

NEW

Miniature power clamp

This new series satisfies the market for a small clamp in many production segments.

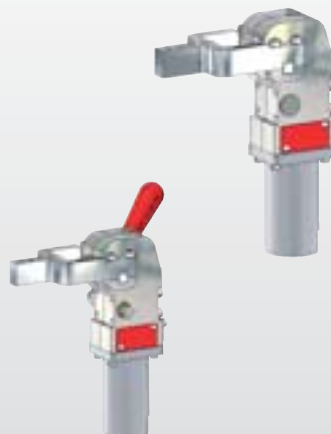


page **16.4**

NEW

Automation Power Clamp, lightweight design

This new generation appears with a standardized body and size for handle an non handle version.



page **16.10**

NEW

Automation Power Clamp Series GDC

This element is deigned for the global requirements of body in white productions.



page **16.30**

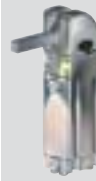
DE-STA-CO automation power clamps are designed with a view to the requirements of the automotive and sheet processing industries.

They are the perfect choice when it comes to clamping, holding and positioning metal sheets and other components on and in jigs. The models whose mechanism is encapsulated are particularly well suited to the long cycles occurring in welding systems. Sensors check if a clamping arm is actuated or released. This optional feature turns the clamps into qualified helpers in automatic production systems.

All clamps share one common feature:

The clamps are designed to last for many cycles if the relevant application complies with the concept guideline.

The table below is intended to help you take your first pick of clamp that best suits your specific application.

	Model no.	Clamping Torque [Nm]	Holding Capacity [Nm]	Page
	8820-2 8825-1	18 30	75 115	16.2
	81L12 81L16 81L20 82L25	4,5 6,5 18 18	20 60 80 100	16.4
	82R32-1	50	120	16.6
	860-M 861-M 890-M 891-M 1000-M 1001-M	190 450 750	650 1250 2000	16.8
	82L25-2 82L32-2 82L40-2	25 55 120	75 180 380	16.10
	82E40-1 82E50-1 82E63-1	80 160 380	350 800 1500	16.20

	Model no.	Clamping Torque [Nm]	Holding Capacity [Nm]	Page
	82G50-4 82G63-4	270 420	800 1500	16.24
	GDC50 GDC63	270 420	800 1000	16.30
	82M-6.....50.. 82M-6.....63..	270 420	1000 1000	16.38
	82M-1	120	380	16.48
	82G80-4	1100	2200	16.56
	82A5-2	47	—	16.62

Series **8820-2, 8825-1****DISCONTINUED MODEL**

Availability upon request. Substitute: 81L20/81L25

■ Automation power clamps, miniature design

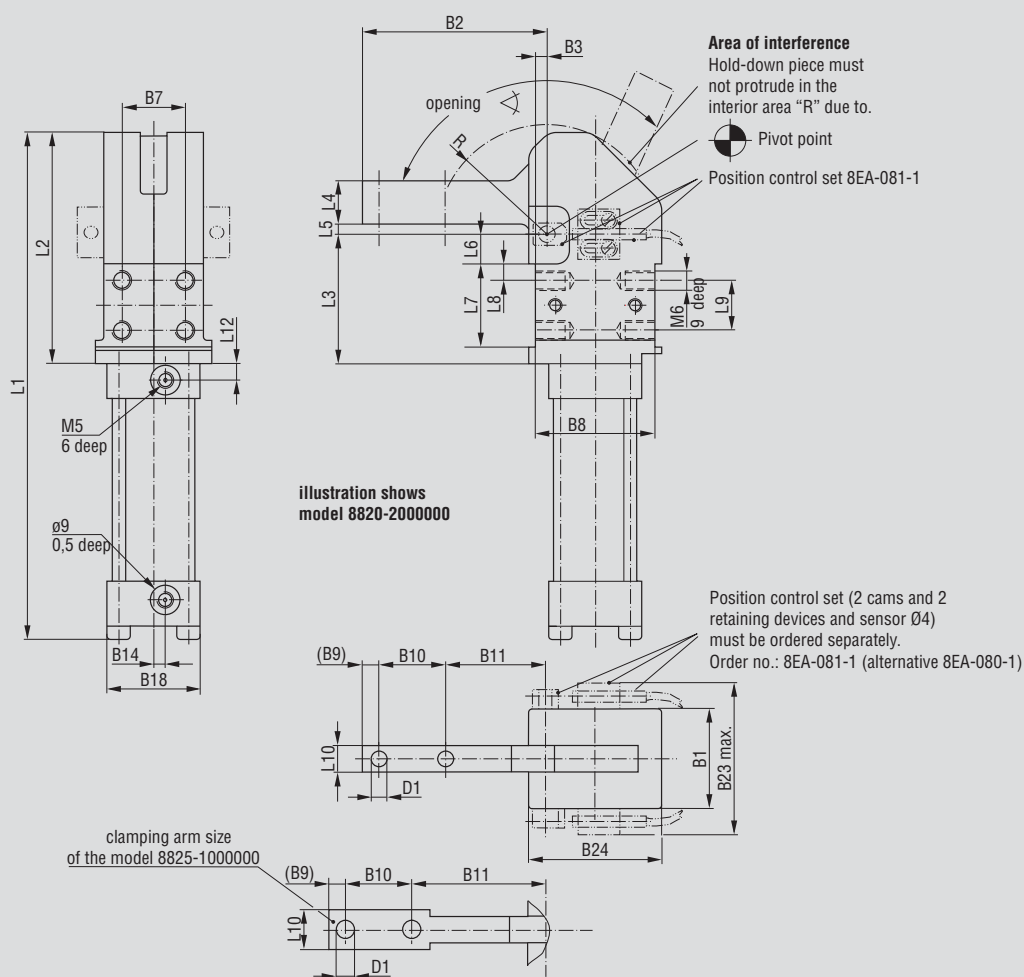
**8820-2000000****8825-1000000****Application:**

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

Features:

- compact design
- long life cycle
- high holding torques
- low weight (aluminium body)
- two sizes (20 mm or 25 mm cylinder diameter)
- two mounting areas (front and rear)
- toggle action mechanism
- The models can be quickly retrofitted with an inductive end position sensing system. (2 alternatives available)

New Model no.	Old Model no.	Cylinder Ø [mm]	Opening angle	Clamping position	Max. holding torque [Nm]	Clamping torque at 5 bar [Nm]	Air consumption per double stroke at 5 bar [dm³]	Compressed air connector	Weight [Kg]
8820-2000000	8820-2	20	120°	horizontal	75	18	0.3	M5	0,4
8825-1000000	8825-1	25	120°	horizontal	115	30	0.4	M5	0,45
8825-1VA00000	—	25	120°	horizontal	115	30	0.4	M5	0,45



Technische Daten

Model no.	Opening angle	Clamping position	Piston Ø	Compressed air connector	B1	B2	B3	B7	B8	B9	B10	B11	B14
8820-2000000	120°	horizontal	20	M5	35	55,5	±0,1	±0,1	±0,1	5	±0,2	30,5	4
8825-1000000	120°	horizontal	25	M5	35	65,5	±0,1	±0,1	±0,1	5	±0,2	40,5	0
8825-1VA00000	120°	horizontal	25	M5	35	65,5	±0,1	±0,1	±0,1	5	±0,2	40,5	0

Model no.	B18	B23	B24	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L12	D1	R
		max.		~	~					±0,1					Ø	
8820-2000000	28	50	40	152	70	39	13	3	9	25	5	15	7,5	5	4,5	34
8825-1000000	30	50	40	152	70	39	13	3	9	25	5	15	12	5,5	6,4	34
8825-1VA00000	30	50	40	152	70	39	13	3	9	25	5	15	12	5,5	6,4	34

Medium: air, max. 8 bar; operation with oil-free air is permissible.

CAD files available

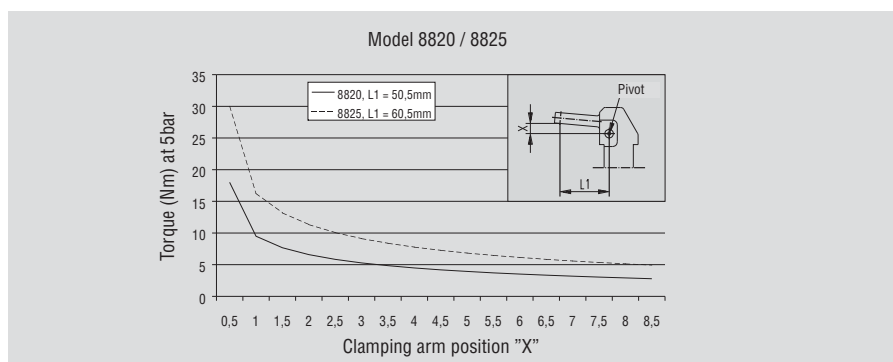
Accessories – sensors for inductive end position sensing and retaining devices

Specification	Order no.	Comment
	8820-2/8825-1	
cam-set with 2 cams	8EA-083-1	consists out of 2 cams
(without sensor)	8EA-089-1	consists out of 2 cams, Niro-Material
Sensing kit	8EA-081-1	consists of 2 cams, 2 brackets and 2 sensors Ø4 (wire-length 2m, without connector)
incl. sensor Ø 4		
Sensing set	8EA-080-1	consists of 2 cams, 2 sensors (wire-length 10 cm, connector M8x1)
incl. block-sensors	8EA-088-1	Identical to 8EA-080-1, but bolts made out of stainless steel
Adaptor	82ZB-004-1	Adapter for tubesystem Ø25

Spare parts

Specification	Order no.
	8820-2000000 8825-1000000 8825-1VA000000
Complete Cylinder	8PW-068-1 8PW-010-1 8PW-010-1 + M4x85-912-A-2
Seal kit (O-ring and piston)	8820-2-00 8825-1-00 8825-1-00

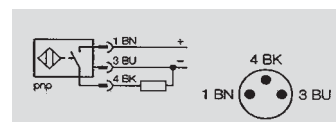
Diagram of Clamping Force (at 5 bar)



Sensing set 8EA-081-1



Assembly variants
8EA-080-1/8EA-088-1



Pin assignment
8EA-080-1/8EA-088-1

Series 81L12, 81L16, 81L20, 81L25

NEW

■ Automation power clamps, miniature design

Application:

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

Features:

- compact design
- long life cycle
- high holding torques

- low weight (aluminium body)
- Four sizes, three cylinder-Ø
- two mounting areas (front and rear)
- toggle action mechanism
- The models can be quickly retrofitted with an magnetic end position sensing system.
- Model 81L20-101 interchangeable with 8820-2000000
- Model 81L25-101 interchangeable with 8825-1000000



81L12-10100



81L16-10100



81L20-10100



81L25-10100

Order code 81L...2.....

Example Order no.

81L20 - 1 01 00

Models

81L12-10100



81L16-10100



81L20-10100



81L25-10100



81L12-14100



81L16-14100



81L20-14100



81L25-14100

Base model

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



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

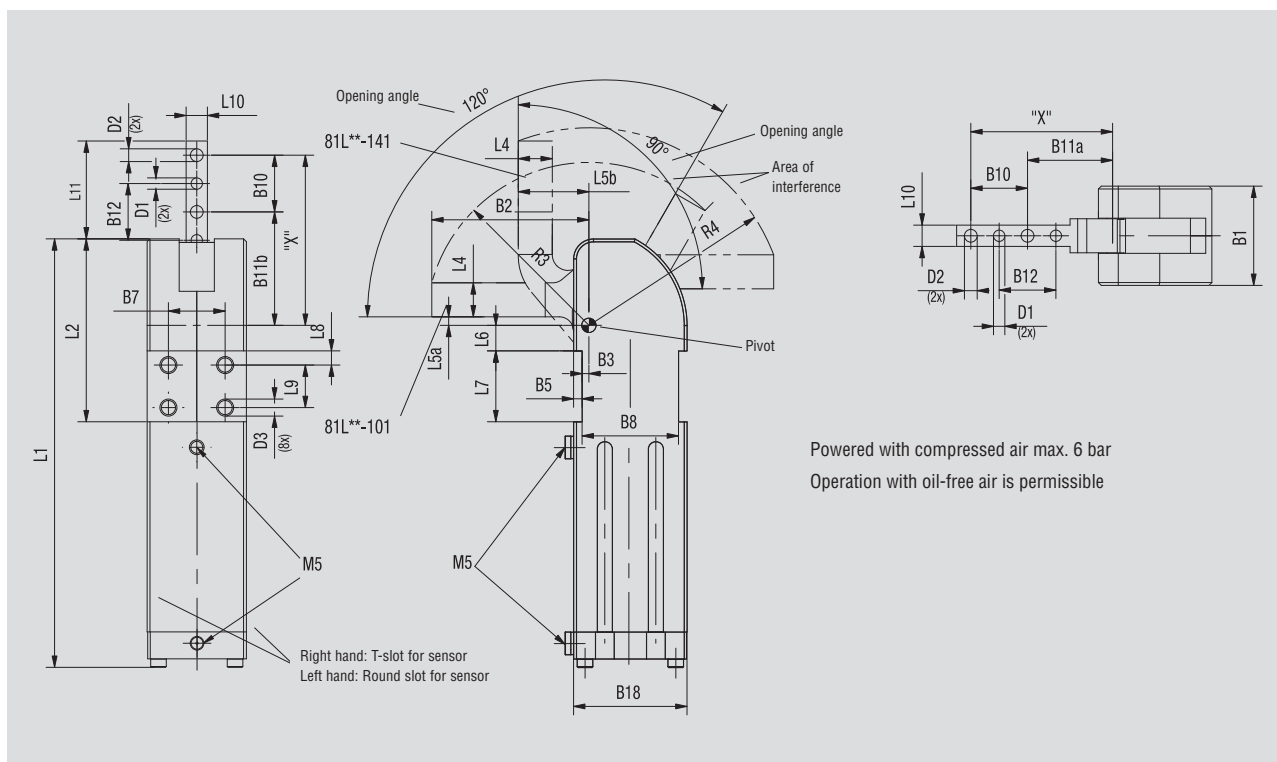


Clamping arms

00 =
Standard Design

Sensors

Model no.	Holding torque max. [Nm]	Clamping torque max. at 5 bar [Nm]	Weight ~ [kg]	Air consumption per double stroke at 5 bar [Liter]	Max. additional weight at clamp arm mounted in position "X" [g]
81L12-101__	25,0	4,5	0,16	0,25	50
81L12-141__	20,0	4,5	0,17	0,25	50
81L16-101__	60,0	6,0	0,25	0,27	80
81L16-141__	40,0	6,5	0,27	0,26	80
81L20-101__	100,0	18,0	0,50	0,40	90
81L20-141__	80,0	17,0	0,52	0,35	90
81L25-101__	100,0	18,0	0,52	0,40	100
81L25-141__	80,0	17,0	0,54	0,35	100



Technical data

Model no.	ØD1	ØD2	ØD3	B1	B2	B3	B5	B7	B8	B10	B11a	B11b	B12	B18	L1	L2	L4	L5a	L5b	L6	L7	L8	L9	L10	L11	R3	R4
	H7					±0,1	±0,2	±0,1	±0,1	±0,2					~						±0,1					~	~
81L12-101/-141	3	3,3	M4x6	24	40	2,5	1,5	15	25	9	27	31,5	9	28	104	40,5	7	2,5	17,5	4,5	15	3	9	6	23,5	41	48
81L16-101/-141	3	4,3	M5x5	30	50	2	2	20	26	15	30	39,5	15	30	119	49,5	9	2,25	20,5	5,75	20	4	12	8	35,75	51	63
81L20-101/-141	4	4,5	M6x8	35	55,5	2,5	3	20	34	20	30,5	40	20	40	151	64,5	12	3	25	9	25	5	15	7,5	34,5	57,5	70
81L25-101/-141	4	6,5	M6x8	35	65,5	2,5	3	20	34	20	40,5	50	20	40	151	64,5	12	3	25	9	25	5	15	12	44,5	67	79

Accessories

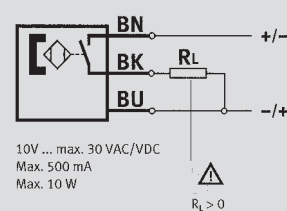
Specification	Order no.	Comment
Position sensor	SME-8F-DE	Sensor, 3 wire cable, 2,5 cm open end
Position sensor	SME-8F-DE-S	Sensor, with cable, connector M8x1, 3-pin
Adaptor	82ZB-004-1	Adaptor for mounting 81L20-1, 81L25-1 at tube system Ø25 mm

Spare parts

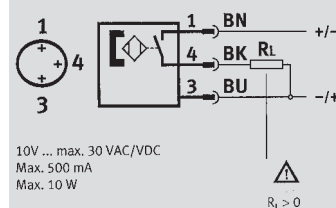
Specification	Order no.	for clamp
Seal-Kit	81L12-1-00	81L12-1
	81L16-1-00	81L16-1
	81L20-1-00	81L20-1, 81L25-1

Pin assignment

SME-8F-DE



SME-8F-DE-S



BN = Brown

BK = Black

BU = Blue

R_L = Load

Series 81R32-1

■ Automation power clamps, lightweight,
with end position sensing

Application:

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

Features:

- compact design
- long life cycle
- high holding torques
- low weight
- two mounting areas (front and rear)
- clamping arm in horizontal or vertical clamping position
- toggle action mechanism
- integrated end position sensing system with LED display



Model **81R32-101C000** with inductive end position sensing. Clamping arm in horizontal clamping position.



Model **81R32-141C000** with inductive end position sensing. Clamping arm in vertical clamping position.

Technical data

Model no.	Ind. sensing	Max. holding torque	Clamping torque at 5 bar	Piston Ø	Connector	Opening angle	Weight	Air consumption per double stroke at 5 bar	B1	B1a	B2	B3	B4	B5	B6	B7
	with out	[Nm]	[Nm]	[mm]			[kg]	[Liter]	max.	max.		±0,1		+1		±0,2
81R32-101C000	x	120	50	32	G 1/8	100°	1,3	0,5	60	46	96	7	45	5	4	46
81R32-141C000	x	120	50	32	G 1/8	100°	1,3	0,5	60	46	96	7	45	5	4	46
81R32-1010000	x	120	50	32	G 1/8	100°	1,3	0,5	60	46	102	7	45	5	4	46
81R32-1410000	x	120	50	32	G 1/8	100°	1,3	0,5	60	46	102	7	45	5	4	46

Model no.	B8	B9	B10	B11	B12	B13	B14	B24	D1	D2	D3	L1	L2	L3	L4	L5 ¹⁾	L6	L7	L7a	L9	L10
	±0,1		±0,2	+0,1		max.	max.			H7		max.	max.		-0,1	±0,2	±0,1	0,1		±0,2	-0,1
81R32-101C000	55	6	20	70	20	79	72	68,5	5,5	6	7	222	142	90	20	32	44	25,1	25	12	12
81R32-141C000	55	6	20	70	20	79	72	68,5	5,5	6	7	222	142	90	20	32	44	25,1	25	12	12
81R32-1010000	55	6	20	76	20	79	72	68,5	5,5	6	7	222	142	90	20	12	44	25,1	25	12	12
81R32-1410000	55	6	20	76	20	79	72	68,5	5,5	6	7	222	142	90	20	12	44	25,1	25	12	12

Subject to technical modification without notice

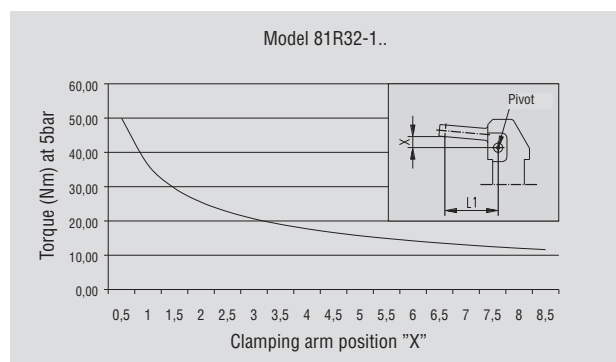
CAD files available

¹⁾ Tolerance applies to 80 mm gap, measured from fulcrum

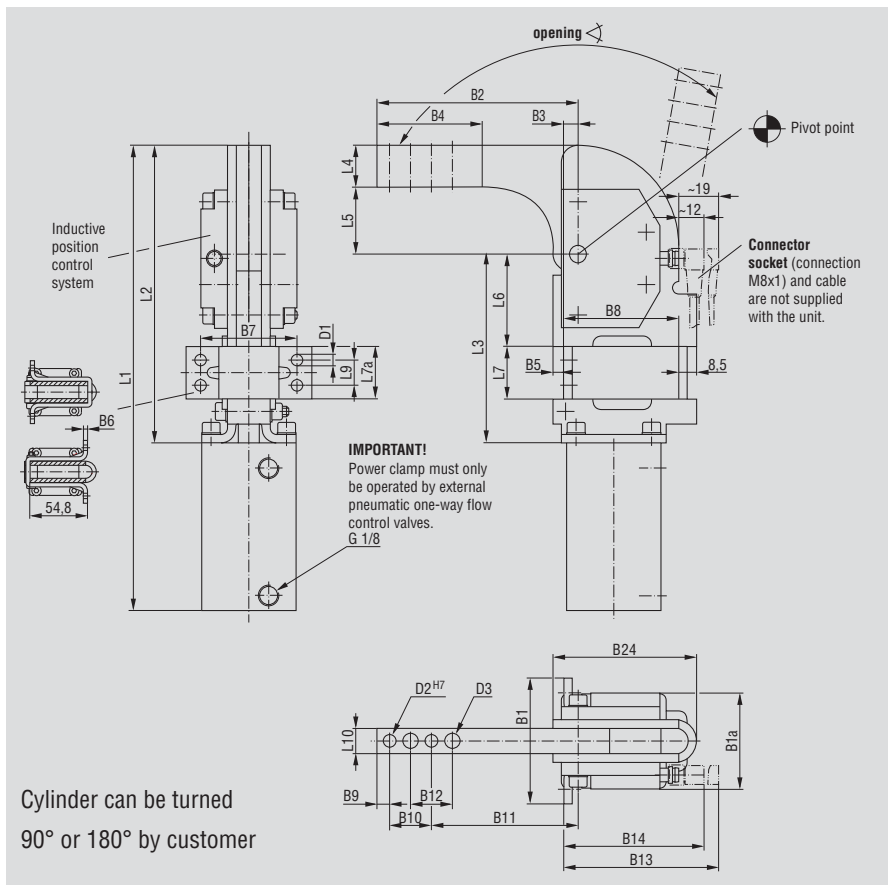
Accessories

Specification	Order no.	Design	Comment
Connector, 4-pole, 30 VDC	8EL-007-1	angular	Connector M8x1,
	8EL-009-1	straight	5 m cable
Plug adapter M8 to M12	8EL-008-1	straight	0.3 m cable

Diagram of Clamping Force (at 5 bar)



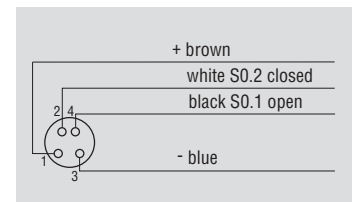
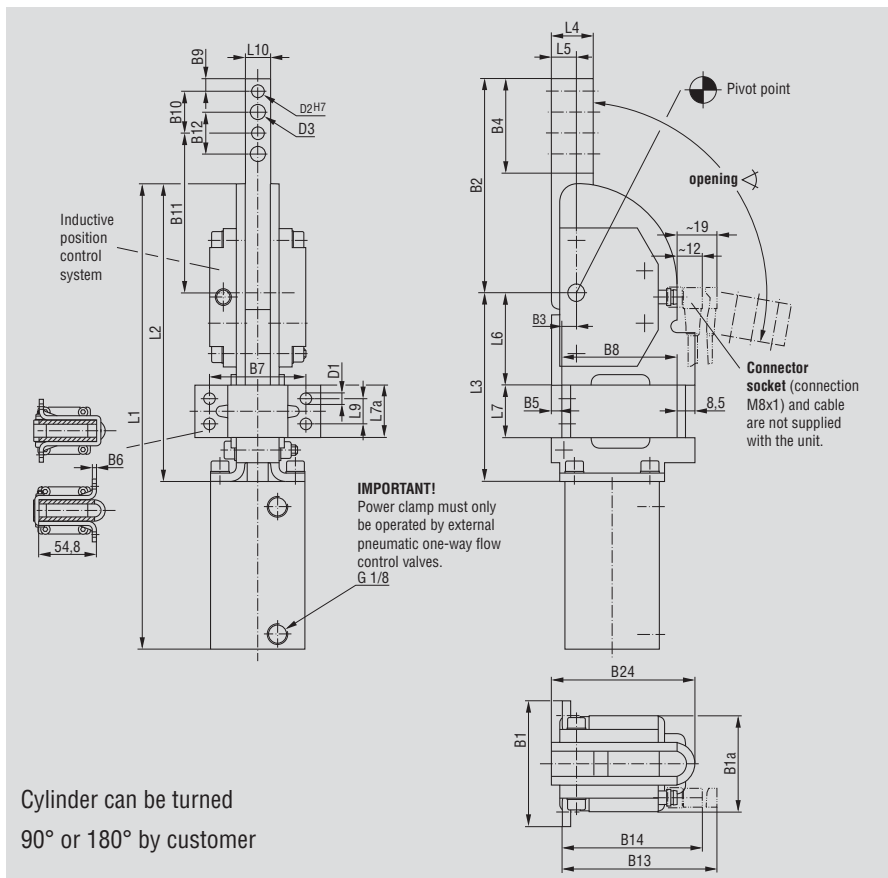
81R32-101C000



The clamp connectors can be at the front or back. The holder is delivered unattached.



81R32-141C000



Pin assignment of electrical sensing system

Spare parts

Specification	Order no.
Sensing set	8EA-012-2
Cylinder	8PW-008-1
Holder	8MH-008-1
Seal kit	8PW-015-1-00

Series **860-M, 861-M, 890-M, 891-M, 1000-M, 1001-M**

■ Automation power clamp, heavy design

Application:

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

Key areas of application:

General mechanical engineering

Features:

- high holding torques
- long life cycle
- mounting areas at all four sides
- clamping arm in horizontal or vertical clamping position
- toggle action mechanism
- the standard cylinder features a magnetic piston for end position sensing



Models **860-M, 890-M**
or **1000-M**
(clamping arm in vertical
clamping position).



Models **861-M, 891-M**
or **1001-M**
(clamping arm in horizontal
clamping position).

