

Series **82M-1** Product Overview (last time in catalog)

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-123040C8

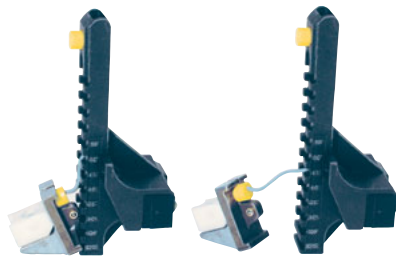
Lightweight, enclosed Modular automation power clamp



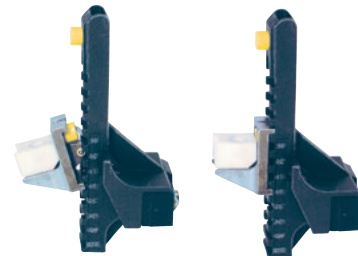
Simple adjusting of opening angle (pictures show sensor-box separated from clamp)



120° Opening angle (delivery condition)



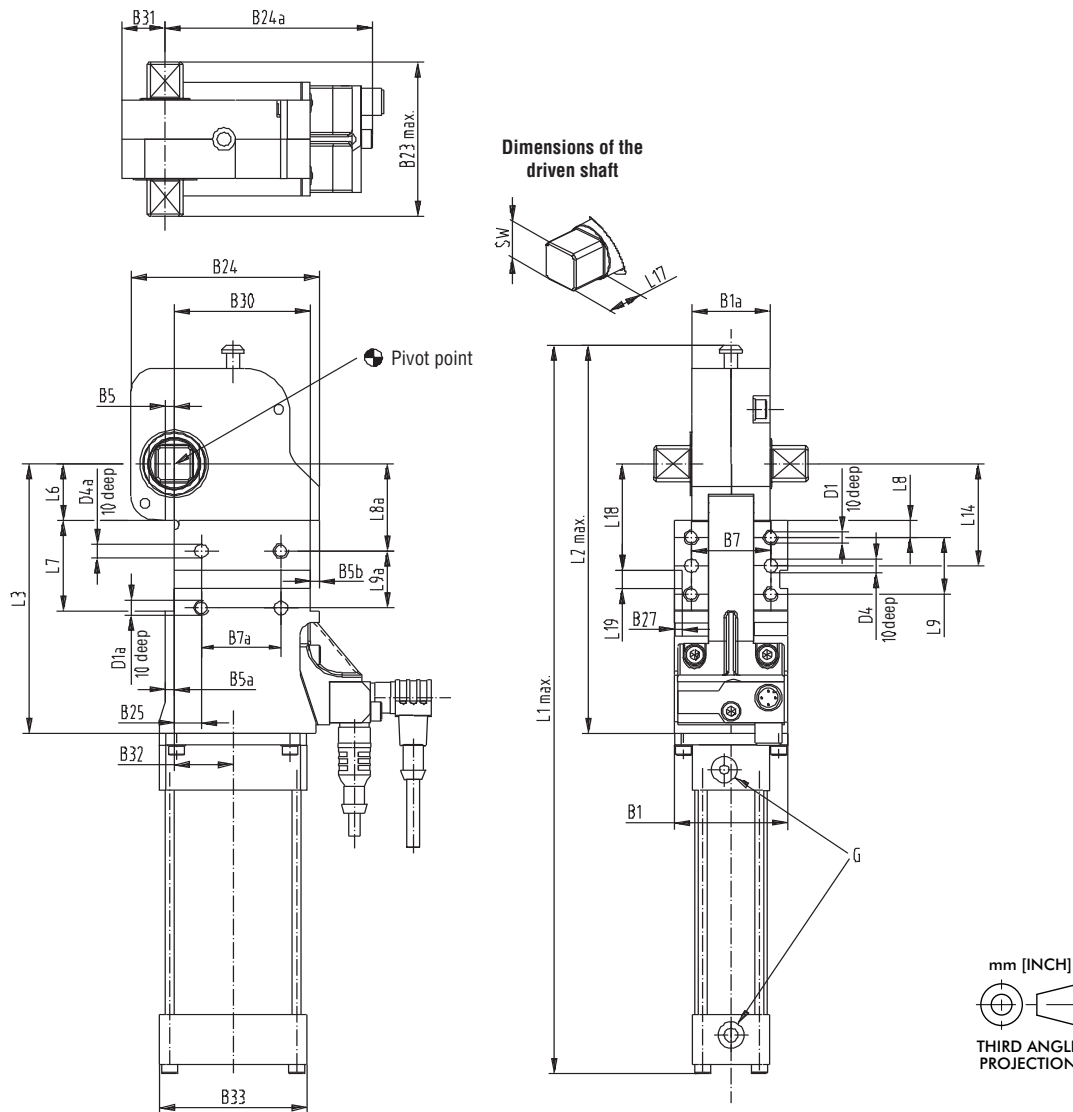
Click-out of bumper



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 dm³ [ft³]	Weight ~ kg [lbs]
w/o sensing	w/ ind. sensing Connector M12x1									
	parallel with cylinder	90° swivel								
82M-12304000	82M-123040C8	82M-123040D8	120°	380 [280]	120 [89]	lateral, U-central, U-lateral	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 permissible.

