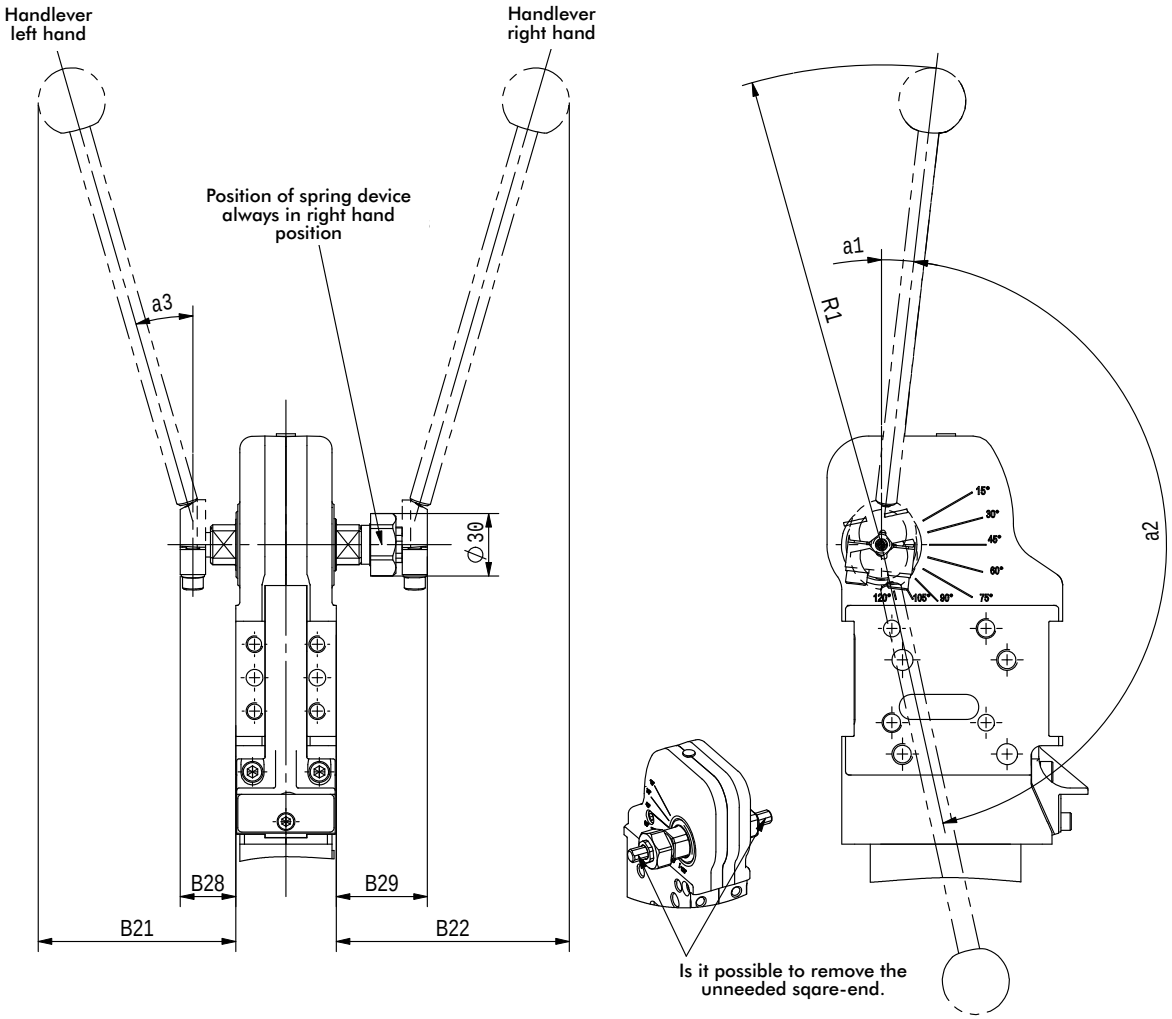
Model	B23 max.	L17
82M-5030050..	72	12
82M-5230050..	90	21





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

Series **82M-5** Handle Option



Technical information subject to change.

Model	a1 ~	a3 ~	B21 ~	B22 ~	B28 max.	B29 max.	R1 ~
82M-5_3S...	-	-	-	-	37	55	240
82M-5_3K...	5°	16°	104	124			

Model	Hand lever slew angle a2 with reference to opening angle of clamping arm							
	15°	30°	45°	60°	75°	90°	105°	120°
82M-5_3S...	55°	67°	82°	98°	113°	129°	144°	161°
82M-5_3K...								

Series **82M-5** Clamp Arm Variants

U bars central L5 = 15 mm

U bars central L5 = 25 mm

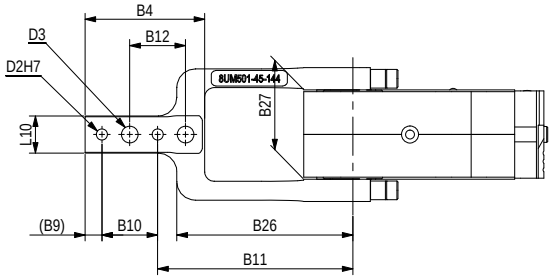
U bars central L5 = 45 mm

U-bars Central Technical Information

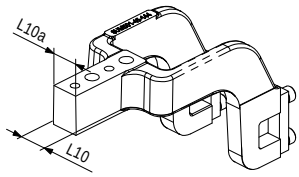
Model	Order no. for set U-clamp arm, central	Opening angle 90° version tolerance: + 5°	Opening angle 180° version tolerance: + 5°	Weight (kg)
82M-503 _ _ 50 _ _ 82M-523 _ _ 50 _ _	8UM501-15-144	120°	105°	1,1
	8UM501-25-144			
	8UM501-45-144		120°	

Model	Order no. for set U-clamp arm, central	B2	B4	B9	B10 ±0,02	B11 +0,1	B12 ±0,2	B26	B27 +0,2	D2 H7	D3	L4 ±0,1	L5 (- 0,5° max)	L10 ±1,2	L10a ~	R1 ~	R2 ~	SW +0,02 -0,009
82M-503 _ _ 50 _ _ 82M-523 _ _ 50 _ _	8UM501-15-144	144	64.3	9	30	105	30	95	48.1	6	9	28	15	20	1 9	75	32	19
	8UM501-25-144												25					
	8UM501-45-144												45					

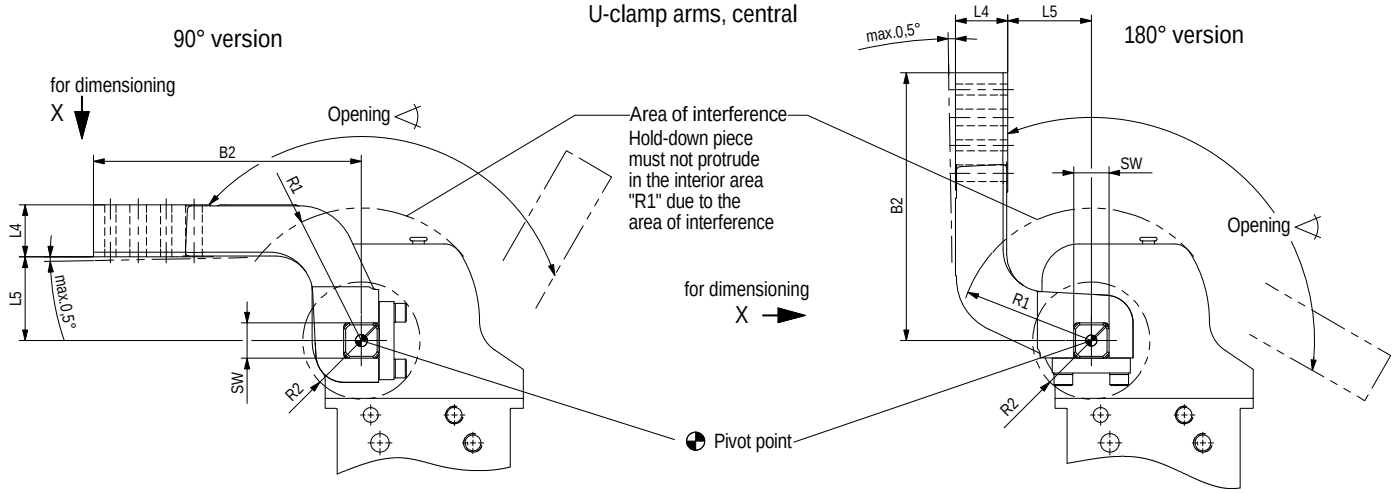
View X
(for dimensioning)



90° version



U-clamp arms, central



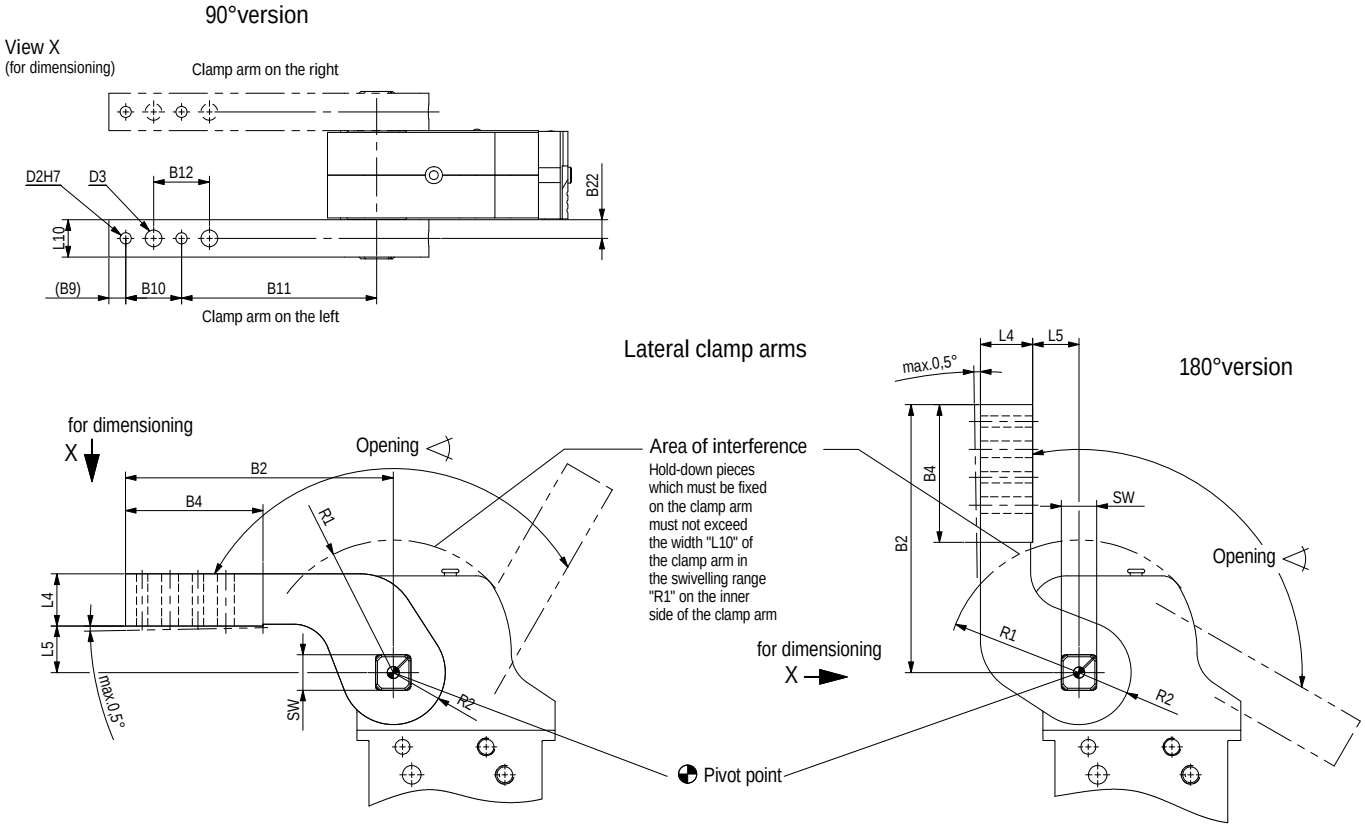
Series **82M-5** Clamp Arm Variants

Lateral arm L5=15mm

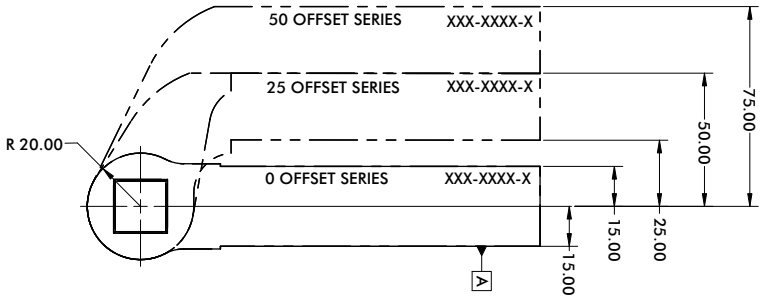
Lateral arm L5=25mm

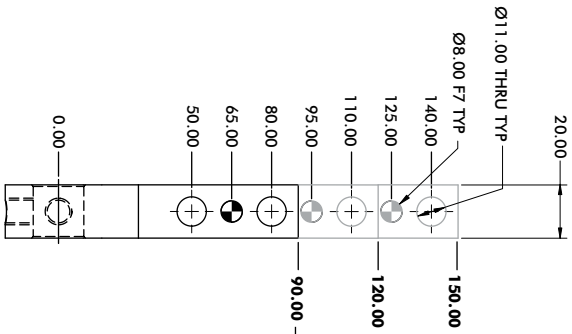
Lateral Arm Technical Information

Model	Order no. for set U-clamp arm, lateral	GDC Opening angle 90°-vers.	GDC Opening angle 180°-vers	Weight [kg]	B2	B4	B9	B10 ±0,02	B11 ±0,1	B12 ±0,2	B22	D2 H7	D3	L4 ±0,1	L5 (0,5° max)	L10	R1	R2	SW J7
82M-5...	8JG-070-1-01	120°	105°	0,9	144	74	9	30	105	30	10	6	9	28	15	20	80	28	19
	8S501-25-144	120°	105°	1,0	144	74	9	30	105	30	10	6	9	28	25	20	80	28	19



Series 82M-5 Clamp Arm Data (NAAMS)





(•) STANDARD ARM OFFERING

OFFSET	ARM STYLE	PART NUMBER
50	•228	B8JG-1228-1
25	•218	B8JG-1218-1
0	•208	B8JG-1208-1

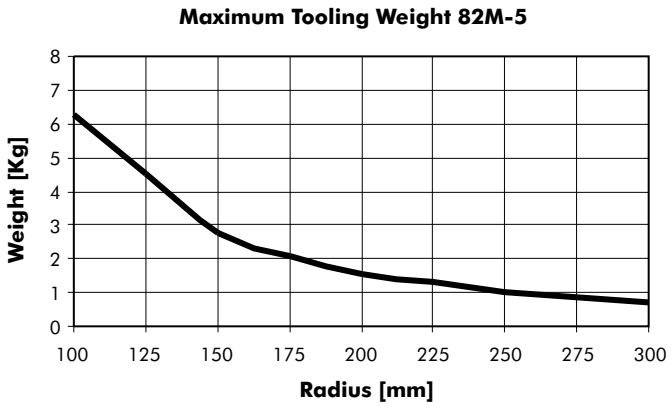
OFFSET	ARM STYLE	PART NUMBER
50	•227	B8JG-1227-1
25	•217	B8JG-1217-1
0	•207	B8JG-1207-1

OFFSET	ARM STYLE	PART NUMBER
50	•226	B8JG-1226-1
25	•216	B8JG-1216-1
0	•206	B8JG-1206-1

Arm Opening	120°	105°	90°	75°	60°	45°	30°	15°
Cylinder Stroke	76.0	68.5	61.3	54.2	46.8	39.3	31.6	21.1

Series 82M-5 Technical Information

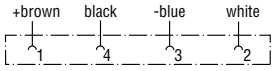
Concept guideline
(with reference to axis of clamping arm rotation)



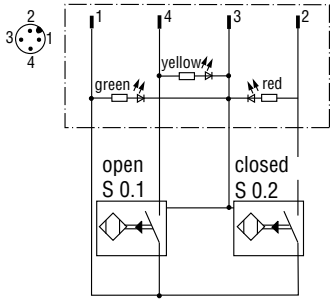
All details apply under an air pressure of 6 bar and opening and closure times of 1 second each.

Wiring diagram of electrical sensing system
Sensing system immune to interference from d.c. arc welding and a.c. arc welding

Pin assignment



Plug M12x1



Inductive design:
- C8 Connecting plug M12x1, fixed (Turck)
- D8 Connecting plug M12x1, fixed (Pepperl & Fuchs)

Accessories

Specification			Order no. for set	Comment
Clamping arm variant	**Fulcrum distance**	**Clamping position**		
U-central	15	horizontal / vertical	8UM501-15-144	sets of U-type clamping arms consist of clamping arm, links and screws
U-central	25	horizontal / vertical	8UM501-25-144	
U-central	45	horizontal / vertical	8UM501-45-144	
Lateral right/left	15	horizontal / vertical	8JG-070-1-01	sets of lateral clamping arms consist of clamping arm & set screws
Lateral right/left	25	horizontal / vertical	8S501-25-144	
Lateral both sides				need 2 sets of clamping arms

Spare Parts

Specification	Structural component	Comment
Hand lever set	8KB-053-1	
Complete sensor box for D8 sensing system	82M-0000050D8	Pepperl & Fuchs
Complete sensor box for C8 sensing system	82M-0000050C8	Turck
Sensor box without sensing system	82M-000005000	
Cylinder	8PW-085-1	
Seal Kit and piston	8PW-036-2-00	

Series **82M-6** Product Overview

Features:

- modular design
- shielded body, dirt-resistant
- compact design
- high holding torques
- long life cycle
- low weight (aluminium body)
- wide range of clamping arm variants
- adjustable opening angle without need for accessory parts (15°-steps fron 15°...120°)
- mounting areas at front, back and sides
- toggle action mechanism
- manual unlocking in case of pressure drop
- inductive sensing module with LED display

Key areas of application:

Automotive manufacturing, sheet processing industry, jig and general mechanical engineering.