Accessories

Specification	Order no.	Comment
Sensor for magnetic field sensing, incl. installation material	BIM-IKE-AP	You need 2 pcs; please order separately



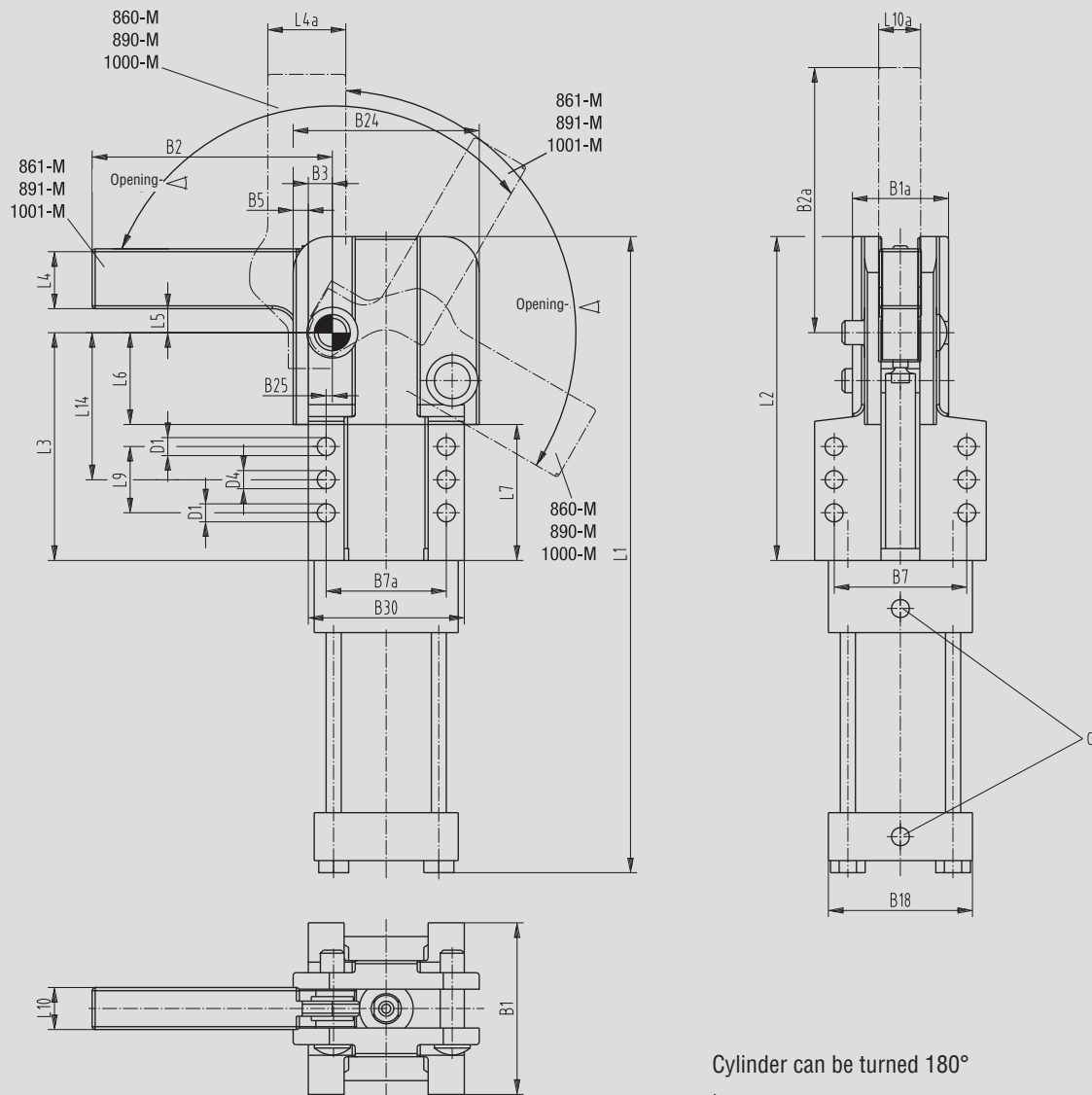
Sensors
BIM-IKE-AP

Technical data

Model no.	Old Model no.	Holding toque max. [Nm]	Clamping toque at 6 bar [Nm]	Piston Ø [mm]	Opening angle	Weight ~ [kg]	Connector G	B1	B1a	B2	B2a	B3	B5	B7
860-M	860	650	190	50,8	96°	3,9	G1/8	74,5	45	–	114,5	10	6,5	58,5
861-M	861	650	190	50,8	119°	3,9	G1/8	74,5	45	102	–	10	6,5	58,5
890-M	890	1250	450	63,5	96°	7,3	G1/8	91	50	–	139,5	13	8	70
891-M	891	1250	450	63,5	119°	7,3	G1/8	91	50	128	–	13	8	70
1000-M	1000	2000	750	82,5	98°	13,5	G1/8	115	65	–	192,5	16	11	89
1001-M	1001	2000	750	82,5	122°	13,5	G1/8	115	65	178	–	16	11	89

Model no.	old Model no.	B7a	B18	B24	B30	D1 Ø	D4 Ø	L1	L2	L3	L4	L4a	L5	L5a	L6	L7	L9	L10	L10a	L14	
860-M	860	55,5	63,5	84	70	8,7	7,9	305	146	103	–	25,8	–	19	29,2	66	31,7	–	16	63,5	
861-M	861	55,5	63,5	84	70	8,7	7,9	315	146	103	25,8	–	13	–	29,2	66	31,7	16	–	63,5	
890-M	890	63,5	76	99	83	10,2	9,5	340	172	121	–	32	–	24	44,5	72	35	–	20,5	78	
891-M	891	63,5	76	99	83	10,2	9,5	350	172	121	32	–	12,5	–	44,5	72	35	20,5	–	78	
1000-M	1000	89	96	136	114	13,5	12,7	445	232	157	–	45	–	35	55	102	51	–	25,3	95	
1001-M	1001	89	96	136	114	13,5	12,7	465	232	157	45	–	24	–	55	102	51	25,3	–	95	

860-M/861-M/890-M/891-M/1000-M/1001-M



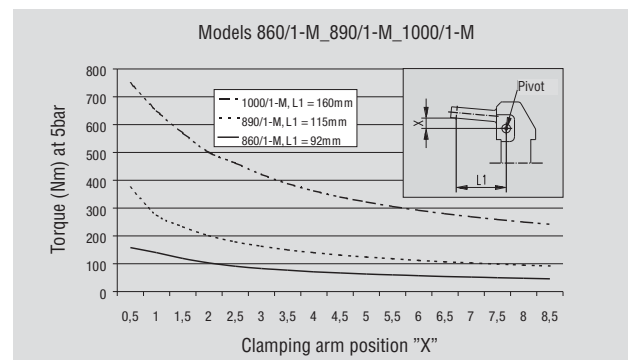
Cylinder can be turned 180°
by customer

Informations for machining of clamping arm: Steel 1.0726

Spare parts

Model no.	Bushed arm	Seal kit	Cylinder
860-M	A865103	8610100	865133-MR
861-M	A865104-10	8610100	865132-MR
890-M	895103-10	8910100	895133-MR
891-M	A895421	8910100	895132-MR
1000-M	A1005103	10010100	1005134-MR
1001-M	A1005104	10010100	1005133-MR

Diagram of Clamping Force (at 5 bar)



Series 82L25-2, 82L32-2, 82L40-2

NEW

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

Models: 82L25-2, 82L32-2, 82L40-2

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.

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)



82L25-203B800
without hand lever
Horizontal clamping position



82L25-203B8H0
with hand lever
Horizontal clamping position

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

Order no. Example: **82L32 - 2 03 B8 H 0 B**

Series: -2 = Version

- 25 = pneumatic cylinder Ø25
- 32 = pneumatic cylinder Ø32
- 40 = pneumatic cylinder Ø40



82L**-2***** 82L**-2****H*

03 = U-clamp arm, central 90°



11 = lateral clamp arm, left 90°



12 = lateral clamp arm, right 90° (not available for 82L25-2)



23 = 2x lateral clamp arm 90° (not available for 82L25-2)



43 = U-clamp arm, central 180°



51 = lateral clamp arm, left 180°



52 = lateral clamp arm, right 180° (not available for 82L25-2)



63 = 2x lateral clamp arm 180° (not available for 82L25-2)



105° standard opening angle for all models

00 = without sensing system

B8 = sensing system
8EA-033-2
Fabr. Turck



0 = without hand lever

H = with hand lever (on the right installed)



0 = standard opening angle 105°

3 = 90° opening angle

4 = 75° opening angle

5 = 60° opening angle

6 = 45° opening angle

7 = 30° opening angle

8 = 15° opening angle

= base model
Power clamp without clamping arm. To be marked with an additional „B“

Base models

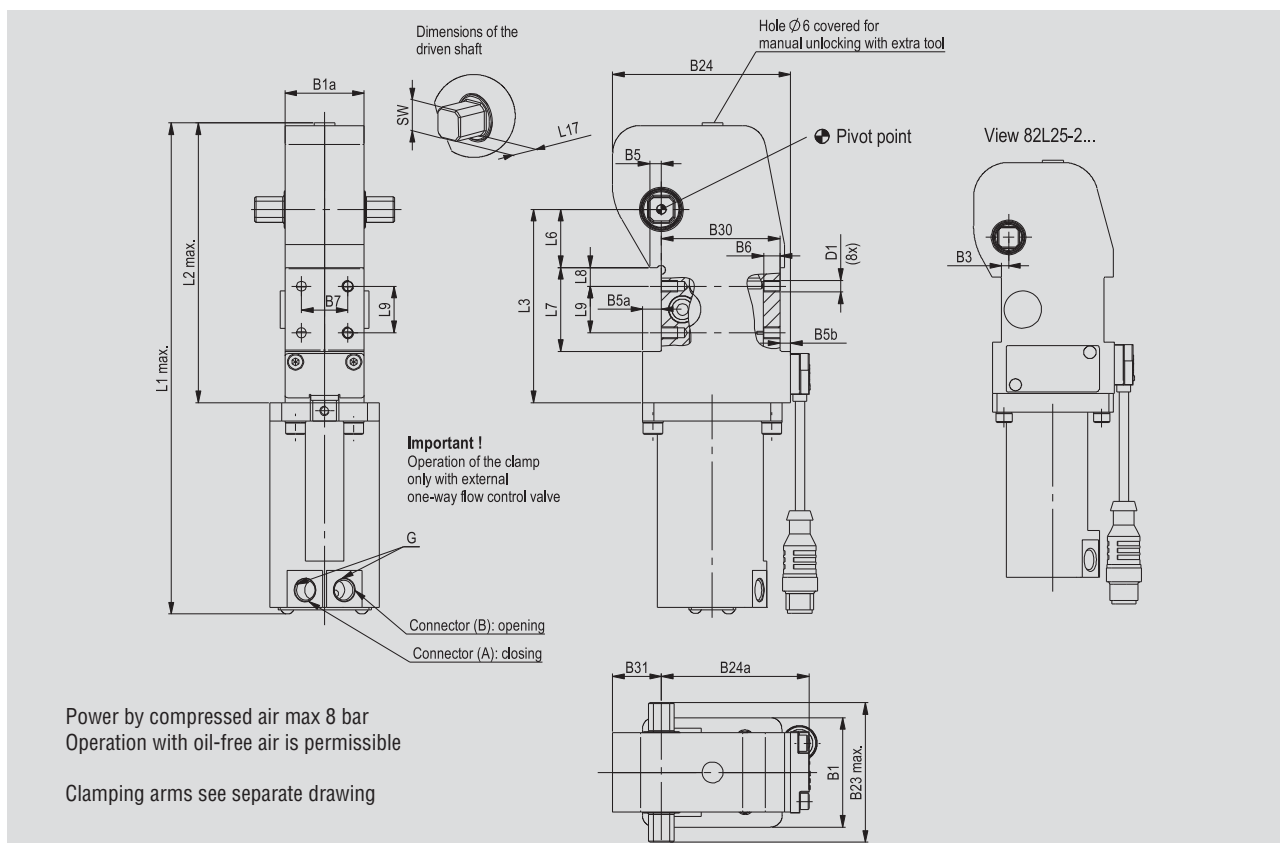
Clamp arms

Sensing system



82L25-203...

with U-bar, without hand lever



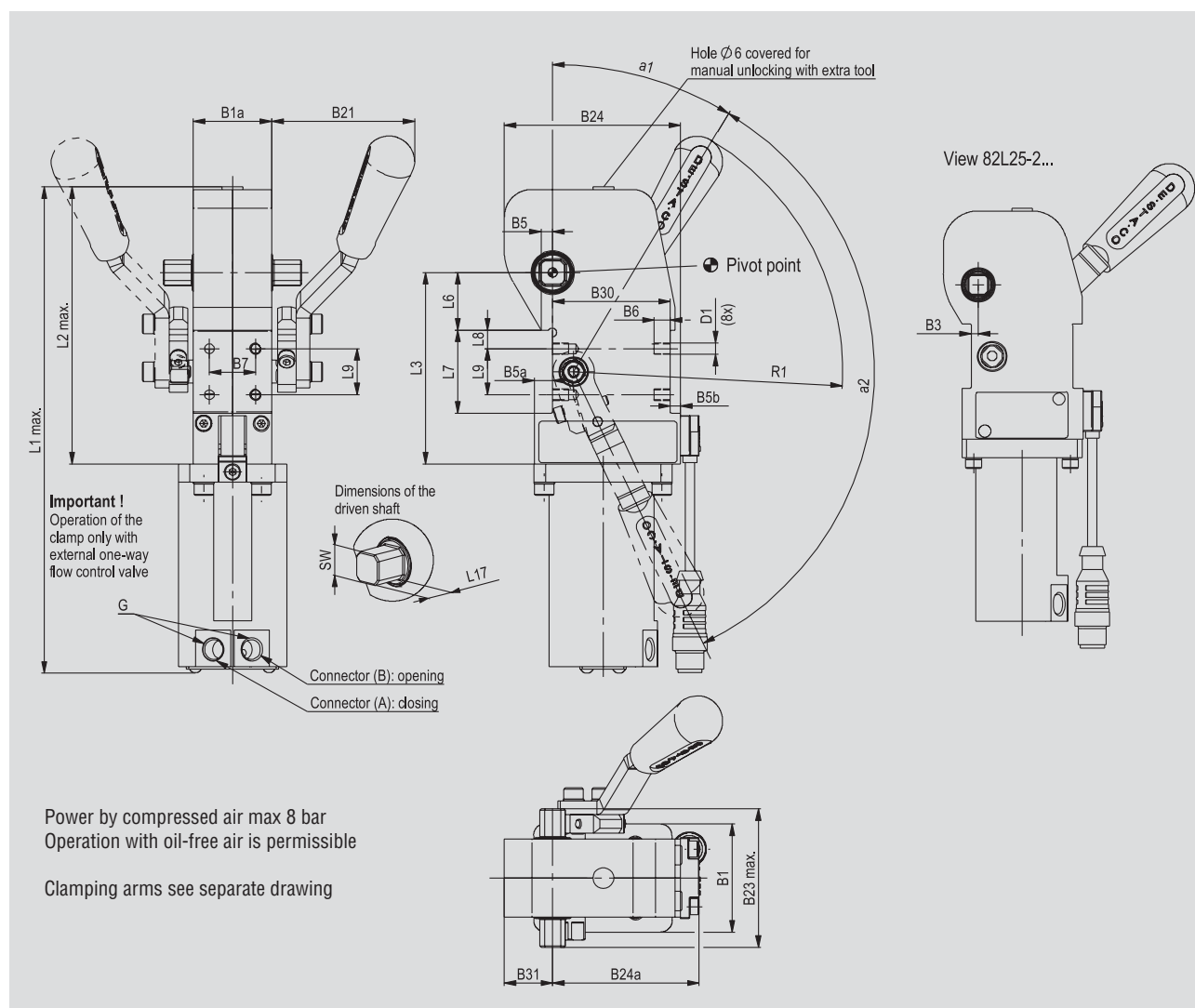
Dimensioning of clamping arms see page 16.13

Technical data, models without hand lever

Model no.	Max. holding torque [Nm]	Clamping torque at 5 bar [Nm]	Piston Ø [mm]	Weight [kg]	Air consumption per double stroke at 5 bar [litre]	Connection	B1	B1a	B3	B5	B5a
						G	± 0,1		± 0,1		
82L25-2...	75	25	25	1,0	0,4	G1/8	40	34	3	4	4
82L32-2...	180	55	32	1,3	0,8	G1/8	47	34	–	5	8
82L40-2...	380	120	40	1,9	1,2	G1/4	55	40	–	6,5	6

Model no.	B5b	B6	B7 ± 0,1	B23 max.	B24	B24a	B30	B31	D1	L1 max.	L2 max.	L3	L6 ± 0,05	L7 ± 0,1	L8 ± 0,1	L9 ± 0,1	L17	SW h9				
82L25-2...	4,5	7	25	53	60,5	53,5	44	15	M5	179,5	100,5	67	17	28	5	18	8,5	9				
82L32-2...	4,5	7	20	60	76,5	63,5	51	21	M5	211	120,5	83	25	36	8	20	12,5	11				
82L40-2...	4,5	10	25	74	88	69,5	57	26,5	M6	240	138,5	92	30	40	10	20	16	16				

Series 82L25-2, 82L32-2, 82L40-2



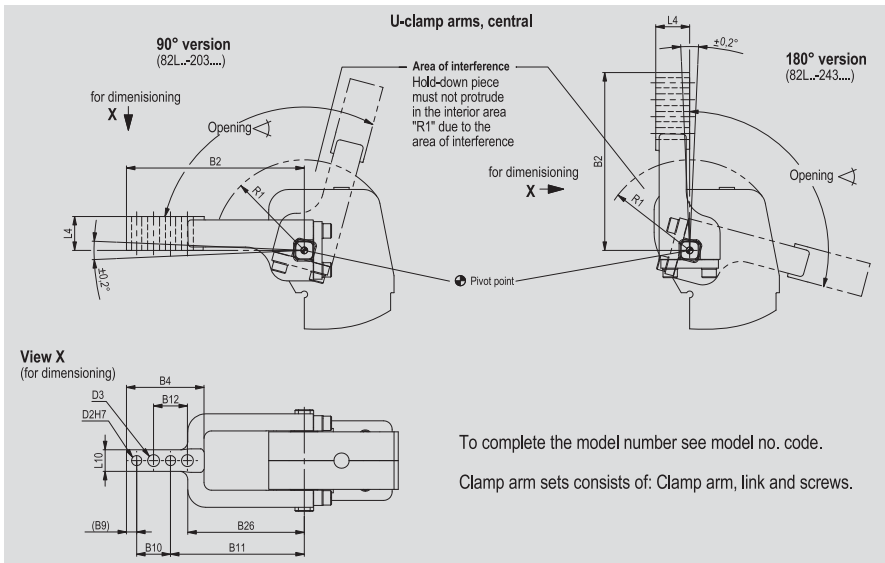
Dimensioning of clamping arms see page 16.13

Technical data, models with hand lever

Model no.	Max. holding torque [Nm]	Clamping torque at 5 bar [Nm]	Piston Ø [mm]	Weight [kg]	Opening angle	Air consumption per double stroke at 5 bar [litre]	Connection	B1 ± 0,1	B1a	B3 ± 0,1	B5	B5a
82L25-2.H.	75	25	25	1,1	105°	0,4	G1/8	40	34	3	4	4
82L32-2.H.	180	55	32	1,5	105°	0,8	G1/8	47	34	-	5	8
82L40-2.H.	380	120	40	2,1	105°	1,2	G1/4	55	40	-	6,5	6

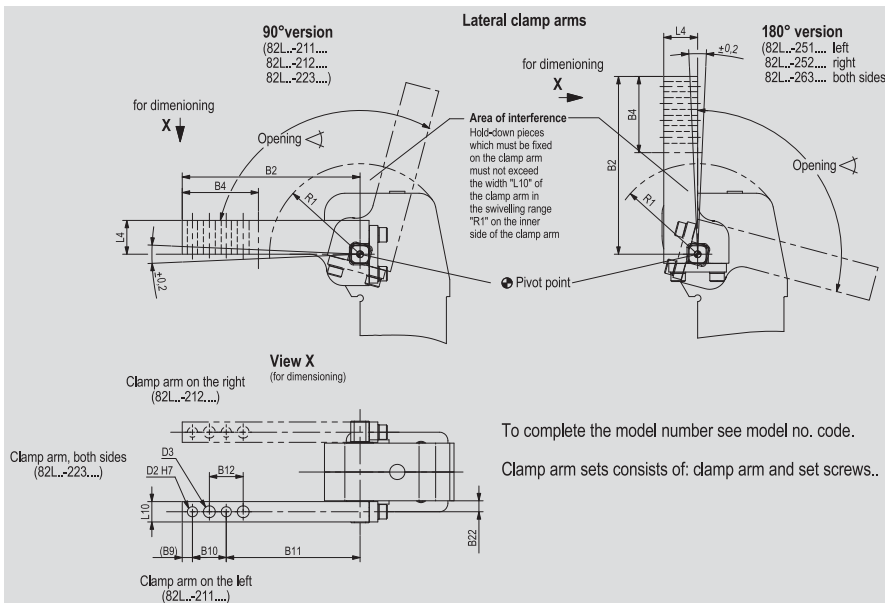
Model no.	B5b	B6	B7 ± 0,1	B21 ~	B23 max.	B24	B24	B30	B31	D1	L1 max.	L2 max.	L3	L6 ± 0,05	L7 ± 0,1	L8 ± 0,1	L9 ± 0,1	L17	SW h9	a1 ~	a2 ~	R1 ~
82L25-2.H.	4,5	7	25	62	53	60,5	63,5	44	15	M5	179,5	100,5	67	17	28	5	18	8,5	9	35°	131°	117
82L32-2.H.	4,5	7	20	62	60	76,5	63,5	51	21	M5	211	120,5	83	25	36	8	20	12,5	11	31°	124°	117
82L40-2.H.	4,5	10	25	62	74	88	69,5	57	26,5	M6	240	138,5	92	30	40	10	20	16	16	35°	131°	117

U-bar for 82L__-2



Model no.	Order no. for U-bar	Opening angle for 90°-Version max.	Opening angle for 180°-Version max.	Weight [kg]	B2	B4	B9	B10	B11	B12	B26	D2	D3	L4	L10	R1
82L25-2....	8JG-075-3-01	105°	105°	0,3	93	45	8	±0,02	±0,1	±0,2	58	H7	6,5	±0,1	12	45
82L32-2....	8JG-065-2-01	105°	105°	0,37	105	45	6	±0,02	±0,1	±0,2	69	H7	7	±0,1	12	55
82L40-2....	8JG-067-2-01	105°	105°	0,5	110	45	6	±0,02	±0,1	±0,2	78	H7	7	±0,1	15	58

Lateral arms for 82L__-2



Model no.	Order no. for lateral arms	Opening angle for 90°-Version max.	Opening angle for 180°-Version max.	Weight [kg]	B2	B4	B9	B10	B11	B12	B22	D2	D3	L4	L10	R1
82L32-2...	8JG-066-1-01	105°	105°	0,25	105	45	6	±0,02	±0,1	±0,2	6,5	H7	7	±0,1	12	55
82L40-2...	8JG-068-1-01	105°	105°	0,3	92	45	6	±0,02	±0,1	±0,2	8,5	H7	7	±0,1	15	58

Automation power clamps, lightweight design

■ Modular kit system for lightweight automation power clamps

Models: **82L25-2030000B** **82L25-20300H0B**
82L32-2230000B **82L32-22300H0B**
82L40-2230000B **82L40-22300H0B**



82L... series

Base model without sensing system and without clamping arm

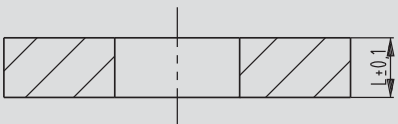
Procedure:

- Procure the base model (with or without hand lever); the base model features neither a sensing system nor a clamping arm
- Procure the desired sensing system
- Procure the desired clamping arm
- Assemble the components required at the relevant location of installation (only here will the clamp be fully configured and set up)

Benefits:

- Faster delivery because standard models are always on stock
- Fewer part numbers for spare parts management
- Improved flexibility of clamp assembly by fast changes to your configuration.

