

BALL JOINTS

SERIES KG

▶ PRODUCT ADVANTAGES



▶ Lockable displacement position

Be flexible in your application, customise the handling to your workpiece and lock the displacement position with process reliability

▶ Large locating flange

The large mounting surface simplifies your design and allows secure attachment of add-on components

▶ Steel design

The highest force and torque measurement enables flexible for maximum dynamics

▶ THE BEST PRODUCT FOR YOUR APPLICATION



▶ Our products love the challenge!

Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:

Find the best product for your specific use:

www.zimmer-group.com

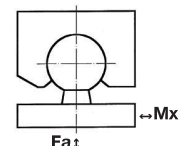


▶ PRODUCT SPECIFICATIONS



▶ Forces and moments

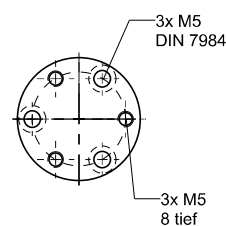
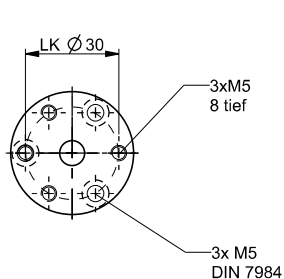
Shows static forces and torques which may impact on the ball joint



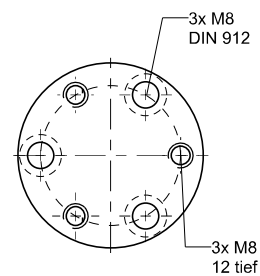
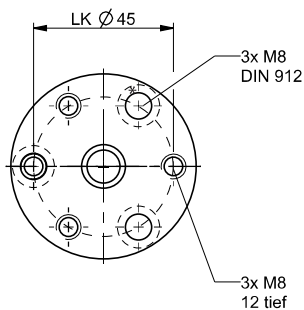
▶ Technical Data

Order no.	KG40	KG40ST	KG60	KG60ST	KG80	KG80ST
Swivel angle [°]	30	30	30	30	30	30
Mx [Nm]	18	18	55	55	124	124
Fa [N]	7500	18000	15000	45000	28000	70000
Weight [kg]	0.1	0.3	0.3	0.9	0.8	2.3

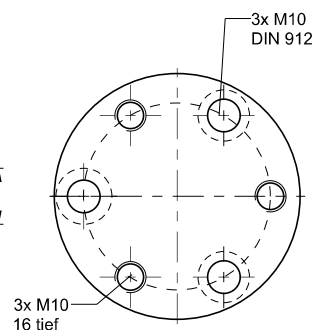
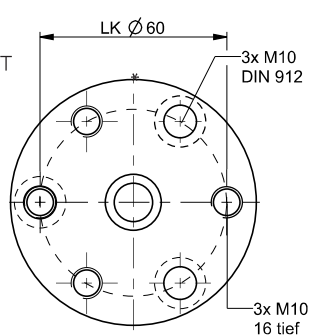
KG40
KG40ST



KG60
KG60ST



KG80
KG80ST



ADJUSTMENT JAWS

THE SERIES AT A GLANCE



▶ ADJUSTMENT JAWS



Series EB5000

840

ADJUSTMENT JAWS

SERIES EB5000

▶ PRODUCT ADVANTAGES



▶ **Easy and fast**

Easy gripper finger adjustment to fit various workpieces saves time and money

▶ **Reproducible and durable**

The numbering of the detent notches allows you to easily configure the gripper finger length and FEM-calculated adjustment jaws guarantee maximum process reliability

- ▶ **You can install one and the same adjustment jaw within the same 5000 gripper range on various gripper types of identical size and combine it with the respective accessory parts. This increases flexibility and reduces the diversity of parts in equal measure, which in turn reduces the storage costs**

▶ THE BEST PRODUCT FOR YOUR APPLICATION



▶ **Our products love the challenge!**

Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:

Find the best product for your specific use:

www.zimmer-group.com

▶ SETTING THE GRIPPER FINGER POSITION IN UNDER 10 SECONDS



Unlocking



Adjusting



Locking



* Pressure pieces are screwed on and can be removed to minimize interference contours

▶ SERIES CHARACTERISTICS



▶ Technical Information

All information just a click away at: www.zimmer-group.com

Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.

Quick, clear and always up-to-date.