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 handle lever.

82M-**623**_ _**50**...
82M-**623**_ _**63**...
Modular automation power clamp, shown without hand lever

Simple adjusting of opening angle (pictures show sensor-box separated from clamp)

120° Opening angle (delivery condition)

Click-out of bumper

Click-in in new position (60°) (sensor box fit for reassembling to clamp)

Model			Standard opening angle	Max. holding torque Nm [lb ft]	Clamping torque at 5 bar Nm [lb ft]	Drive shaft for clamping arm variant	Clamping position	Cylinder Ø mm [in]	Air consumption per double stroke at 5 bar dm^3 [ft^3]	Weight ~ kg [lbs]
w/o sensing	w/ ind. sensing Connector M12x1, fixed									
	Pepperl & Fuchs	Turck								
82M-62305000	82M-623050D8	82M-623050C8	120°	1000 [738]	270 [199]	lateral, U-central/ U-lateral	horizontal/ vertical	50 [1.97]	2,2 [0.08]	4,2 [9.24]
82M-62306300	82M-623063D8	82M-623063C8	120°	1000 [738]	420 [310]			63 [2.48]	3,8 [0.13]	4,6 [10.12]

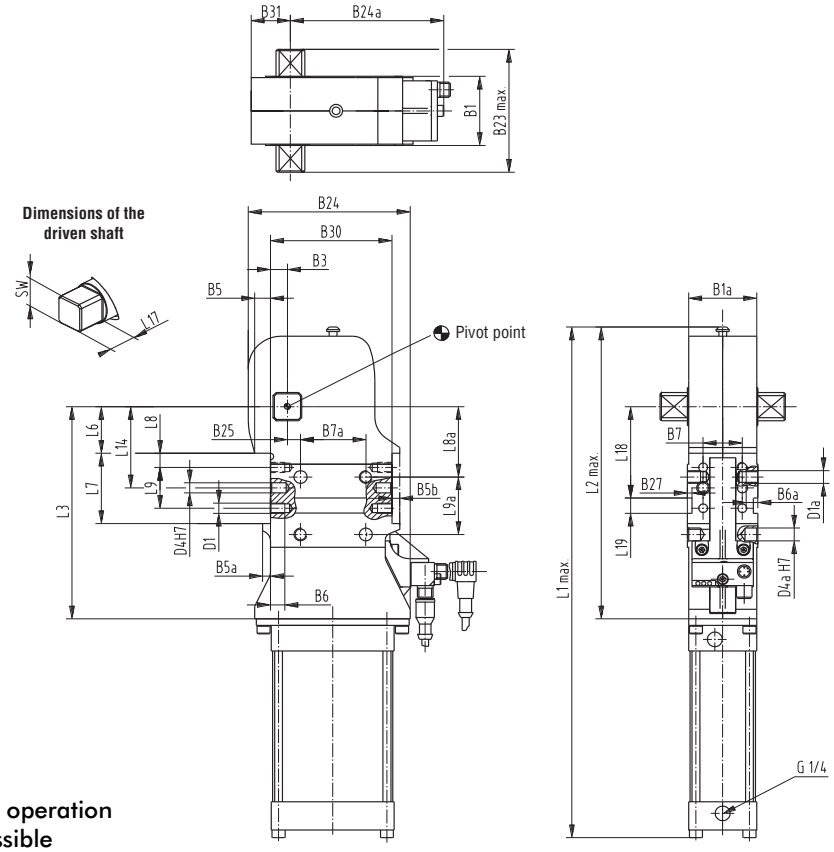
Series 82M-6 Standard Clamp Dimensions

Model	Connection	B1	B1a	B3	B5	B5a	B5b	B6	B6a	B7[1]
	G	±0,1		±0,1						±0,1
82M-623050_ _	G 1/4	54	52	13	12	6	6	11	9	30
82M-623063_ _	G 1/4	54	52	13	12	6	6	11	9	30

Model	B7a[1]	B23	B24	B24a	B25	B27	B30	B31	D1	D1a	D4	D4a	L1
	±0,1	max			±0,1		±0,1				H7	H7	max
											Ø	Ø	
82M-623050_ _	50	96	124	119	10	3,5	93	30	M8	M10	8	10	398
82M-623063_ _	50	96	124	119	10	3,5	93	30	M8	M10	8	10	399

Model	L2	L3	L6	L7	L8	L8a	L9	L9a[1]	L14	L17	L18	L19	SW
	max		±0,05	+0,1	±0,1	±0,1	±0,1	±0,1	±0,1			N9	h9
82M-623050_ _	230	166	36,5	55	11	55	32	45	63,5	21	71,5	12	22
82M-623063_ _	230	166	36,5	55	11	55	32	45	63,5	21	71,5	12	22

1) Tolerance for distance to dowel hole ± 0,02



mm [INCH]

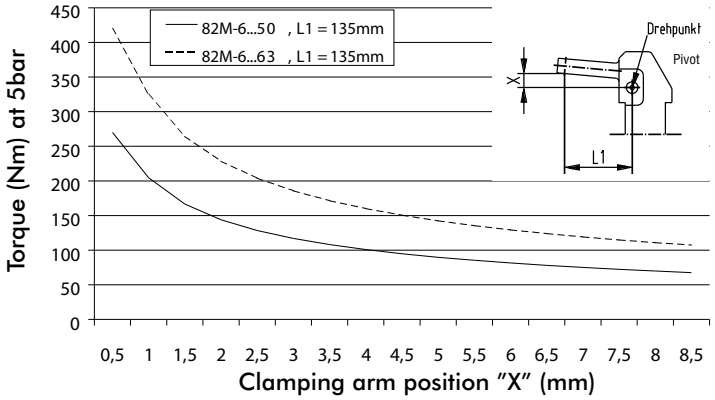
THIRD ANGLE PROJECTION

Medium: air, max. 6 bar, operation with oil-free air is permissible

Series **82M-6** Technical Information

Diagram of Clamping Force (at 5 bar)

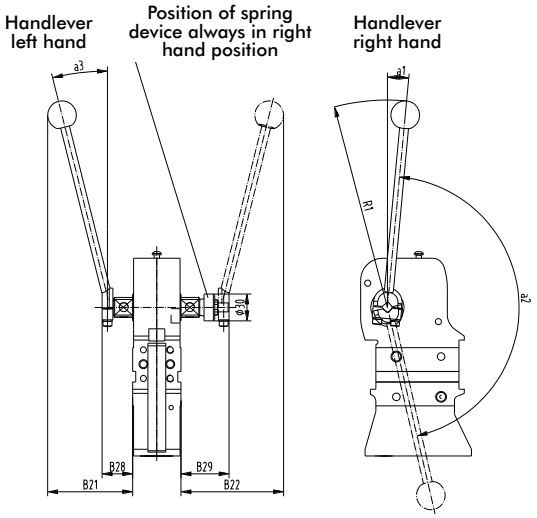
Models 82M-6...50.. /-6...63..



Modular automation power clamp, enclosed design, lightweight, with hand lever

82M-6...KC8 modular automation power clamp, with hand lever (left hand)

82M-6.....
Additional dimensions for hand lever version

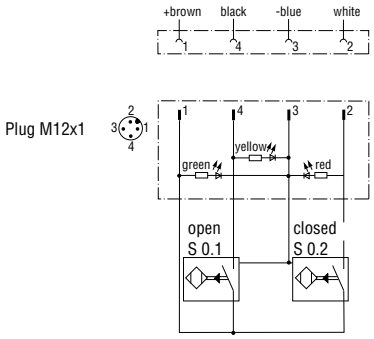


Model			Standard opening angle	Max. holding torque [Nm]	Clamping torque at 5 bar [Nm]	Drive shaft for clamping arm variant	Clamping position	Cylinder Ø	Air consumption per double stroke at 5 bar [dm³]	Weight ~ [kg]
w/o sensing	w/ ind. sensing Connector M12x1, fixed									
	Pepperl & Fuchs	Turck								
82M-623K5000	82M-623K50D8	82M-623K50C8	120°	1000	270	lateral, U-central/ U-lateral	horizontal/ vertical	50	2,2	4,2
82M-623K6300	82M-623K63D8	82M-623K63C8	120°	1000	420			63	3,8	4,6

Technical data (additional dimensions of hand lever version)

Model	a1 ~	B21 ~	B22 ~	B28 max	B29 max	R1 ~	Hand lever slew angle a2 with reference to opening angle of clamping arm							
							15°	30°	45°	60°	75°	90°	105°	120°
82M-623K50_ _	5°	104	124	37	55	240	50°	65°	79°	93°	110°	125°	140°	160°
82M-623K63_ _	5°	104	124	37	55	240	50°	65°	79°	93°	110°	125°	140°	160°

Series **82M-6** Technical Information



Wiring diagram of electrical sensing system

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

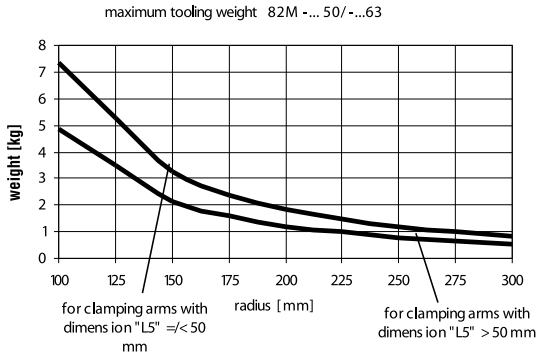
Inductive design:

- C8 Connecting plug M12x1, fixed (Turck)
- D8 Connecting plug M12x1, fixed (Pepperl & Fuchs)

Pin assignment

Concept guideline

(with reference to axis of clamping arm rotation)



All details apply under an air pressure of 6 bar and opening and closure times of 1 second each.

Model numbering code for 82M-6.....

Example Order No.: **82M-6** **23** **K** **50** **C8**

82M - 6 = with standard dimensions

without hand lever, without cylinder, without sensing system

Basic model

23 = drive shaft for lateral clamp arms and U-arms

Drive shaft

00 = without hand lever

K = with hand lever, welded 8KB-053-1

Handlever

50 = pneumatic cylinder Ø50

63 = pneumatic cylinder Ø63

Cylinder

00 = without sensing system

C8 = inductive sensing system 82M-000000C8 Fabr. Turck

D8 = inductive sensing system 82M-000000D8 Fabr. Pepperl & Fuchs

Sensing system

Spare parts, without or with hand lever

Specification	Structure component	Order no.	Comment
Hand lever set	82M-6.....	8KB-053-1	
Hand lever mechanism	82M-623.....	8KB-024-1	
Complete sensor box for D8 sensing system	82M-6.....D8	82M-000000D8	Pepperl & Fuchs
Complete sensor box for C8 sensing system	82M-6.....C8	82M-000000C8	Turck
Limit stop box without sensing system	82M-6.....00	82M-00000000	
Complete cylinder, Ø50	82M-6...50..	8PW-036-2	
Complete cylinder, Ø63	82M-6...63..	8PW-037-2	
Seal kit and piston, Ø50	82M-6...50..	8PW-036-2-00	
Seal kit and piston, Ø63	82M-6...63..	8PW-037-2-00	

Series **82M-6** Clamping Arm Variants

Clamping arm design
U-type central clamping arm

Clamping position
horizontal or vertical

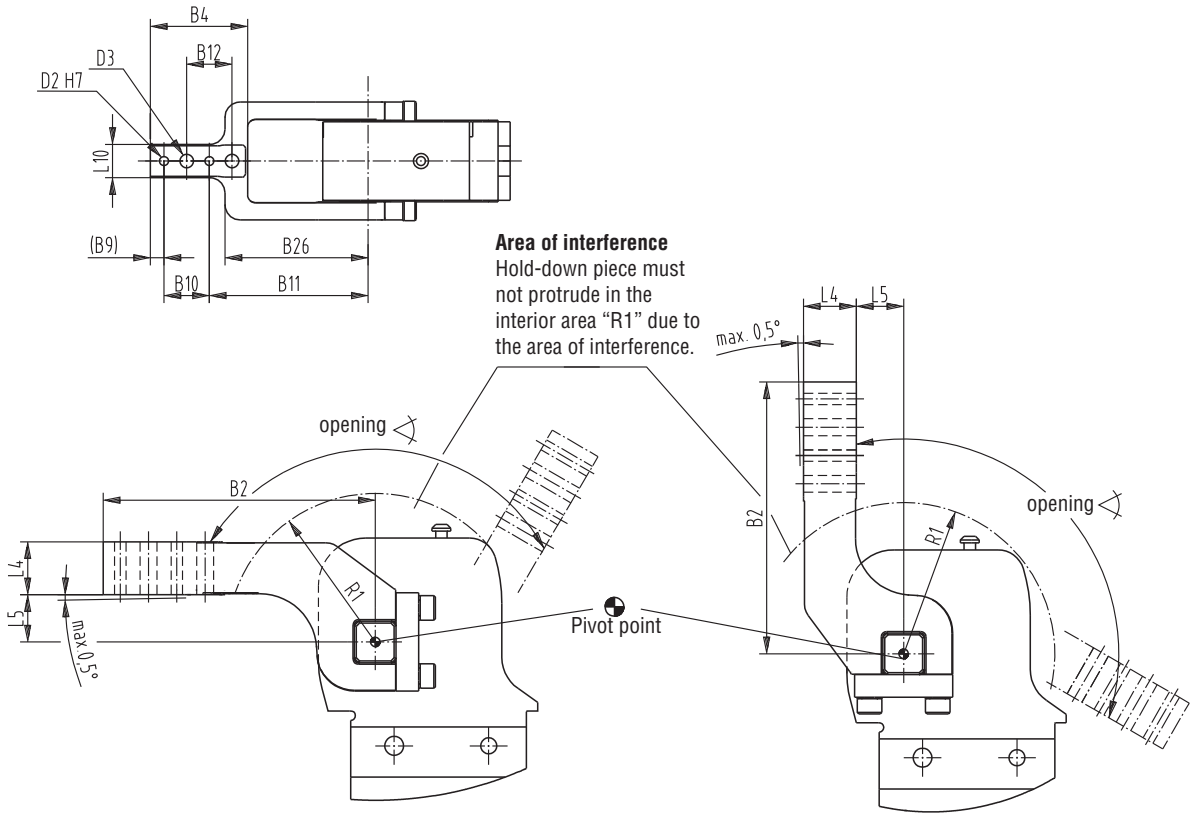
Central clamping arm, horizontal clamping position

U-type central clamping arm Technical Information

Model	Order no. for set of U-type central clamping arms	Opening angle for clamping position horizontal	vertical	Weght (kg)	B2	B4	B9	B10 ±0,02	B11 ±0,1	B12 ±0,2	B26	D2 H7 Ø	D3 Ø	L4 ±0,1	L5 (-0,5° max.)	L10 ±1,2	R1
82M-6...50..	8UM 631-15-144	120°	105°	1,1	144	64,3	9	30	105	30	95	6	9	28	15	20	80
	8UM 631-25-144	120°	120°	1,2	144	64,3	9	30	105	30	95	6	9	28	25	20	80
82M-6...63..	8UM 631-45-144	120°	120°	1,3	144	64,3	9	30	105	30	95	6	9	28	45	20	80
	8UM 631-75-204	120°	120°	1,7	204	82	9	30	165	30	107	6	9	30	75	20	80

Horizontal clamping arm position

Vertical clamping arm position



Series 82M-6 Clamping Arm Variants

Clamping arm design	Clamping position
lateral / left	horizontal or vertical
lateral / right	horizontal or vertical
lateral / both sides	horizontal or vertical

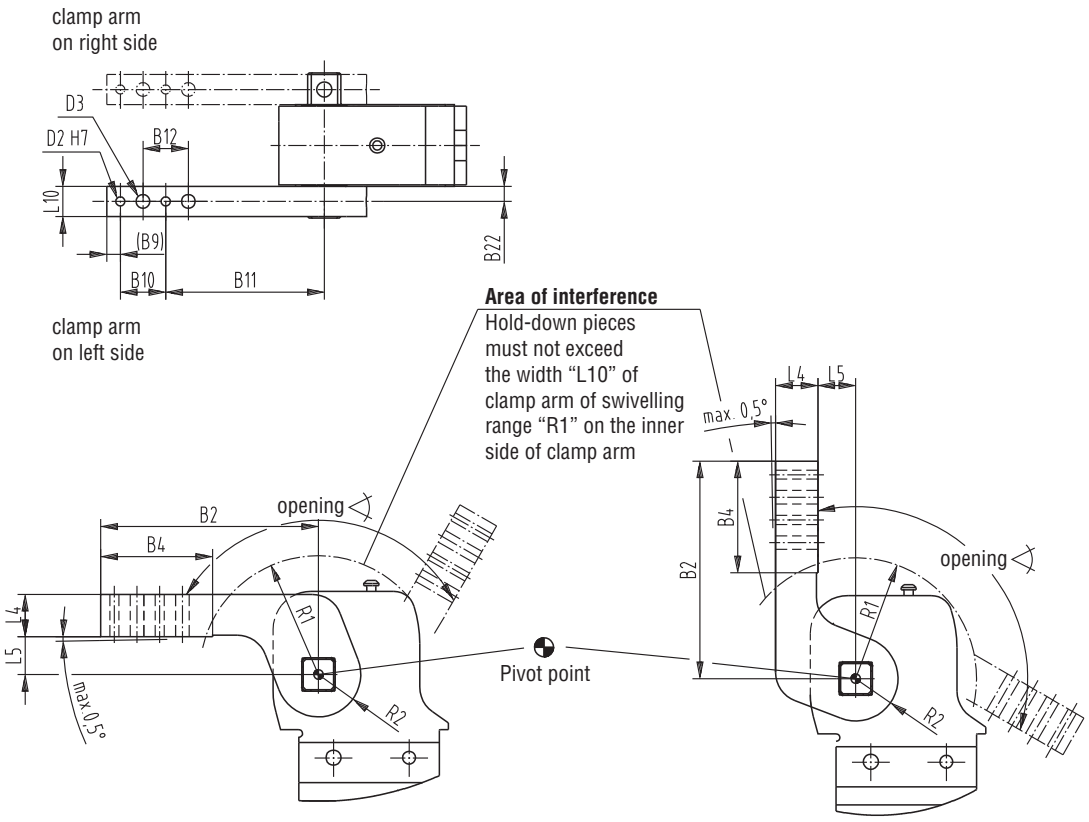
Lateral clamping arm, horizontal clamping position