Component	Component variant	Order number for series			
		82L25-2	82L32-2	82L40-2	
Base model w/o clamping arm w/o sensing Standard opening angle 105°  	w/ hand lever	82L25-20300H0B	82L32-22300H0B	82L40-22300H0B	
	w/o hand lever	82L25-2030000B	82L32-2230000B	82L40-2230000B	
Clamping arm  	U-central	8JG-075-3-01	8JG-065-2-01	8JG-067-2-01	
	lateral	see page 16.13 —	Dimensions see page 16.13 8JG-066-1-01 Dimensions see page 16.13	see page 16.13 8JG-068-1-01 see page 16.13	
Sensing system 	M12x1, w/lead (B8)	8EA-033-2	8EA-033-2	8EA-033-2	

	Opening angle	82L25-2		82L32-2		82L40-2	
		Order no.	L ± 0,1	Order no.	L ± 0,1	Order no.	L ± 0,1
	15°	8CE-282-1	28,6	8CE-296-1	33,3	8CE-310-1	38,4
	30°	8CE-284-1	23,1	8CE-298-1	26,9	8CE-312-1	31
	45°	8CE-286-1	18,5	8CE-300-1	21,5	8CE-314-1	24,7
	60°	8CE-288-1	14	8CE-302-1	16,3	8CE-316-1	18,6
	75°	8CE-290-1	9,4	8CE-304-1	11	8CE-318-1	12,5
	90°	8CE-292-1	4,7	8CE-306-1	5,5	8CE-320-1	6,2

Concept guidelines

82L25

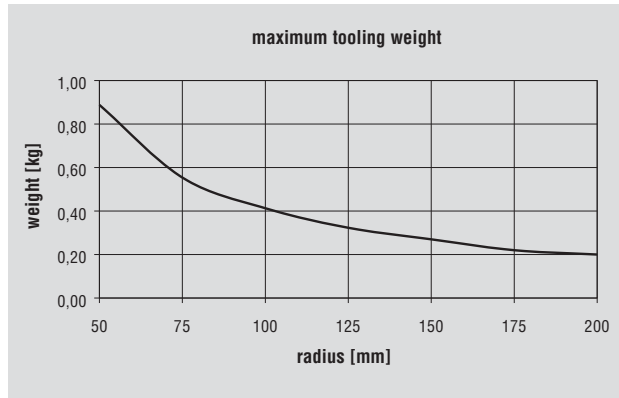
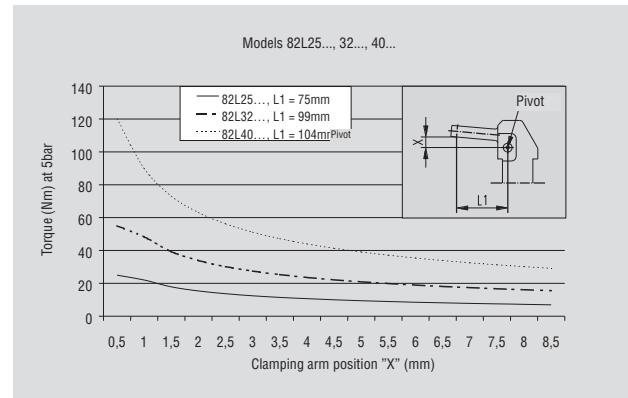
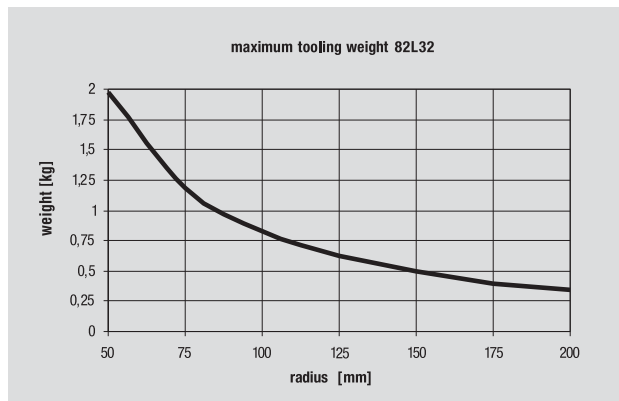


Diagram of Clamping Force (at 5 bar)

82L25 / 82L32 / 82L40



82L32

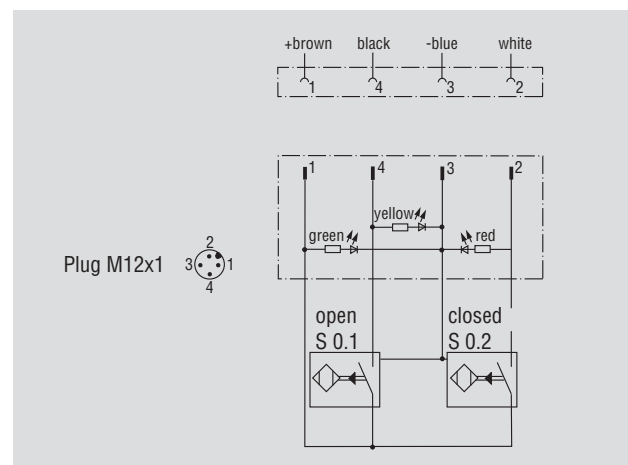


Wiring diagram for electrical sensing system

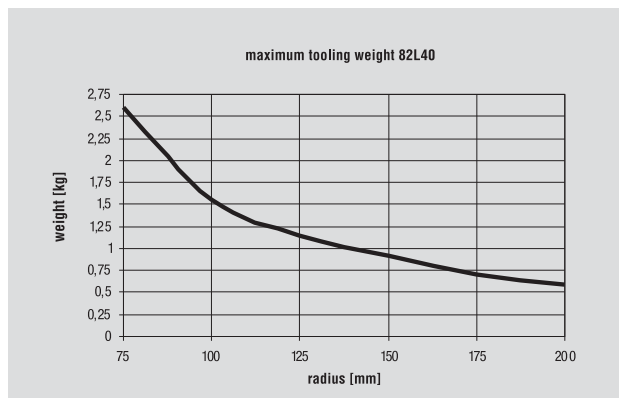
Sensing system immune to interference from d.c. arc welding and a.c. arc welding

Inductive version: **B8**

Pin assignment



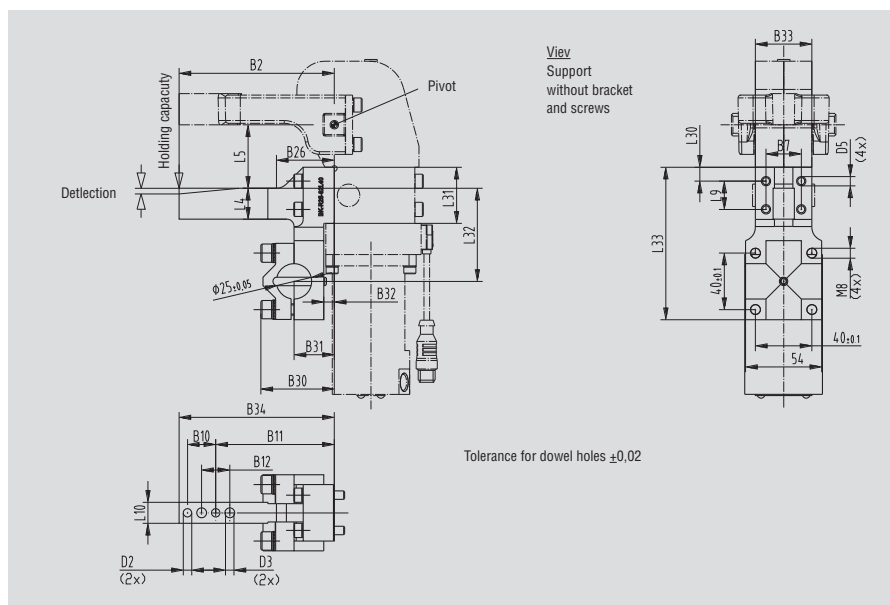
82L40



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

Automation power clamps, lightweight design

Accessory (Counter-support)

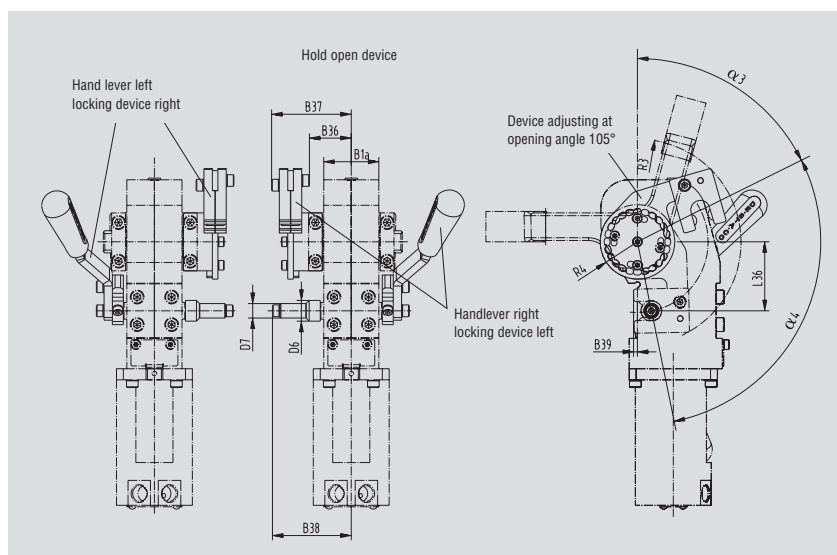


Technical data

Model no.	Holding capacity max. [N]	Deflection [mm]	Weight ~ [kg]	B2	B7 ±0,1	B10 ±0,02	B11	B12	B26 ~	B30	B31	B32
BK-R25-82L25-1	914	0,2	0,4	93	25	20	62	20	42	55	31,5	11
BK-R25-82L32-1	660	0,16	0,5	105	20	20	79	20	44	52	28,5	9
BK-R25-82L40-1	2000	0,37	0,56	110	25	20	84	20	41	52	28,5	7,5

Model no.	B33	B34	D2 Ø H7	D3 Ø	D5 Ø	L4 +0,1	L5	L9 ±0,1	L10	L30	L31 -0,1	L32	L33
BK-R25-82L25-1	35	90	4	6,5	5,5	20	45	18	12	4,95	28	50,9	106
BK-R25-82L32-1	46	105	6	7	5,5	20	45	20	12	7,85	35,7	59	106
BK-R25-82L40-1	40	110	6	7	6,6	22	45	20	15	9,85	39,7	66	108

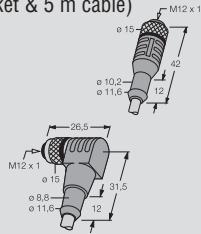
Accessory (Hold open device)



Model no.	fit for model	B1a	B36	B37	B38 Ø	B39 Ø	D6	D7	L36	R3	R4	α 3	α 4
82ZB-036-1	82L25	34	25	45	47	3	15	10	31	53	18,5	63°	105°
82ZB-037-1	82L32	34	28	56	56	4	15	10,5	43	69	25	63°	105°
82ZB-038-1	82L40	40	30	58	58	3	15	10,5	50	76	27	63°	105°

Accessories, with or without hand lever

Specification	Order no. for structural components 82L25-2....0.. /82L25-2....H..	Order no. for structural components 82L32-2....0.. /82L32-2....H..	Order no. for structural components 82L40-2....0.. /82L40-2....H..
Clamping arm			
U-central	8JG-075-3-01	8JG-065-2-01	8JG-067-2-01
lateral	—	8JG-066-1-01	8JG-068-1-01
Connector cable (1 connector socket & 5 m cable)			
Connector socket M12x1 straight, 5-pin	8EL-002-1	8EL-002-1	8EL-002-1
Connector socket M12x1 angular, 4-pin	8EL-003-1	8EL-003-1	8EL-003-1



Shims for Clamping arm	Model no.	A1	A2	D2	D3	B9	B10	B12	L10
	82ZB-SH4001		0,1						
	82ZB-SH4002		0,2						
	82ZB-SH4005		0,5						
	82ZB-SH4010	42	1,0	6,5	7	6	20	20	12
	82ZB-SH4020		2,0						
	82ZB-SH4050		5,0						

Opening angle limitation spacer	Opening angle	82L25-2		82L32-2		82L40-2	
		Model no.	L ± 0,1	Model no.	L ± 0,1	Model no.	L ± 0,1
	15°	8CE-282-1	28,6	8CE-296-1	33,3	8CE310-1	38,4
	30°	8CE-284-1	23,1	8CE-298-1	26,9	8CE312-1	31
	45°	8CE-286-1	18,5	8CE-300-1	21,5	8CE314-1	24,7
	60°	8CE-288-1	14	8CE-302-1	16,3	8CE316-1	18,6
	75°	8CE-290-1	9,4	8CE-304-1	11	8CE318-1	12,5
	90°	8CE-292-1	4,7	8CE-306-1	5,5	8CE320-1	6,2

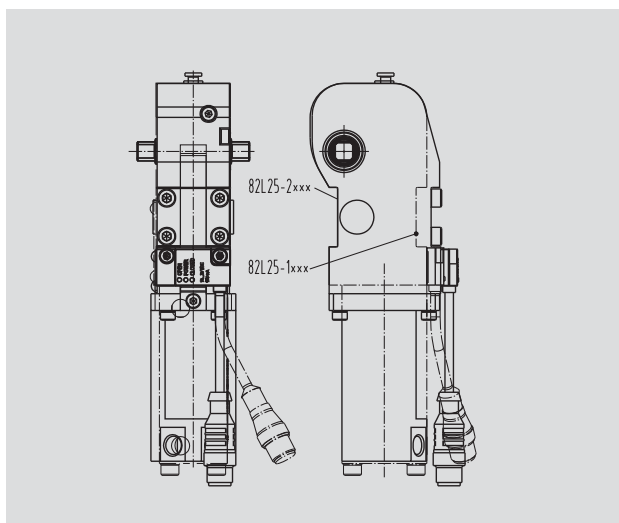
Spare parts for 82L..

Specification	Order no. for structural components 82L25-2....0.. 82L25-2....H..		Order no. for structural components 82L32-2....0.. 82L32-2....H..		Order no. for structural components 82L40-2....0.. 82L40-2....H..	
Cylinder	8PW-095-1		8PW-096-1		8PW-097-1	
Seal-kit	8PW-095-1-01		8PW-096-1-01		8PW-097-1-01	
Sensor-kit	8EA-033-2		8EA-033-2		8EA-033-2	
B8 Connector socket M12x1 cable						
Handlever	—	8KB-031-1	—	8KB-031-1	—	8KB-032-1

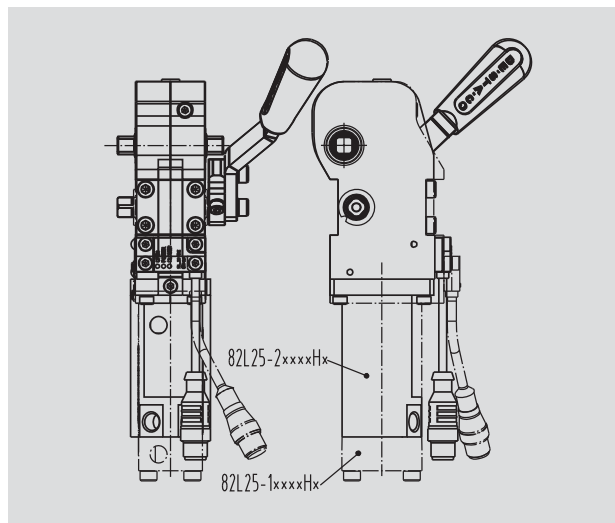
Automation power clamps, lightweight design

Comparison 82L__-2 and 82L__-1

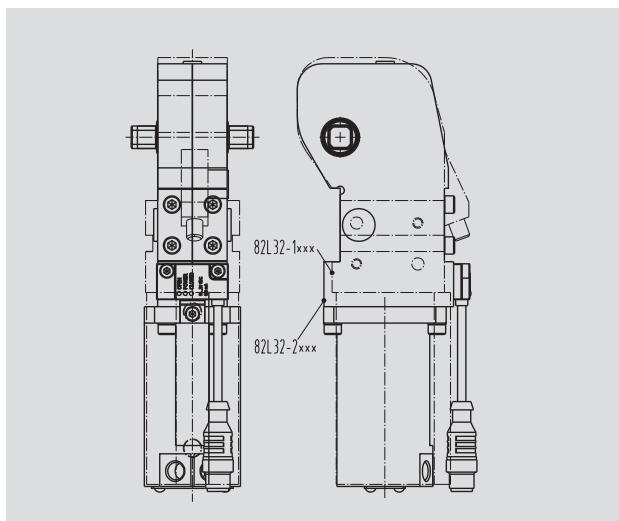
82L25 (without handlever)



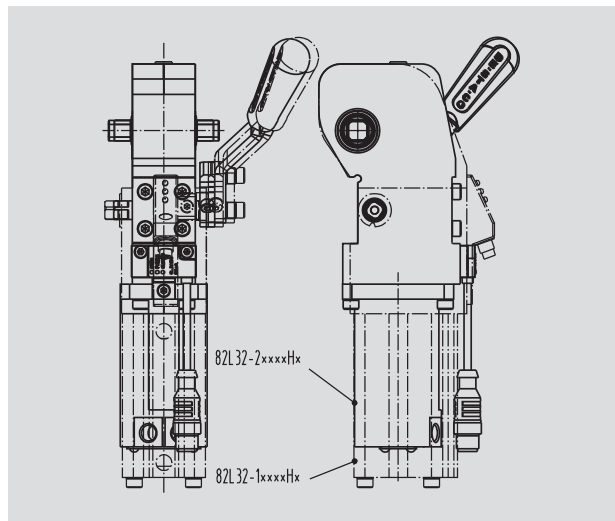
82L25 (with handlever)



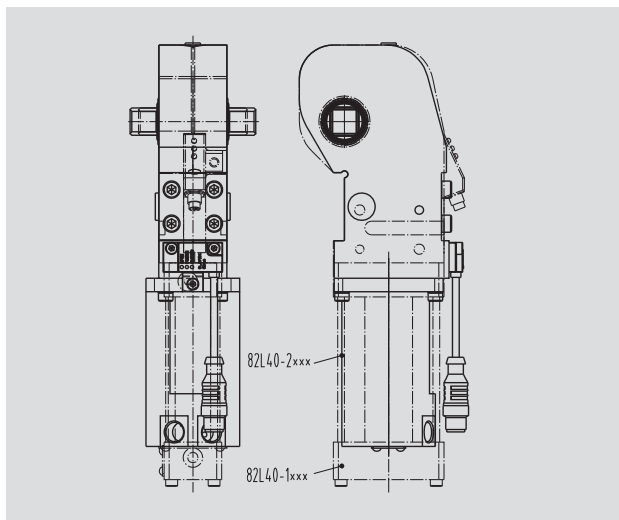
82L32 (without handlever)



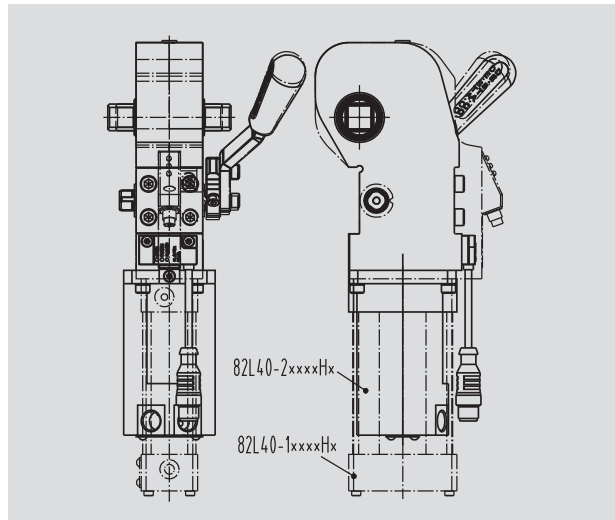
82L32 (with handlever)



82L40 (without handlever)



82L40 (with handlever)



Series 82E40-1, 82E50-1, 82E63-1

- Automation power clamps, narrow design, without hand lever

Models: 82E40-1....0..

82E50-1....0..

82E63-1....0..

Application:

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

Key areas of application:

Automotive manufacturing, mass production, jig and general mechanical engineering.

Features:

- clamping arm with fastening bores and dowel holes
- covered clamping mechanism
- end position sensing system as easy-to-mount retrofit kit for models without end position sensing system
- weld immune sensing switches
- toggle action mechanism
- long life cycle
- high holding torques
- two mounting areas (front and back)
- narrow design



82E40-101....

82E50-101....

82E63-101....

Horizontal clamping position



82E40-141....

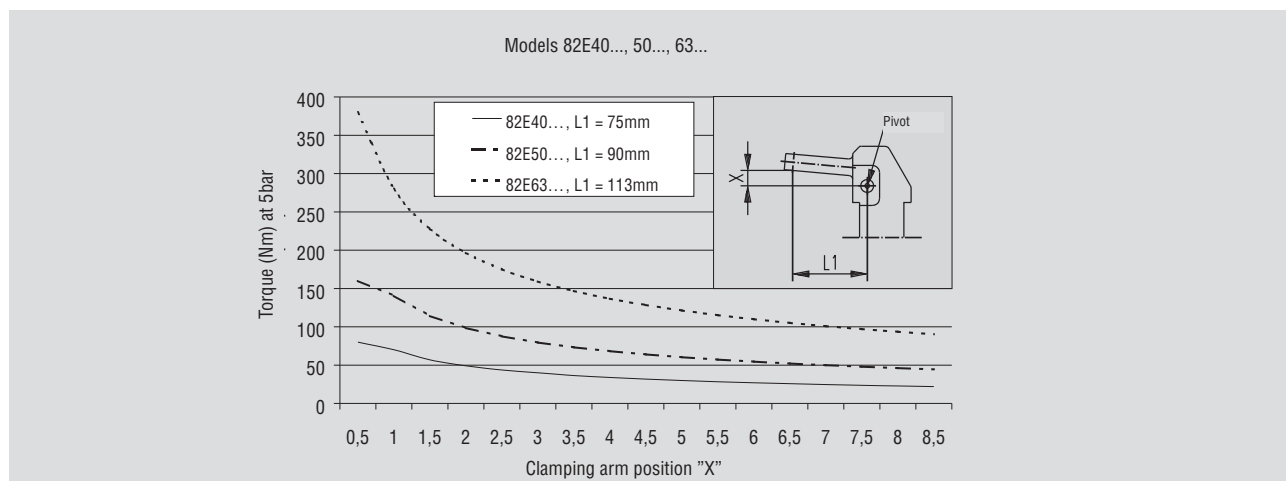
82E50-141....

82E63-141....

Vertical clamping position

Model no.		Standard opening angle	Max. holding torque [Nm]	Clamping torque at 5 bar [Nm]	Clamping arm variant	Clamping position	Cylinder Ø	Air consumption per double stroke at 5 bar [dm³]	Weight ~ [kg]
w/o end pos. sensing	w/ end pos. sensing Connector M12x1, fixed inductive								
82E40-1010000	82E40-101C500	135°	350	80	central	horizontal	40	1,2	2,9
82E40-1410000	82E40-141C500	90°	350	80	central	vertical	40	1,2	2,9
82E50-1010000	82E50-101C500	135°	800	160	central	horizontal	50	2,2	4,0
82E50-1410000	82E50-141C500	96°	800	160	central	vertical	50	2,2	4,0
82E63-1010000	82E63-101C500	135°	1500	380	central	horizontal	63	3,8	6,1
82E63-1410000	82E63-141C500	92°	1500	380	central	vertical	63	3,8	6,1

Diagram of Clamping Force (at 5 bar)



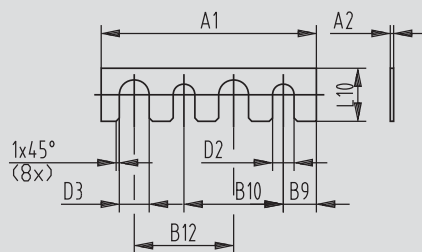
Model numbering code for 82E40-1..... to 82E63-1.....

	82E40-1	01	C5	0	0
Base models					
Clamping arm variants 01, 41					
Sensing variants 00 = no sensing, C5 = inductive sensing					
Without hand lever					
Opening angle limitation for version -101 0=standard, 1=120°, 2=105°, 3=90°, 4=75°, 5=60°, 6=45°, 7=30° (7=30° not for 82E40-1...)					
Opening angle limitation for version -141 0=standard, 4=75°, 5=60°, 6=45°, 7=30° (7=30° not for 82E40-1...)					

Accessories

Specification	Order no. for					
	82E40	length of spacer	82E50	length of spacer	82E63	length of spacer
Opening angle limitation spacer		L [mm]		L [mm]		L [mm]
120°	8CE-038-1	4,0	8CE-058-12	7,2	8CE-078-12	8,4
105°	8CE-036-1	11,0	8CE-056-12	14,4	8CE-076-12	15,9
96° (standard for 82E50-141...)	—	—	8CE-012-12	19,1	—	—
92° (Standard for 82E63-141...)	—	—	—	—	8CE-013-12	19,0
90° (Standard für 82E40-141...)	8CE-034-1	17,5	8CE-054-12	21,9	8CE-074-12	24,6
75°	8CE-031-1	23,1	8CE-051-12	29,5	8CE-071-12	33,0
60°	8CE-029-1	29,2	8CE-049-12	36,3	8CE-069-12	40,6
45°	8CE-027-1	34,8	8CE-047-12	42,8	8CE-067-12	47,1
30°	—	—	8CE-045-12	49,8	8CE-065-12	54,5
						
Connector cable (1 connector socket & 5 m cable) for C0 sensing system						
Connector socket, M12x1 straight, 5-pin	8EL-002-1		8EL-002-1		8EL-002-1	
Connector socket, M12x1 angular, 5-pin	8EL-006-1		8EL-006-1		8EL-006-1	
for C5 sensing system						
Connector socket, M12x1 straight, 5-pin	8EL-002-1		8EL-002-1		8EL-002-1	
Connector socket, M12x1 angular, 4-pin	8EL-003-1		8EL-003-1		8EL-003-1	

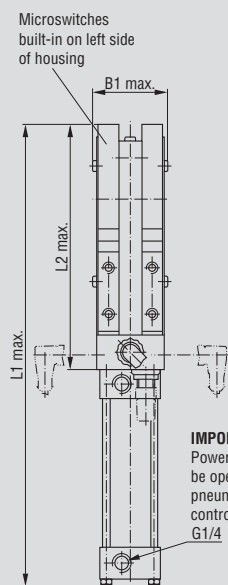
Shim for clamping arm for 82E50 and 82E63	Model no.	A1	A2	D2	D3	B9	B10	B12	L10
Attention: Width L10 of Shims has to be reduced in some cases by customer	82ZB-SH5001		0,1						
	82ZB-SH5002		0,2						
	82ZB-SH5005		0,5						
	82ZB-SH5010	65	1,0	6,5	9	10	30	30	16
	82ZB-SH5020		2,0						
	82ZB-SH5050		5,0						



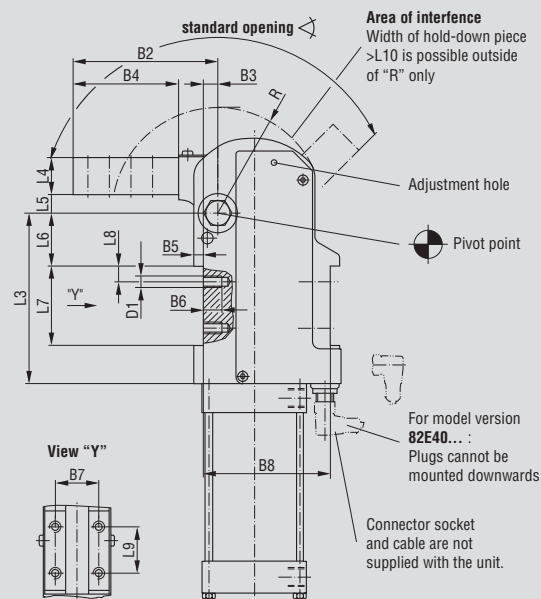
Major spare parts

Benennung	Order no. for		
	82E40-1....0..	82E50-1....0..	82E63-1....0..
Cylinder	82E40-2F	8PW-023-2	8PW-024-2
Seal kit	8PW-016-1-00	8PW-023-1-00	8PW-024-1-00
C0 sensing system (micro switch, obsolete version) (connector plug M12x1, fixed)	82E40-071-2	82E50-071-2	82E60-071-2
C5 sensing system (connector plug M12x1, fixed)	8EA-003-2	8EA-004-2	8EA-005-2

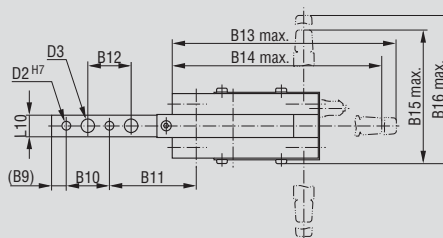
Series 82E40-1, 82E50-1, 82E63-1



IMPORTANT!
Power clamp must only be operated by external pneumatic one-way flow control valves.
G1/4



View "Y"



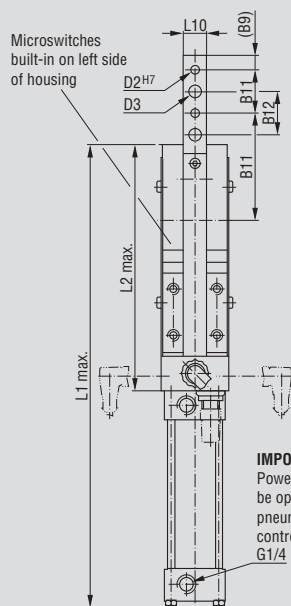
82E40-101....