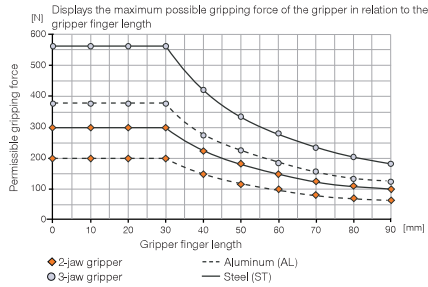
ADJUSTMENT JAWS

INSTALLATION SIZE EB5003

▶ PRODUCT SPECIFICATIONS

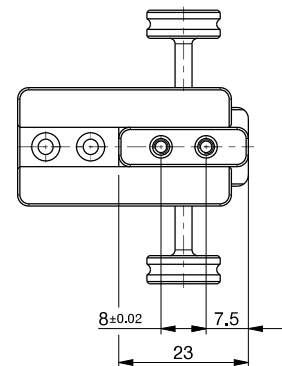
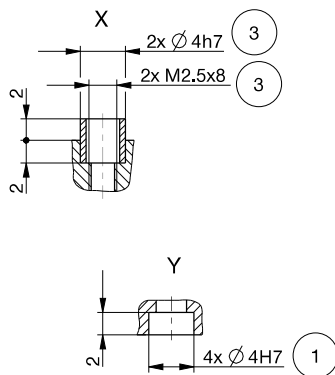
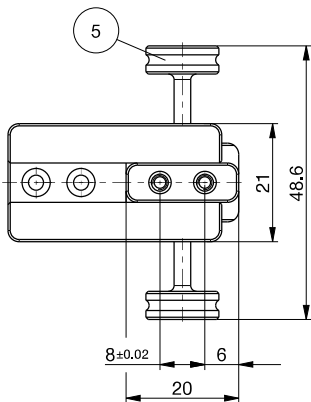
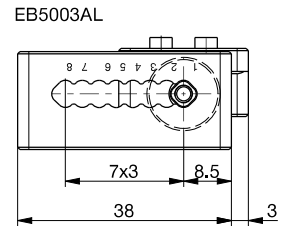
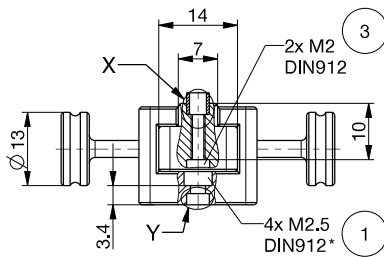
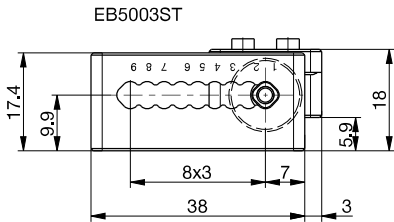
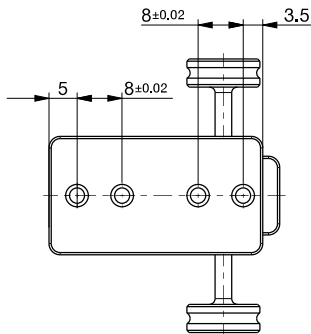


▶ Gripping force diagram



▶ Technical data

Order no.	EB5003AL	EB5003ST
compatible with installation size	GPP5003 / GPD5003	GPP5003 / GPD5003
Max. adjustment range [mm]	21	24
Spacing [mm]	7x3	8x3
Max. weight per adjustment jaw [kg]	0,04	0,09



- ① Fastening the adjustment jaw
- ③ Fixing for gripper finger
- ⑤ Adjustment mechanism (removable)

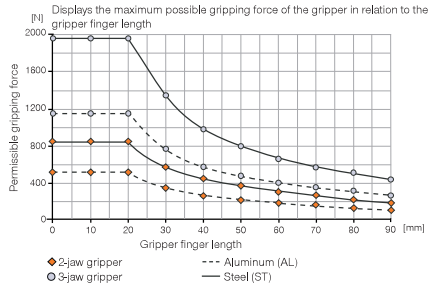
ADJUSTMENT JAWS

INSTALLATION SIZE EB5004

▶ PRODUCT SPECIFICATIONS



▶ Gripping force diagram



▶ Technical data

Order no.	EB5004AL	EB5004ST
compatible with installation size	GPP5004 / GPD5004	GPP5004 / GPD5004
Max. adjustment range [mm]	28	32
Spacing [mm]	7x4	8x4
Max. weight per adjustment jaw [kg]	0,06	0,13

① Fastening the adjustment jaw
 ③ Fixing for gripper finger
 ⑤ Adjustment mechanism (removable)

EB5004ST Dimensions:
 Side view: 12±0.02, 4, 6, 12±0.02
 Front view: 18.4, 10.1, 8x4, 50, 9, 19, 6.1, 3

EB5004AL Dimensions:
 Front view: 7x4, 50, 11, 3

Detail Views:
 X: 18, 9, 2x M2.5 DIN7984 (3), 10.4, 4, Y, 4x M3 DIN7984 (1)
 Y: 2, 2, 2x Ø5h7 (3), 2x M3x8 (3)
 X: 2, 2, 2x Ø5h7 (3), 2x M3x8 (3)
 Y: 2, 2, 4x Ø5H7 (1)