Lateral clamping arms Technical Information

Model	Order no. for set of U-type lateral clamping arms	Opening angle for clamping position horizontal	vertical	Weght (kg)	B2	B4	B9	B10 ±0,02	B11 ±0,1	B12 ±0,2	B22	D2 Ø	D3 H7 Ø	L4 ±0,1	L5 (-0,5° max.)	L10	R1	R2
82M-6...50.. 82M-6...63..	8JG-080-1-01	120°	120°	0,9	144	74	9	30	105	30	10	6	9	28	15	20	80	28
	8S631-25-144	120°	120°	1	144	74	9	30	105	30	10	6	9	28	25	20	80	28
	8S631-75-204	120°	120°	1,5	204	78	9	30	165	30	10	6	9	30	75	20	80	28

Horizontal clamping arm position

Vertical clamping arm position



Series 82M-6 Clamping Arm Variants

Clamping arm design	Clamping position
U-type clamping arm, left	horizontal or vertical
U-type clamping arm, right	horizontal or vertical

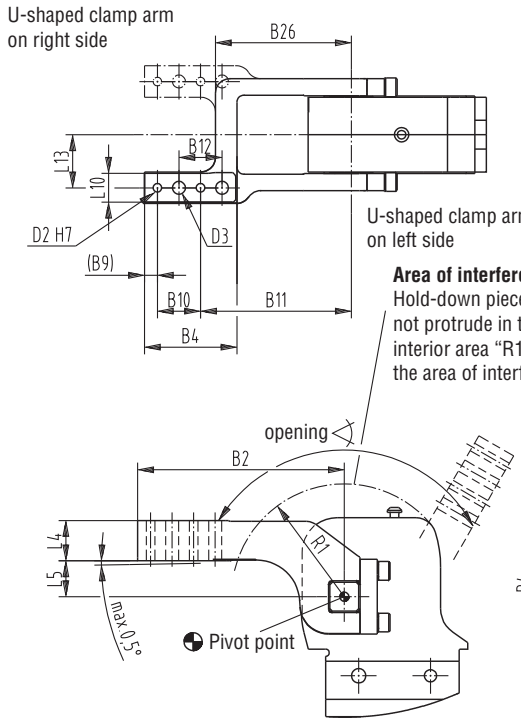
U-type clamping arm, left, horizontal clamping position

U-type clamping arm, right, horizontal clamping position

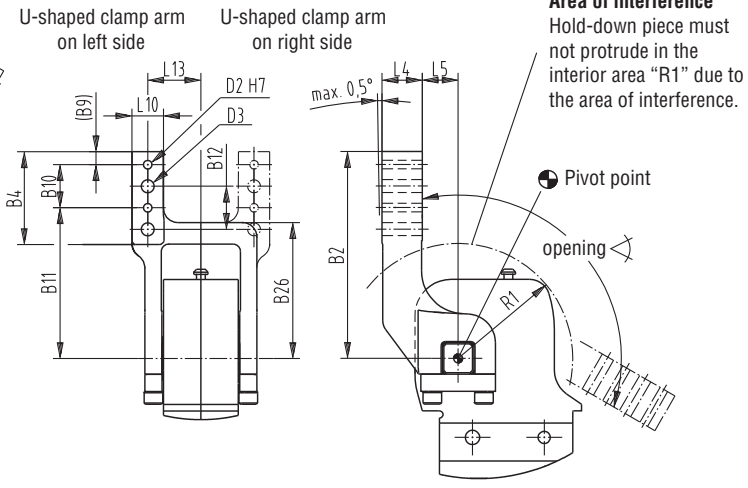
U-clamp arm lateral Technical Information

Order No. for set		Opening angle for clamping position		Weight	B2	B4	B9	B10	B11	B12	B26	D2	D3	L4	L5	L10	L13	R1
U-type clamping arms for 82M-6								±0,02	±0,1	±0,2		H7		±0,1	(-0,5°	±1,2	±0,1	
left	right	horizontal	vertical	(kg)								Ø	Ø		max.)			
8UL631-15-144	8UR631-15-144	120°	105°	1,1	144	64,3	9	30	105	30	95	6	9	28	15	20	37	80
8UL631-25-144	8UR631-25-144	120°	120°	1,2	144	64,3	9	30	105	30	95	6	9	28	25	20	37	80
8UL631-45-144	8UR631-45-144	120°	120°	1,3	144	64,3	9	30	105	30	95	6	9	28	45	20	37	80
8UL631-75-204	8UR631-75-204	120°	120°	1,9	204	82	9	30	165	30	119	6	9	30	75	20	37	80

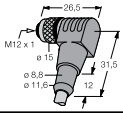
Horizontal clamping arm position

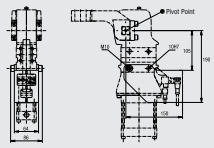


Vertical clamping arm position

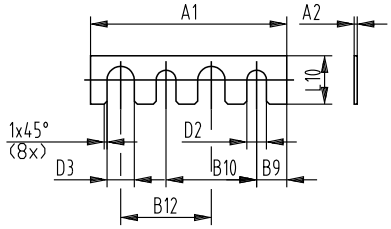


Series 82M-6 Accessory information

Specification			Order no. for set 82M-1..040..	Comment
Clamping arm variant	**Fulcrum distance**	**Clamping position**		
U-central	15	horizontal / vertical	8UM631-15-144	sets of U-type clamping arms consist of clamping arm, links and screws
U-central	25	horizontal / vertical	8UM631-25-144	
U-central	45	horizontal / vertical	8UM631-45-144	
U-central	75	horizontal / vertical	8UM631-75-204	
U-left	15	horizontal	8UL631-15-144	
U-left	25	horizontal	8UL631-25-144	
U-left	45	horizontal	8UL631-45-144	
U-left	75	horizontal	8UL631-75-204	
U-left	15	vertical	8UR631-15-144	
U-left	25	vertical	8UR631-25-144	
U-left	45	vertical	8UR631-45-144	
U-left	75	vertical	8UR631-75-204	
U-right	15	horizontal	8UR631-15-144	
U-right	25	horizontal	8UR631-25-144	
U-right	45	horizontal	8UR631-45-144	
U-right	75	horizontal	8UR631-75-204	
U-right	15	vertical	8UL631-15-144	
U-right	25	vertical	8UL631-25-144	
U-right	45	vertical	8UL631-45-144	
U-right	75	vertical	8UL631-75-204	
lateral right/left	15	horizontal / vertical	8JG-080-1-01	sets of lateral clamping arms consist of clamping arm & set screws
lateral right/left	25	horizontal / vertical	8S631-25-144	
lateral right/left	75	horizontal / vertical	8S631-75-204	
lateral both sides	15	horizontal / vertical	8JG-080-1-01	you need 2 sets of lateral clamping arms
	25	horizontal / vertical	8S631-25-144	
	75	horizontal / vertical	8S631-75-204	
Modification set for models 82M-623...			8KB-028-1	if clamp w/o hand lever is to be modified to have hand lever
Connector cable (1 connector socket & 5 m cable)				
connector socket M12x1 straight, 5-pin			8EL-002-1	
connector socket M12x1 angular, 4-pin			8EL-003-1	
Anti ramming device			82ZB-011-1	



Shims for clamping arms



Model no	A1	A2	D2	D3	B9	B10	B12	L10
82ZB-SH5001	65	0,1	6,5	9	10	30	30	16
82ZB-SH5002		0,2						
82ZB-SH5005		0,5						
82ZB-SH5010		1,0						
82ZB-SH5020		2,0						
82ZB-SH5050		5,0						

Series **82M-6** Handle Options

Accessory: Hold open device
Locking device holds open clamps with additional manual actuation.

Application:
Pneumatic clamps with handlever. Hold open clamping arm.

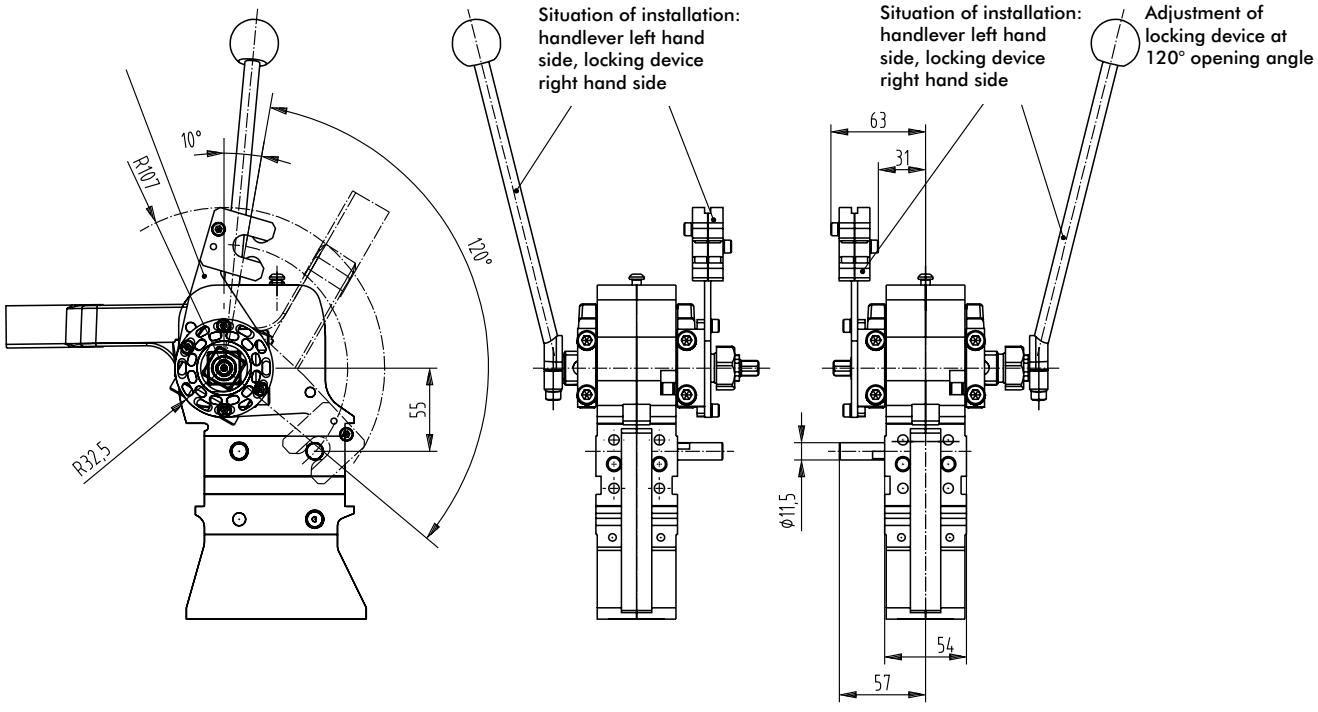
Models 82ZB-039-1 (for 82M-6)

82ZB-039-1
Mounted at lateral arm

82ZB-039-1
Mounted at U-arm

View (shown with U-clamping arm)	Order no.	For clamp-series	Spare part clip (4 pieces needed)
	82ZB-039-1	82M-6	8MH-062-1

Accessory: Hold open device
Order No.: 82ZB-039-1



Series **82M-6** Accessory information

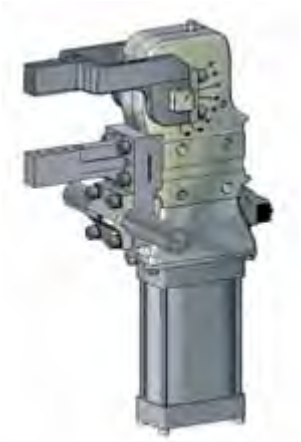
Accessory: Counter-support

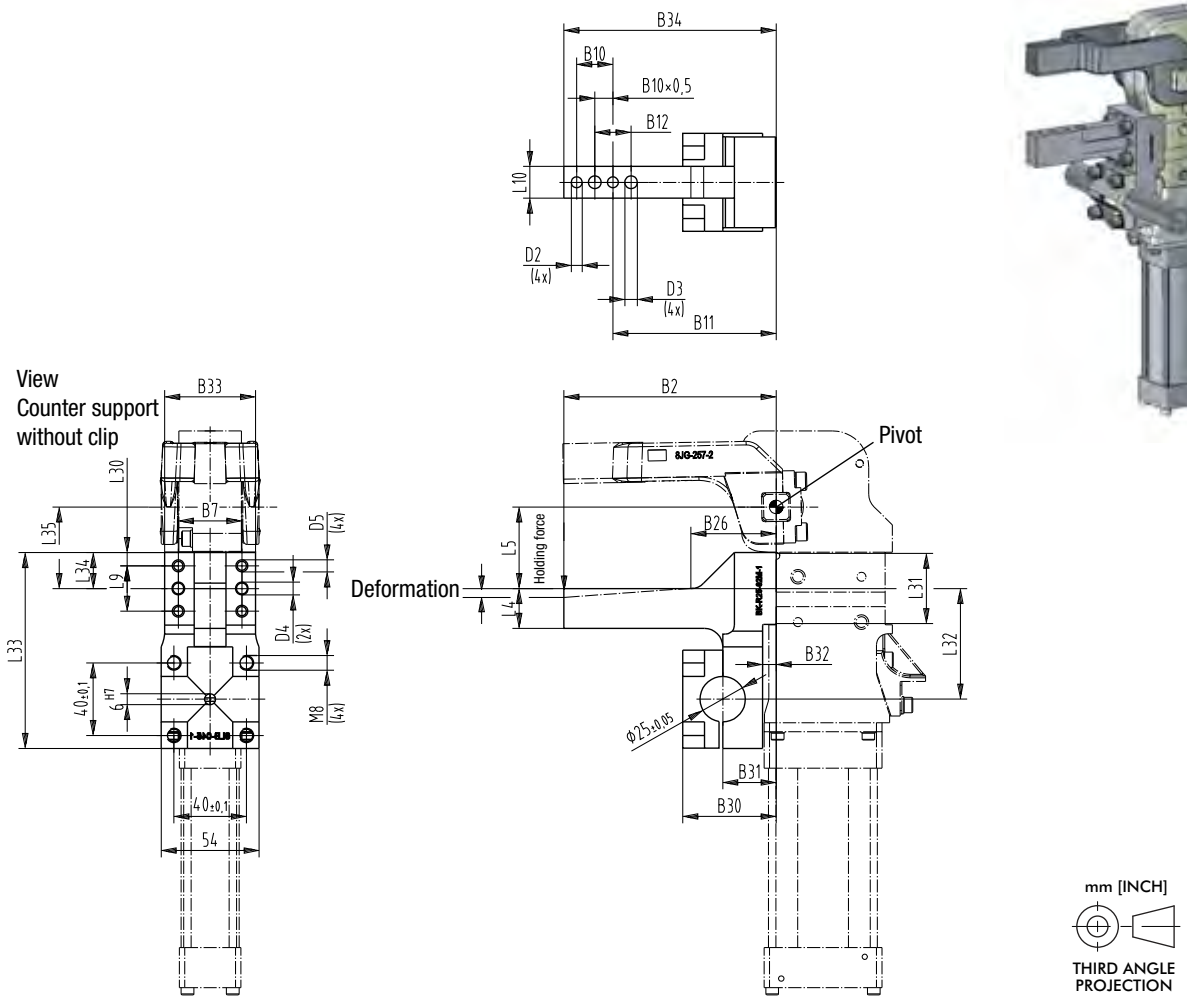
Counter support adapter for clamping arm including adaptor for round profile 25mm.

Models BK-R25-82L50-1 (for model 82M-6)

Application:

Mounting clamps at 25mm round profile endeffector system.





mm [INCH]

THIRD ANGLE PROJECTION

Model	B2	B7 ±0,1 ±0,02 ±0,02	B10	B11	B12	B26	B30	B31	B32	B33	B34	D2 Ø H7	D3 Ø	D4 Ø H7	D5 Ø	L4 ±0,1	L5	L9 ±0,1	L10	L30	L31 ±0,1	L32	L33	L34 ±0,02	L35
BK-R25-82L50	144	30	30	92	30	54	67,5	44	22	54	131	6	9	8	9	31	45	32	20	10,85	54,7	73,5	109	26,85	63,5

View	Order no..	For clamp-series	Holding force max. [N]	Elastic Deformation at Holding force [mm]	Weight ~ [kg]
	BK-R25-82L50-1	82M-6	3000	0,25	0,75

Series **82G80-4** Product Overview

Automation power clamp, heavy-duty design, enclosed and narrow design

Features:

- Dirt-resistant
- Compact, enclosed design
- High holding torques
- Long life cycle
- Wide range of clamping arm variants
- Mounting areas at front, back and sides
- Toggle action mechanism
- Manual unlocking in case of pressure drop
- Inductive sensing module with LED display
- Shielded body

Application:

Clamping, holding, gripping and positioning of metal sheets and other parts, mainly in jigs and handling systems for high clamping and holding forces.

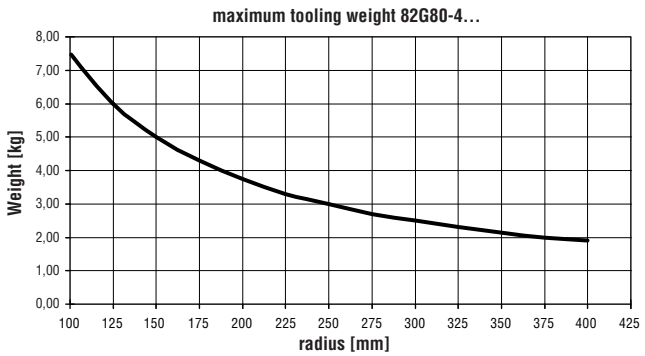
Key areas of application:

Automotive manufacturing, jig and general mechanical engineering.