82E50-101....

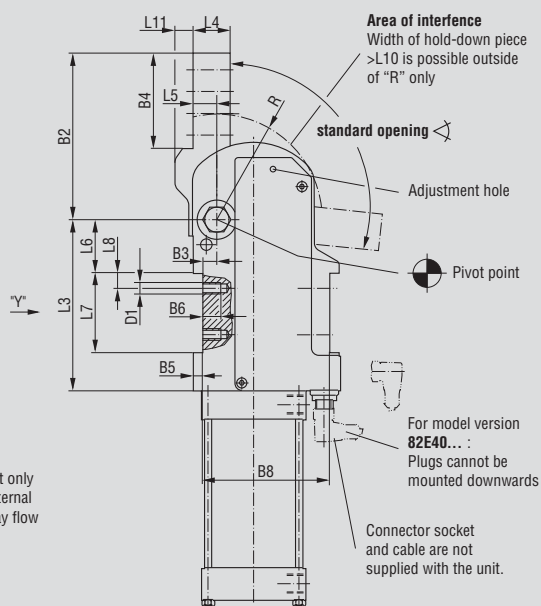
82E63-101....

Horizontal clamping position

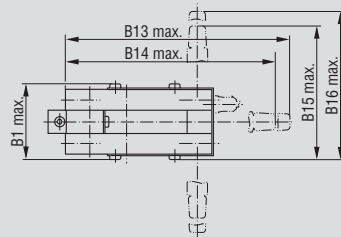
Cylinder can be turned
180° by customer



IMPORTANT!
Power clamp must only be operated by external pneumatic one-way flow control valves.
G1/4



View "Y"



82E40-141....

82E50-141....

82E63-141....

Vertical clamping position

Cylinder can be turned
180° by customer

Technical data

Model no.	Standard opening angle	Clamping arm variant	Clamping position	Piston Ø	Connection G	B1 max.	B2	B3 ±0,1	B4	B5 +1	B6	B7 ±0,1	B8	B9	B10 ±0,02	B11 +0,1
82E40-101__00	135°	central	horizontal	40	G1/4	46	81	10	45	4,5	10	25	83,5	6	20	55
82E40-141__00	90°	central	vertical	40	G1/4	46	92	10	49	4,5	10	25	83,5	6	20	66
82E50-101__00	135°	central	horizontal	50	G1/4	56	100	10	75	6,5	13	30	88	10	30	60
82E50-141__00	96°	central	vertical	50	G1/4	56	113	10	69	6,5	13	30	88	10	30	73
82E63-101__00	135°	central	horizontal	63	G1/4	61	123	13	75	7,5	13	35	93	10	30	83
82E63-141__00	92°	central	vertical	63	G1/4	61	135	13	71,5	7,5	13	35	93	10	30	95

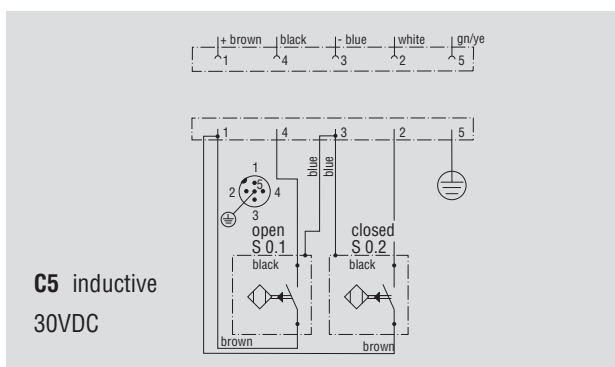
Model no.	B12 ±0,02	B13 max.	B14 max.	B15 max.	B16 max.	D1	D2 H7 Ø	D3 Ø	L1 max.	L2 max.	L3	L4 ±0,1	L5 ±0,2	L6 ±0,05	L7 +0,1	L8	L9 ±0,1	L10 -0,1	L11	R
82E40-101__00	20	148	138	86	96	M6	6	7	275	138	94	19	13,5	25,5	45	7,5	30	12	—	66
82E40-141__00	20	148	138	86	96	M6	6	7	275	138	94	19	10,5	25,5	45	7,5	30	12	9	66
82E50-101__00	30	155	145	96	106	M8	6	9	322	170	118	25	13	36,5	55	11	32	16	—	74
82E50-141__00	30	155	145	96	106	M8	6	9	322	170	118	25	17,5	36,5	55	11	32	16	11	74
82E63-101__00	30	173	163	101	111	M8	6	9	380	218	156,5	28	15	44,5	76	16	35	20	—	87
82E63-141__00	30	173	163	101	111	M8	6	9	380	218	156,5	28	21,5	44,5	76	16	35	20	12	87

Medium: air, max. 8 bar

Operation with oil-free air is permissible

CAD and design templates available upon request

Wiring diagrams of the electrical sensing system



Series **82G50-4, 82G63-4****UPON REQUEST (Obsoleted Model)**

- Automation power clamp, enclosed design, with and without hand lever

Models: **82G50-4....0..**
82G63-4....0..

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, sheet processing industry, jig and general mechanical engineering.

Features:

- shielded body
- dirt-resistant
- compact design
- high holding torques
- long life cycle
- with or without hand lever
- hand lever attached left or right
- mounting areas at front, back and lateral
- toggle action mechanism
- inductive sensing module with LED display
- manual unlocking in case of pressure drop

**82G50-4 / 82G63-4**

Horizontal clamping position,
without hand lever

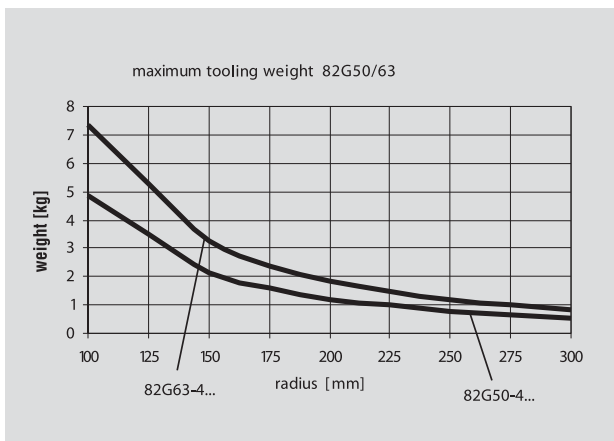
Models 82G50-4..., 82G63-4... without hand lever

Model no. without arm (please order separately)	Holding capacity max. (Nm)	Clamping torque at 5 bar (Nm)	= Cylinder Ø	Weight ~ (kg)	Air consumption per double stroke 5 bar (litre)	Opening angle
82G50-4630000B	800	270	50	6,2	2,2	105°
82G63-4630000B	1500	420	63	8,9	3,8	105°

Numbering code for 82G50-4 / 82G63-4

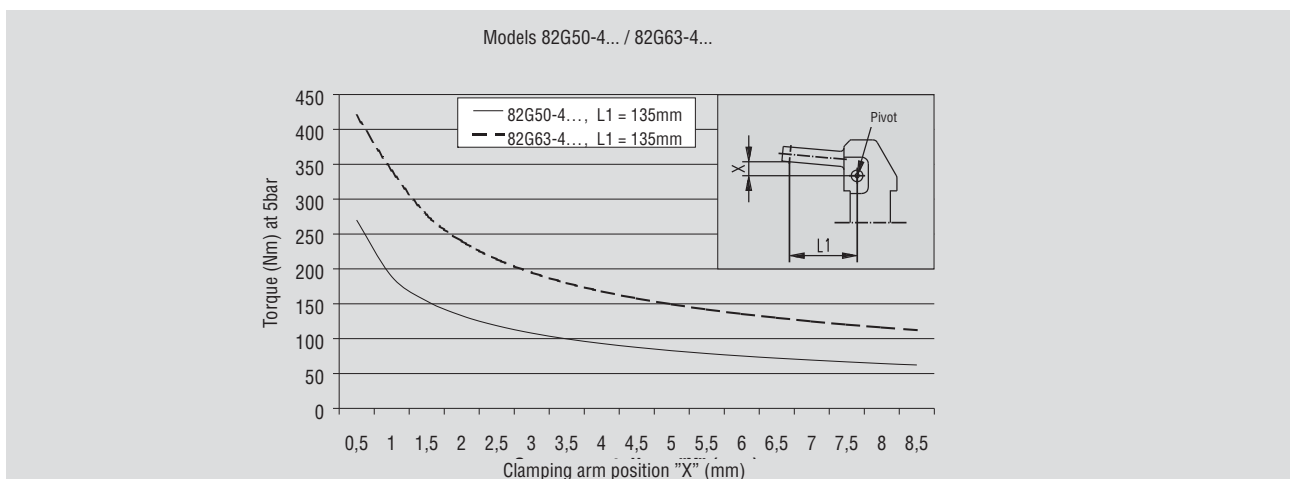
	82G	50	-4	03	C8	K	0	
Automation power clamp								
enclosed body, narrow desing								
Cylinder diameter								
50 = cylinder (in [mm], 63 = cylinder (in [mm]								
Version number								
Clamping arm variants								
03 = U-central, horizontal clamping position, 43 = U-central, vertical clamping position								
Sensing variants								
00 = no sensing system, C8 = inductive with LEDs (Turck), connector plug M12x1, fixed								
Hand lever								
0 = w/o hand lever, K = w/ hand lever								
Opening angle limitation								
0=standard, 105°								
Base model								
Void = base model with clamping arm, B = base model without clamping arm								

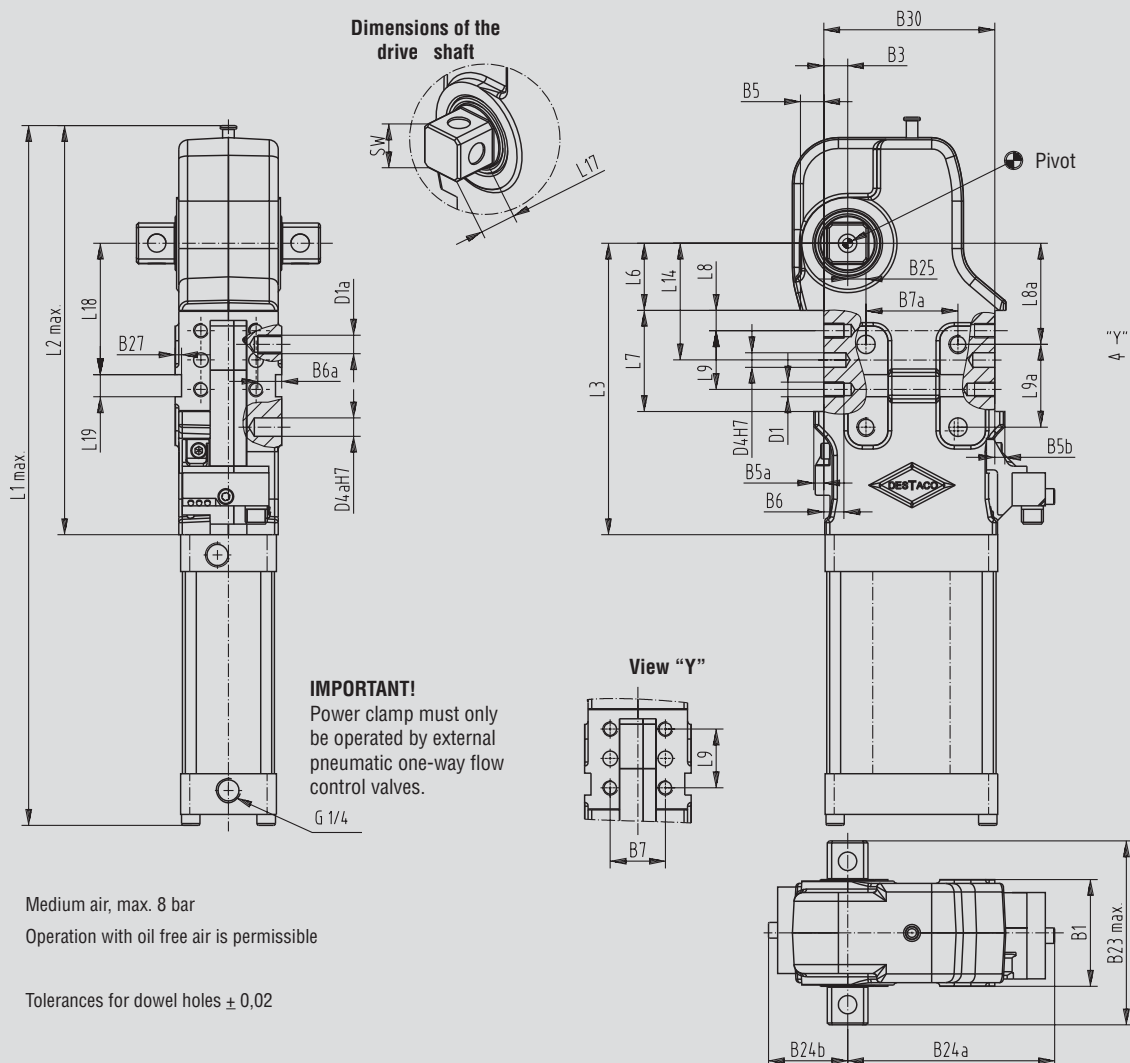
Concept guideline (with reference to axis of clamping arm rotation)



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)

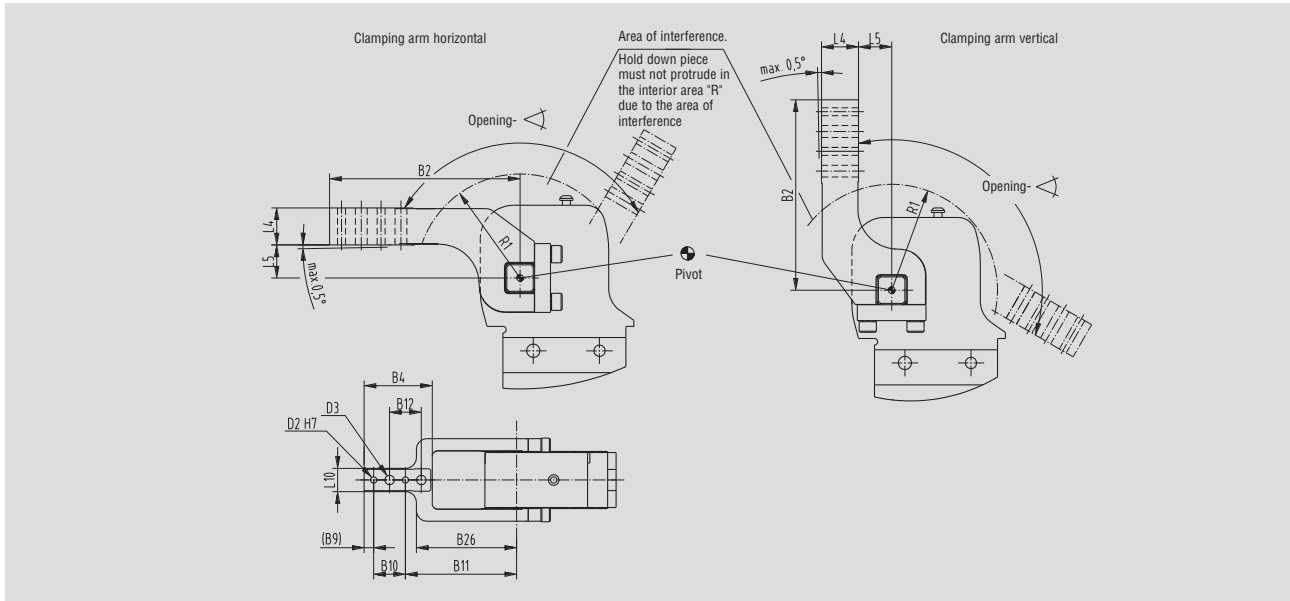


Series **82G50-4, 82G63-4****UPON REQUEST (Obsoleted Model)****82G50-463.../82G63-463...****Technical data**

Model no.	B1	B3	B5	B5a	B5b	B6	B6a	B7	B7a	B23	B24	B24a	B24b	B25	B27	B30	D1
	$\pm 0,1$	$\pm 0,1$						$\pm 0,1$	$\pm 0,1$	max.				$\pm 0,1$		$\pm 0,1$	
82G50-463__0__	52	13	8	7	6	11	11	30	50	94	114	108	46,5	10	3,5	93	M8
82G63-463__0__	58	13	12	6	6	11	13	30	50	100	116	113,5	44	10	3,5	93	M8

Model no.	D1 a	D4	D4a	L1	L2	L3	L6	L7	L8	L8a	L9	L9a	L14	L17	L18	L19	SW
	H7	H7	max.	max.			$\pm 0,05$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$			N9	h9
82G50-463__0__	M10	8	10	357	211	152	36,5	55	11	55	32	45	63,5	21	71,5	12	19
82G63-463__0__	M10	8	10	386	224	158,5	36,5	55	11	55	32	45	63,5	21	71,5	12	22

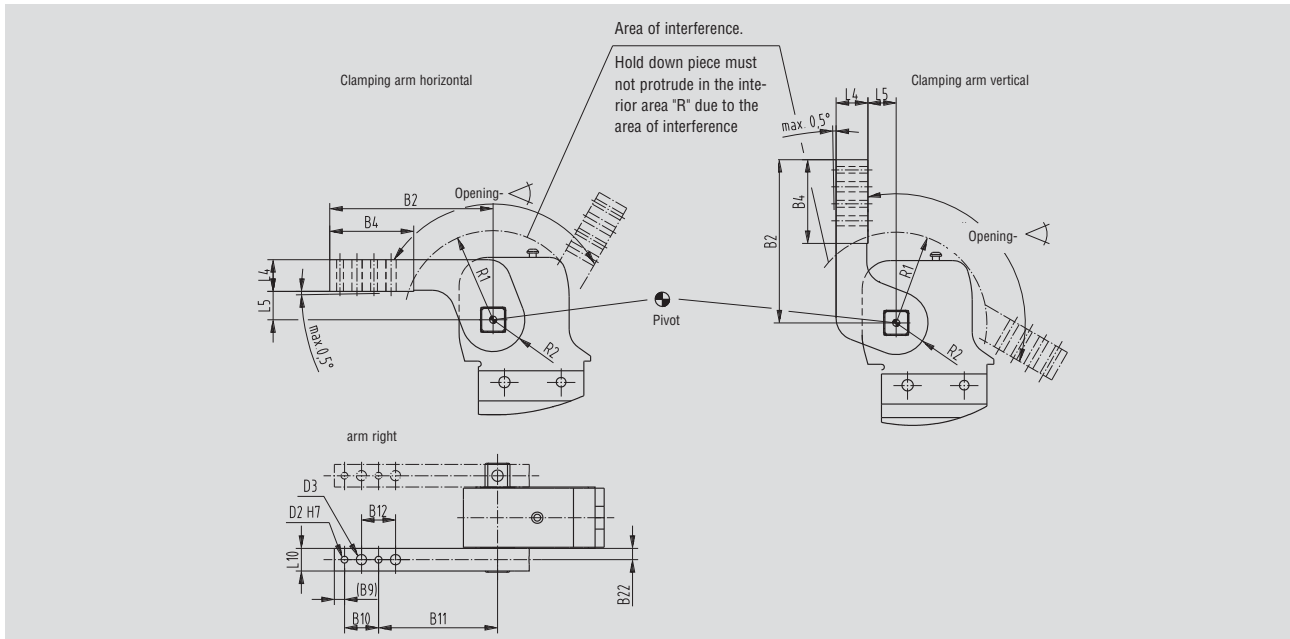
U-bars, central for 82G50-4, 82G63-4



Technical data U-bars, centric

Model no.	Order no. for Set U-Clamping arm, central	Max. Opening angle clamping position		Weight (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	R1
		horizontal	vertical														
82G50-4	8JG-069-1-01	120°	105°	1,1	144	64,3	9	30	105	30	95	6	9	28	15	20	80
82G63-4	8JG-051-2-01	120°	105°	1,3	144	64,3	9	30	105	30	95	6	9	28	15	25	80

Lateral arms for 82G50-4, 82G63-4



Technical data lateral arms

Model no.	Order no. for Set lateral arm,	Max. Opening angle clamping position		Weight (kg)	B2	B4	B9	B10 ±0,02	B11 ±0,1	B12 ±0,2	B22	D2 H7 Ø	D3 Ø	L4 ±0,1	L5 (-0,5° max.)	L10	R1	R2
		horizontal	vertical															
82G50-4...	8JG-070-1-01	120°	105°	0,9	144	74	9	30	105	30	10	6	9	28	15	20	80	28
82G63-4...	8JG-080-1-01	120°	105°	1	144	74	9	30	105	30	10	6	9	28	15	20	80	28

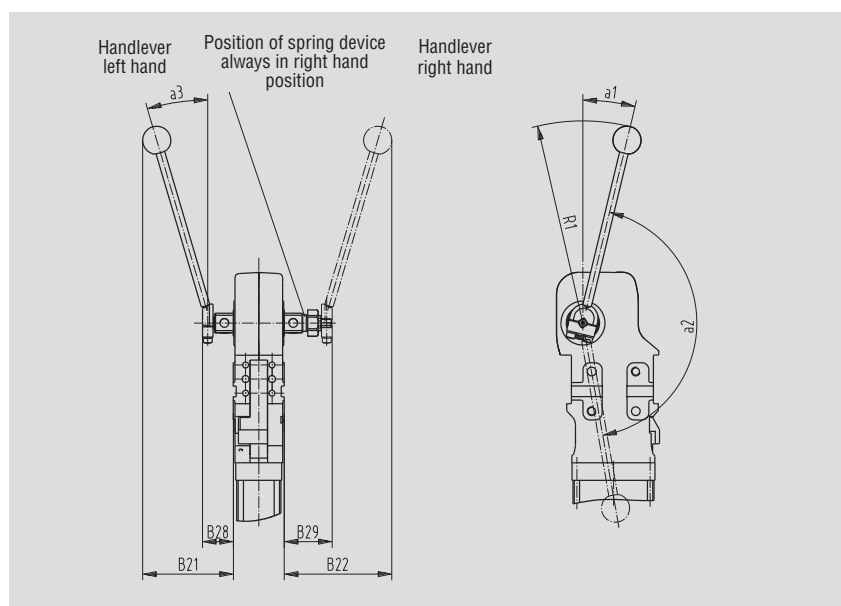
Series **82G50-4....K. /82G63-4....K.****UPON REQUEST (Obsoleted Model)**

■ Automation power clamp, enclosed design,
with hand lever

Models: **82G50-46300K0B**
82G63-46300K0B

**82G50-4....K.B / 82G63-4....K.B with clamping arm**

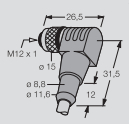
Model no. w/o sensing	Model no. w/ ind. sensing	Standard opening angle	Max. holding torque [Nm]	Clamping torque at 5 bar [Nm]	Clamping arm variants	Clamping position	Cylinder Ø	Weight ~ [kg]
82G50-46300K0B	82G50-463C8K0B	105°	800	270	U-central/lateral	vertical/horizontal	50	6,0
82G63-46300K0B	82G63-463C8K0B	105°	1500	420	U-central/lateral	vertical/horizontal	63	9,1

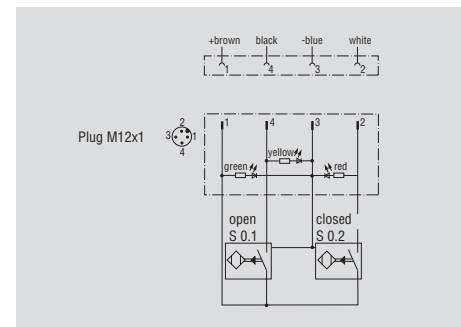
82G50-4....K. / 82G63-4....K. with hand lever, additional dimensions**Technical data** (additional dimensions for hand lever versions)

Model no.	Opening angle α_1	B21 ~	B22 ~	B28 max.	B29 max.	R1 ~	Swing angle α_2 at opening angle	
							105°	120°
82G50-46300K0B	5°	94	114	27	42	240	148°	165°
82G63-46300K0B	13°	99	119	32	47	240	145°	165°

Missing dimensions see 82G50-4/82G63-4 without hand lever

Accessories for 82G50-4 / 82G63-4

Specification	Order no. for structural components 82G50-4 / 82G63-4	
Connector cable (1 connector socket & 5 m cable)		
Connector socket M12x1 straight, 5-pin		
Connector socket M12x1 angular, 4-pin		
Shim for Clamping arm		
Thickness 0,1 mm	82ZB-SH5001	
Thickness 0,2 mm	82ZB-SH5002	
Thickness 0,5 mm	82ZB-SH5005	
Thickness 1,0 mm	82ZB-SH5010	
Thickness 2,0 mm	82ZB-SH5020	
Sensing system		
C8 connector plug M12x1, fixed	8EA-007-2	

**Wiring diagram for electrical sensing system**

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

Model: **C8** inductive with LEDs (Turck),
connector plug M12x1, fixed



Major spare parts for 82G50-4 / 82G63-4

Specification	Order no. for structural components	
	82G50-4	82G63-4
Cylinder	8PW-023-2	8PW-024-2
Seal kit	8PW-023-1-00	8PW-024-1-00
Sensing system		
C8 connector plug M12x1, fixed	8EA-007-2	8EA-007-2
Hand lever	8KB-053-1	8KB-053-1
Repair kit		
Hand lever mechanism	8KB-001-1	8KB-011-1

NEW:

- **Automation Power Clamp,**
enclosed lightweight design without handlever
(Global **DE-STA-CO** **C**lamp)

Models: **GDC 50-1....**
GDC 63-1....