EB5004ST Additional Dimensions:
 5, 12±0.02, 6, 26, 53, 24, 12±0.02, 6

EB5004AL Additional Dimensions:
 12±0.02, 8, 28

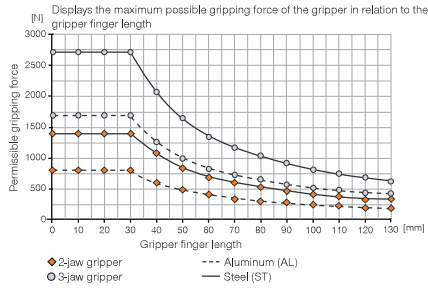
ADJUSTMENT JAWS

INSTALLATION SIZE EB5006

▶ PRODUCT SPECIFICATIONS

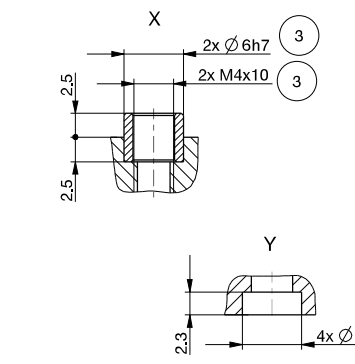
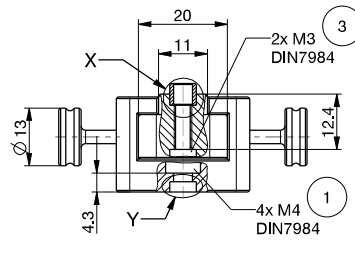
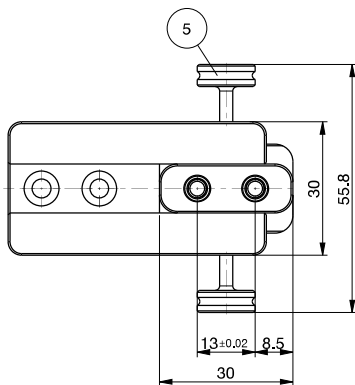
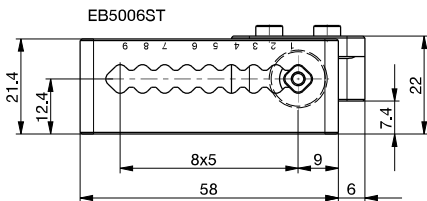
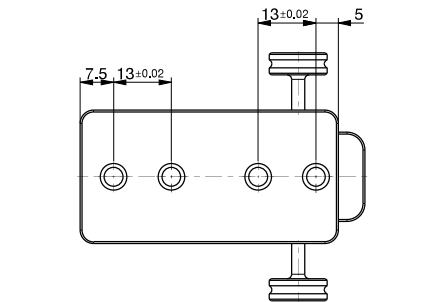


▶ Gripping force diagram

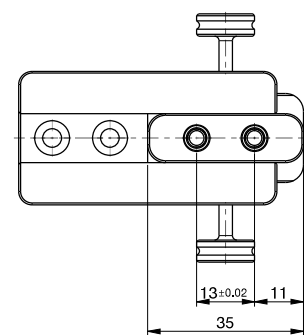
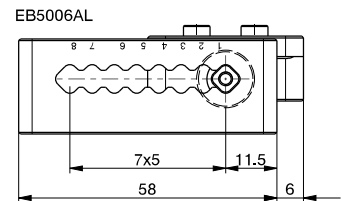


▶ Technical data

Order no.	EB5006AL	EB5006ST
compatible with installation size	GPP5006 / GEP5006 / GPD5006 / GED5006	GPP5006 / GEP5006 / GPD5006 / GED5006
Max. adjustment range [mm]	35	40
Spacing [mm]	7x5	8x5
Max. weight per adjustment jaw [kg]	0.10	0.20



- ① Fastening the adjustment jaw
- ③ Fixing for gripper finger
- ⑤ Adjustment mechanism (removable)