Model	Piston Ø	Connection G	B1 ±0,1	B1α	B5	B5α	B5b	B7 ¹⁾ ±0,1	B7α ¹⁾ ±0,1	B23 max.	B24
82M-123040_ _	40	G 1/4	50	34,5	4	4	4	35	35	68	83

Model	B24α	B25 ±0,1	B27 ±0,1	B30 ±0,1	B31	B32	B33	D1	D1α	D4 Ø	D4α 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	L8α ±0,1	L9 ±0,1	L9α 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

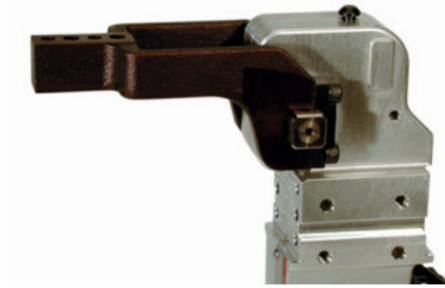
Series **82M-1** Clamping Arm Variants

Clamping arm design

U-type central clamping arm

Clamping position

horizontal or vertical



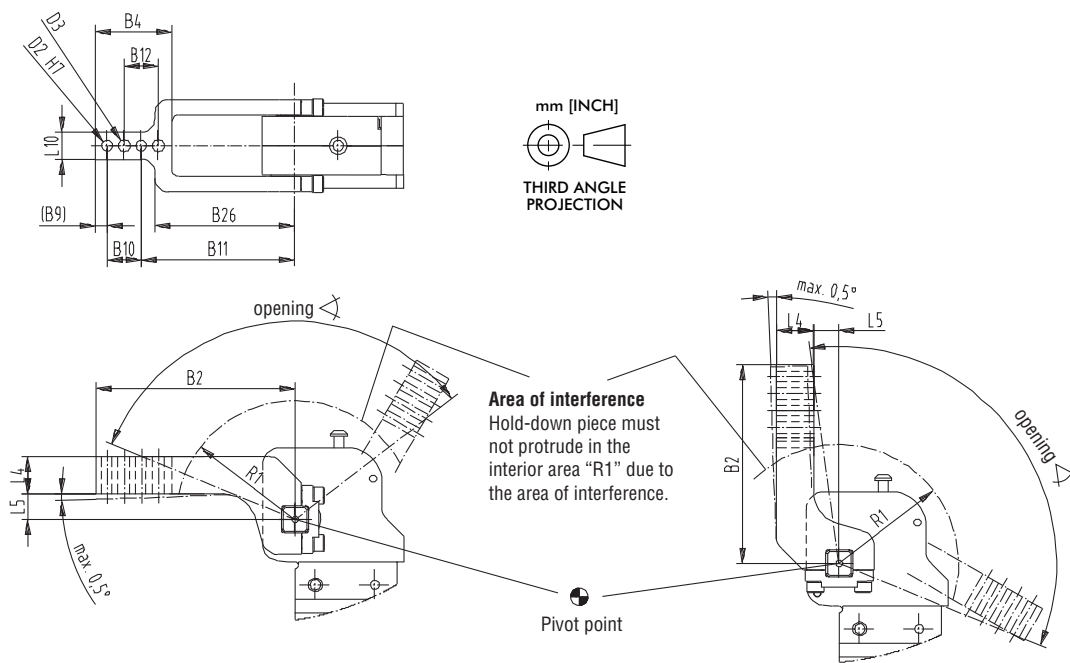
Central clamping arm, horizontal clamping position

U-type central clamping arm Technical Information

Model	Order no. for set of U-type central clamping arms	Opening angle for clamping position		Weight (kg)	B2	B4	B9	B10	B11	B12	B26	D2	D3	L4	L5	L10	R1
		horizontal	vertical											∅	∅		
82M-1...040..	8UM401-00-117	120°	105°	0,44	117	45	7	20	90	20	82	6	7	22	0	16	70
	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°	0,51	117	45	7	20	90	20	82	6	7	22	25	16	70
	8UM401-45-107	120°	120°	0,51	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