Application:

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

**Key areas for application**

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

Features:

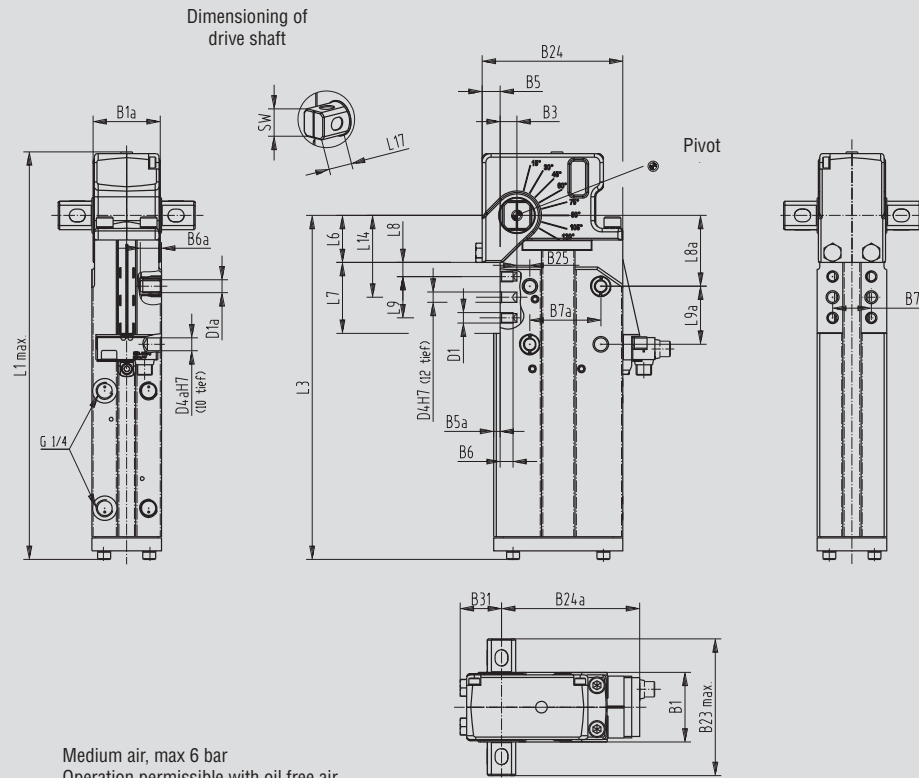
- Modular design
- Shielded body
- Dirt resistant
- Compact design
- High holding torques
- Long life cycle
- Low weight (aluminum body)
- Wide range of clamping arm variants
- Adjustable opening angle
- Mounting areas front and lateral
- Toggle lock mechanism
- Manual unlocking in case of pressure drop
- Inductive sensing module with LED display

Order code for GDC

Order no. Example: **GDC50-1 D8 0 U M R 15**

Series: Global DE-STA-CO Clamp	-1 = version	00 = without sensing system	0 = standard opening angle 120° <i>Not valid for clamp arm variations U_815 and U_825; here, the opening angle maximum is 105°</i>	B = without clamp arm	M = central	R = 90°	„L5“ (in mm) 15 25 45 (only GDC63) 75 (only GDC63)
50 = pneum. cylinder Ø50 63 = pneum. cylinder Ø63 		C8 = inductive sensing system 8EA-054-3 Fabr. Turck  D8 = inductive sensing system 8EA-055-1 Fabr. Pepperl & Fuchs 	2 = 105° 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	U = U-clamp arm  S = lateral clamp arm 	D = 2x lateral clamp arm  L = left (only GDC63)  R = right (only GDC63) 	  S = 180°  	

Base models Sensing system Clamp arms



Medium air, max 6 bar
Operation permissible with oil free air

Clamping arms see page 16.32

Tolerance for dowel holes $\pm 0,02$

Technical data

Model no.	Holding capacity max. (Nm)	Clamping torque at 5 bar (Nm)	= Cylinder $\varnothing$	Weight ~ (kg)	Air consumption per double stroke at 5 bar (litre)	L1 max.
GDC50-1...	800	270	50	3,4	2,2	357
GDC63-1...	1000	420	63	3,6	3,8	

Model no.	Connector	B1 $\pm 0,1$	B1 a	B3 $\pm 0,1$	B5	B5a	B6	B6a	B7 $\pm 0,1$	B7a $\pm 0,1$	B23 max.	B24	B24a	B25 $\pm 0,1$	B31	D1	D1a
GDC50-1... GDC63-1...	G1/4	48 54	46 52	13	14	5	10	13	30	55	90 106	109	107	10	33,6	M8	M10

Model no.	D4 H7	D4a H7	L3	L6 $\pm 0,05$	L7 $\pm 0,1$	L8 $\pm 0,1$	L8a $\pm 0,1$	L9 $\pm 0,1$	L9a $\pm 0,1$	L14 $\pm 0,1$	L17	SW h9					
GDC50-1... GDC63-1...	8	10	267	36,5	55	11	55	32	45	63,5	21 26	19 22					

Series **GDC**

U-bars central L5 = 45 mm

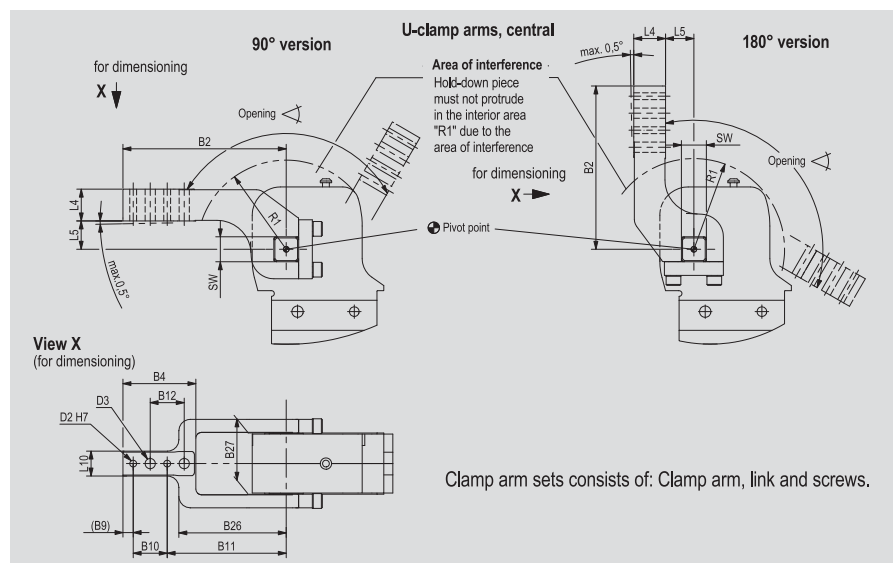


U-bars central L5 = 75 mm

Technical data

Model no.	Order no. for set U-clamp arm, central	GDC	GDC	Weight [kg]	B2	B4	B9	B10	B11	B12	B26	B27	D2 H7	D3	L4	L5	L10	R1	SW J7
		Opening angle 90°-vers.	Opening- angle 180°-vers.																
GDC50-1...	8UM501-15-144	120°	105°	1,1	144	64,3	9	30	105	30	95	48,1	6	9	28	15	20	80	19
	8UM501-25-144	120°	105°	1,1	144	64,3	9	30	105	30	95	48,1	6	9	28	25	20	80	19
GDC63-1...	8UM631-15-144	120°	105°	1,1	144	64,3	9	30	105	30	95	54,1	6	9	28	15	20	80	22
	8UM631-25-144	120°	105°	1,1	144	64,3	9	30	105	30	95	54,1	6	9	28	25	20	80	22
	8UM631-45-144	120°	120°	1,3	144	64,3	9	30	105	30	95	54,1	6	9	28	45	20	80	22
	8UM631-75-204	120°	120°	1,7	204	82	9	30	165	30	107	54,1	6	9	30	75	20	80	22

Technical data U-bars central



Lateral arm L5 = 15 mm

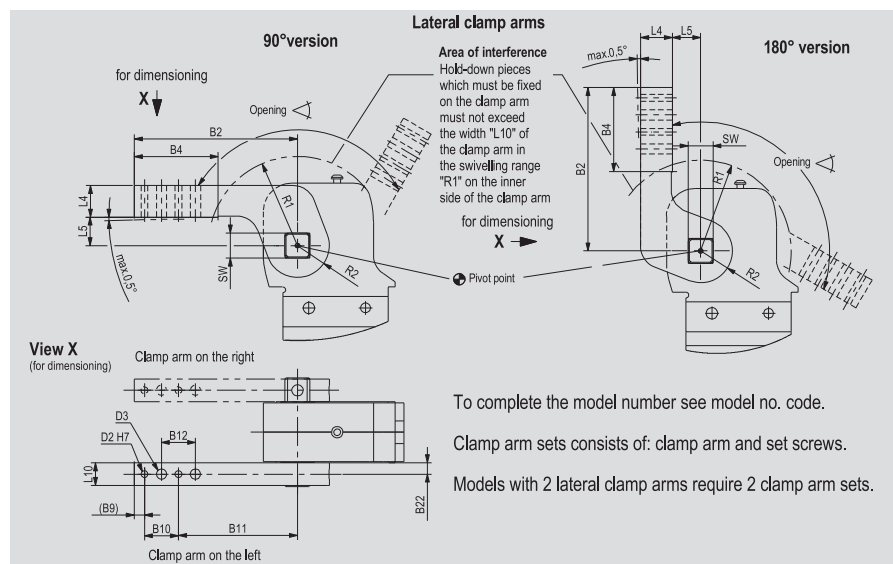


Lateral arm L5 = 25 mm

Technical data

Model no.	Order no. for set U-clamp arm, lateral	GDC	GDC	Weight [kg]	B2	B4	B9	B10	B11	B12	B22	D2 H7	D3	L4	L5	L10	R1	R2	SW J7
		Opening angle 90°-vers.	Opening- angle 180°-vers.																
GDC50-1...	8JG-070-1-01	120°	120°	0,9	144	74	9	30	105	30	10	6	9	28	15	20	80	28	19
	8S501-25-144	120°	120°	1,0	144	74	9	30	105	30	10	6	9	28	25	20	80	28	19
GDC63-1...	8JG-080-1-01	120°	120°	0,9	144	74	9	30	105	30	10	6	9	28	15	20	80	28	22
	8S631-25-144	120°	120°	1,0	144	74	9	30	105	30	10	6	9	28	25	20	80	28	22
	8S631-75-204	120°	120°	1,5	144	74	9	30	165	30	10	6	9	28	75	20	80	28	22

Technical data lateral arms



Technical data lateral U-bars



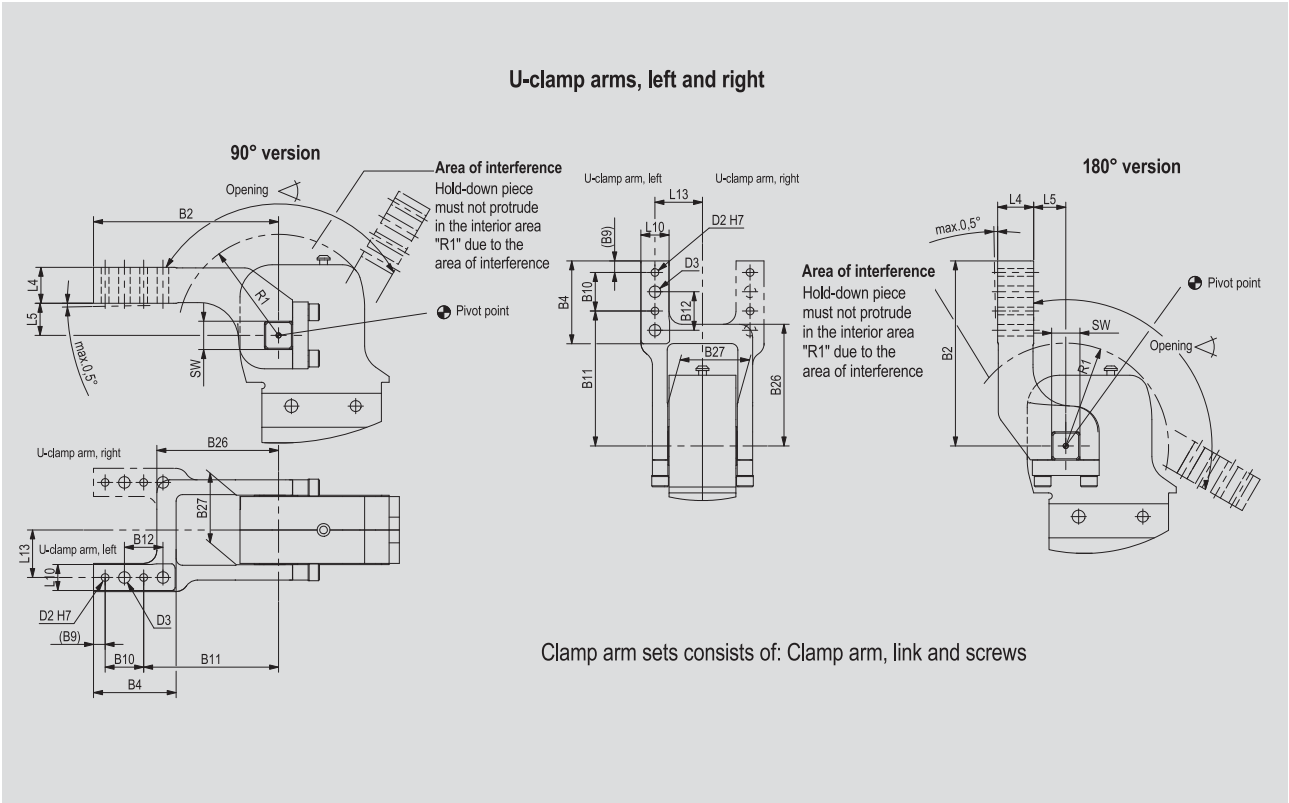
U-bar lateral L5 = 75 mm



U-bar lateral L5 = 45 mm



U-bar lateral L5 = 25 mm



Technical data

Modell-Nr.	Order no. for set		Order no. for set		GDC	GDC	Weight
	U-clamp arm, left	U-clamp arm, right	U-clamp arm, left	U-clamp arm, right	Opening angle	Opening angle	
	90° version	90° version	180° version	180° version	90°-version	180°-version	[kg]
GDC63-1...	8UL631-15-144	8UR631-15-144	8UR631-15-144	8UL631-15-144	120°	105°	1,1
	8UL631-25-144	8UR631-25-144	8UR631-25-144	8UL631-25-144	120°	105°	1,2
	8UL631-45-144	8UR631-45-144	8UR631-45-144	8UL631-45-144	120°	120°	1,3
	8UL631-75-204	8UR631-75-204	8UR631-75-204	8UL631-75-204	120°	120°	1,9

Model no.	B2	B4	B9	B10	B11	B12	B26	B27	D2	D3	L4	L5	L10	L13	R 1	SW				
				± 0,02	+ 0,1	± 0,2		+ 0,2	H7		± 0,1	(- 0,5° max)		± 0,1		J7				
GDC63-1...	144	64,3	9	30	105	30	95	54,1	6	9	28	15	20	37	80	22				
	144	64,3	9	30	105	30	95	54,1	6	9	28	25	20	37	80	22				
	144	64,3	9	30	105	30	95	54,1	6	9	28	45	20	37	80	22				
	204	82	9	30	165	30	119	54,1	6	9	30	75	20	37	80	22				



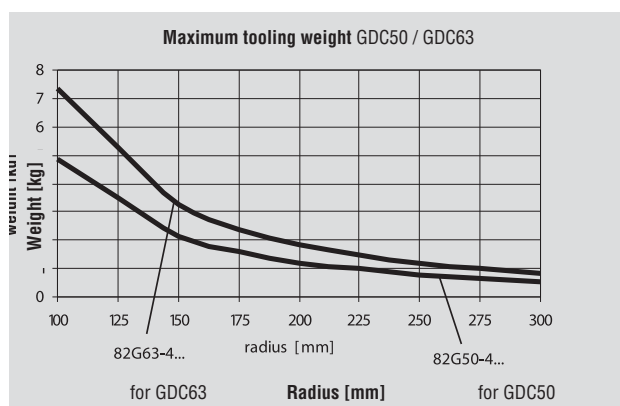
Sensor Turck



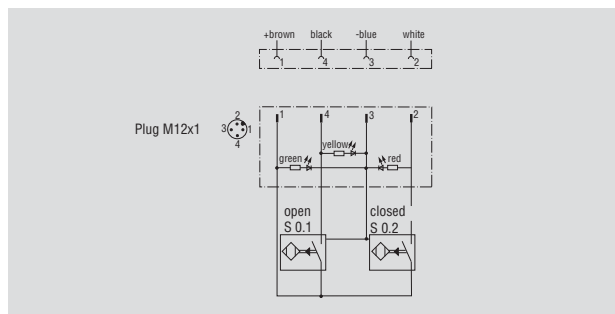
Sensor Pepperl & Fuchs



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

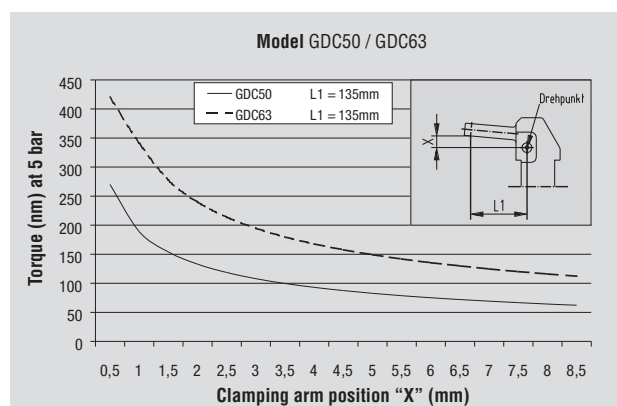
Sensing system immune to interference from d.c. arc welding and a.c. arc welding

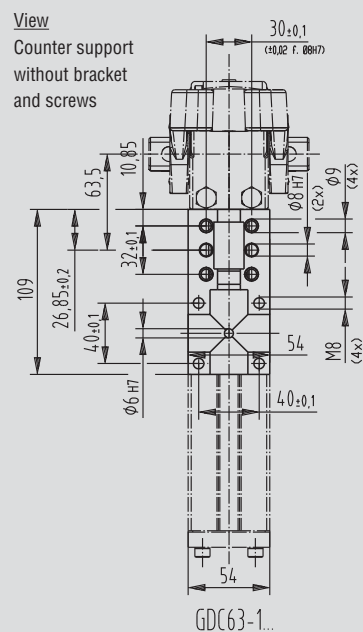
Inductive design:

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

Pin assignment

Diagram of clamping force (at 5 bar)

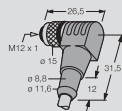




Model no.	Holding capacity max. (Nm)	Detlection at holding capacity max. (mm)	Weight ~ (kg)
BK-R25-82L50-1	3000	0,25	0,73

Series **GDC**

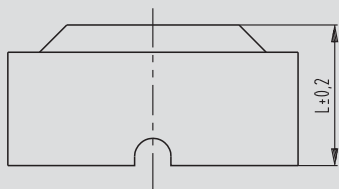
Connector cable (1 connector socket & 5 m cable)	Order no. for set
connector socket M12x1 straight, 5-pin	8EL-002-1
connector socket M12x1 angular, 4-pin	8EL-003-1



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

Spare parts

Specification	Model	Order no.	Comment
Seal-kit	GDC50	GDC50-1-00	
Seal-kit	GDC63	GDC63-1-00	
Sensor kit for D8	GDC.....D8	GDC00-0D8	Fabr. Pepperl & Fuchs
Sensor kit for C8	GDC.....C8	GDC00-0C8	Fabr. Turck



Last Number: Order code	Opening angle	GDC50-1 / GDC63-1	
		Model no.	L ± 0,2
8	15°	8CE-233-1	62,5
7	30°	8CE-235-1	55,1
6	45°	8CE-237-1	48
5	60°	8CE-239-1	40,7
4	75°	8CE-241-1	33,3
3	90°	8CE-244-1	26,2
2	105°	8CE-246-1	19,9
1	120°	8CE-248-1	15,5

Series 82M-6

- **Modular automation power clamp, enclosed design, lightweight, without hand lever**

Models: **82M-623050...**
82M-623063...

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_C8

Modular automation power clamp,
without hand lever

Key areas of application:

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

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 from 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

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)

Technical data

Model no.			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-62305000	82M-623050D8	82M-623050C8	120°	1000	270	lateral, U-central/U-lateral	horizontal/vertical	50	2,2	4,2
82M-62306300	82M-623063D8	82M-623063C8	120°	1000	420	lateral, U-central/U-lateral	horizontal/vertical	63	3,8	4,6

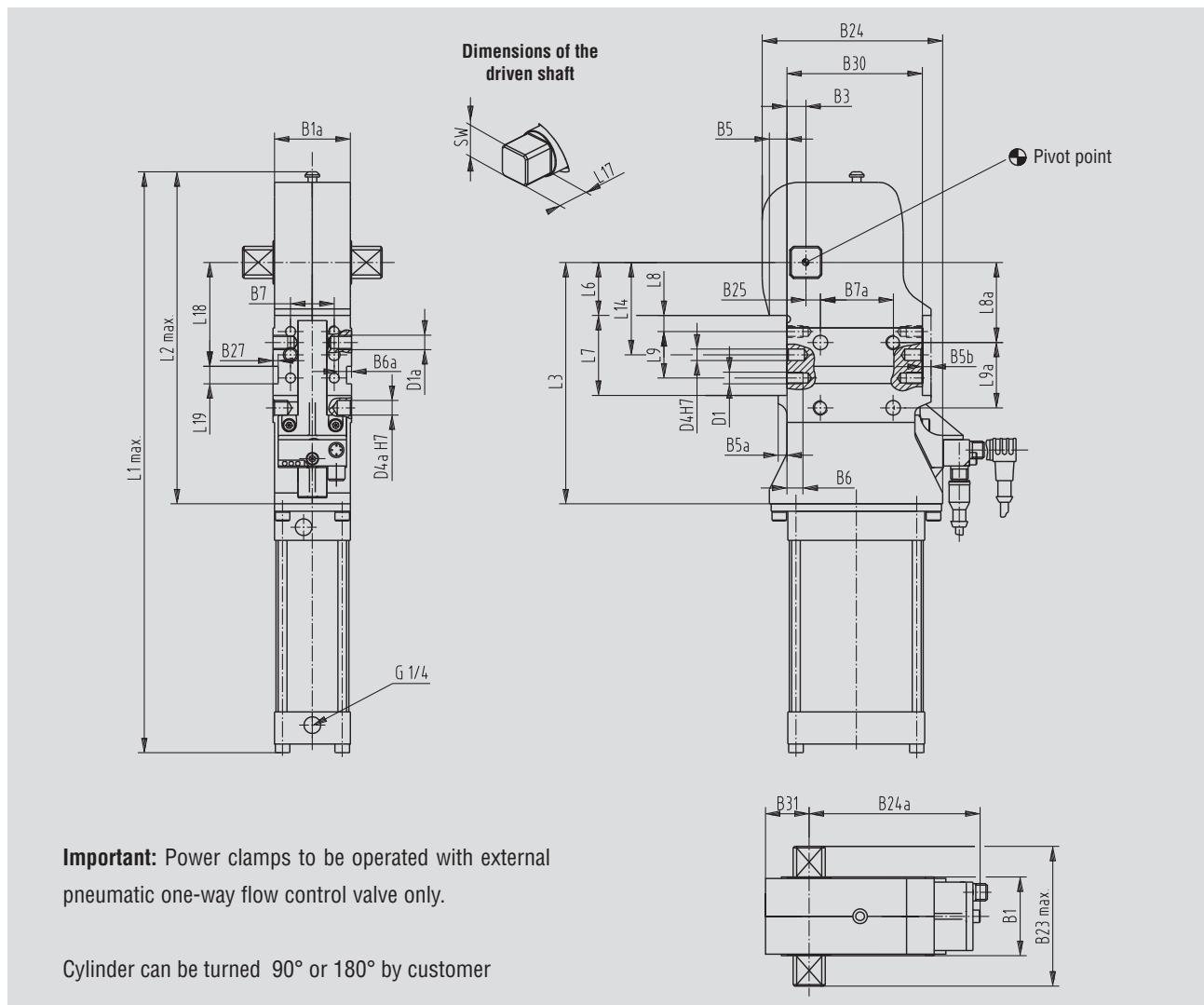
Technical data (continued)

Model no.	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 no.	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 no.	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

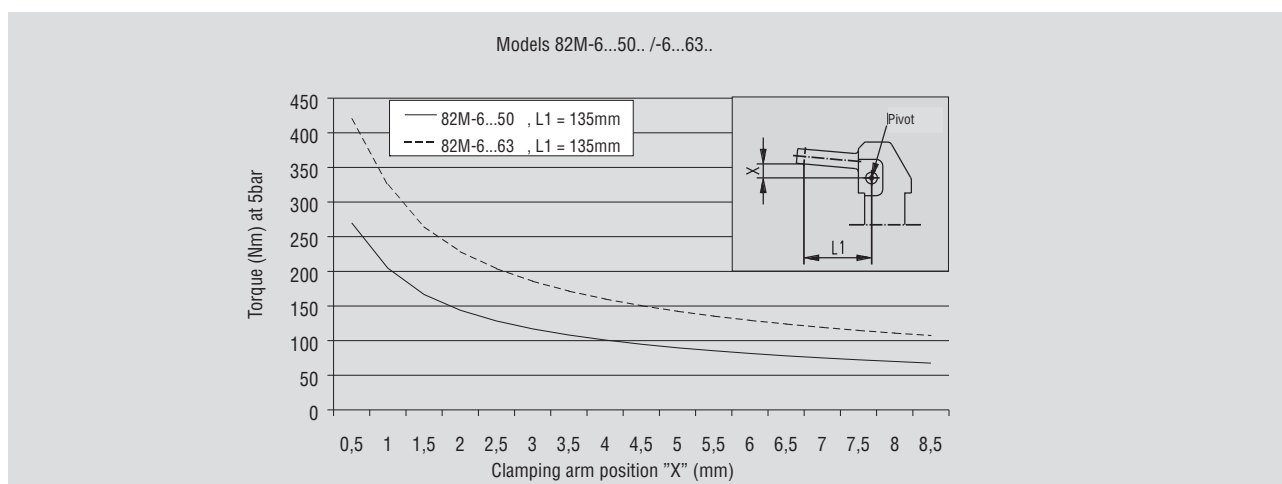
¹⁾ Tolerance for distance to dowel hole ± 0,02