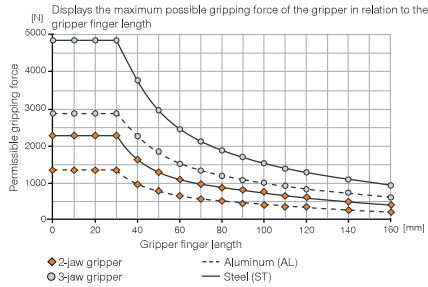
ADJUSTMENT JAWS

INSTALLATION SIZE EB5008

▶ PRODUCT SPECIFICATIONS

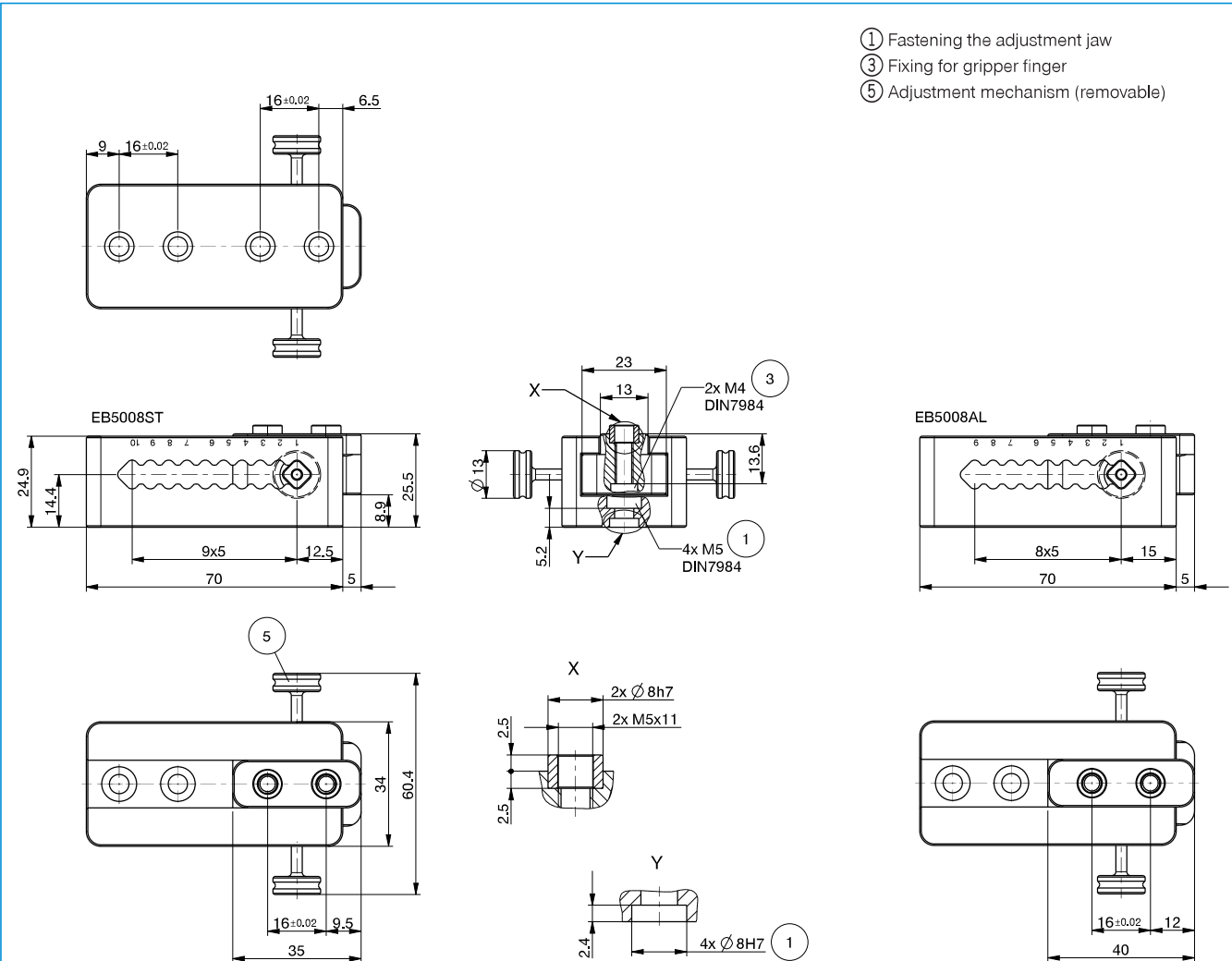


▶ Gripping force diagram



▶ Technical data

Order no.	EB5008AL	EB5008ST
compatible with installation size	GPP5008 / GEP5008 / GPD5008 / GED5008 / GPW5008	GPP5008 / GEP5008 / GPD5008 / GED5008 / GPW5008
Max. adjustment range [mm]	40	45
Spacing [mm]	8x5	9x5
Max. weight per adjustment jaw [kg]	0.14	0.34