82G80-**423C800B**
Automation power clamp, heavy-duty design

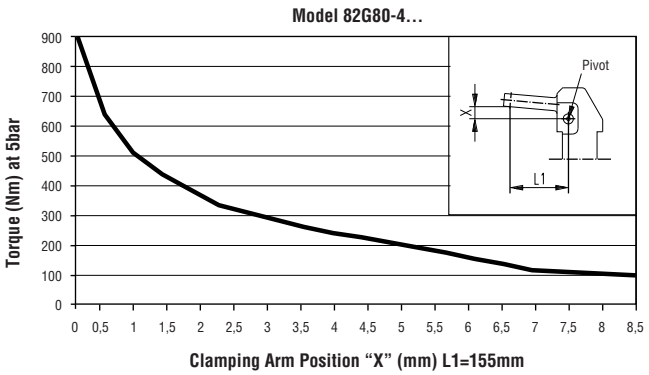
Model w/ ind. sensing Connector M12x1, fixed Turck	Clamping position	Standard opening angle	Driven shaft for clamping arm variants	Max. holding torque Nm [ft lb]	Clamping torque at 5 bar Nm [ft lb]	Cylinder Ø mm [in]	Air consumption per double stroke at 5 bar dm^3 [ft^3]	Weight ~ kg [lbs]
82G80-423C800B	horizontal	135°	lateral-both sides lateral-left lateral-right or U-central	2200 [1623]	850 [625]	80 [3.1]	5,8 [0.2]	14 [30.9]
82G80-463C800B	vertical	96°						

Concept guideline (with reference to axis of clamping arm rotation)

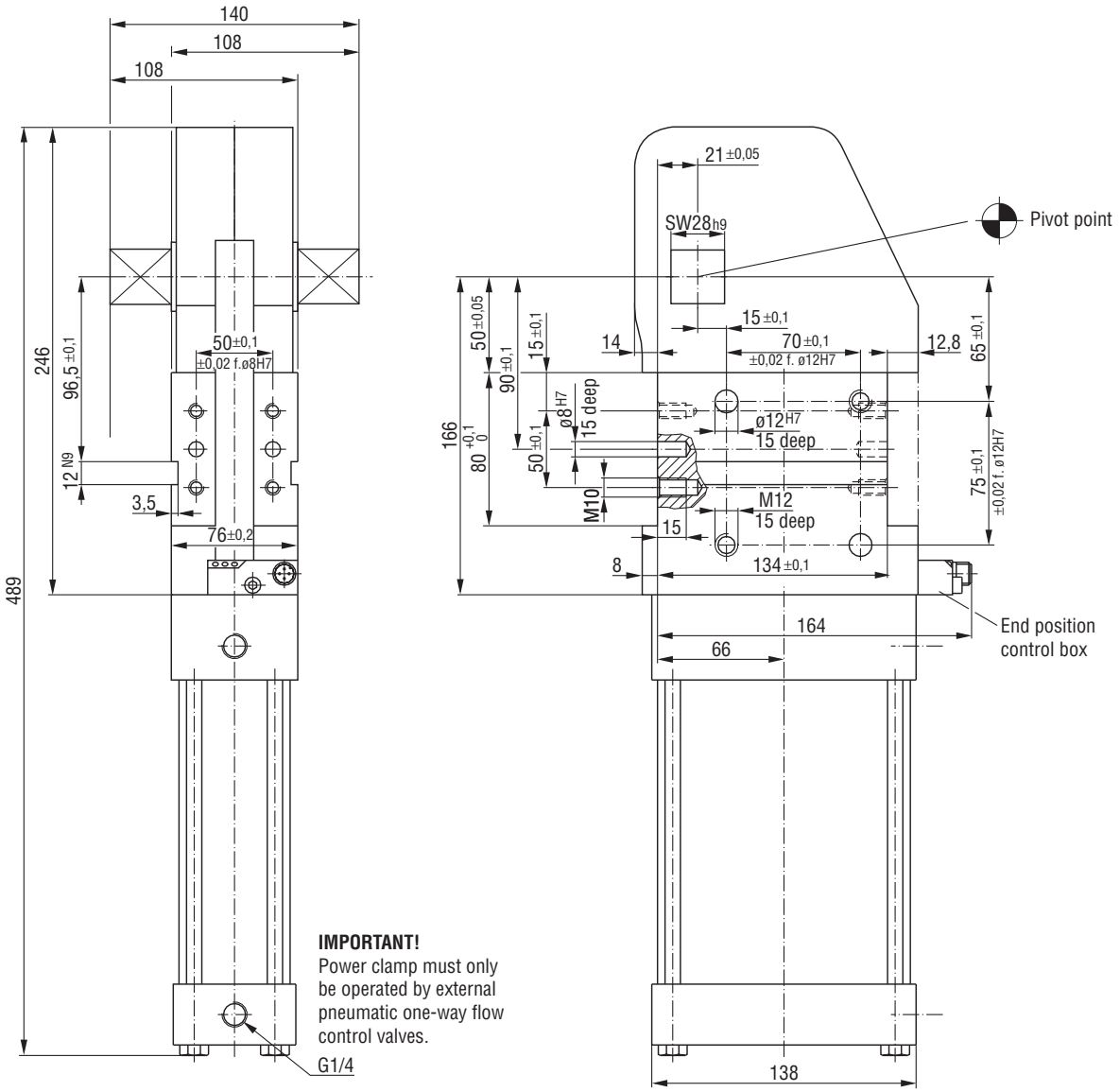


All details apply under an air pressure of 6 bar and opening and closure times of 1 second each.

Diagram of clamping force (at 5 bar)

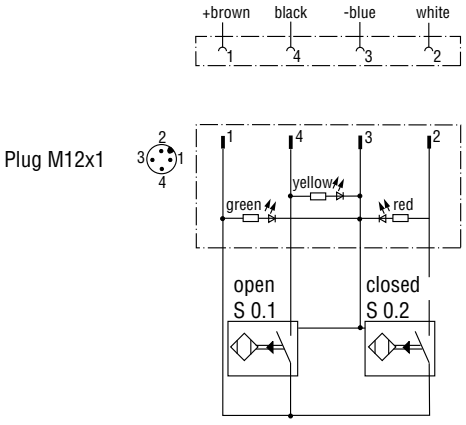


Series **82G80-4** Standard Dimensions



IMPORTANT!
Power clamp must only be operated by external pneumatic one-way flow control valves.

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



Wiring diagram for electrical sensing system
Sensing system immune to interference from d.c. arc welding and a.c. arc welding

Inductive design:

- C8 Connecting plug M12x1, fixed Pin assignment

Series **82G80-4** Clamping Arm Variants

U-type Central clamping arm, horizontal clamping position

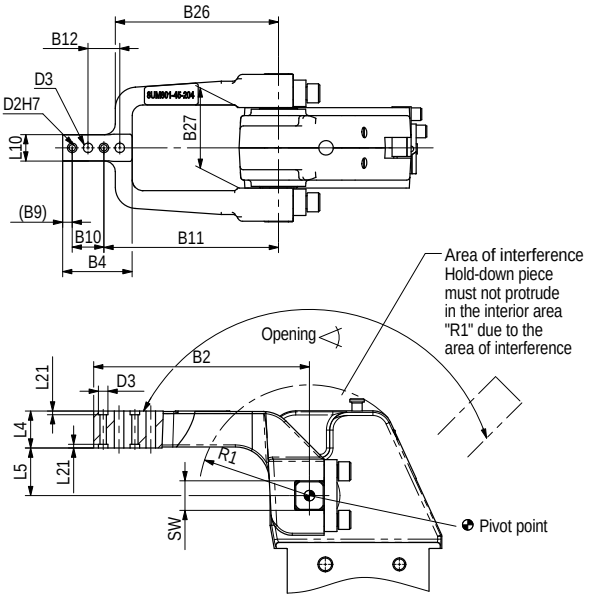
Technical data U-type central clamping arms

Model	Order no. U-type central clamping arm	Opening angle for clamping position horizontal	Opening angle for clamping position vertical	Weight [kg]	B2	B4	B9	B10 ±0,02	B11 +0,1
82G80-4..C800B	**8UM801-45-204**	135°	96°	4,1	204	65,5	9	30	165
	8JG-169-2-01	135°	96°	3,5	179	65,5	9	30	140

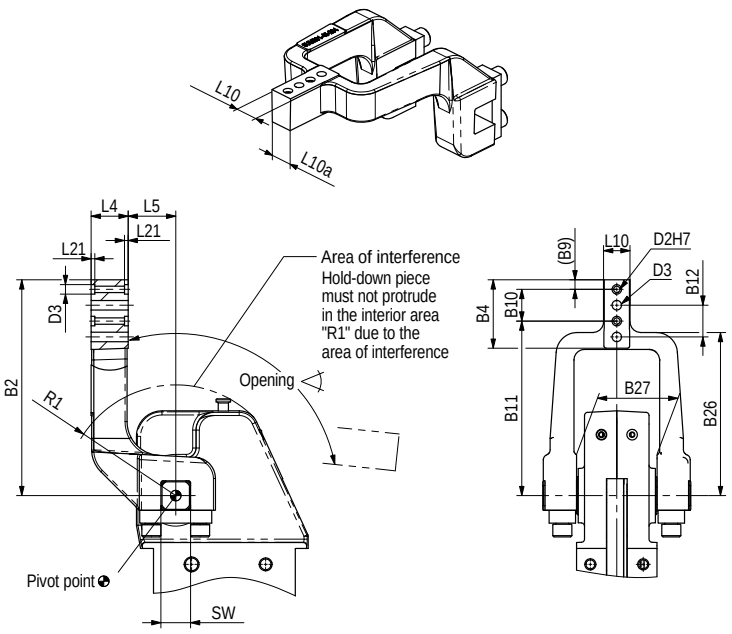
Model	Order no. U-type central clamping arm	B12 ±0,02	B26	D2 H7	D3	L4 ±0,1	L5*** ±0,2	L10	L10a ~	L21	R1	SW J7
82G80-4..C800B	**8UM801-45-204**	30	154	6	9	35	45	25	23,7	3,5	108	28
	8JG-169-2-01	30	129	6	9	35	20	25	23,7	3,5	108	28

*** Tolerance meassured 80 mm from pivot point

Horizontal clamping arm position



Vertical clamping arm position



Series **82G80-4** Clamping Arm Variants

Lateral clamping arm, horizontal clamping position

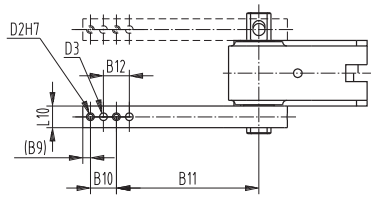
Technical data lateral clamping arms

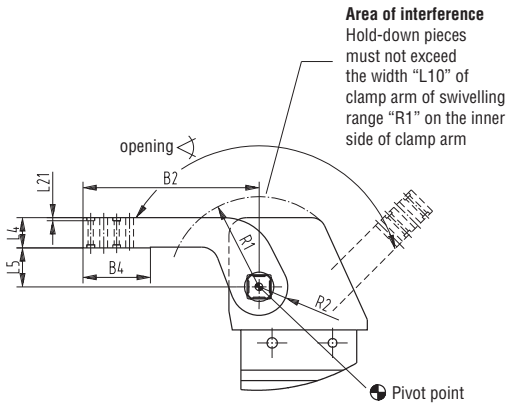
Model	Order No. lateral clamping arm	Opening angle for clamping position horizontal	Opening angle for clamping position vertical	Weight [kg]	B2	B4	B9	B10 ±0,02	B11 +0,1
82G80-4..C800B	**8S801-45-204** **8JG-1179-1-01**	135° 135°	105° 105°	2,2 2,1	204 179	78 78	9 9	30 30	165 140

Model	Order No. lateral clamping arm	B12 ±0,02	D2 H7	D3	L4 ±0,1	L5*** ±0,2	L10	L21	R1	R2
82G80-4..C800B	**8S801-45-204** **8JG-1179-1-01**	30 30	6 6	9 9	35 35	45 20	25 30	3,5 --	108 108	33 35

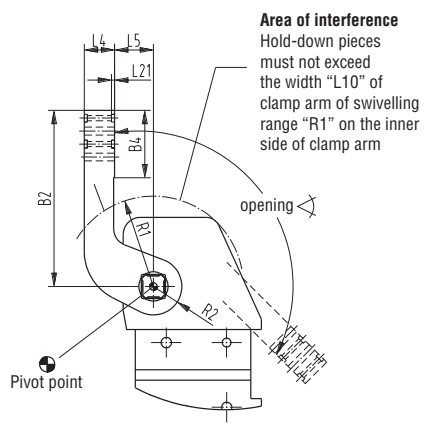
*** Tolerance meassured 80 mm from pivot point

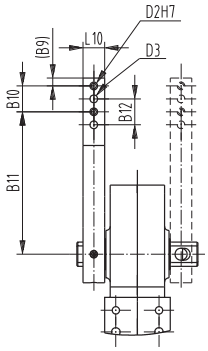
Horizontal clamping arm position





Vertical clamping arm position





Series **82G80-4** Ordering Information

Model numbering code for 82G80-4....

Example Order No.: **82G80-4** **23** **C8** **0** **0** **B**

Basic model

Driveshaft, Dual side

Clamp Arms

23 = horizontal clamping arm position

63 = vertical clamping arm position

Sensing system

00 = without sensing system

C8 = with sensing system 8EA-026-2

Hand Lever

0 = without hand lever

Base Model

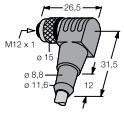
B = Base model w/o clamping arm

Spare parts

Specification	Order no. for structural component 82G80-4..C800B
Cylinder	8PW-1004-1
Seal kit	8PW-1001-1-00
Sensing kit C8	82G80-4C8
Sensing system C8 Connector plug M12x1, fixed	8EA-026-2

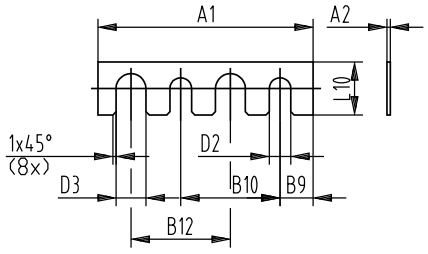
Series 82G80-4 Accessories

Clamping Arms Clamping arm variant	Clamping arm length	Fulcrum distance	Clamping position	Order No. for set 82G80-4..C800B	Comment
U-central	179	20	horizontal / vertical	8JG-169-2-01	Set consists of clamping arm, screws, and links.
U-central	204	45	horizontal / vertical	8UM 801-45-204	
lateral right/left	179	20	horizontal / vertical	8JG-1179-1-01	Set consists of clamping arm and set screws.
lateral right/left	204	45	horizontal / vertical	8S801-45-204	
lateral both sides					you need 2 sets of clamping arms

Connector cable (1 connector socket & 5 m cable)		Order No.	
connector socket M12x1 straight, 5-pin		8EL-002-1	
connector socket M12x1 angular, 4-pin		8EL-003-1	

Opening angle limitation	Order No.	
120°	8CE-1002-3	Height 9,1 mm
105°	8CE-1000-3	Height 21,1 mm
96°	8CE-220-2	Height 28,6 mm
90°	8CE-1004-3	Height 33,8 mm
75°	8CE-1008-3	Height 46,5 mm
60°	8CE-1012-3	Height 58,2 mm
45°	8CE-1016-3	Height 69,6 mm
30°	8CE-1020-3	Height 81,0 mm

Shim for clamping arm



Order No.	A1	A2	D2	D3	B9	B10	B12	L10
82ZB-SH5001	65	0,1	6,5	9	10	30	30	16
82ZB-SH5002		0,2						
82ZB-SH5005		0,5						
82ZB-SH5010		1,0						
82ZB-SH5020		2,0						
82ZB-SH5050		5,0						

Series **82D40-2/82D63-5** Product Overview

Features:

- Compact, enclosed design
- Narrow design
- Adapts to various holding arm variants
- High accuracy of positioning due to internal holding arm stopper
- 2 lateral and 1 front mounting areas
- Low weight (aluminium body)
- Integrated inductive sensing module with LED display
- Cylinder diameter 40 mm or 64 mm

Application:

- Clamping, holding, gripping and positioning of metal sheets and other parts, mainly in jigs and handling systems.

Key areas of application:

- Automotive manufacturing, sheet processing industry, jig and general mechanical engineering.

- Automation power clamps, enclosed and narrow design for 2 clamping arms

Models: **82D40-2...**
82D63-5...