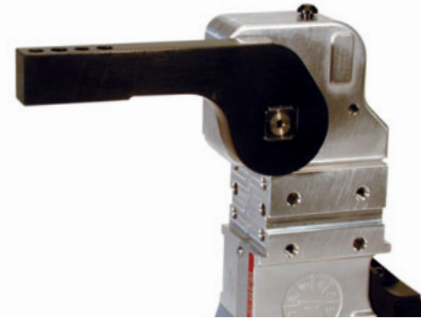
Lateral clamping arm, horizontal clamping position

Clamping arm design

- lateral / left
- lateral / right
- lateral / both sides

Clamping position

- horizontal or vertical
- horizontal or vertical
- horizontal or vertical



Lateral clamping arm, horizontal clamping position

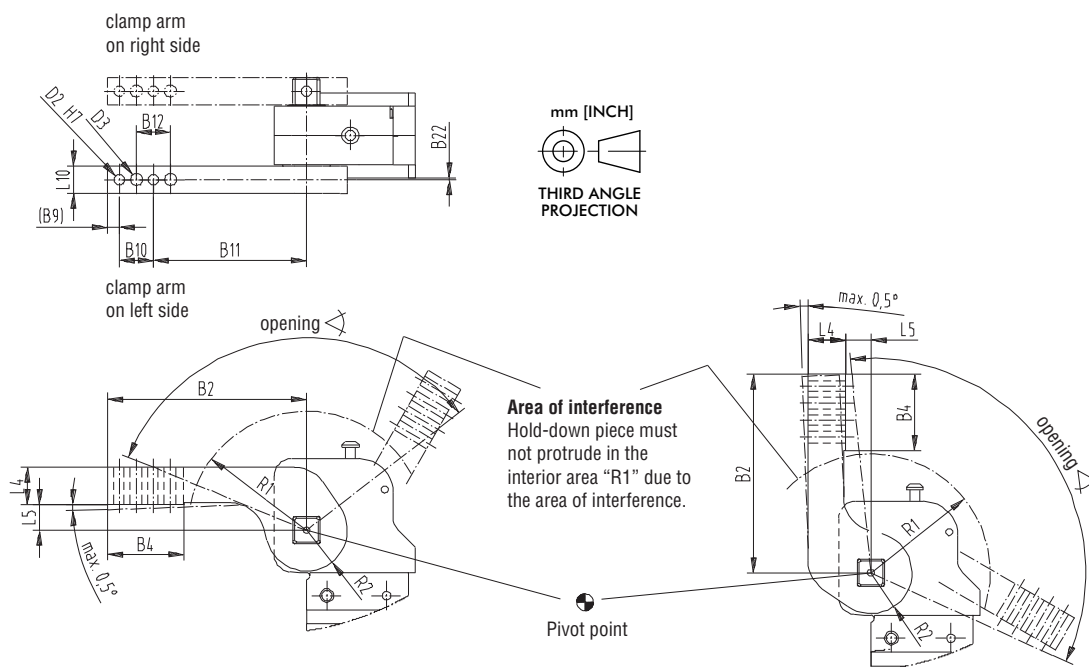
Lateral clamping arms Technical Information

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

Model	Order no. for set of lateral clamping arms	B22	D2	D3	L4	L5	L10	R1	R2
82M-1..040..	8S401-15-117	1	6	7	22	15	16	70	24

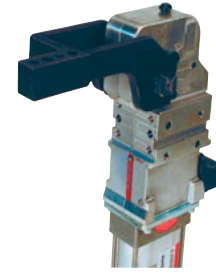
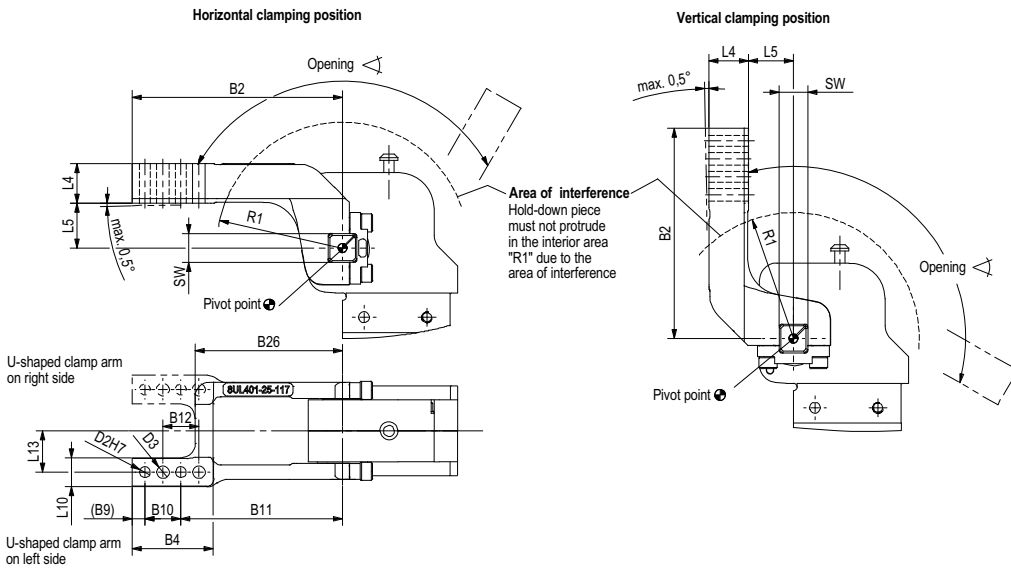
Horizontal clamping arm position