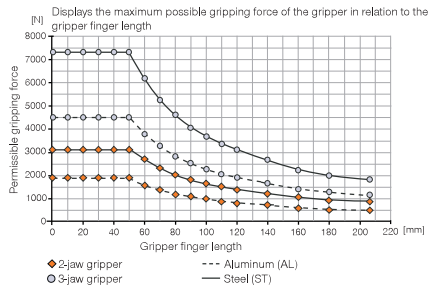
ADJUSTMENT JAWS

INSTALLATION SIZE EB5010

▶ PRODUCT SPECIFICATIONS



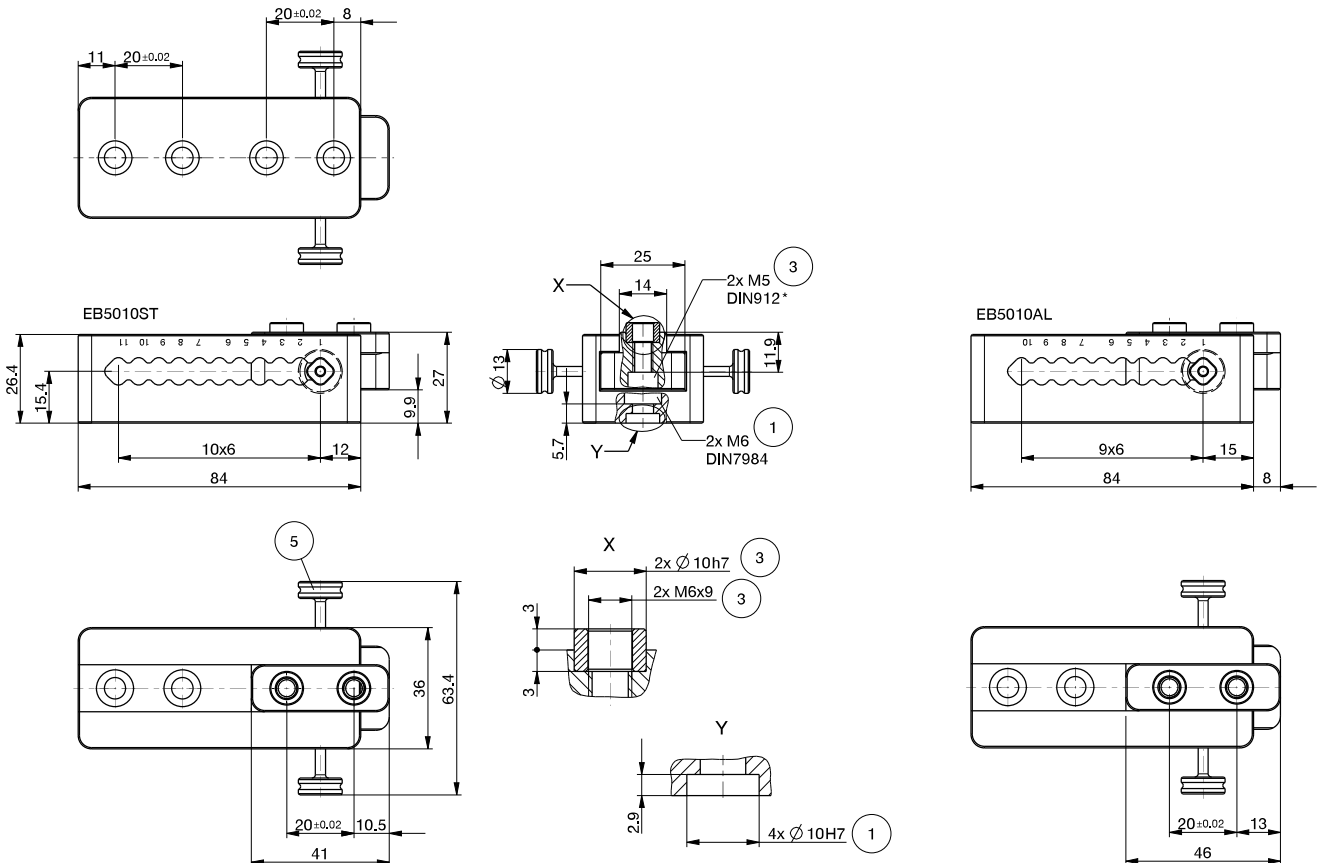
▶ Gripping force diagram



▶ Technical data

Order no.	EB5010AL	EB5010ST
compatible with installation size	GPP5010 / GEP5010 / GPD5010 / GED5010	GPP5010 / GEP5010 / GPD5010 / GED5010
Max. adjustment range [mm]	54	60
Spacing [mm]	9x6	10x6
Max. weight per adjustment jaw [kg]	0.19	0.45

- ① Fastening the adjustment jaw
- ③ Fixing for gripper finger
- ⑤ Adjustment mechanism (removable)



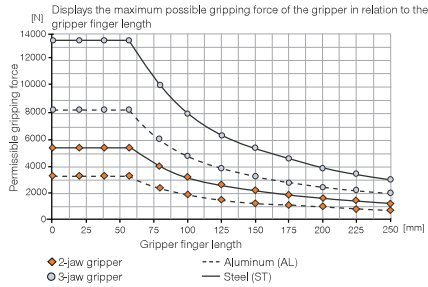
ADJUSTMENT JAWS

INSTALLATION SIZE EB5013

▶ PRODUCT SPECIFICATIONS



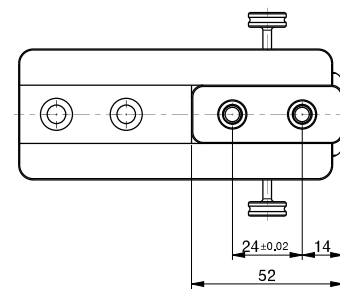
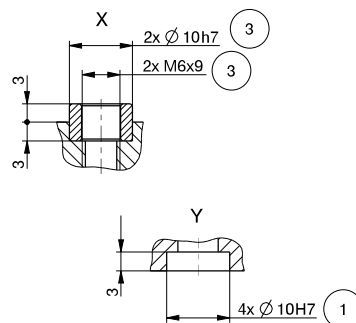
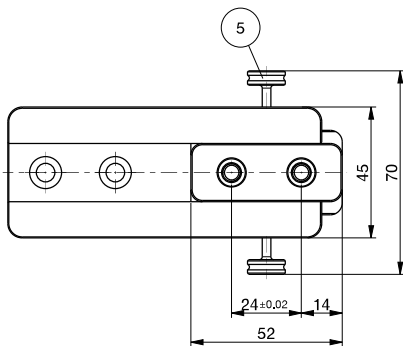
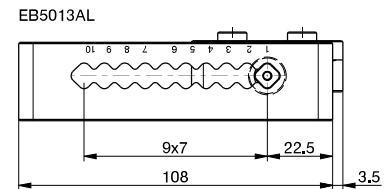
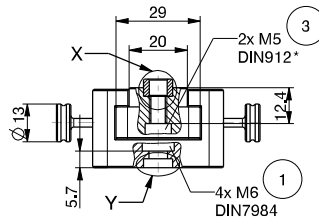
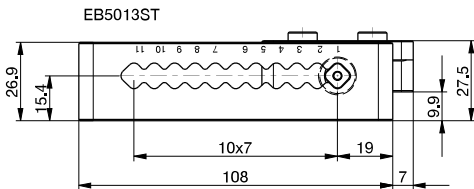
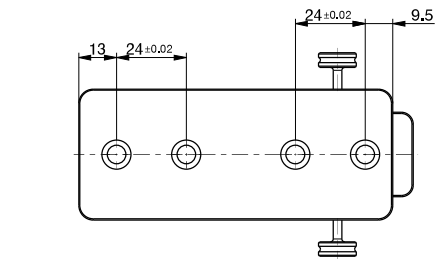
▶ Gripping force diagram