82D40-223C900
Base model with 2 U-clamping arms

Series **82D40-2/82D63-5** Technical Information

Model		Standard opening angle	Driveshaft	Max. holding torque Nm [lb ft]	Clamping torque at 5 bar Nm [lb ft]	Cylinder Ø mm [in]	Air consumption per double stroke at 5 bar dm^3 [ft^3]	Weight ~ kg [lbs]
		180°	lateral, both sides U-type clamping arms	55 [738]	55 [738]	40 [1.57]	1,2 [0.08]	2,5 [5.50]
82D63-523C900B	vertical	180°	lateral, both sides U-type clamping arms	120 [738]	120 [738]	63 [2.48]	3,8 [0.13]	4,5 [9.90]

Model	B1	B2	B3	L1	SW	G
82D40-223C900B	30	30	60	12,5	11	1/4
82D63-523C900B	47	47	94	21	19	1/4

Order no. code for **82D40/63**

Example Order No.: **82D63-5** **23** **C9** **0** **0** **B**

82D40-2 **82D63-5**

Basic model

23 = long drive shaft ends on both sides fit for all clamping arms

Clamping arm

C9 = with sensing system 8EA-024-2 M12x1

Sensing system

without handlever

0 = Standard opening angle limitation 180°

1 = 160° opening angle
2 = 140° opening angle
3 = 120° opening angle
4 = 100° opening angle
5 = 80° opening angle
6 = 60° opening angle
7 = 40° opening angle
8 = 20° opening angle

Clamps with reduced opening angle upon request

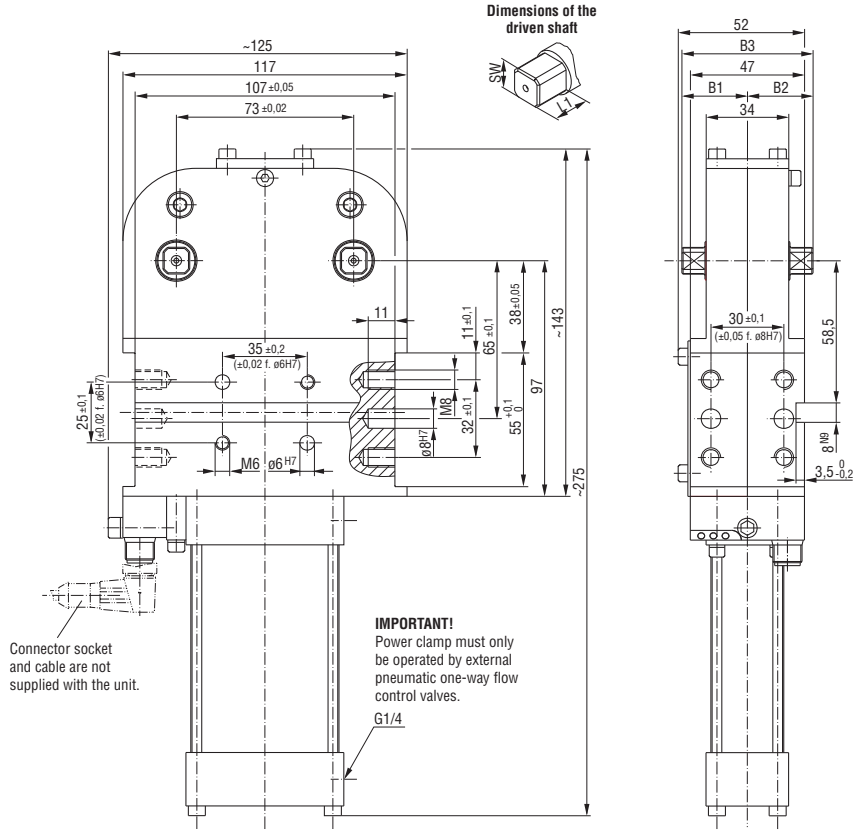
B = Base model Power clamp **without clamping arm** to be marked with an additional **„B“**

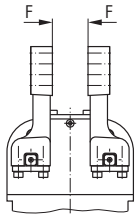
Opening angle limitation

Series **82D40-2/82D63-5** Standard Clamp Dimensions

Automation power clamps with 2 clamping arms

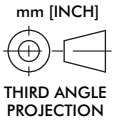
82D40-223C900B



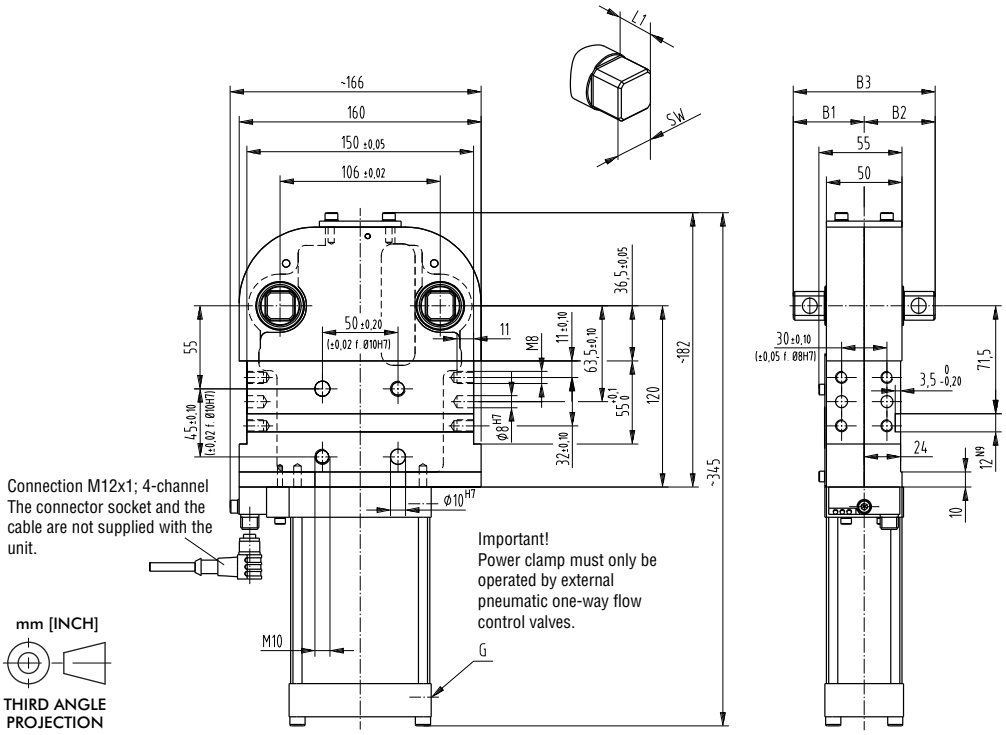


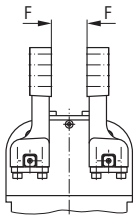
Safety notice:
The load on the clamping arms must always point towards the clamping direction. Single load of one arm is prohibited

Medium: air, max. 6 bar, operation with oil-free air is permissible



82D63-523C900B





Safety notice:
The load on the clamping arms must always point towards the clamping direction. Single load of one arm is prohibited

Medium: air, max. 6 bar, operation with oil-free air is permissible

Series 82D40-2 Technical Information, Dimensions

Automation power clamps with 2 clamping arms

- **Clamping arm variants for 82D40-2**
  Clamping arm variant U-type central clamping arm

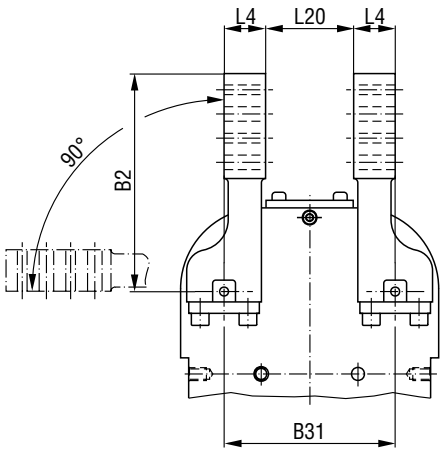
Base model with 2 U-type clamping arms, small gap between clamping arms

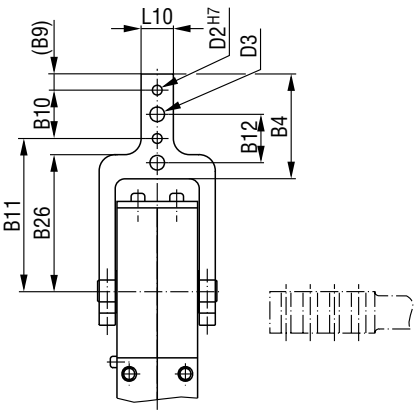
U-type central clamping arm Technical Information

Model	Order no. for U-type clamping arm set (1 clapming arm)	Clamping position	Standard opening angle	B2	B4	B9	B10 ±0,02	B11 +0,1	B12 ±0,2	B26
82D40-223C900B	8JG-065-2-01	vertical	180°	105	45,3	6	20	79	20	68,2

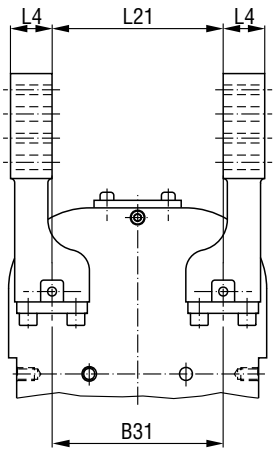
Model	Order no. for U-type clamping arm set (1 clapming arm)	B31 ±0,02	D2 H7 Ø	D3 Ø	L4	L10 -0,1	L20	L21
82D40-223C900B	8JG-065-2-01	73	6	7	20	12	33	73

Drawing shows standard mounting (L20)





Drawing shows further mounting possibility (L21)



Series **82D63-5** Technical Information, Dimensions

Automation power clamps with 2 clamping arms

- **Clamping arm variants for 82D63-5**

Clamping arm variant U-type central clamping arm

Base model with 2 U-type clamping arms, small gap between clamping arms

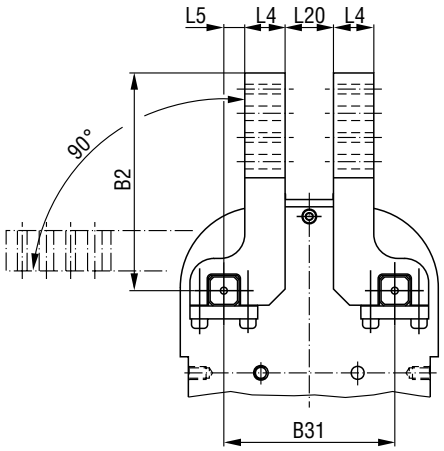
U-type central clamping arms Technical Information

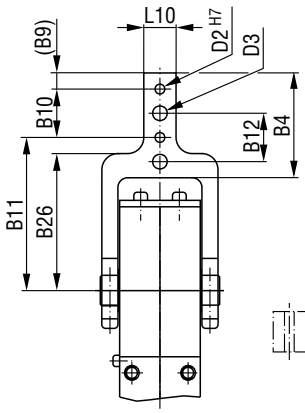
Model	Order no. for U-type clamping arm set (1 clapming arm)	Clamping position	Standard opening angle	B2	B4	B9	B10 ±0,02	B11 +0,1	B12 ±0,2	B26
82D63-523C900B	**8JG-069-1-01**	vertical	180°	144	64,3	9	30	105	30	95

Model	Order no. for U-type clamping arm set (1 clapming arm)	B31 ±0,02	D2 H7 Ø	D3 Ø	L4	L5*	L10 -0,1	L20	L21
82D63-523C900B	**8JG-069-1-01**	106	6	9	28	15	20	20	136

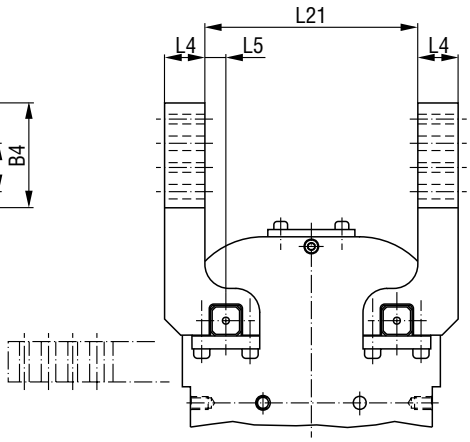
* Tolerance applies to 80 mm gap, measured from fulcrum

Drawing shows standard mounting (L20)





Drawing shows further mounting possibility (L21)



Series 82D40-2 Technical Information, Dimensions

Automation power clamps with 2 clamping arms

- **Clamping arm variants for 82D40-2**

Clamping arm variant	
Lateral clamping arm	left
Lateral clamping arm	right
Lateral clamping arm	both sides

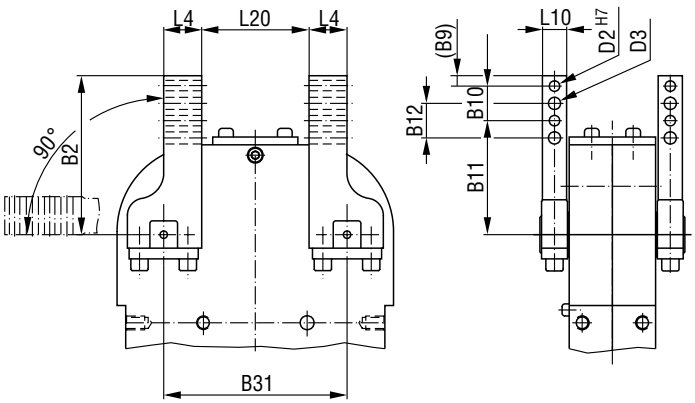
Base model with 4 lateral clamping arms, large gap between clamping arms

Lateral clamping arm Technical Information

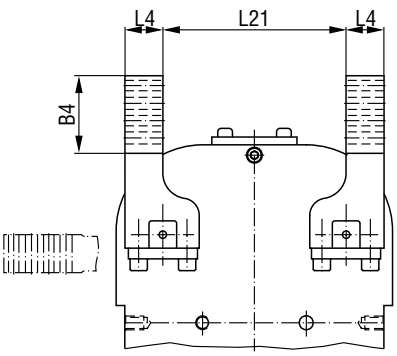
Model	Clamping arm variant	Order no. for 1 set of lateral clamping ams	Clamping position	Standard opening angle	B2	B4	B9	B10 ±0,02	B11 +0,1	B12 ±0,2
82D40-223C900B	lateral, left lateral, right lateral, both sides	**8JG-066-1-01**	vertical	180°	105	45	6	20	79	20

Model	Clamping arm variant	Order no. for 1 set of lateral clamping ams	B31 ±0,02	D2 H7 Ø	D3 Ø	L4	L10 -0,1	L20	L21
82D40-223C900B	lateral, left lateral, right lateral, both sides	**8JG-066-1-01**	73	6	7	20	12	33	73

Drawing shows standard mounting (L20) with four lateral clamp arms



Drawing shows further mounting possibility (L21)



Series **82D63-5** Technical Information, Dimensions

Automation power clamps with 2 clamping arms

- **Clamping arm variants for 82D63-5**

Clamping arm variant	
Lateral clamping arm	left
Lateral clamping arm	right
Lateral clamping arm	both sides

Base model with 4 lateral clamping arms, large gap between clamping arms

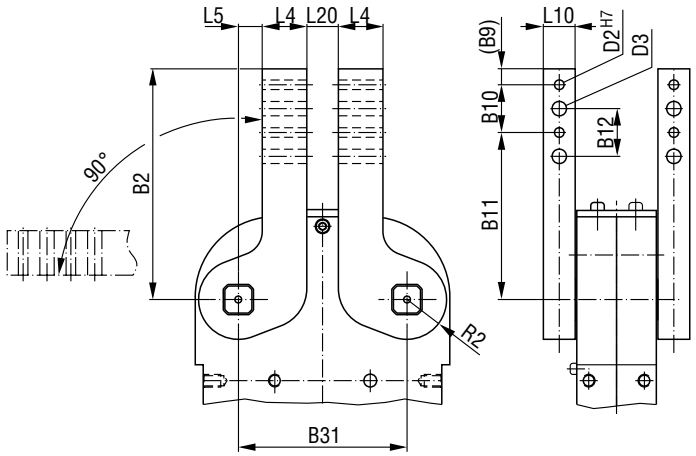
Lateral clamping arms Technical Information

Model	Clamping arm variant	Order no. for 1 set of lateral clamping ams	Clamping position	Standard opening angle	B2	B4	B9	B10 ±0,02	B11 +0,1	B12 ±0,2
82D63-523C900B	lateral, left lateral, right lateral, both sides	**8JG-070-1-01**	vertical	180°	144	74	9	30	105	30

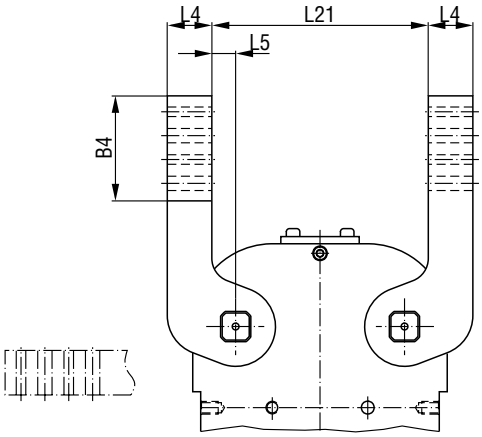
Model	Clamping arm variant	Order no. for 1 set of lateral clamping ams	B31 ±0,02	D2 H7 Ø	D3 Ø	L4	L5	L10 -0,1	L20	L21	R2
82D63-523C900B	lateral, left lateral, right lateral, both sides	**8JG-070-1-01**	106	6	9	28	15	20	20	136	28

* Tolerance applies to 80 mm gap, measured from fulcrum

Drawing shows standard mounting (L20) with four lateral clamp arms



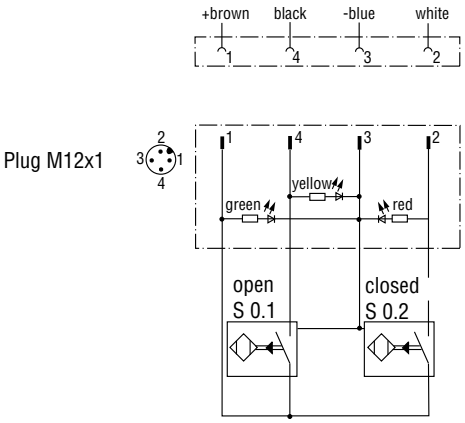
Drawing shows further mounting possibility (L21)

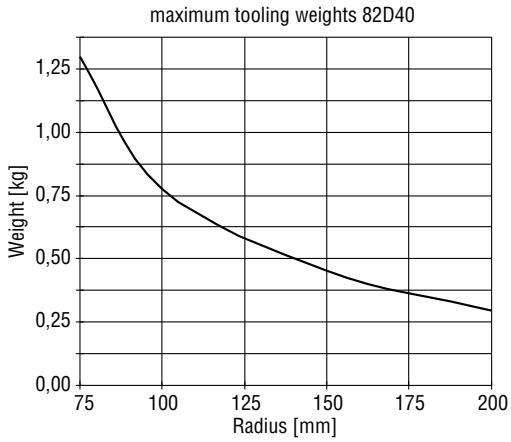


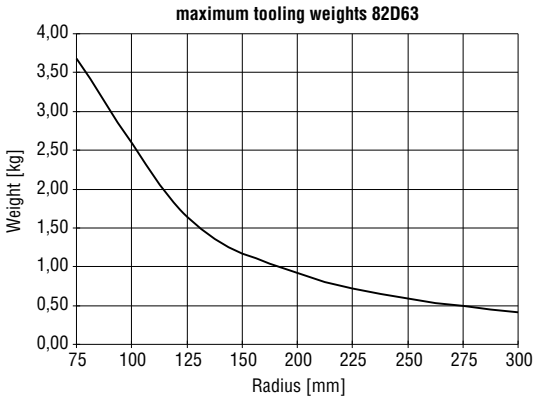
Series 82D40-2/82D63-5 Technical Information

Concept guideline

(with reference to axis of clamping arm rotation)





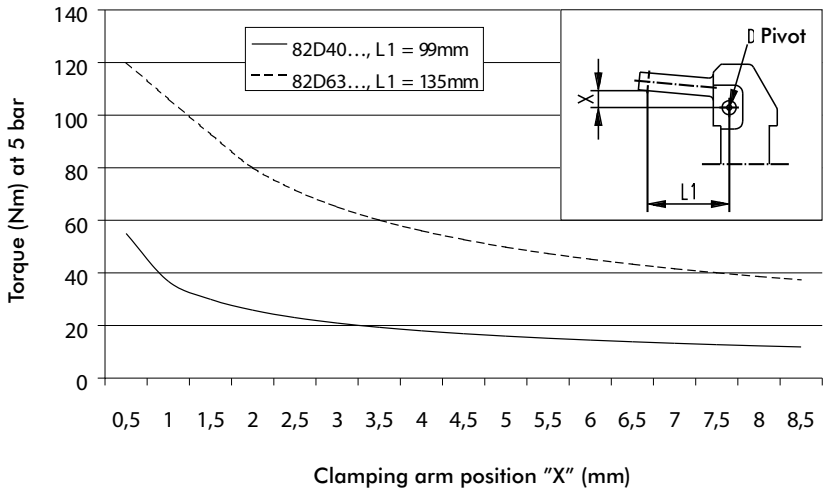


All details apply under an air pressure of 6 bar and opening and closure times of 1 second each

Diagram of clamping force

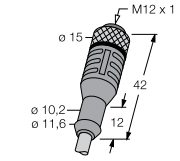
(at 5 bar)

Models 82D40... / 63...