Vertical clamping arm position

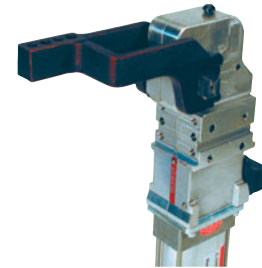


Series **82M-1** Clamping Arm Variants

Clamping arm design U-type: left, right



U-type left clamping position: horizontal

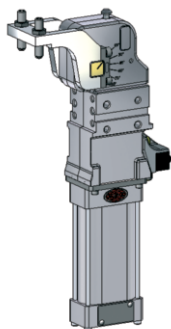


U-type right clamping position: horizontal

U-clamp arm lateral Technical Information

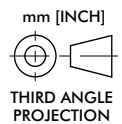
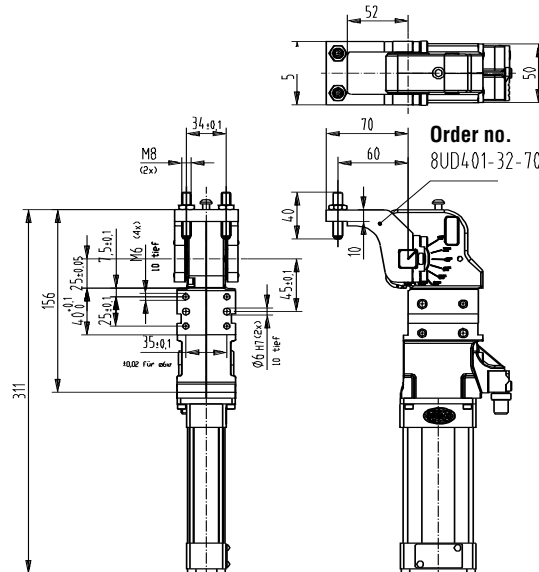
Order No. for set		Max. opening angle	Weight	B2	B4	B9	B10	B11	B12	B26	D2	D3	L4	L5	L10	L13	R1	
U-type clamping arms for 82M-1		in clamping position	(kg)				±0,02	+0,1	±0,2		H7		±0,1	(-0,5°	±1,1	±0,1		
left	right	horizontal	vertical								∅	∅	∅	max.)				
8UL401-00-117	8UR401-00-117	120°	105°	0,40	117	45	7	20	90	20	82	6	7	22	0	16	23	70
8UL401-15-117	8UR401-15-117	120°	120°	0,43	117	45	7	20	90	20	82	6	7	22	15	16	23	70
8UL401-25-117	8UR401-25-117	120°	120°	0,47	117	45	7	20	90	20	82	6	7	22	25	16	23	70
8UL401-45-107	8UR401-45-107	120°	120°	0,48	107	45	7	20	80	20	72	6	7	22	45	16	23	70

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



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

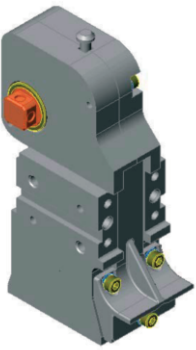
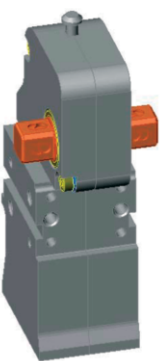



Power by compressed air, max. 6 bar Operation with oil-free air is permissible.