▶ Technical data

Order no.	EB5013AL	EB5013ST
compatible with installation size	GPP5013 / GPD5013 / GPW5013	GPP5013 / GPD5013 / GPW5013
Max. adjustment range [mm]	63	70
Spacing [mm]	9x7	10x7
Max. weight per adjustment jaw [kg]	0,30	0,75

- ① Fastening the adjustment jaw
- ③ Fixing for gripper finger
- ⑤ Adjustment mechanism (removable)



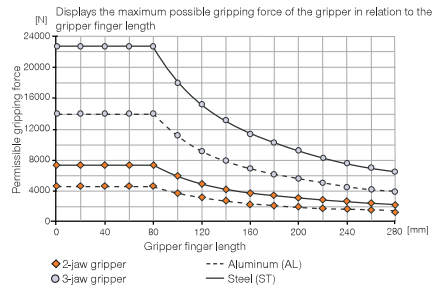
ADJUSTMENT JAWS

INSTALLATION SIZE EB5016

▶ PRODUCT SPECIFICATIONS



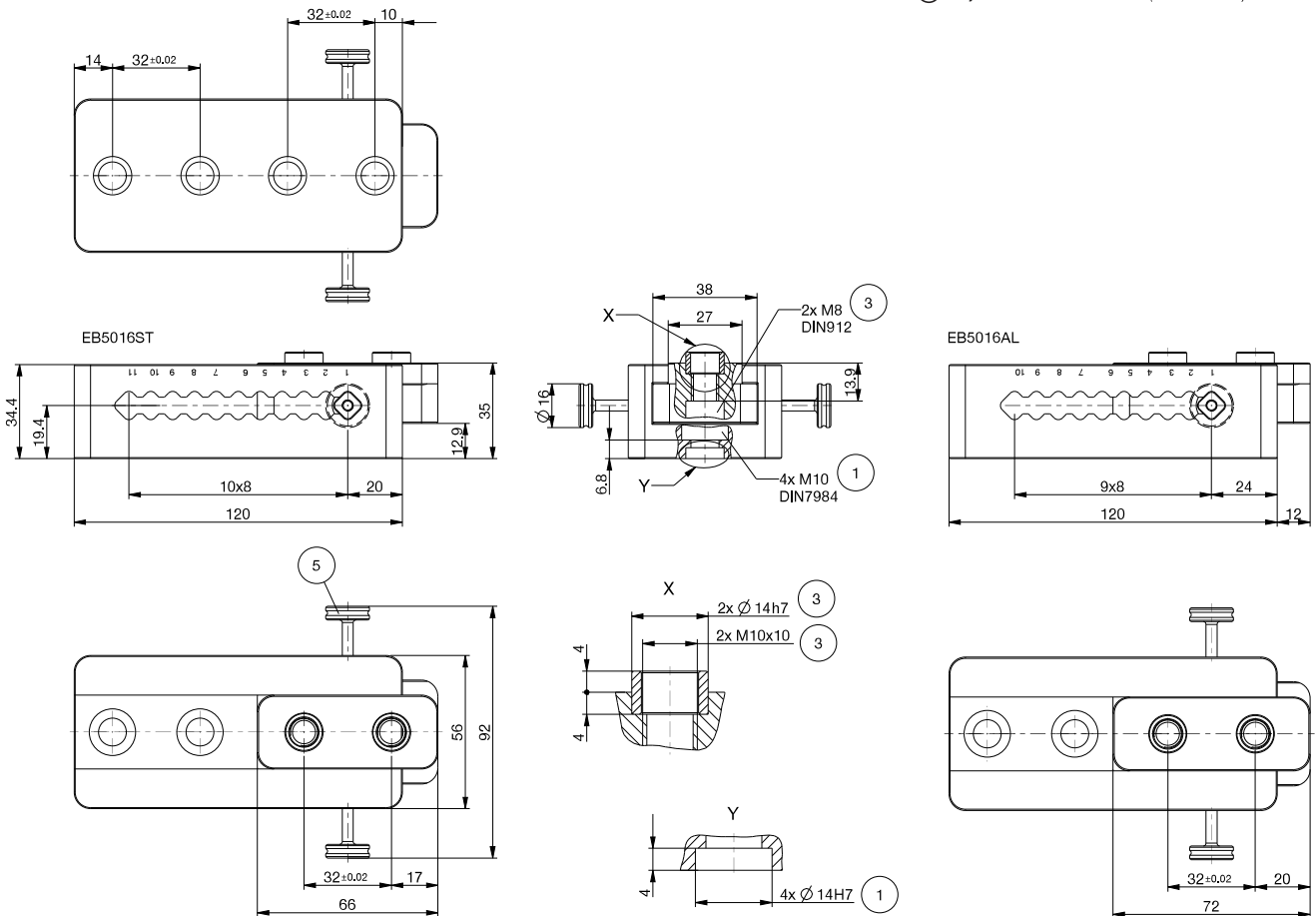
▶ Gripping force diagram



▶ Technical data

Order no.	EB5016AL	EB5016ST
compatible with installation size	GPP5016 / GPD5016	GPP5016 / GPD5016
Max. adjustment range [mm]	72	80
Spacing [mm]	9x8	10x8
Max. weight per adjustment jaw [kg]	0,56	1,35