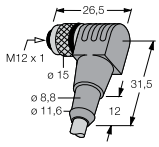


Series 82D40-2 / 82D63-5 Accessories

Clamping Arms		Structural component		Comment
Clamping are variant	Clamping position	82D40-223C900B	82D63-523C900B	
U-central	vertical	8JG-065-1-01	8JG-069-1-01	sets of U-type clamping arms consist of clamping arm, links and screws
lateral right/left	vertical	8JG-066-1-01[1)]	8JG-070-1-01[2)]	sets of lateral clamping arms consist of 1) clamping arm, links and screws 2) clamping arm and set screws you need 2 sets of clamping arms
lateral both sides	vertical	8JG-066-1-01[1)]	8JG-070-1-01[2)]	you need 4 sets of clamping arms

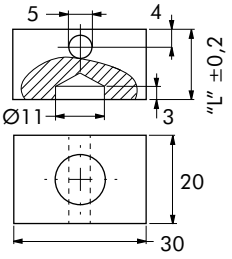


Connector socket M12x1straight, 5-pin

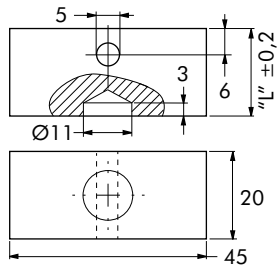


Connector socket M12x1 angular, 4-pin

Connector Cable (includes 1 connector socket & 5 m cable)	Order no. for Structural component	
	82D40-223C900	82D63-523C900
Connector socket M12x1 straight, 5-pin	8EL-002-1	8EL-002-1
Connector socket M12x1 angular, 4-pin	8EL-003-1	8EL-003-1



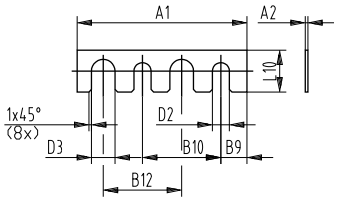
For 82D40



For 82D63

Opening Angle Limiter	Order no. for Structural component			
	82D40-223C900		82D63-523C900	
Angle	Length	Order No.	Length	Order No.
180° (Standard)	11,4mm	8CE-342-1	14,4mm	8CE-362-1
160°	15,1mm	8CE-340-1	20,0mm	8CE-360-1
140°	18,5mm	8CE-338-1	24,8mm	8CE-358-1
120°	22,2mm	8CE-336-1	29,6mm	8CE-356-1
100°	28,8mm	8CE-334-1	34,3mm	8CE-354-1
80°	28,0mm	8CE-332-1	39,0mm	8CE-352-1
60°	33,0mm	8CE-330-1	43,8mm	8CE-350-1
40°	37,0mm	8CE-328-1	49,1mm	8CE-348-1
20°	41,8mm	8CE-326-1	56,2mm	8CE-456-1

Shim Plates (for clamping arm)



Fit for model 82D40-2									Fit for model 82D63-5								
Model	A1	A2	D2	D3	B9	B10	B12	L10	Model	A1	A2	D2	D3	B9	B10	B12	L10
82ZB-SH4001	42	0,1	6,5	7	6	20	20	12	82ZB-SH5001	65	0,1	6,5	9	10	30	30	16
82ZB-SH4002		0,2							82ZB-SH5002		0,2						
82ZB-SH4005		0,5							82ZB-SH5005		0,5						
82ZB-SH4010		1,0							82ZB-SH5010		1,0						
82ZB-SH4020		2,0							82ZB-SH5020		2,0						
82ZB-SH4050		5,0							82ZB-SH5050		5,0						

Spare Parts	Order no. for Structural component	
	82D40-2	82D63-5
Cylinder	8PW-016-2	8PW-024-2
Seal kit	8PW-016-1-00	8PW-024-1-00
Integrated sensing system C9 Connector plug M12x1, fixed (Turck)	8EA-024-2	8EA-024-2

Series **82U50-3** Product Overview

Pallet power clamps, enclosed model

Models: 82U50-3....

Application:
Clamping, holding, gripping and positioning of metal sheets and other parts, mainly in jigs and handling systems, particularly in situations where local accessibility does not allow the use of standard clamps.

82U50-300....
Pallet power clamp

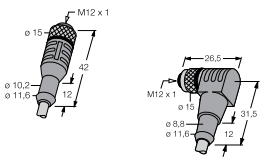
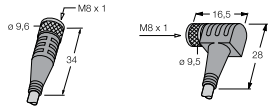
Key areas of application:
Automotive manufacturing, sheet processing industry, jig and general mechanical engineering.

Features:
- compact, enclosed aluminium body
- high holding torques
- long life cycle
- hard alloy rest at the clamping hook
- toggle action mechanism
- inductive sensing module with LED display

Optional:
- adapter plate for lateral connection
- sensing system integrated or attached to the cylinder

Model with inductive sensing			Max. holding force N [lbs]	Clamping force at 5 bar N [lbs]	Max. operating-pressure bar [psi]	Cylinder Ø mm [in]	Weight ~ kg [lbs]
Connector M12x1, fixed	Connector M12x1, with lead	Connector M8x1, fixed					
82U50-300B700	82U50-300B800	82U50-300C800	4000 [899]	4000 [899]	6 [87]	50 [1.97]	3,2 [7.04]

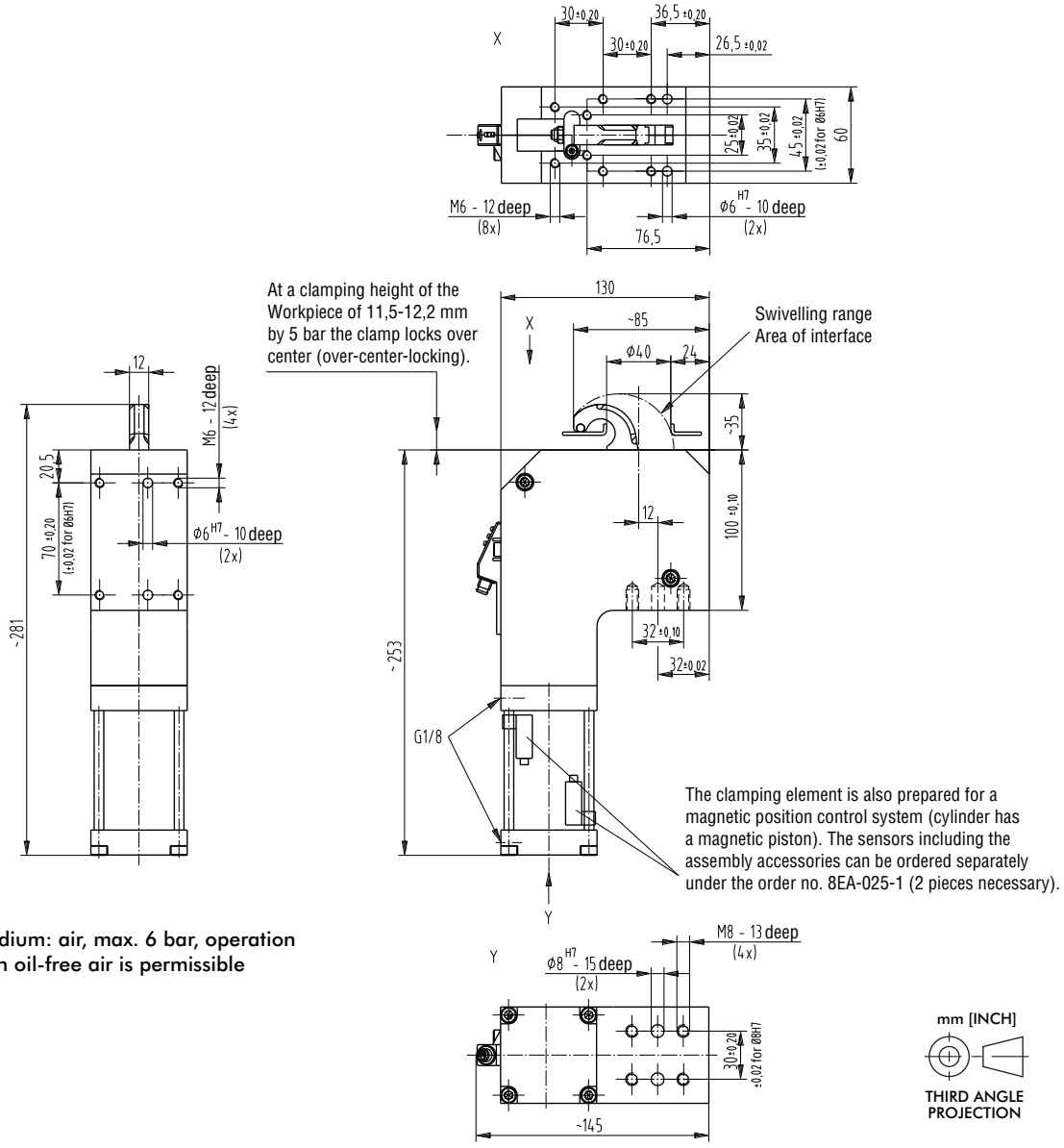
Accessories

Specification		Order no. for structure component 82U50-300....	Comment
Connecting cable (1 connector socket & 5 m cable)			
B7 / B8 sensing system			
Connector socket M12x1, straight, 5-pin		**8EL-002-1**	
Connector socket M12x1, angular, 4-pin		**8EL-003-1**	
C8 sensing system			
Connector socket M8x1, straight, 4-pin		**8EL-009-1**	
Connector socket M8x1, angular, 4-pin		**8EL-007-1**	
Plug adapter M8 to M12		**8EL-008-1**	
Sensing system attached to cylinder		**8EA-025-1**	**2 pcs required**
Magnetic sensors plus installation material			

Major spare parts

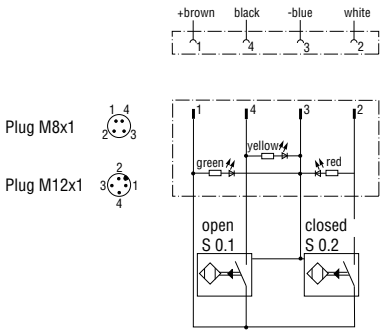
Specification	Order no. for structural component 82U50-300....
Pneumatic cylinder	**8PW-007-1**
Seal kit	**8PW-007-1-00**
Sensor box "B7", connector plug M12x1, fixed	**8EA-060-1**
Sensor box "B8", connector plug M12x1 with lead	**8EA-031-1**
Sensor box "C8", connector plug M8x1, fixed	**8EA-023-2**
Spare part kit: Bushings, Bearings, pins	**8KB-047-1**

Series **82U50-3** Standard Clamp Dimensions



Medium: air, max. 6 bar, operation with oil-free air is permissible

Power clamp to be operated with external pneumatic one-way flow control valve only



Wiring diagram of electrical sensing systems B7, C8, B8

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

- B7: inductive, sensor box, connector plug M12x1, fixed
- B8: inductive, sensor box, connector plug M12x1 with lead
- C8: inductive, sensor box, connector plug M8x1, fixed

GDP Series Product Overview

Features and Benefits

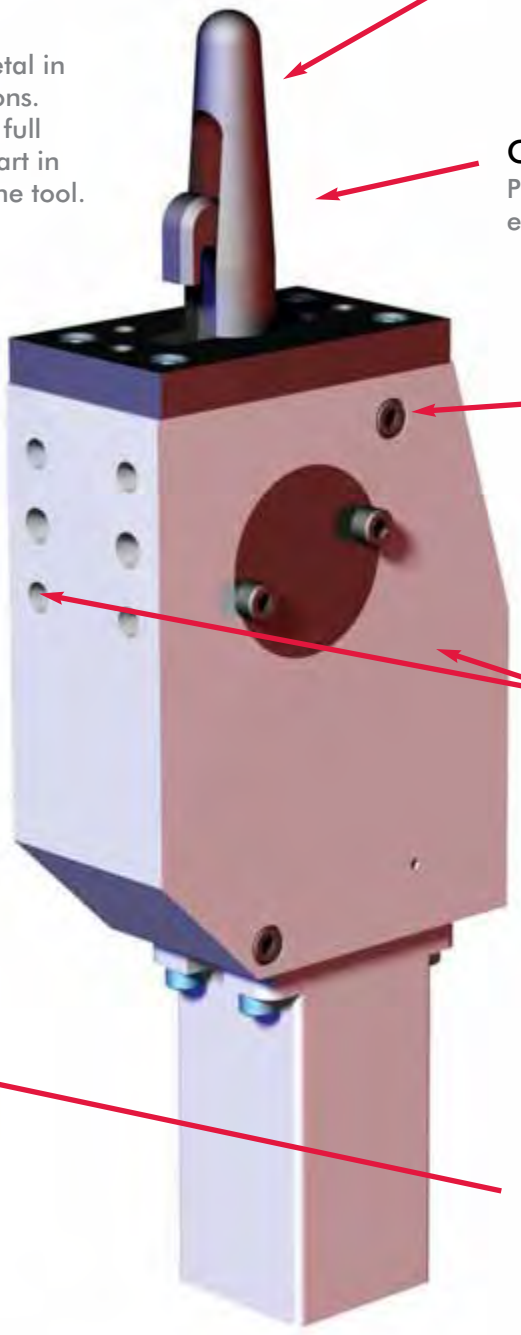
Introduction

DE-STA-CO's Model GDP clamps are designed to locate and clamp sheet metal in welding and material transfer applications. The enclosed aluminum body houses a full toggling mechanism that secures the part in place even when air is removed from the tool.

These units are very powerful as a result of the mechanical advantage of the toggle mechanism so large clinders are not needed.

GDP Locating Pin Clamps can be used on a stationary tool as well as a moving pallet system and are available with an enclosed LED switch.

Hardened tool steel pins have full 360° Geometric sheet metal contact.



Locating Pin
Hardened and ground precision tool steel pin

Contaminate-Proof Design
Prevents contamination from entering the unit.

Base/Rest Block
Standard rest block heights of 25 and 50mm with others available

Dual Face Mounting
Doweled and bolted

Patent Pending

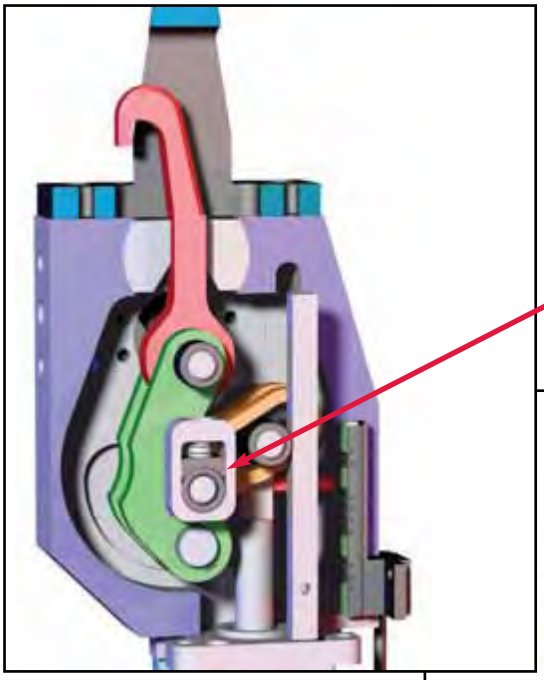
World Clamp Switch
Multiple Switch suppliers Available

Ports
Supplied with 1/8" ISO G or NPT Ports

Operation Principle

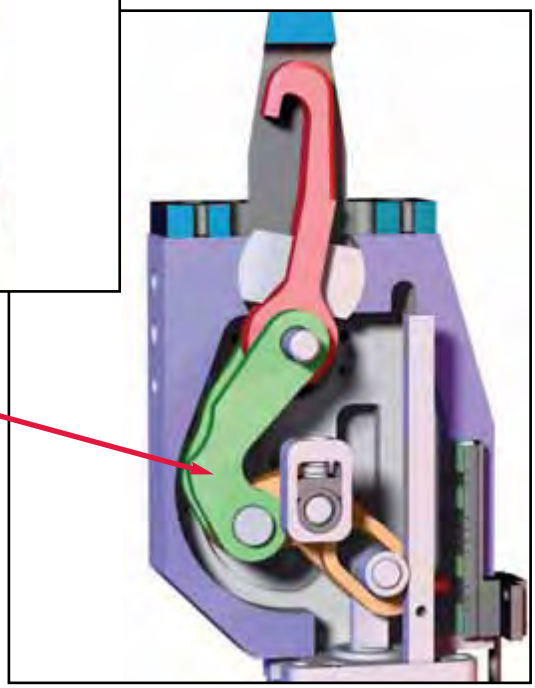
Reliable clamping on variable surfaces and thickness with superior contamination protection

DE-STA-CO's GDP Locating Pin Clamps are made using a fully enclosed body with hardened steel wear surfaces for millions of cycles and long life. Sheet metal is captured with the hook that toggles locked when air actuates the cylinder and remains locked when air is removed.