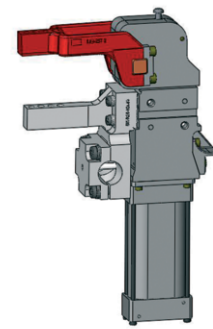
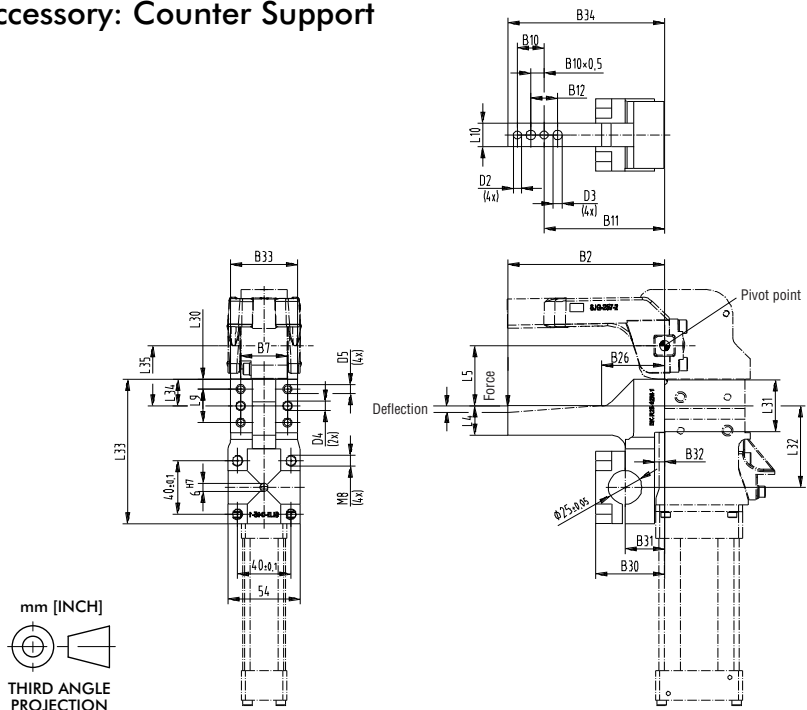
Series **82M-1** Ordering Information, Standard Clamp Dimensions

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

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

<p>82M - 1 = Basic model without hand lever without cylinder without sensing system</p>  <p>Basic model</p>	<p>23 = drive shaft for lateral clamp arms and U-clamp arm</p>  <p>Drive shaft</p>	<p>0 = without hand lever</p>	<p>40 = pneumatic cylinder Ø40</p>  <p>Cylinder</p>	<p>00 = without sensing system C8 = inductive sensing system 82M-000040C8</p>  <p>D8 = inductive sensing system 82M-000040D8</p>  <p>Sensing system</p>
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Accessory: Counter Support



BK-R25-82M-1

Model	B2	B7 ¹⁾	B10	B11	B12	B26	B30	B31	B32	B33	B34	D2	D3	D4	D5	L4	L5	L9	L10	L30	L31	L32	L33	L34	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

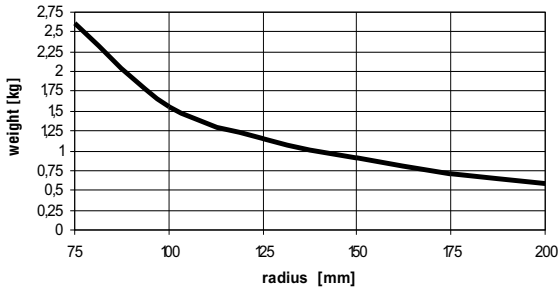
1) Tolerance for distance to dowel hole ±0,02

Series **82M-1** Technical Information

Concept guideline

(with reference to axis of clamping arm rotation)

maximum tooling weight 82M-...40

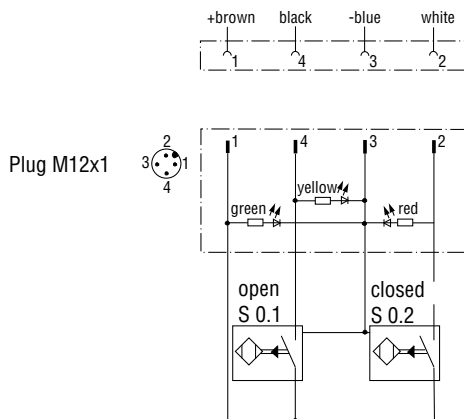


All details apply under an air pressure of 6 bar and opening and closure times of 1 second each.

Wiring diagram of electrical sensing system

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

Pin assignment



Inductive design:

- C8 Connecting plug M12x1, parallel with cylinder
- D8 Connecting plug M12x1, 90° swivel

Diagram of clamping force (at 5 bar)

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