- ① Fastening the adjustment jaw
- ③ Fixing for gripper finger
- ⑤ Adjustment mechanism (removable)



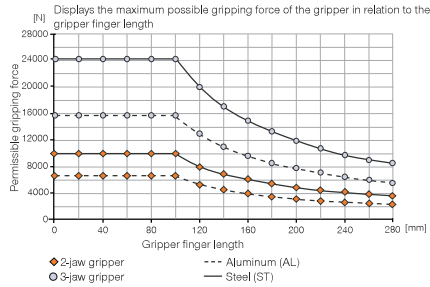
ADJUSTMENT JAWS

INSTALLATION SIZE EB5025

▶ PRODUCT SPECIFICATIONS



▶ Gripping force diagram



Order no.

compatible with installation size
 Max. adjustment range [mm]
 Spacing [mm]
 Max. weight per adjustment jaw [kg]

▶ Technical data

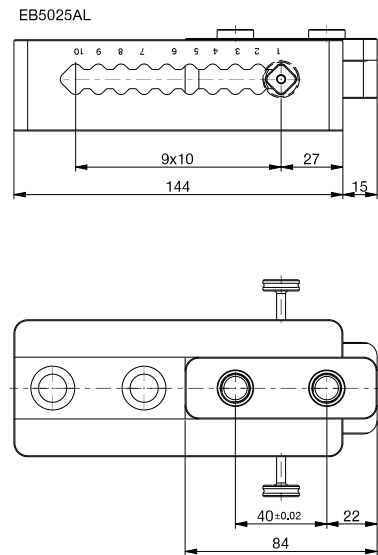
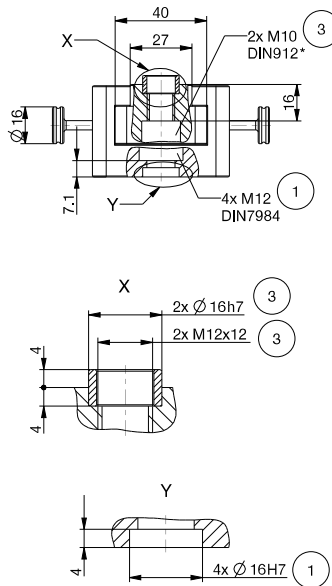
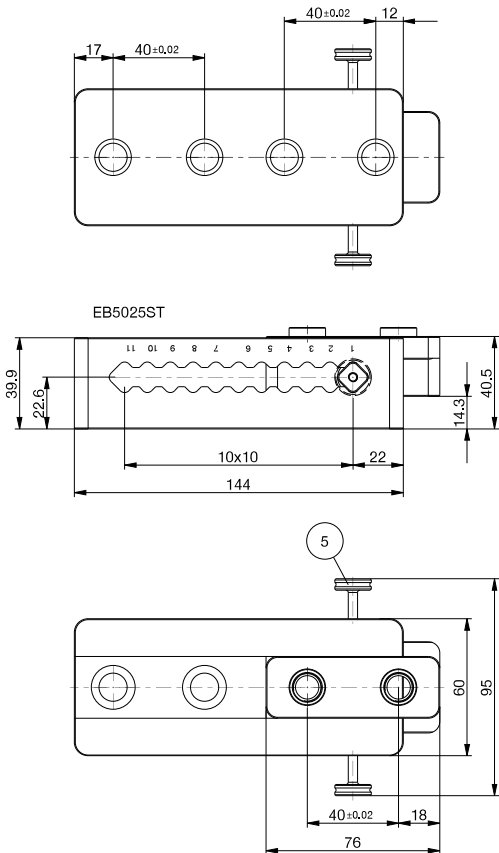
EB5025AL

GPP5025 / GPD5025 / GPW5025
 90
 9x10
 0,81

EB5025ST

GPP5025 / GPD5025 / GPW5025
 100
 10x10
 1,95

- ① Fastening the adjustment jaw
- ③ Fixing for gripper finger
- ⑤ Adjustment mechanism (removable)