Pin clamp shown in clamped/closed position

Spring Loaded Toggle
for material thickness variations



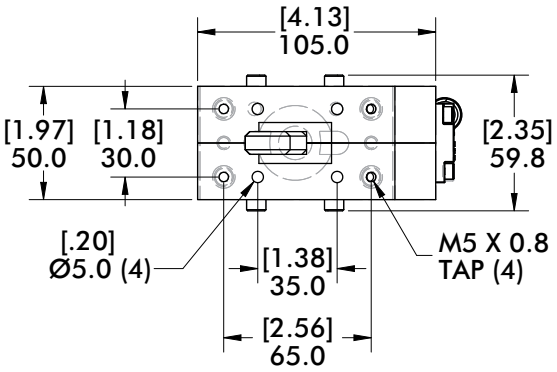
Full Toggling Mechanism
Locks when air is off

Pin clamp shown in un-clamped/open position

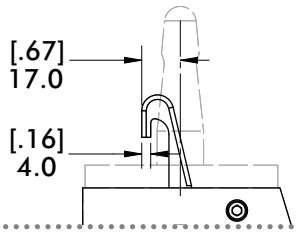
Technical Information

Weight	2.3kg [5 lb]
Holding Force (Over Center)	2001.7 N [450 lbf]
Clamping Force (Over Center)	2001.7 N [450 lbf]
Maximum Material Thickness Variation	2mm [.07 in.]

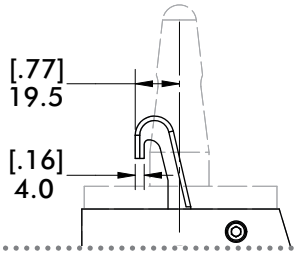
GDP3(x) Base Pin Clamp Dimensions

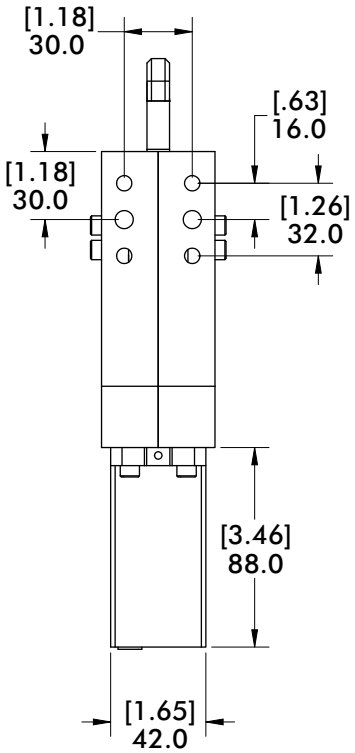


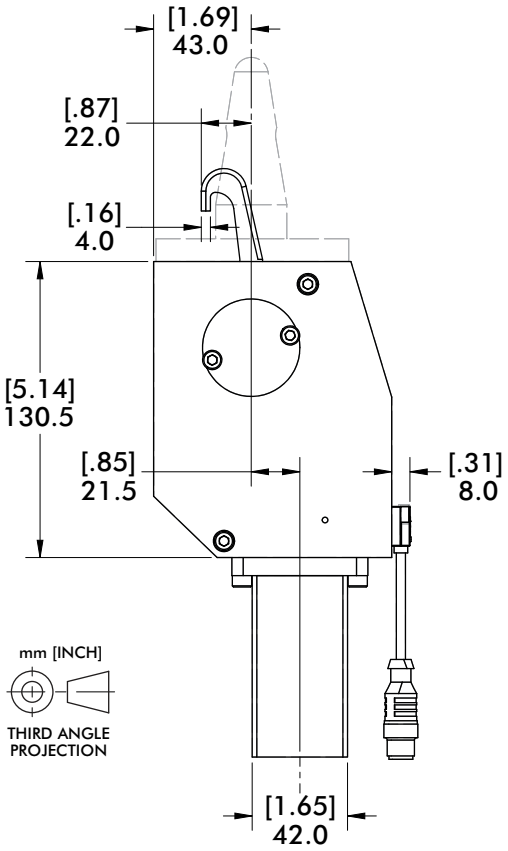
GPD30-5200000

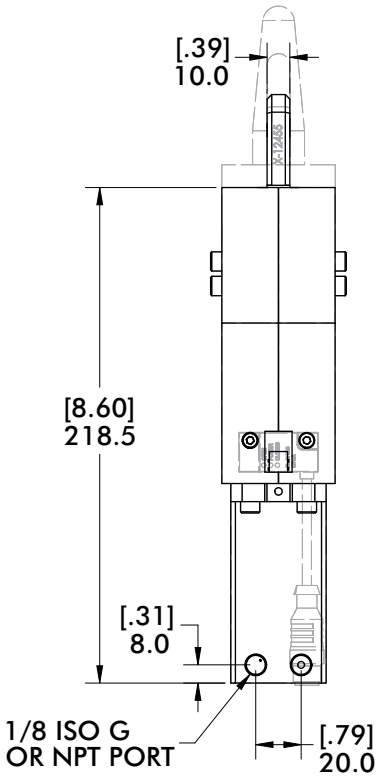


GPD30-5250000



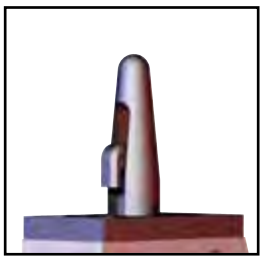


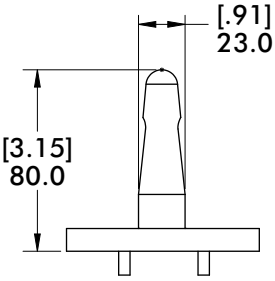




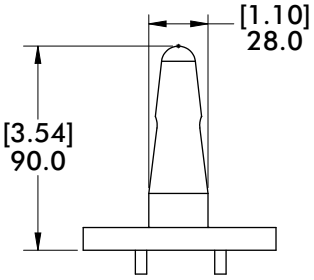
Model	Ports		Version	Centering Pins	Open/Closed Sensing	Clamping Hook
GDP	**3G**	—	**5**	**20**	**00**	**00**
"**GDP**" Locating Pin Clamp	"**3G**" 1/8" ISO G Ports "**3N**" 1/8" NPT Ports			"**20**" Ø20.0 - Ø23.0 "**25**" Ø23.1 - Ø28.0 "**30**" Ø28.1 - Ø33.0	"**00**" No Sensing "**C8**" Internal Sensing	"**00**" Standard

GDP30-5(xx) Standard Centering Pins Dimensions

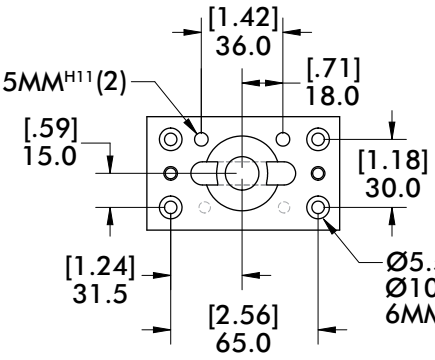


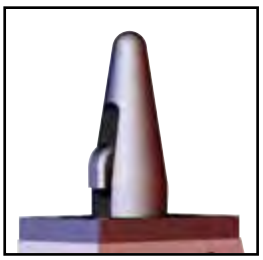


GPD30-**520**

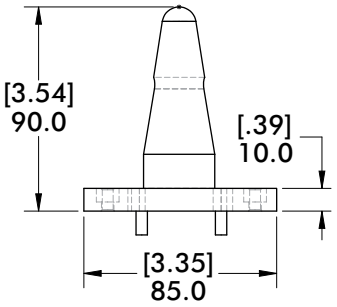


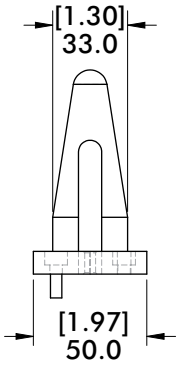
GPD30-**525**





GPD30-**530**



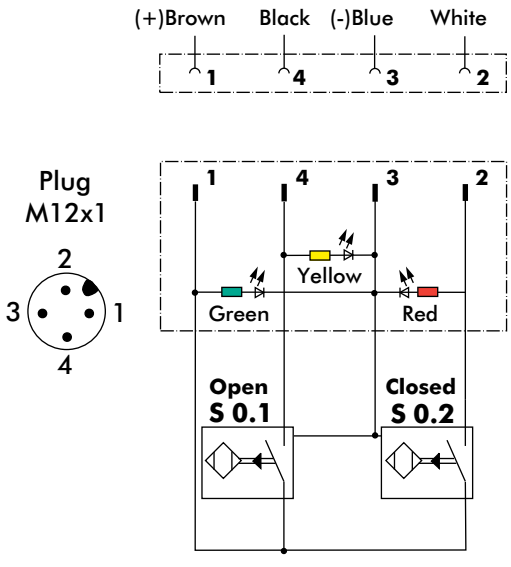


STANDARD CENTERING PINS		
MODEL	STANDARD (Ø)	MINIMUM (Ø)(†)
GPD30-520-x.xx	23.0mm	20.0mm(†)
GPD30-525-x.xx	28.0mm	23.1mm(†)
GPD30-530-x.xx	33.0mm	28.1mm(†)

(†)Centering pins can be ordered with any pin (Ø) between standard and minimum upon request.

GDP30-5(xx) - Sensing and Cylinder

REPLACEMENT/SPARE PARTS		
GDP Option	**MODEL**	DESCRIPTION
C8	**8EA-096-1**	Intenal Open/Closed Sensing
3N	**8PW-102-2**	Cylinder with NPT ports
3G	**8PW-096-2**	Cylinder with G ports
-	**8PW-096-1-00**	Seal Kit



"**C8**" (8EA-096-1)
Internal Open/Closed Sensing
10...30 VDC 150mA, PNP, 4-Pin,M12, Eurofast

Series **82P30-3/82P35-3** Product Overview

Pneumatic locating clamps, enclosed and narrow design, with single-sided or double-sided clamping hook

Models: 82P30-3..... 82P35-3.....

Application:

Clamping, holding, gripping and accurately positioning of metal sheets and other parts in jigs and handling systems.

Key areas of application:

Automotive manufacturing, sheet processing industry, jig and general mechanical engineering.

Features:

- compact design
- low weight (aluminium body)
- single-sided or double-sided clamping hook
- lateral attachment
- centering pin diameters between 20 mm and 45 mm
- 2 body variants, cylinder diameters 30 mm or 35 mm
- toggle action mechanism
- inductive sensing module with LED display

Locating clamp 82P30-3..C000
Single-sided clamping hook without centering pin

Locating clamp 82P30-3..C0D0
Double-sided clamping hook without centering pin

Locating clamps with single-side clamping hook (Centering pin has to be ordered separately)

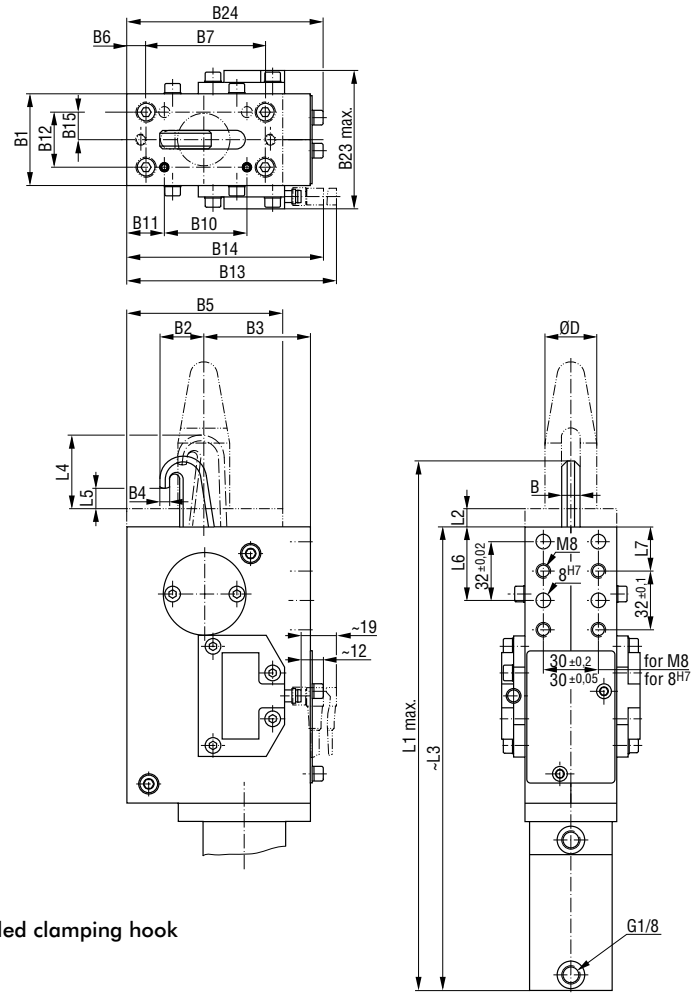
Model with inductive sensing without centering pin		Max. clamping force N [lbs]	Max. operating pressure bar [psi]	Cylinder Ø mm [in]	For centering pin Ø D mm [in]	Weight ~ kg [lbs]	Air consumption per double stroke at 6 bar dm³ [ft³]
Connector M12x1	Connector M8x1						
82P30-320B800	**82P30-320C000**	2000 [449]	6 [87]	30 [1.18]	20,0-23,0 [0.79-0.91]	3 [6.60]	0,8 [0.03]
82P30-325B800	**82P30-325C000**	2000 [449]	6 [87]	30 [1.18]	23,1-28,0 [0.91-1.10]	3 [6.60]	0,8 [0.03]
82P30-330B800	**82P30-330C000**	2000 [449]	6 [87]	30 [1.18]	28,1-33,0 [1.10-1.30]	3 [6.60]	0,8 [0.03]
82P35-340B800	**82P35-340C000**	3500 [787]	6 [87]	35 [1.38]	33,1-45,0 [1.30-1.77]	3,4 [7.48]	1,0 [0.04]

Locating clamps with double-side clamping hook (Centering pin has to be ordered separately)

Model with inductive sensing without centering pin		Max. clamping force N [lbs]	Max. operating pressure bar [psi]	Cylinder Ø mm [in]	For centering pin Ø D mm [in]	Weight ~ kg [lbs]	Air consumption per double stroke at 6 bar dm³ [ft³]
Connector M12x1	Connector M8x1						
82P30-320B8D0	**82P30-320C0D0**	2000 [449]	6 [87]	30 [1.18]	20,0-23,0 [0.79-0.91]	3 [6.60]	0,8 [0.03]
82P30-325B8D0	**82P30-325C0D0**	2000 [449]	6 [87]	30 [1.18]	23,1-28,0 [0.91-1.10]	3 [6.60]	0,8 [0.03]
82P30-330B8D0	**82P30-330C0D0**	2000 [449]	6 [87]	30 [1.18]	28,1-33,0 [1.10-1.30]	3 [6.60]	0,8 [0.03]
82P35-340B8D0	**82P35-340C0D0**	3500 [787]	6 [87]	35 [1.38]	33,1-45,0 [1.30-1.77]	3,4 [7.48]	1,0 [0.04]

Series 82P30-3/82P35-3 Standard Clamp Dimensions

Locating clamp with single-sided clamping hook



82P30/35-3....00 with single-sided clamping hook

mm [INCH]
THIRD ANGLE PROJECTION

Technical data

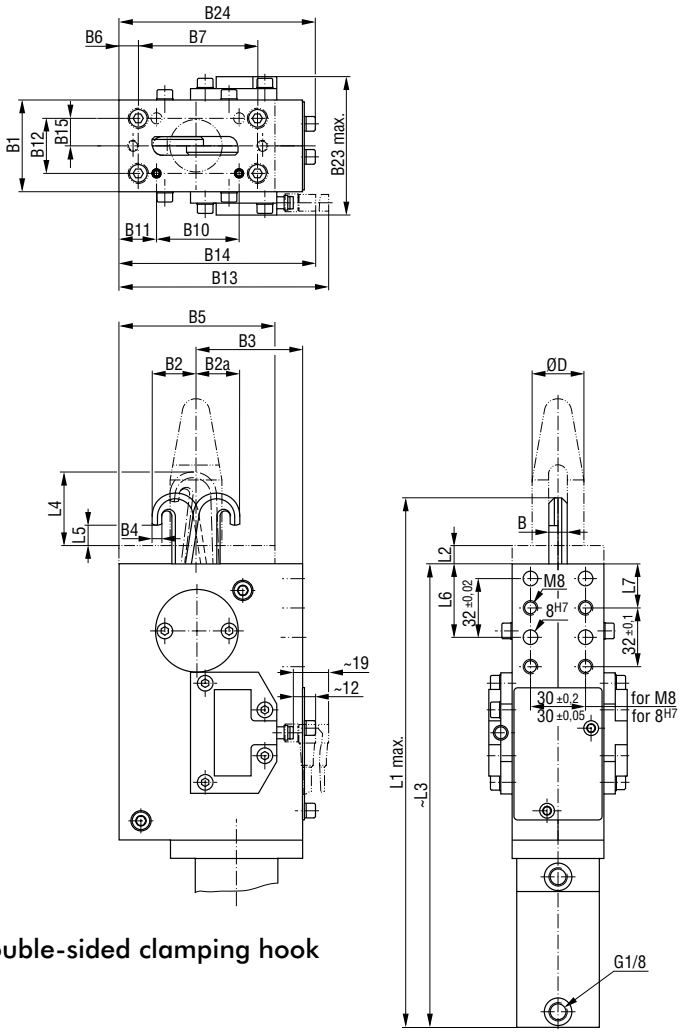
Model with inductive sensing		Piston Ø	for Centering Pin Ø D -0,05	B -0,1	B1	B2	B3	B4	B5	B6 ±0,1	B7 ±0,2	B10 ±0,1	B11 ±0,1	B12* ±0,05
Connector M12x1	Connector M8x1													
82P30-320B800	**82P30-320C000**	30	20,0-23,0	10	50	18,5	58	5	85	10,5	65	35	25,5	30
82P30-325B800	**82P30-325C000**	30	23,1-28,0	10	50	20,5	58	5,25	85	10,5	65	35	25,5	30
82P30-330B800	**82P30-330C000**	30	28,1-33,0	10	50	22,5	58	5,25	85	10,5	65	35	25,5	30
82P35-340B800	**82P35-340C000**	35	33,1-45,0	12	60	34	53	7	90	19	61	37	31	40