Medium: air, max. 8 bar, operation with oil-free air is permissible

Series 82M-6

Diagram of Clamping Force (at 5 bar)

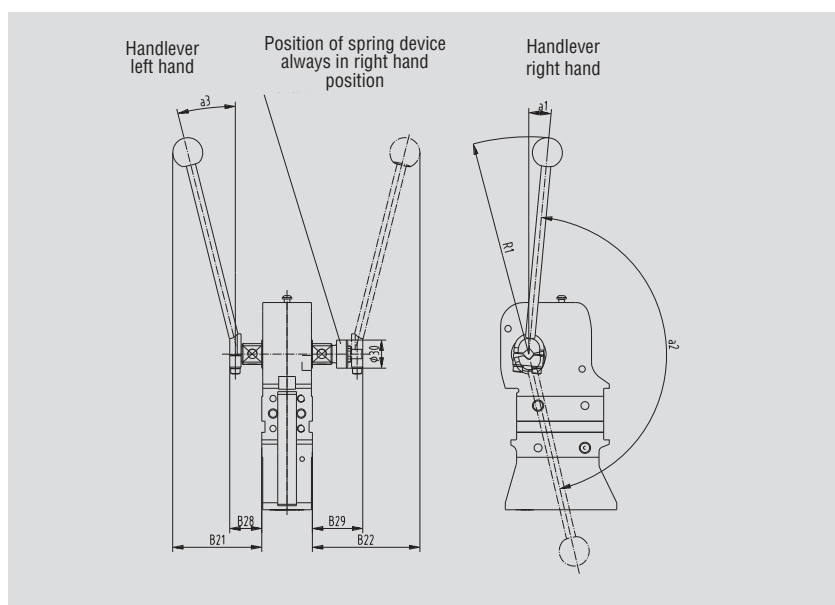


- Modular automation power clamp, enclosed design, lightweight, with hand lever



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

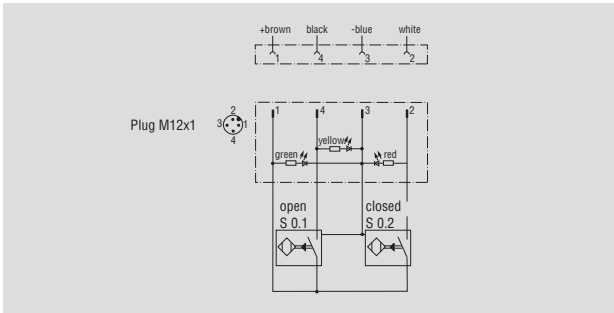
82M-6..... Additional dimensions for hand lever version



Model no.			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	4,4
82M-623K6300	82M-623K63D8	82M-623K63C8	120°	1000	420	lateral, U-central/U-lateral	horizontal/vertical	63	3,8	4,8

Technical data (additional dimensions of hand lever version)

Model no.	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°	97	117	36	54	240	50°	65°	79°	93°	110°	125°	140°	160°
82M-623K63__	5°	97	117	36	54	240	50°	65°	79°	93°	110°	125°	140°	160°



Wiring diagram of electrical sensing system

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

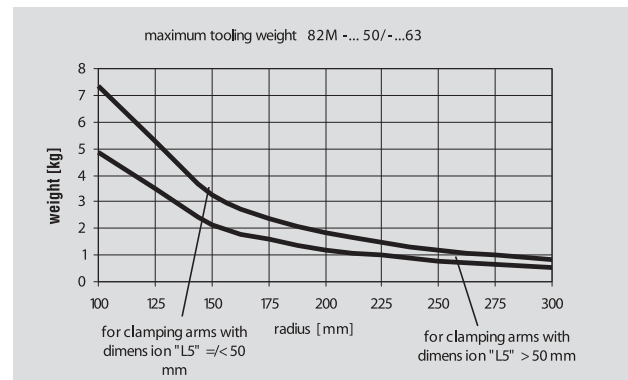
Inductive design:

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

Pin assignment

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

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.

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

82M - 6 = with standard dimensions	23 = drive shaft for lateral clamp arms and U-arms	00 = without hand lever K = with hand lever, welded 8KB-053-1	50 = pneum. cylinder Ø50 63 = pneum. cylinder Ø63	00 = without sensing system C8 = inductive sensing system 82M-000000C8 Fabr. Turck D8 = inductive sensing system 82M-000000D8 Fabr. Pepperl & Fuchs
without hand lever, without cylinder, without sensing system				
Basic model	Drive shaft	Hand lever	Cylinder	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 for 82M-6

Clamping arm design

U-type central clamping arm

Clamping position

horizontal or vertical

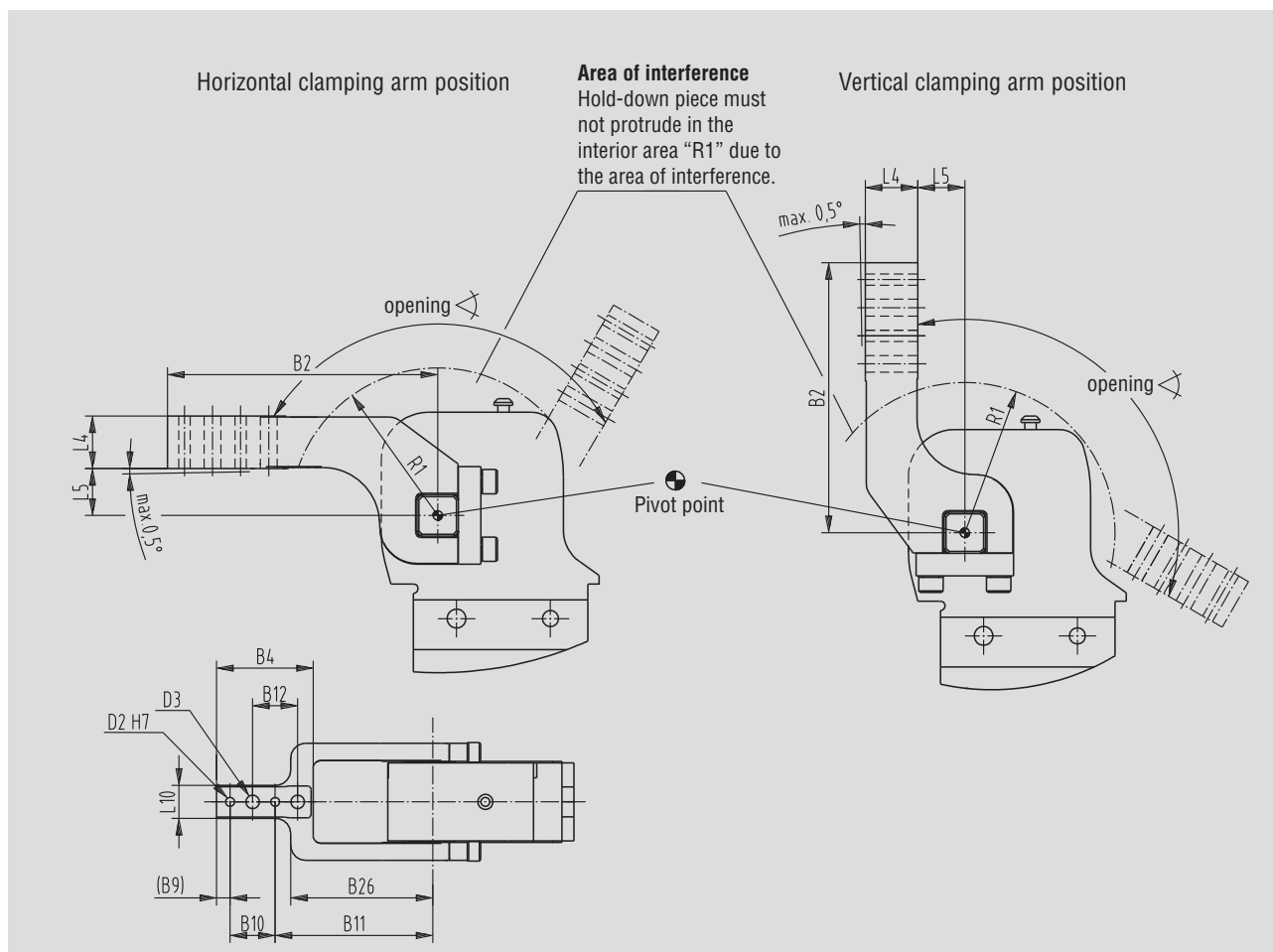


U-type central clamping arm,
horizontal clamping position

Technical data U-type central clamping arms

Model no.	Order no. for set of U-type central clamping arms	Max. opening angle for clamping position		Weight (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	R1
		horizontal	vertical														
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°	1,1	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

U-type central clamping arms for 82M-6



■ Clamping arm variants for 82M-6

Clamping arm design

lateral / left
lateral / right
lateral / both sides

Clamping position

horizontal or vertical
horizontal or vertical
horizontal or vertical

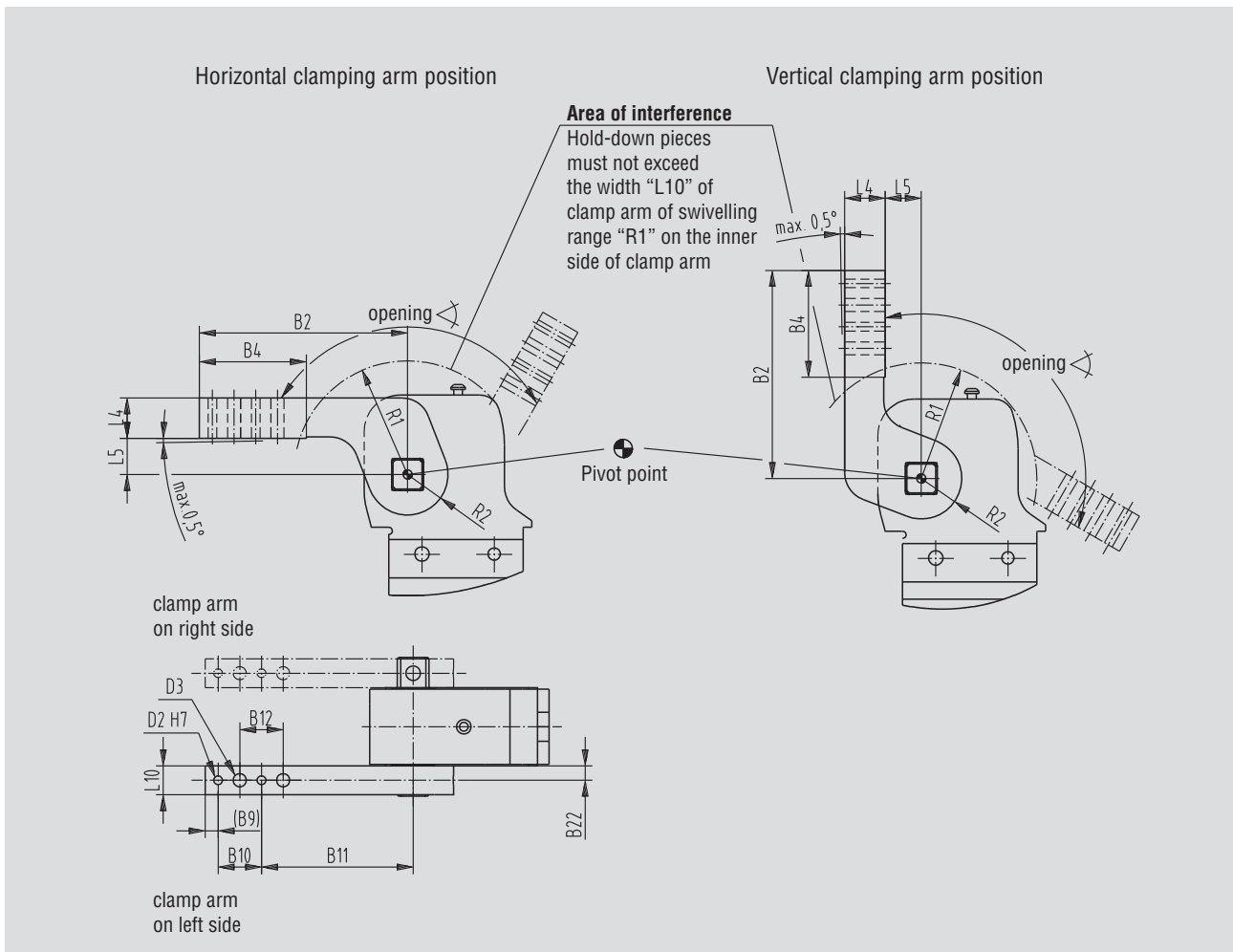


Lateral clamping arm, horizontal clamping position

Technical data (lateral clamping arms)

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

Lateral clamping arms for 82M-6



Clamping arm design

Clamping position

horizontal or vertical

horizontal or vertical



U-type clamping arm, left,
horizontal clamping position

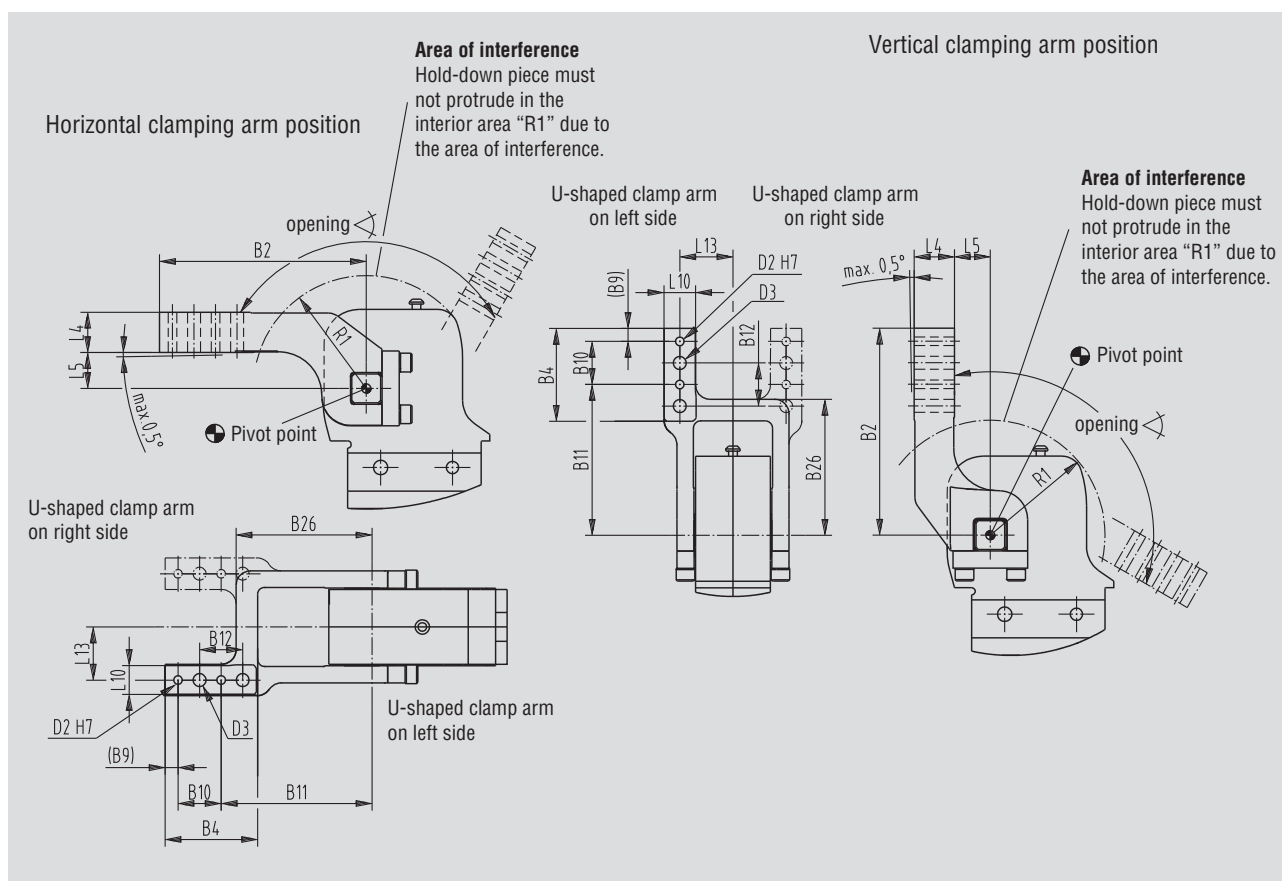


U-type clamping arm, right,
horizontal clamping position

Technical data (U-type clamping arms, left and right)

Order no. for set of U-type clamping arms for 82M-6...50 / ...63		Opening angle for clamping position		Weight (kg)	B2	B4	B9	B10 ±0,02	B11	B12 ±0,2	B26	D2 H7	D3	L4 ±0,1	L5 (-0,5°	L10	L13 ±0,1	R1
left	right	horizontal	vertical									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

Lateral U-type clamping arms for 82M-6



Specification	Order no. for set 82M-6...50.. / 82M-6...63..	Comment
Clamping arms		
Clamping arm variant	Fulcrum distance	Clamping position
U-central	15	horizontal / vertical
U-central	25	horizontal / vertical
U-central	45	horizontal / vertical
U-central	75	horizontal / vertical
U-left	15	horizontal
U-left	25	horizontal
U-left	45	horizontal
U-left	75	horizontal
U-left	15	vertical
U-left	25	vertical
U-left	45	vertical
U-left	75	vertical
U-right	15	horizontal
U-right	25	horizontal
U-right	45	horizontal
U-right	75	horizontal
U-right	15	vertical
U-right	25	vertical
U-right	45	vertical
U-right	75	vertical
lateral right/left	15	horizontal / vertical
lateral right/left	25	horizontal / vertical
lateral right/left	75	horizontal / vertical
lateral both sides		
Modification set for models 82M-623...	8KB-028-1	sets of U-type clamping arms consist of clamping arm, links and screws
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

16.45

Series 82M-6

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

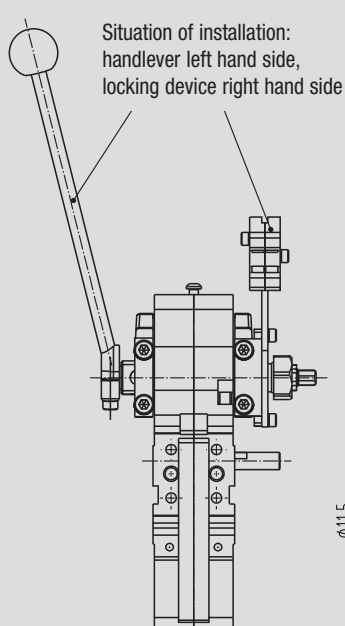


82ZB-039-1
Mounted at U-arm

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

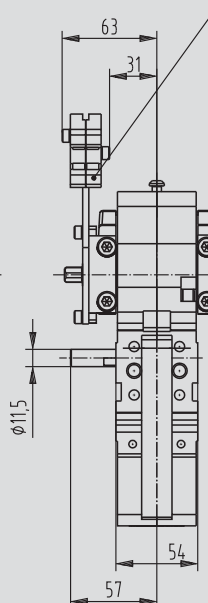
Accessory: Hold open device

Order no.: **82ZB-039-1**

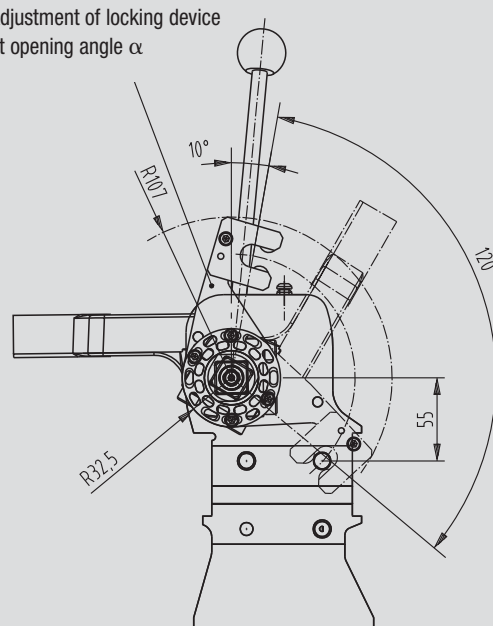


Situation of installation:
handlever left hand side,
locking device right hand side

Situation of installation:
handlever left hand side,
locking device right hand side



Adjustment of locking device
at opening angle α



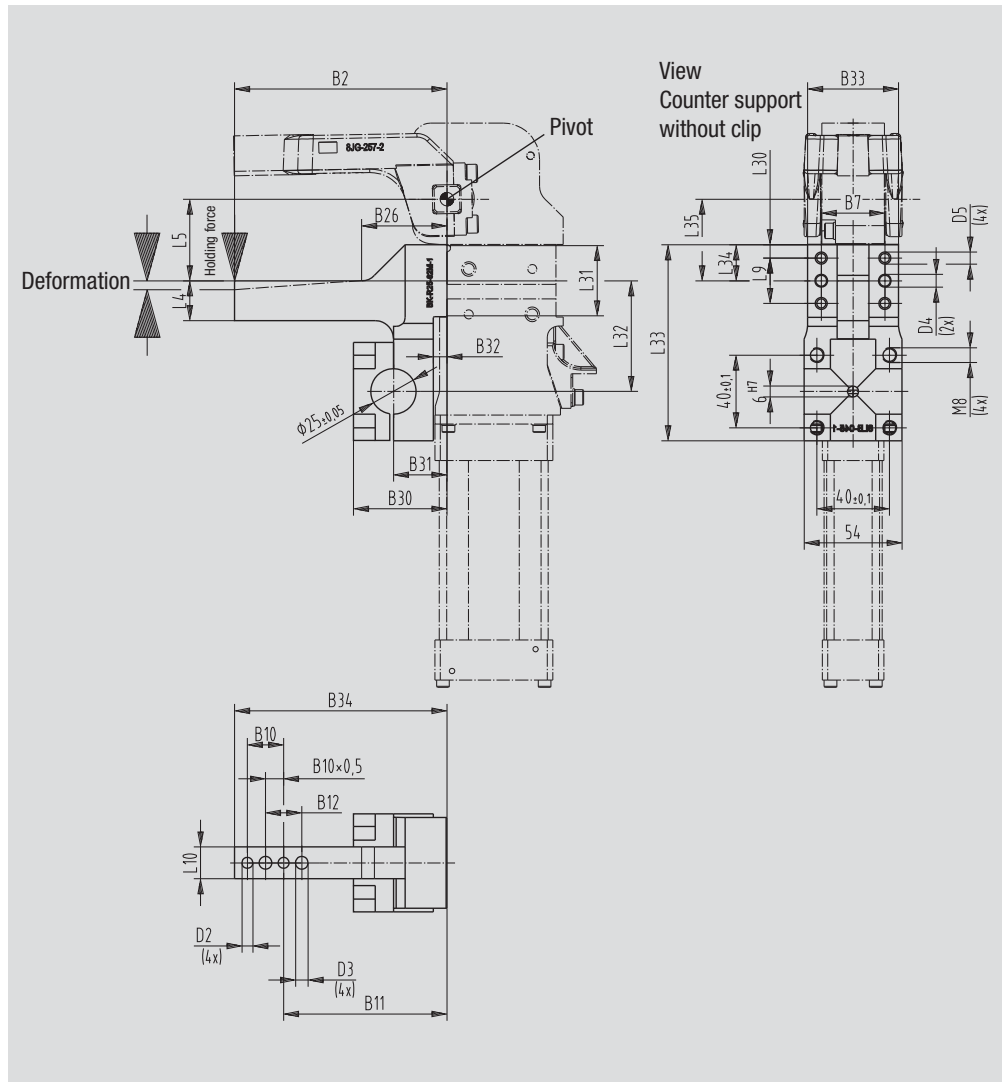
Accessory: Counter-support

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

Application:

Mounting clamps at 25mm round profile endeffector system.

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



BK-R25-82L50

Model no.	B2	B7	B10	B11	B12	B26	B30	B31	B32	B33	B34	D2	D3	D4	D5	L4	L5	L9	L10	L30	L31	L32	L33	L34	L35
		$\pm 0,1$	$\pm 0,02$			~						$\emptyset$	$\emptyset$	$\emptyset$	$\emptyset$	$\pm 0,1$		$\pm 0,1$			$\pm 0,1$			$\pm 0,02$	
		$\pm 0,02$										H7		H7											
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 82M-1

- **Modular automation power clamp, enclosed design, lightweight**

Models: 82M-123040..

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.