Model with inductive sensing		B13 max	B14 max	B15* ±0,025	B23 max	B24	L1 max	L2 +0,1	L3	L4	L5	L6 ±0,05	L7 ±0,1
Connector M12x1	Connector M8x1												
82P30-320B800	**82P30-320C000**	114	107	15	75,4	107	304	10	265	40	11,5	40	24
82P30-325B800	**82P30-325C000**	114	107	15	75,4	107	306	10	265	44	11,5	40	24
82P30-330B800	**82P30-330C000**	114	107	15	75,4	107	306	10	265	45	11,5	40	24
82P35-340B800	**82P35-340C000**	114	107	20	85,4	107	330	12	265	56	14	38	22

*Tolerances for dowel holes only

Series **82P30-3/82P35-3** Standard Clamp Dimensions

Centering pin (has to be ordered separately)



82P30/35-3....D0 with double-sided clamping hook

mm [INCH]

THIRD ANGLE PROJECTION

Technical data

Model with inductive sensing without centering pin		Piston Ø	For centering pin Ø D -0,05	B -0,05	B1	B2	B2a	B3	B4	B5	B6 ±0,1	B7 ±0,2	B10 ±0,1	B11 ±0,1
Connector M12x1	Connector M8x1													
82P30-320B8D0	**82P30-320C0D0**	30	20,0-23,0	5	50	18,5	19,5	58	5	85	10,5	65	35	25,5
82P30-325B8D0	**82P30-325C0D0**	30	23,1-28,0	5	50	20,5	21,5	58	5,25	85	10,5	65	35	25,5
82P30-330B8D0	**82P30-330C0D0**	30	28,1-33,0	5	50	22,5	23,5	58	5,25	85	10,5	65	35	25,5
82P35-340B8D0	**82P35-340C0D0**	35	33,1-45,0	6	60	34	34	53	7	90	19	61	37	31

Model with inductive sensing without centering pin		B12* ±0,05	B13 max	B14 max	B15* ±0,025	B23 max	B24 max	L1 max	L2 +0,1	L3	L4	L5	L6 ±0,05	L7 ±0,1
Connector M12x1	Connector M8x1													
82P30-320B8D0	**82P30-320C0D0**	30	114	107	15	75,4	107	304	10	265	40	11,5	40	24
82P30-325B8D0	**82P30-325C0D0**	30	114	107	15	75,4	107	306	10	265	44	11,5	40	24
82P30-330B8D0	**82P30-330C0D0**	30	114	107	15	75,4	107	306	10	265	45	11,5	40	24
82P35-340B8D0	**82P35-340C0D0**	40	114	107	20	85,4	107	330	12	265	56	14	38	22

*Tolerances for dowel holes only

Series 82P30-3/82P35-3 Ordering Information

Order no. code for locating clamps 82P30-3... / 82P35-3...

Example Order No.: 82P30-3 | 30 | B8 | 00

Basic model

Location clamp

82P30-3.../82P35-3..

Standard locating pin

Adapter for standard centering pin

20 for pin-Ø 20,0 - 23,0 mm
25 for pin-Ø 23,1 - 28,0 mm
30 for pin-Ø 28,1 - 33,0 mm
40 for pin-Ø 33,1 - 45,0 mm

Standard locating pin order separately

Sensors

C0 = Sensor 8EA-012-2 Connector (M8x1)

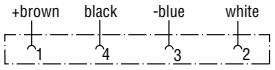
B8 = Sensor 8EA-030-1 Connector (M12x1)

Clamping hook

00 = Standard clamping hook

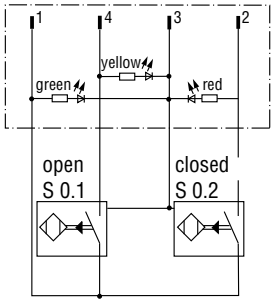
D0 = Double clamping hook

Pin assignment



Plug M8x1

Plug M12x1



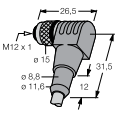
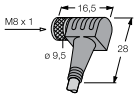
Wiring diagram of electrical sensing system

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

Inductive models:

- B8 inductive, with LEDs, connector plug M12x1
- C0 inductive, with LEDs, connector plug M8x1

Accessories for 82P30/35-3...

Specification		Order no. for structure component 82P30-3...	82P35-3...
Centering pins (put diameter in model number)		**82P30-3-_ _,_1)**	**82P35-3-_ _,_1)**
Connecting cable (1 connector socket & 5 m cable)			
B7 / B8 sensing system			
Connector socket M12x1, straight, 5-pin		**8EL-002-1**	**8EL-002-1**
Connector socket M12x1, angular, 4-pin		**8EL-003-1**	**8EL-003-1**
C8 sensing system			
Connector socket M8x1, straight, 4-pin		**8EL-009-1**	**8EL-009-1**
Connector socket M8x1, angular, 4-pin		**8EL-007-1**	**8EL-007-1**

[1] _ _,_ = centering pin diameter "D" as illustrated on page 15.50

Ordering example: To order the centering pin for locating clamp 82P30-325C000 with pin diameter "D" = 26.5 mm: "82P30-3-26.5"

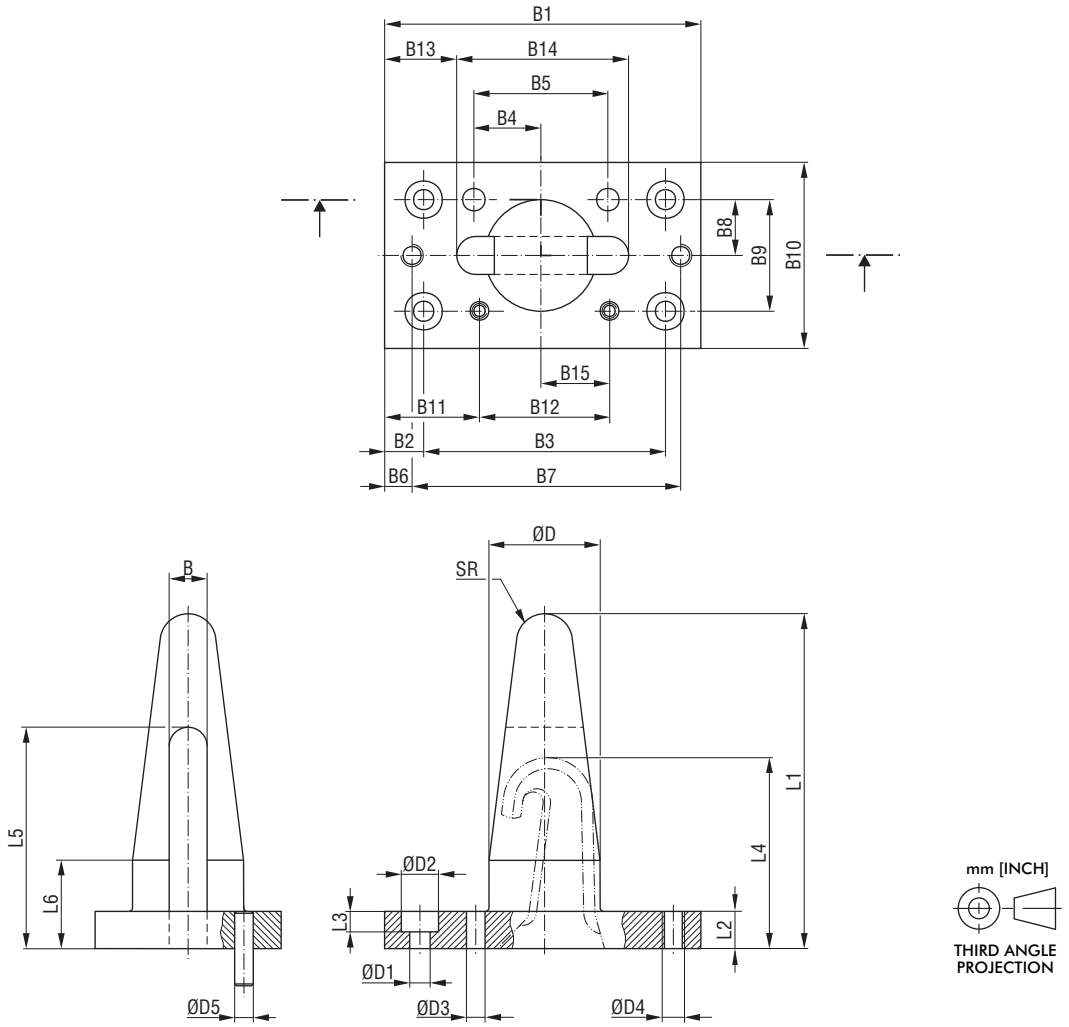
Series **82P30-3/82P35-3** Product Overview, Standard Centering Pin Dimensions

Centering pin (has to be ordered separately)

Locating clamp with single-sided clamping hook and centering pin

Centering pin (accessory part)

Centering pin for 82P30-3... and 82P35-3...



Technical data of centering pins

Base locating clamp model	Order no. for centering pin	ØD -0,05	ØD1	ØD2	ØD3 H7	ØD4	ØD5 H11	SR	L1	L2 +0,1	L3	L4	L5	L6	B	B1	B2 ±0,1
82P30-320....	**82P30-3-_ _,_1)**	20,0-23,0	5,5	10	6	M6	5	5	80	10	6	52	59,5	25	10,2	85	10,5
82P30-325....	**82P30-3-_ _,_1)**	23,1-28,0	5,5	10	6	M6	5	7,5	90	10	6	54	59,5	25	10,2	85	10,5
82P30-330....	**82P30-3-_ _,_1)**	28,1-33,0	5,5	10	6	M6	5	7,5	90	10	6	55	59,5	25	10,2	85	10,5
82P35-340....	**82P35-3-_ _,_1)**	33,1-45,0	5,5	10	6	M6	5	8	102	12	6	68	73,5	30	12,2	90	19

Base locating clamp model	Order no. for centering pin	B3 ±0,2	B4 ±0,02	B5 ±0,02	B6	B7 ±0,2	B8* ±0,025	B9* ±0,05	B10	B11 ±0,1	B12 ±0,1	B13	B14	B15 ±0,05
82P30-320....	**82P30-3-_ _,_1)**	65	18	36	10,5	65	15	30	50	25,5	35	19,4	46,2	18,5
82P30-325....	**82P30-3-_ _,_1)**	65	18	36	10,5	65	15	30	50	25,5	35	19,4	46,2	18,5
82P30-330....	**82P30-3-_ _,_1)**	65	18	36	10,5	65	15	30	50	25,5	35	19,4	46,2	18,5
82P35-340....	**82P35-3-_ _,_1)**	61	18	36	7	76	20	40	60	31	37	16	62	21

* Tolerance for dowel hole

[1] _ _,_ = centering pin diameter "D"

Ordering example: To order the centering pin for locating clamp 82P30-325C000 with pin diameter "D" = 26.5 mm: "82P30-3-26.5"

Major spare parts for 82P30-3/82P35-3

Specification	**Order no.** for structural component 82P30-3...	82P35-3...
End position sensing		
B8 plug connector M12x1	**8EA-030-1**	**8EA-030-1**
C0 plug connector M8x1	**8EA-012-2**	**8EA-012-2**
Cylinder	**8PW-019-1**	**8PW-006-1**
Seal kit	**8PW-019-1-00**	**8PW-006-1-00**

Series **870-2, 871-2** Standard Pneumatic Clamps

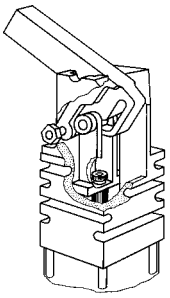
Light duty version for large scale production

Thanks to their design power clamps with the roller and cam principle automatically compensate for workpiece tolerances. When being clamped, the clamp arm of model 870-2 is in the vertical position, whereas the clamp arm of model 871-2 is in the horizontal position. The assembly plate which is included in the scope of delivery allows easy fastening of the clamps.

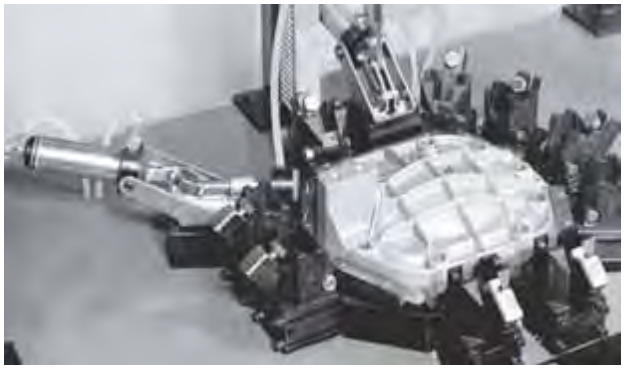
The cylinders are equipped with a magnetic piston for end position sensing. The sensors (BIM-IKE-AP) must be ordered separately, 2 pieces are required.

Standard equipment:

- 1 assembly plate, part no. 870116
- 2 restrictor connections



Roller and cam mechanism of the models 870-2 and 871-2



Power clamp models 871-2 and 803-MF on a pressure test fixture for vehicle gearbox lids

870-2
clamping arm vertical when in clamping position

871-2
clamping arm horizontal when in clamping position

Series **870-2, 871-2** Technical Information

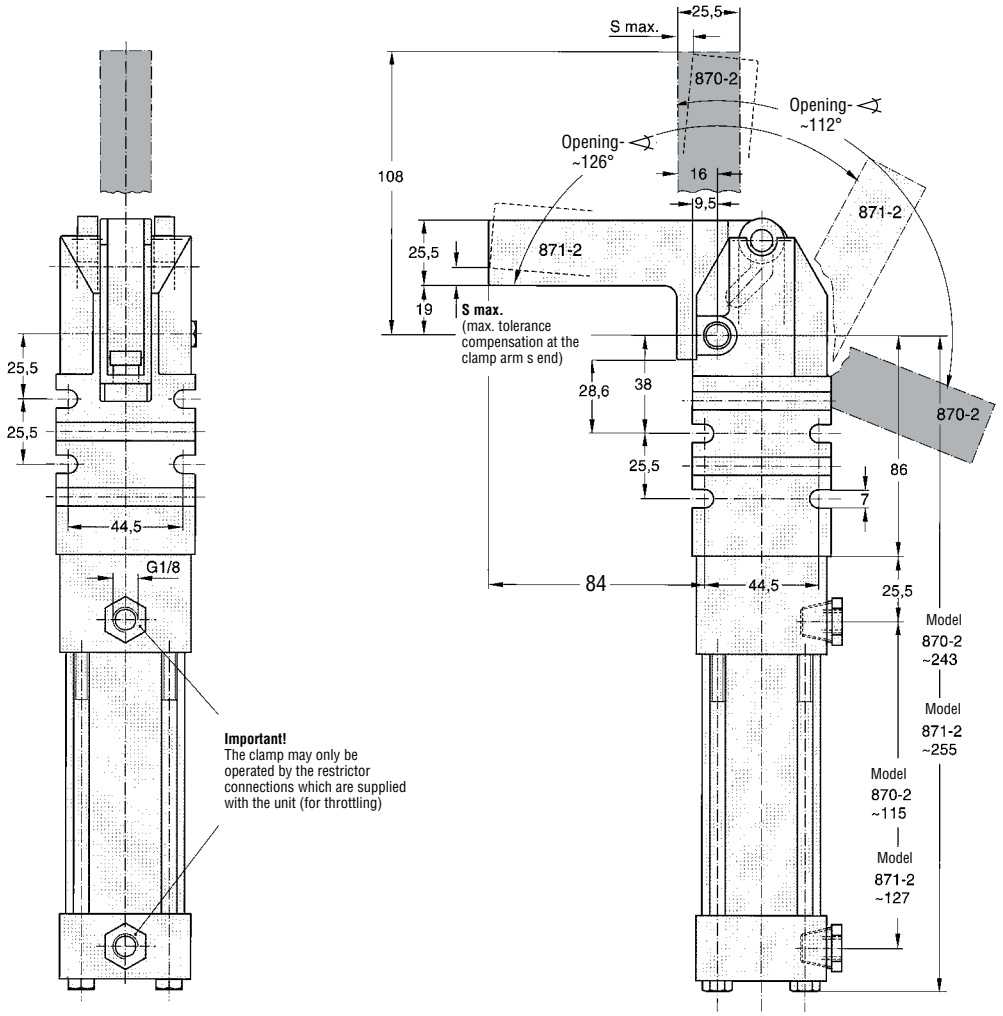
Model	Opening-\	holding torque max. Nm [ft lb]	clamping torque at 5 bar Nm [ft lb]
870-2	112°	260 [192]	60 [44]
871-2	118°	260 [192]	60 [44]

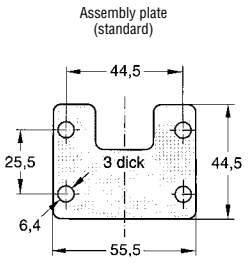
Sensors (order separately)

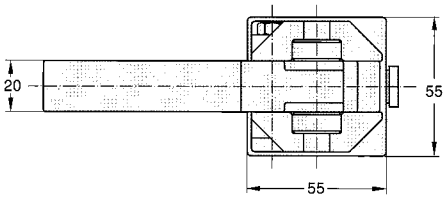
Part no.	Description	Notes
BIM-IKE-AP	Sensor	2 pieces required

Series **870-2, 871-2** Standard Pneumatic Clamps

Power clamps with the roller and cam principle







mm [INCH]
THIRD ANGLE PROJECTION

Model	S max. max. tolerance compensation at the clamp arm s end Nm [ft lb]	max. operating pressure bar [psi]	air consumption at 5 bar dm^3 [ft^3]	connection	weight ~ kg [lbs]
870-2	4,5 [3]	10 [145]	0,95 [0.03]	G1/8	3 [6.60]
871-2	3,5 [3]	10 [145]	0,95 [0.03]	G1/8	3 [6.60]

Notes