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



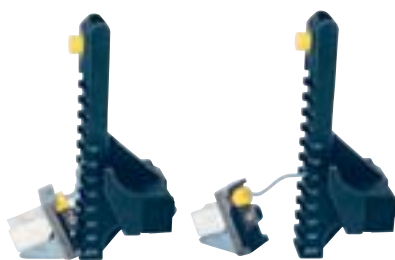
82M-123040C8

Modular automation power clamp

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



120° Opening angle
(delivery condition)



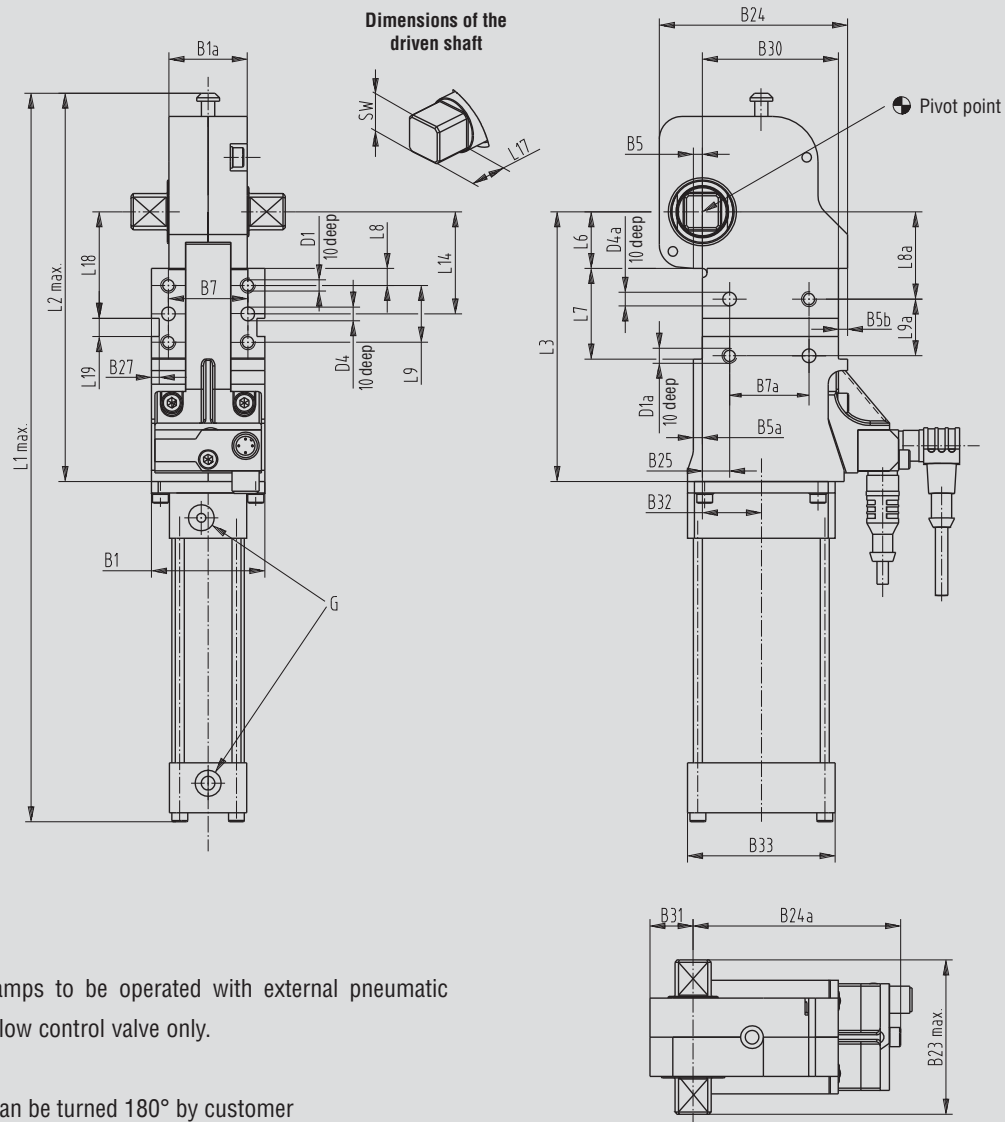
Click-out of bumper



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

Model no.			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									
	Turck	Pepperl & Fuchs								
82M-12304000	82M-123040C8	82M-123040D8	120°	380	120	lateral, U-central	horizontal/vertical	40	1,2	2

82M-1



Technical data

Model no.	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 no.	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 no.	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



■ Clamping arm variants for 82M-1

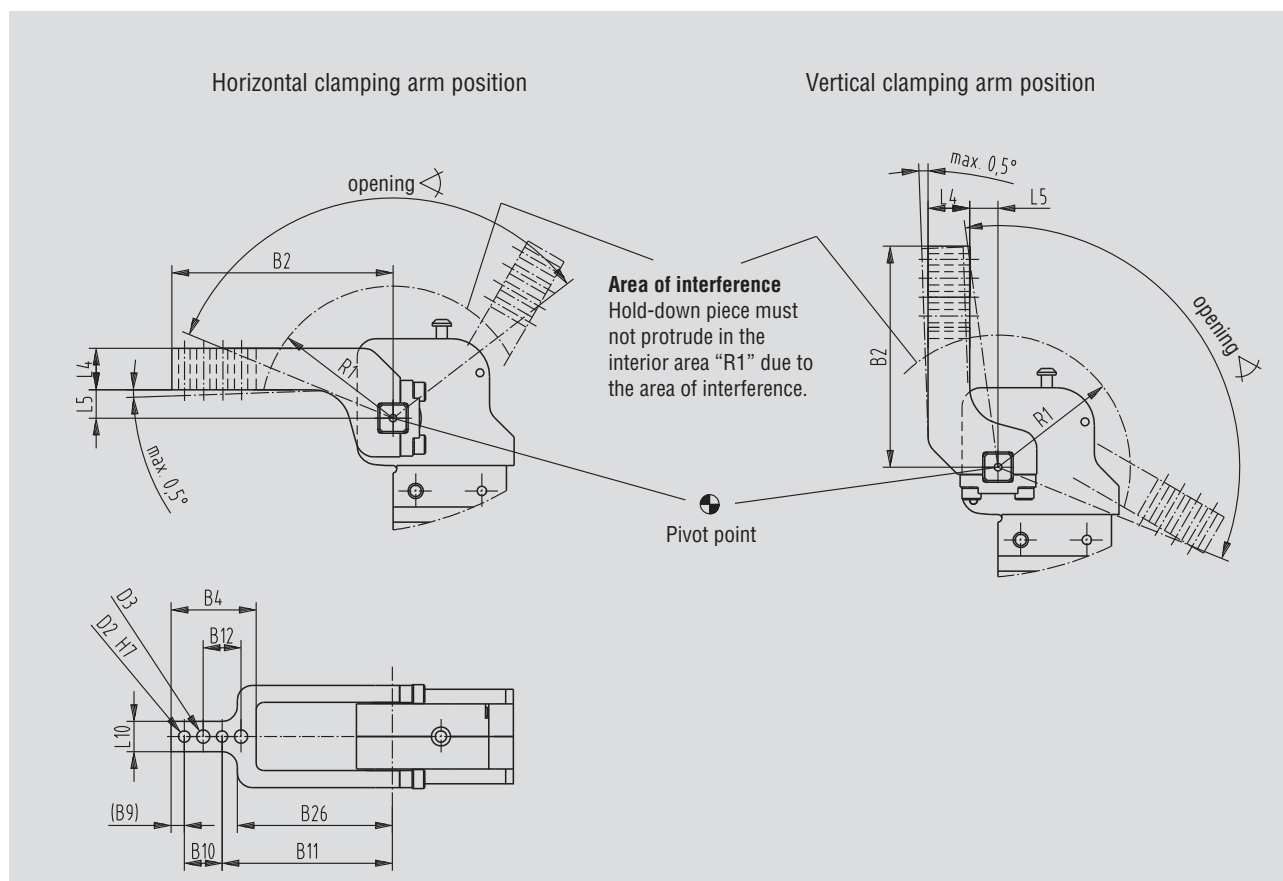
Clamping arm design	Clamping position
U-type central clamping arm	horizontal or vertical

Central clamping arm, horizontal clamping position

Technical data U-type central clamping arm

Model no.	Order no. for set of U-type central clamping arms	Opening angle for clamping position		Weight (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	R1
		horizontal	vertical														
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

U-type central clamping arms for 82M-1



■ Clamping arm variants for 82M-1

Clamping arm design

lateral / left

lateral / right

lateral / both sides

Clamping position

horizontal or vertical

horizontal or vertical

horizontal or vertical



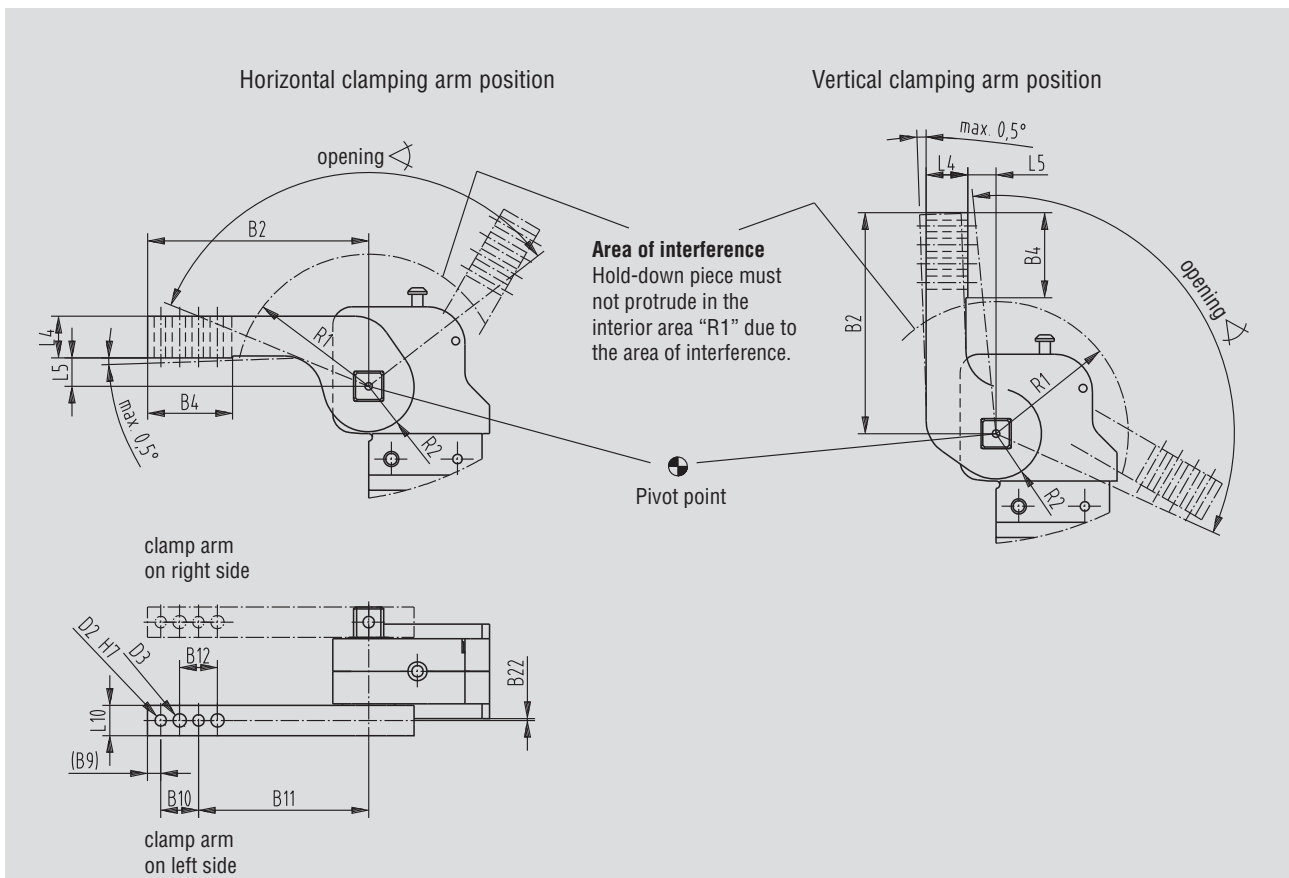
Lateral clamping arm, horizontal clamping position

Technical data U-type clamping arms (lateral clamping arms)

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

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

Lateral clamping arms for 82M-1



Serie 82M-1



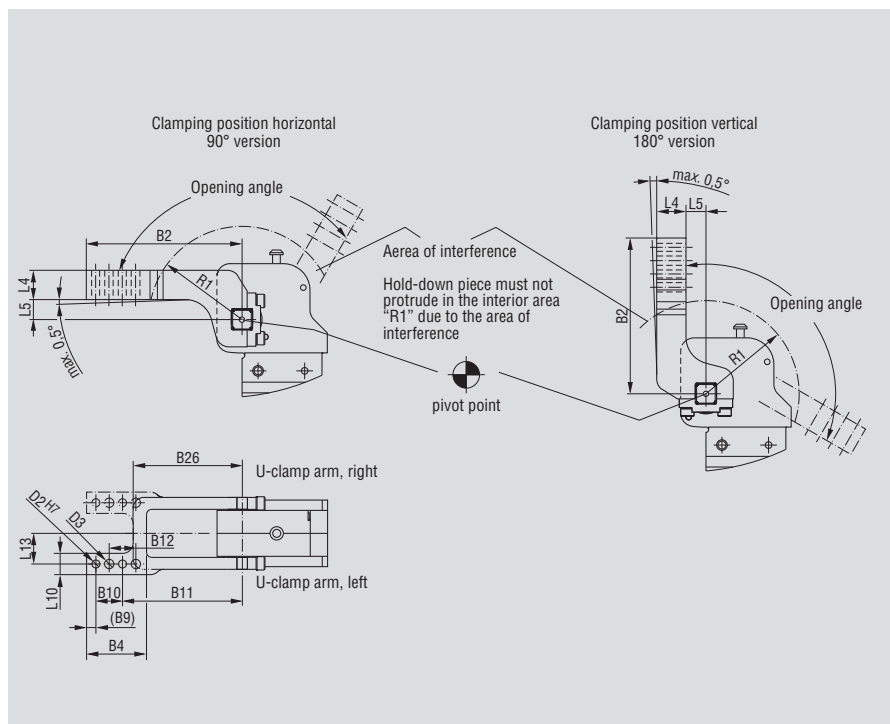
U-type left
clamping position: horizontal



U-type right
clamping position: horizontal

■ Clamp arm-variants

Clamparm design U-type: left, right



Technical data, U-clamp arm lateral

Order No. for set		Max. opening angle		Weight (kg)	B2	B4	B9	B10	B11	B12	B26	D2	D3	L4	L5	L10	L13	R1
U-type clamping arms for 82M-1		in clamping position																
left	right	horizontal	vertical					±0,02		±0,2		H7		±0,1	(-0,5° max.)		±0,1	
8UL401-15-117	8UR401-15-117	120°	120°	0,47	117	45	7	20	90	20	82	6	7	22	15	16	23	70
8UL401-45-107	8UR401-45-107	120°	120°	0,5	107	45	7	20	80	20	69	6	7	22	45	16	23	70
8UL401-00-117	8UR401-00-117	120°	105°	0,43	117	45	7	20	90	20	82	6	7	22	0	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

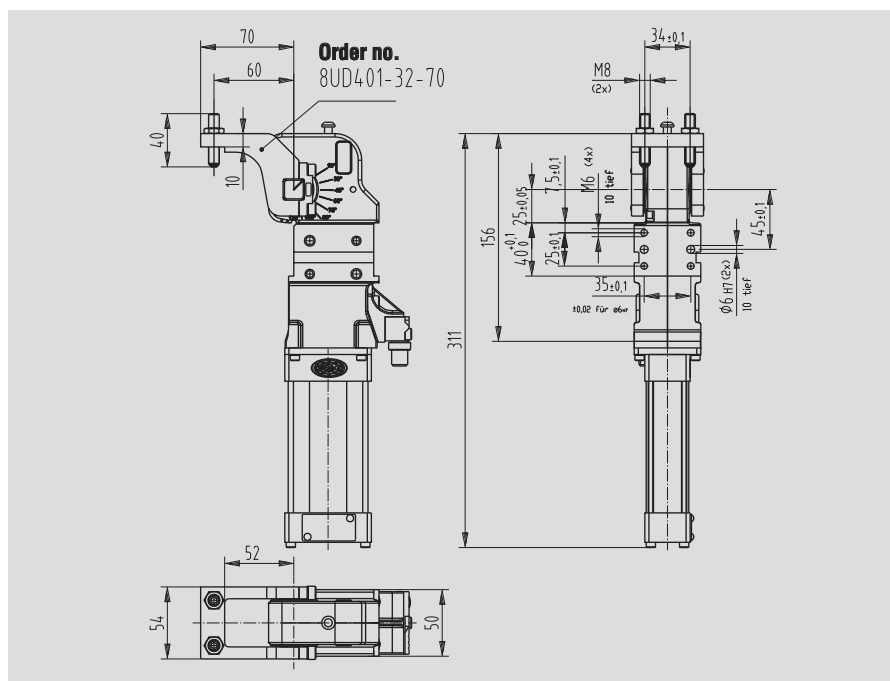
Clamping arm

special design with pressure bolt

Order no. 8UD401-32-70



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



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

00 = without hand lever

40 = pneum. cylinder Ø40



Cylinder

00 = without sensing system

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

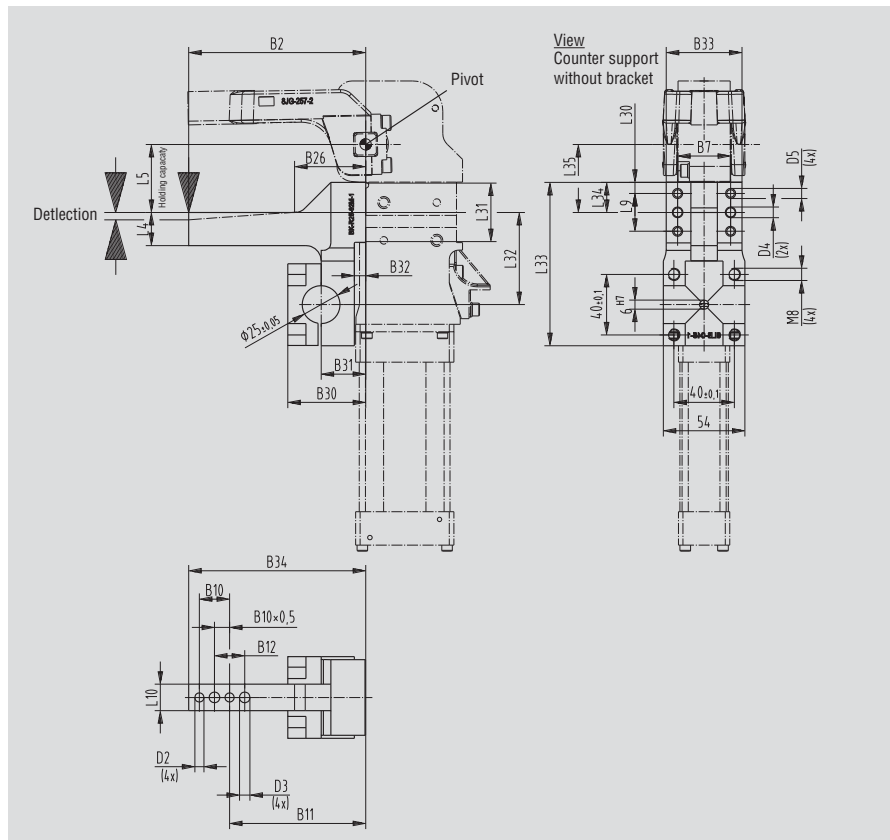


Sensing system

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



Accessory: Counter Support



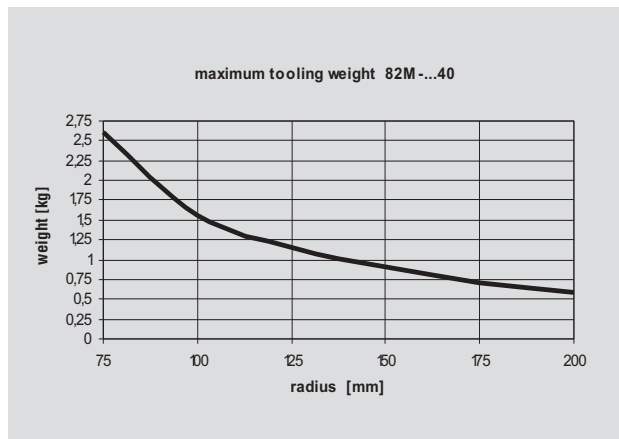
BK-R25-82M-1

Model no.	B2	B7	B10	B11	B12	B26	B30	B31	B32	B33	B34	D2	D3	D4	D5	L4	L5	L9	L10	L30	L31	L32	L33	L34	L35
		±0,1	±0,02			~						Ø	Ø	Ø	Ø	±0,1		±0,1			±0,1			±0,02	
		±0,02										H7		H7											
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

Concept guideline

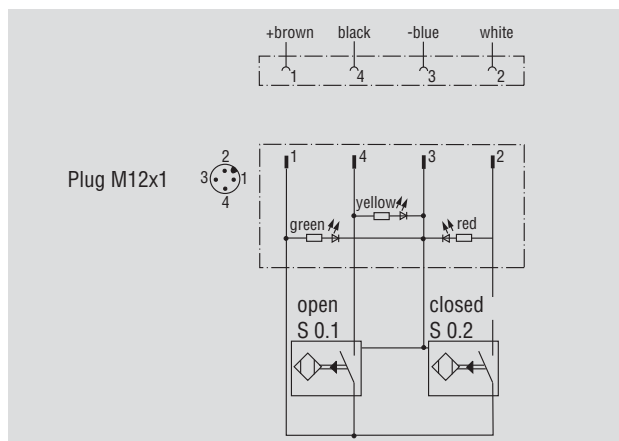
(with reference to axis of clamping arm rotation)



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

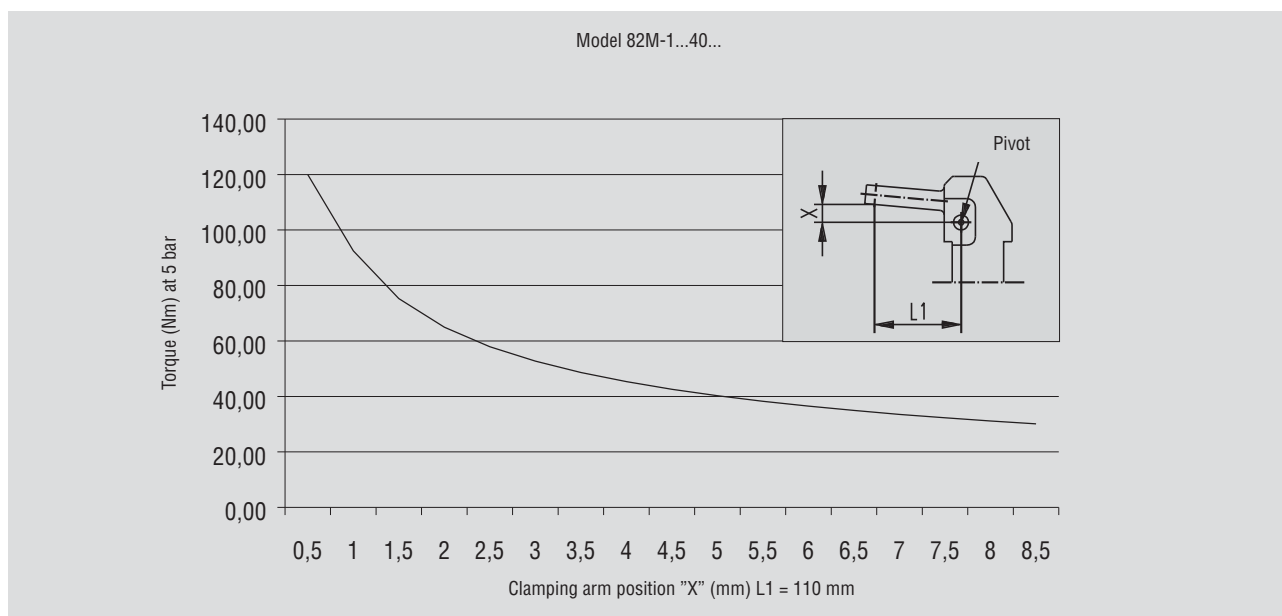


Inductive design:

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

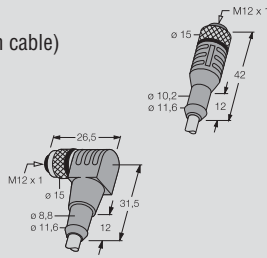
Pin assignment

Diagram of clamping force (at 5 bar)



Accessories

Specification			Order no. for set	Comment
			82M-1..040..	
Clamping arms				
Clamping arm variant	Fulcrum distance	Clamping position		
U-central	0	horizontal / vertical	8UM401-00-117	sets of U-type clamping arms consist of clamping arm, links and screws
	15		8UM401-15-117	
	25		8UM401-25-117	
	32		8UD401-32-70	
	45		8UM401-45-107	
lateral right/left	15	horizontal / vertical	8S401-15-117	sets of lateral clamping arms consist of clamping arm & set screws
lateral both sides	15	horizontal / vertical	8S401-15-117	you need 2 sets of clamping arms
U-left	0	horizontal / vertical	8UL401-00-117	sets of U-type clamping arms consist of clamping arm, links and screws
	15		8UL401-15-117	
	25		8UL401-25-117	
	45		8UL401-45-107	
U-right	0	horizontal / vertical	8UR401-00-117	sets of U-type clamping arms consist of clamping arm, links and screws
	15		8UR401-15-117	
	25		8UR401-25-117	
	45		8UR401-45-107	
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	Details: See page 16.53



Shim for clamping arm	Model no.	A1	A2	D2	D3	B9	B10	B12	L10
	82ZB-SH4001		0,1						
	82ZB-SH4002		0,2						
	82ZB-SH4005		0,5						
	82ZB-SH4010	42	1,0	6,5	7	6	20	20	12
	82ZB-SH4020		2,0						
	82ZB-SH4050		5,0						

Spare parts

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	

Series 82G80-4

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

Application:

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



Model **82G80-423C800B**

Automation power clamp, heavy-duty design

Key areas of application:

Automotive manufacturing, jig and general mechanical engineering.

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

Model no. w/ ind. sensing Connector M12x1, fixed Turck	Clamping position	Standard opening angle	Driven shaft for clamping arm variants	Max. holding torque [Nm]	Clamping torque at 5 bar [Nm]	Cylinder Ø	Air consumption per double stroke at 5 bar [dm³]	Weight ~ [kg]
82G80-423C800B	horizontal	135°	lateral-both sides lateral-left lateral-right or U-central	2200	1100	80	5,8	14
82G80-463C800B	vertical	96°						

Diagram of clamping force (at 5 bar)

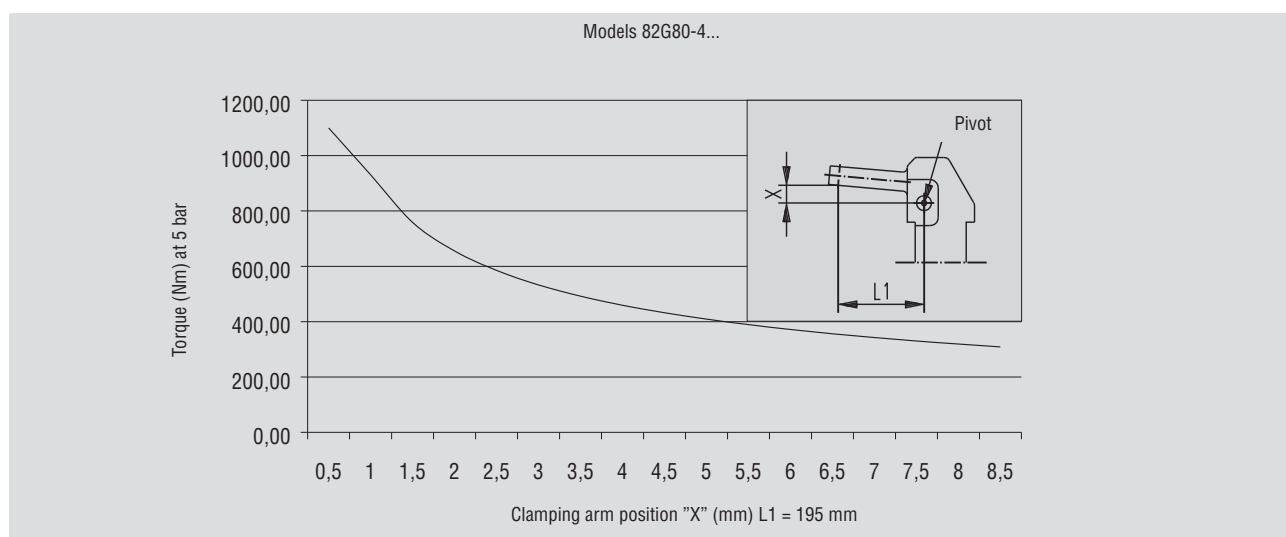


Fig. 10

End position control box

Pivot point

SW28h9

15 $\pm$ 0.1

70 $\pm$ 0.1

12.8

65 $\pm$ 0.1

14

15 $\pm$ 0.1

90 $\pm$ 0.1

50 $\pm$ 0.05

166

80 $\pm$ 0.1

50 $\pm$ 0.1

15 deep

ϕ 10H7

M10

15

M12

15 deep

134 $\pm$ 0.1

8

15

75 $\pm$ 0.1

$\pm$ 0.02 f. ϕ 12H7

159.2

66

138



Series **82G80-4**

■ Clamping arm variants for 82G80-4

Clamping arm design

U-type central

Clamping position

horizontal or vertical



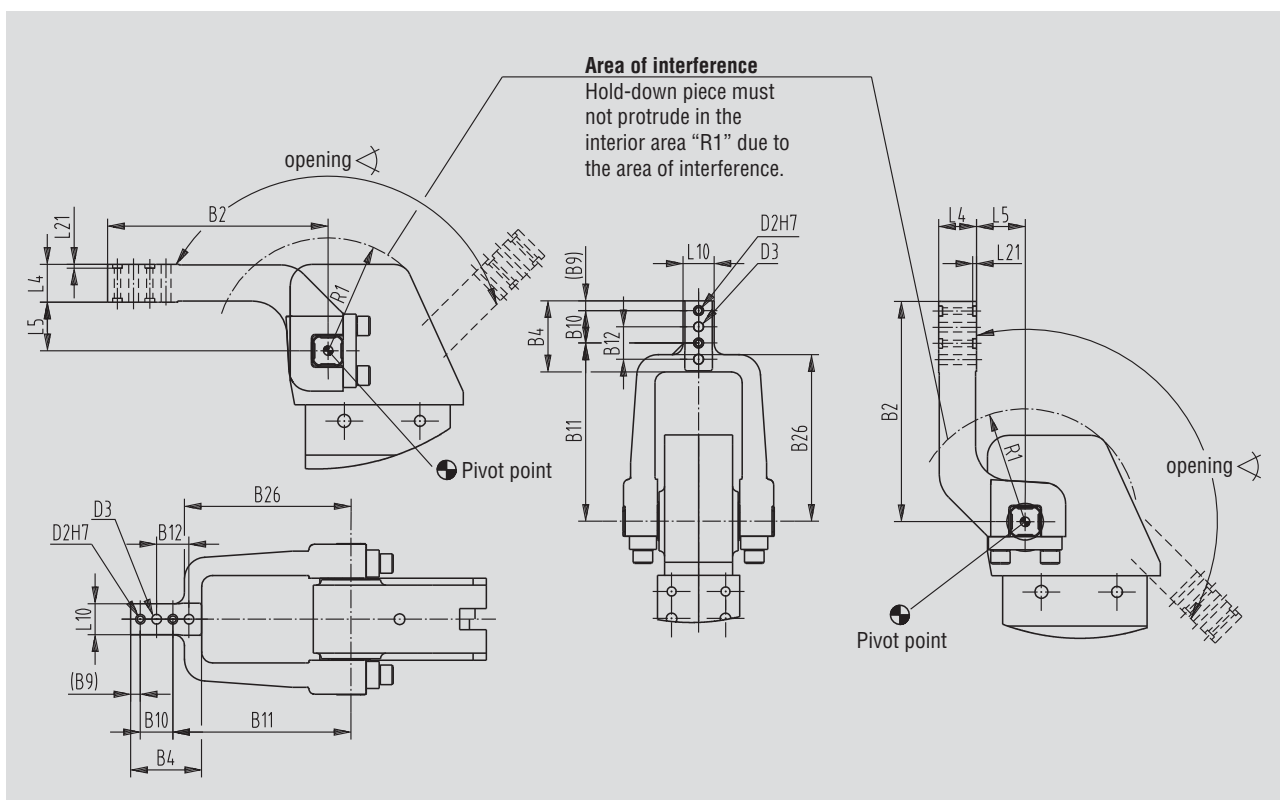
U-type central clamping arm,
horizontal clamping position

Technical data U-type central clamping arms

Model no.	Order no. for set of U-type central clamping arm	Opening angle for clamping position		Weight [kg] ~	B2	B3 ±0,1	B4	B9	B10 ±0,02	B11 ±0,1
		horizontal	vertical							
82G80-4..C800B	8UM801-45-204	135°	96°	3,6	204	21	65,5	9	30	165
	8JG-169-2-01	135°	96°	3,35	179	21	65,8	9	30	140

Model no.	Order no. for set of U-type central clamping arm	B12 ±0,2	B26	D2 H7 Ø	D3 Ø	L4 ±0,1	L5 (-0,5°max.)	L6 ±0,05	L10	L14 ±0,1	R1
82G80-4..C800B	8UM801-45-204	30	154	6	9	35	45	50	25	90	108
	8JG-169-2-01	30	129	6	9	35	20	50	25	90	108

U-type central clamping arms for 82G80-4



■ Clamping arm variants for 82G80-4

Clamping arm design

lateral / left
lateral / right
lateral / both sides

Clamping position

horizontal or vertical
horizontal or vertical
horizontal or vertical



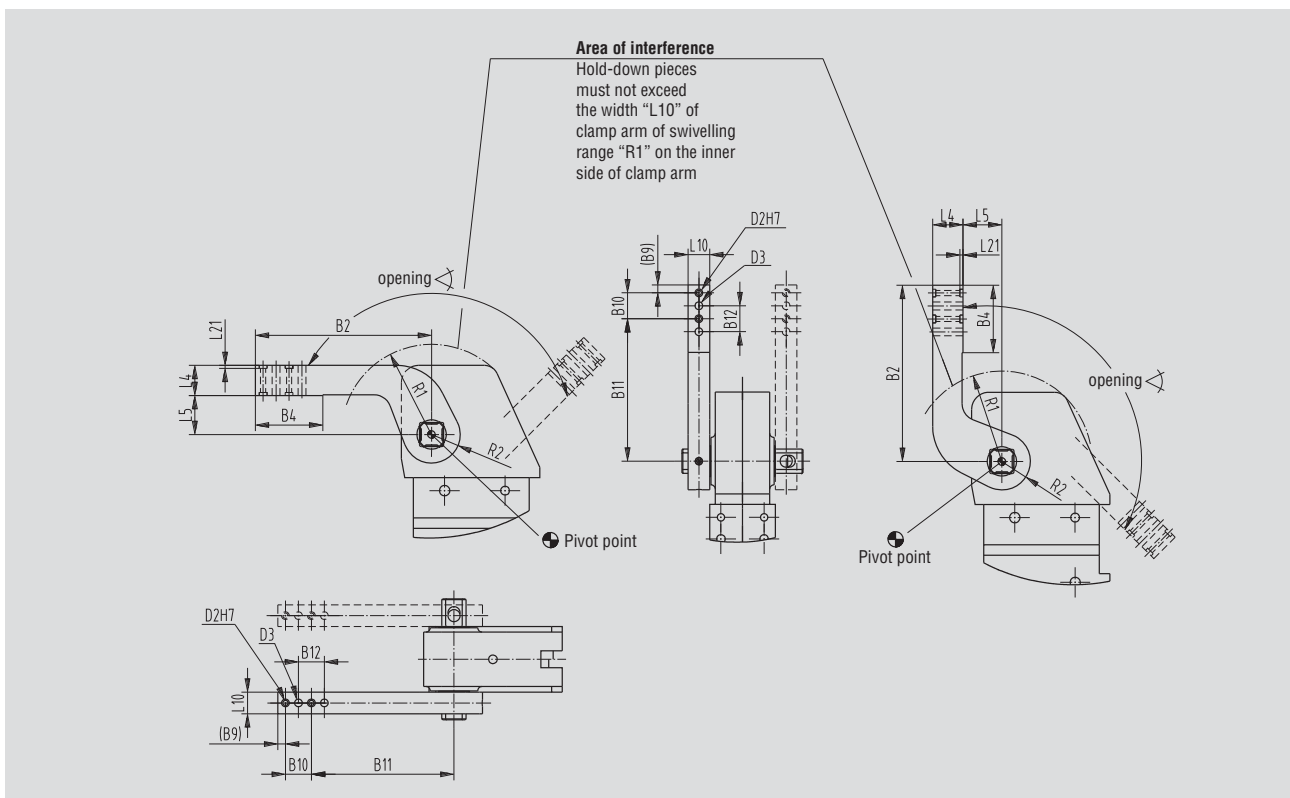
Lateral clamping arm, left, horizontal clamping position

Technical data lateral clamping arms

Model no.	Order no. for set of lateral clamping arm	Opening angle for clamping position		Weight [kg] ~	B2	B3 ±0,1	B4	B9	B10 ±0,02	B11 ±0,1
		horizontal	vertical							
82G80-4..C800B	8S801-45-204	135°	105°	2,2	204	21	78	9	30	165
	8JG-1179-1-01	135°	105°	2,1	179	21	78	9	30	140

Model no.	Order no. for set of lateral clamping arm	B12 ±0,2	B22	D2 H7 Ø	D3 Ø	L4 ±0,1	L5 (-0,5°max.)	L6 ±0,05	L10	L14	R1 ~	R2
82G80-4..C800B	8S801-45-204	30	12,5	6	9	35	45	50	25	90	108	33
	8JG-1179-1-01	30	15	6	9	35	20	50	30	90	108	33

U-type central clamping arms for 82G80-4

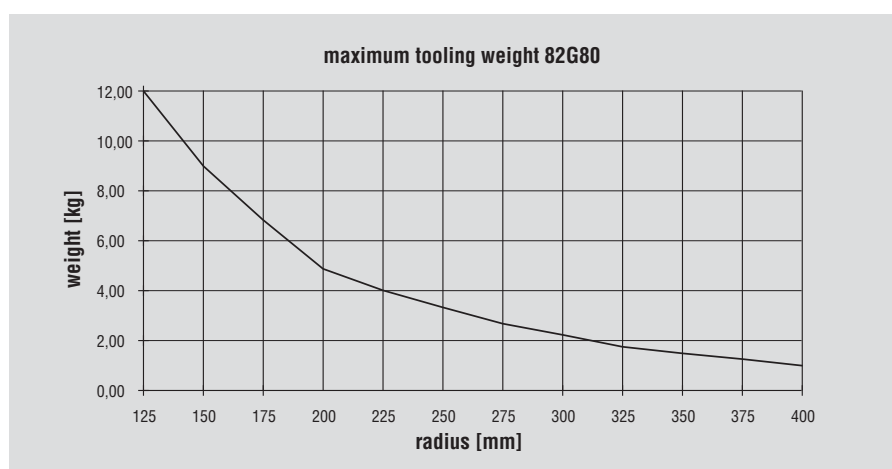


Series 82G80-4

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

	82G80-4	23	C8	0	0	B
Base models						
Drive shaft variants	23, 63					
Inductive sensing variants						
Without hand lever						
Opening angle limitation for 423	0=Standard, 1=120°, 2=105°, 3=90°, 4=75°, 5=60°, 6=45°, 7=30°					
Opening angle limitation for 463	0=Standard, 3=90°, 4=75°, 5=60°, 6=45°, 7=30°					
Base model without clamping arm						

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



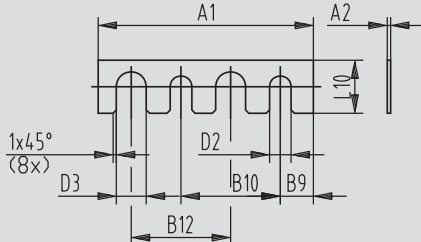
All details apply under an air pressure of 6 bar and opening and closure times of 1 second each.

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	8EA-026-2
Connector plug M12x1, fixed (Turck)	

Accessories

Specification				Order no. for set 82G80-4..C800B	Comment
Clamping arms					
Clamping arm variant	Clamping arm length	Fulcrum distance	Clamping position		
U-central	179	20	horizontal / vertical	8JG-169-2-01	sets of U-type clamping arms consist of clamping arm, links and screws
U-central	204	45	horizontal / vertical	8UM 801-45-204	
lateral right/left	179	20	horizontal / vertical	8JG-1179-1-01	sets of lateral clamping arms consist of clamping arm & 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)					
connector socket M12x1, straight, 5-pin				8EL-002-1	
connector socket M12x1, angular, 4-pin				8EL-003-1	
Opening angle limitation					
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 	Model no.	A1	A2	D2	D3	B9	B10	B12	L10
	82ZB-SH5001		0,1						
	82ZB-SH5002		0,2						
	82ZB-SH5005	65	0,5	6,5	9	10	30	30	16
	82ZB-SH5010		1,0						
	82ZB-SH5020		2,0						
	82ZB-SH5050		5,0						

Series 82A5-2

- Cam type clamp, enclosed design

Applications

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



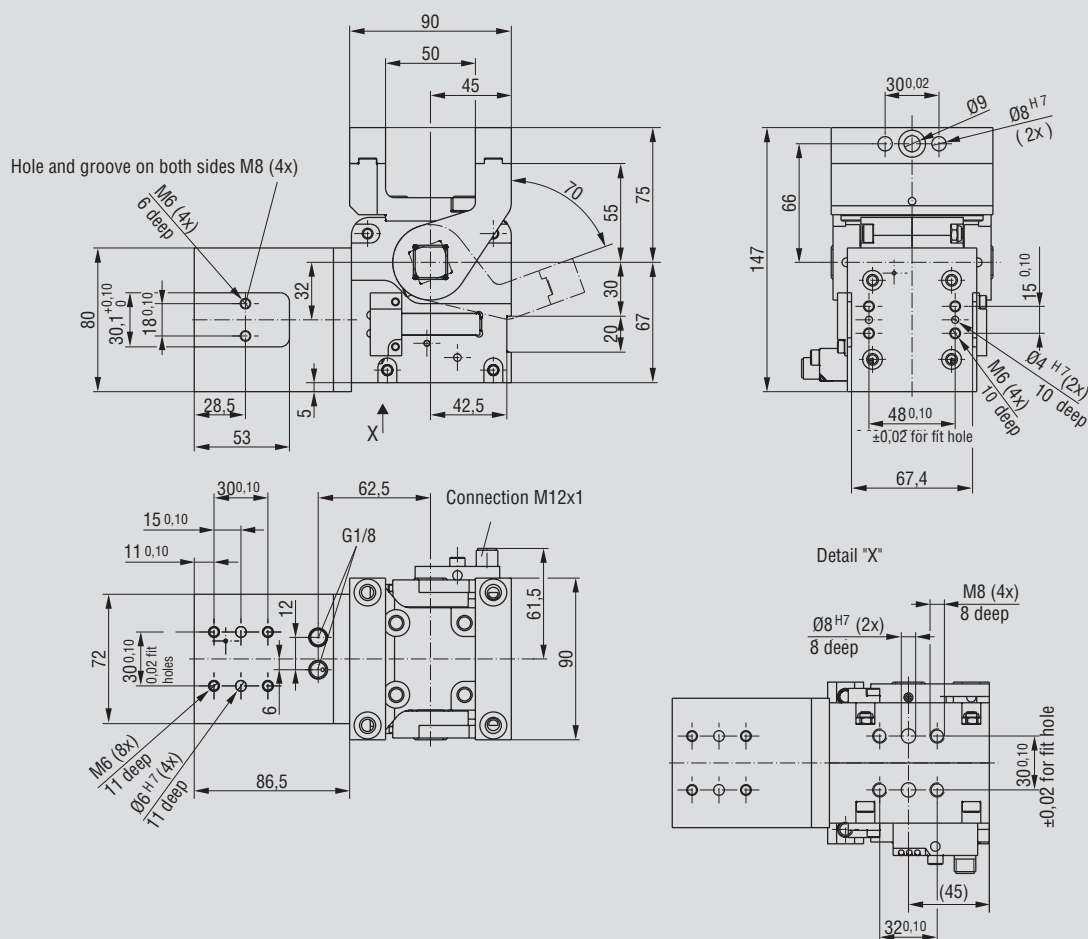
Model 82A5-200C8000

Key areas of application

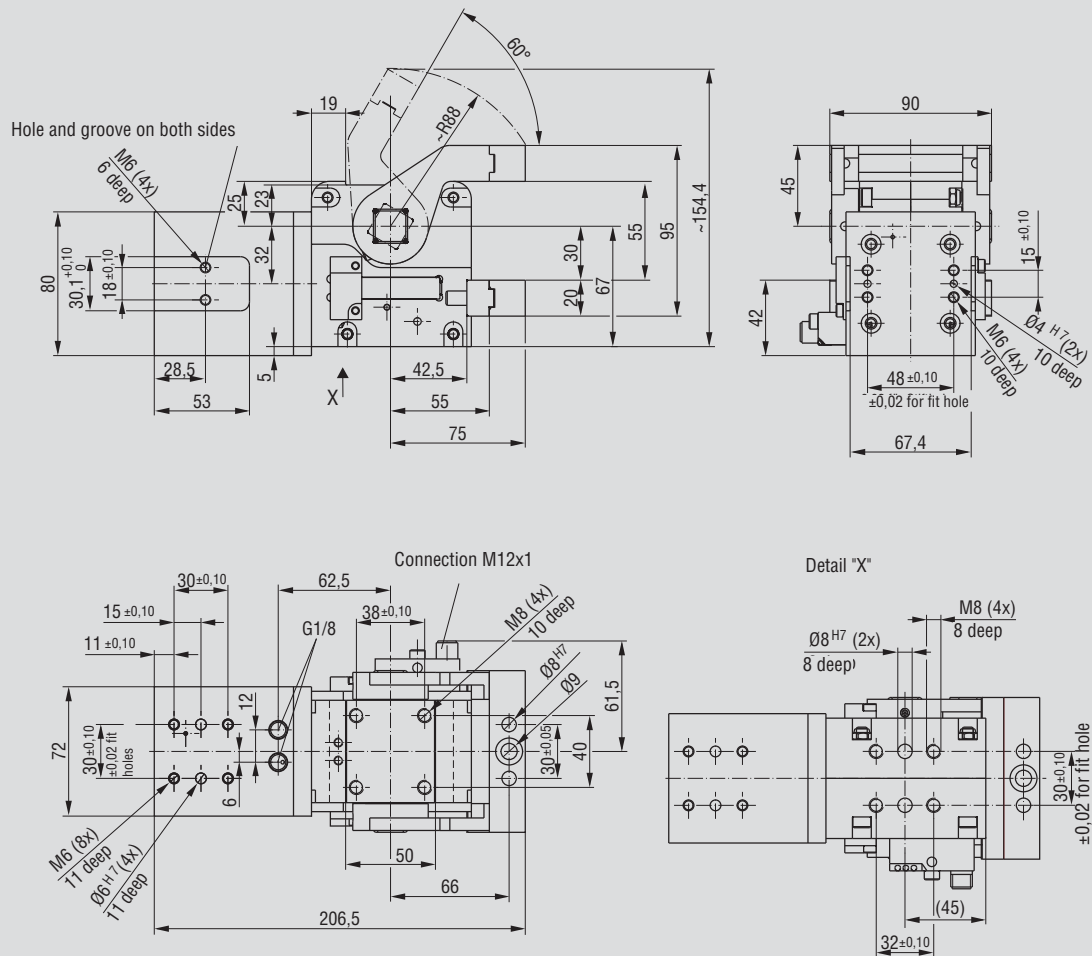
Automotive manufacturing, Laser welding jigs

Features

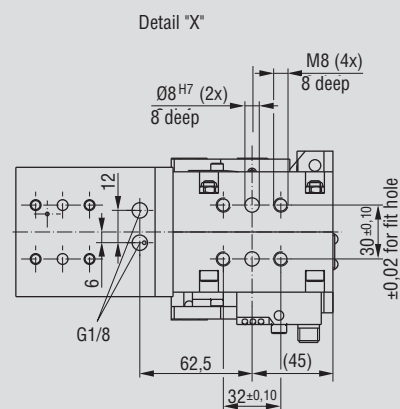
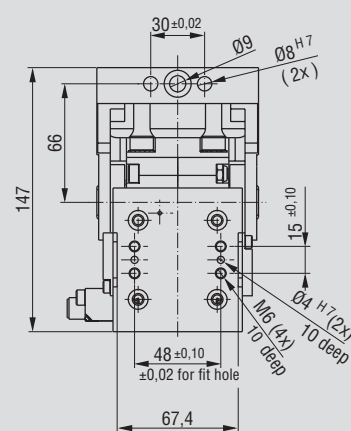
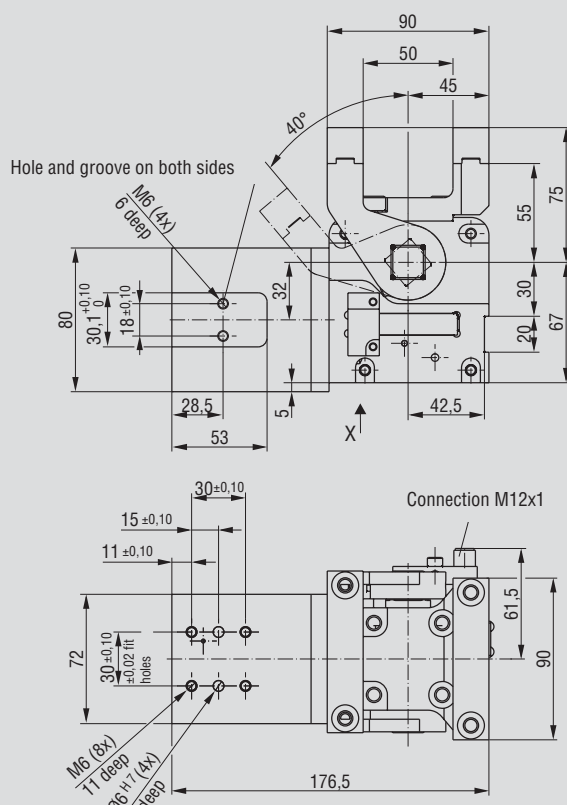
- Dirty resistant
- Compact enclosed design
- High holding torques
- Long life cycle
- Different clamping positions possible
- Cam-type mechanism
- Inductive sensing module with LED display
- Clamping force available over a wider range in comparison to toggle lock mechanism



Model no.	Clamping torque at 5 bar and clamp arm 90° [Nm]	Operating pressure max. [bar]	Piston Ø [mm]	Weight ~ [kg]	Air consumption per double stroke at 5 bar [l]	Comments
82A5-200C8000	47	6	50	4,4	0,86	Sensors left
82A5-200C0800	47	6	50	4,4	0,86	Sensors right



Model no.	Clamping torque at 5 bar and clamp arm 90° [Nm]	Operating pressure max. [bar]	Piston Ø [mm]	Weight ~ [kg]	Air consumption per double stroke at 5 bar [l]	Comments
82A5-200E8000	47	6	50	4,4	0,86	Sensors left
82A5-200E0800	47	6	50	4,4	0,86	Sensors right

Series **82A5-2**Model **82A5-200G8000**

Model no.	Clamping torque at 5 bar and clamp arm 90° [Nm]	Operating pressure max. [bar]	Piston Ø [mm]	Weight ~ [kg]	Air consumption per double stroke at 5 bar [l]	Comments
82A5-200G8000	47	6	50	4,4	0,86	Sensors left
82A5-200G0800	47	6	50	4,4	0,86	Sensors right

Example Order no.: 82A5 - 2 00C 0 8 0 0

82A5-2

Base model

00C = 90° Clamp arms with jaw holding fixtures

00E = 180° Clamp arms with jaw holding fixtures

00G = 270° Clamp arms with jaw holding fixtures

Clamp arms and motion directions

0 = cover, without sensor
8AD-051-1

8 = with sensor
8EA-061-1 (for G, E)
8EA-068-1 (for C)

Left

0 = cover, without sensor
8AD-051-1

8 = with sensor
8EA-061-1 (for G, E)
8EA-068-1 (for C)

Right

0 = without Adapter

Adapter

0 = Total opening angle

Attention please!
Standard opening angles of the versions are different.
See drawings

Opening angle

Sensing system

Clamping forces related to clamp arm length at 5 bar operating pressure

The graph plots Clamping force [N] on the y-axis (0,00 to 1200,00) against Position of clamp arm (degree) on the x-axis (86° to 94°). Five data series are shown for different arm lengths:

- Arm length 66 (diamonds)
- Arm length 100 (squares)
- Arm length 120 (triangles)
- Arm length 150 (squares)
- Arm length 200 (circles)

All series show a positive correlation between arm position and clamping force. The 66mm arm length consistently provides the highest clamping force, while the 200mm arm length provides the lowest.

Position of clamp arm (degree)	Arm length 66 [N]	Arm length 100 [N]	Arm length 120 [N]	Arm length 150 [N]	Arm length 200 [N]
86°	540	350	290	240	180
87°	570	380	310	250	190
88°	620	410	330	270	200
89°	660	440	360	290	210
90°	710	470	390	310	220
91°	760	510	420	330	240
92°	870	570	480	380	280
93°	960	640	530	420	310
94°	1010	670	560	450	330

Connector cable (1 connector socket incl. 5 m cable)	Model no.
Connector socket M12x1 straight socket, 5 pins Connector socket M12x1 elbow socket, 4 pins	8EL-002-1 8EL-003-1

Specification	Model no.	Comment
Sensing kit	8EA-061-1	for model 82A5-200G8000 for model 82A5-200E8000
	8EA-068-1	for model 82A5-200C8000
Cylinder	8PW-051-1	
Seal-kit	8PW-051-1-00	