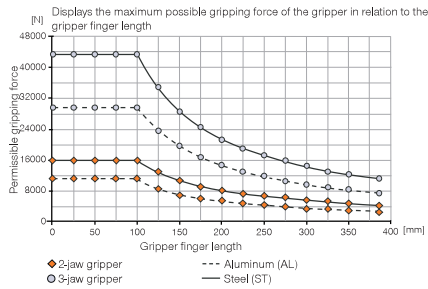
ADJUSTMENT JAWS

INSTALLATION SIZE EB5030

▶ PRODUCT SPECIFICATIONS



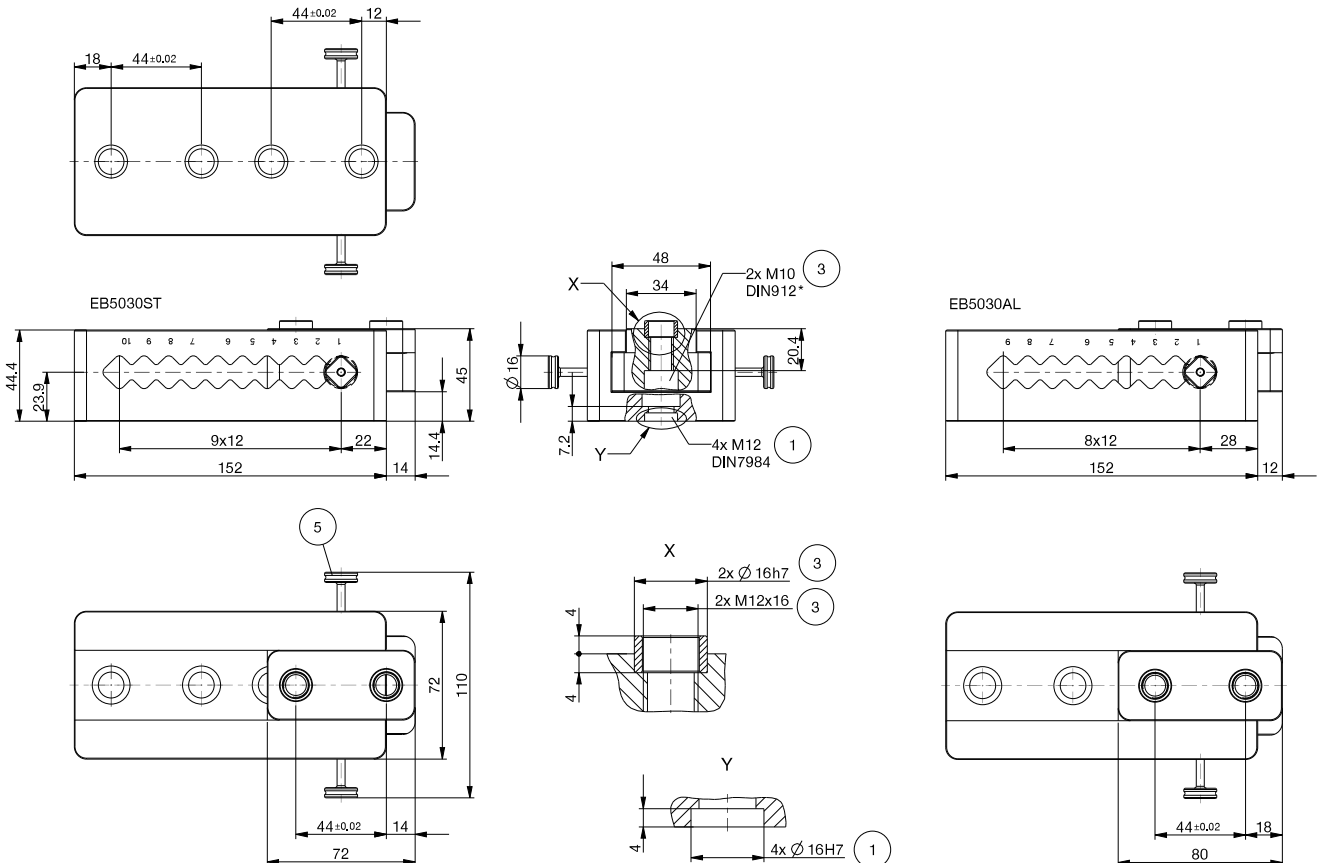
▶ Gripping force diagram



▶ Technical data

Order no.	EB5030AL	EB5030ST
compatible with installation size	GPP5030 / GPD5030	GPP5030 / GPD5030
Max. adjustment range [mm]	96	108
Spacing [mm]	8x12	9x12
Max. weight per adjustment jaw [kg]	1.07	2.63

- ① Fastening the adjustment jaw
- ③ Fixing for gripper finger
- ⑤ Adjustment mechanism (removable)



SENSORS & HOLDERS

OVERVIEW OF SERIES



▶ MAGNETIC FIELD SENSORS



Series MFS

854



Series MFSP

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▶ INDUCTIVE PROXIMITY SWITCHES



Series NJ

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▶ SENSOR CABLES



Series KAW

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Series KAG

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Series S

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▶ STOP STROKE ADJUSTMENT SCREWS



Series AI

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Series AO

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▶ HOLDERS



Series KB

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SENSORS AND HOLDERS

MAGNETIC FIELD SENSORS

► SERIES MFS - MAGNETIC FIELD SENSORS



- For monitoring piston position on pneumatic cylinders
- Non-contacting and wear-free for long service life

Order no.	► Technical Data	
	MFS103KHC	MFS103SKHC
Assured switching field streng [kA/m]	2	2
Hysteresis of %	<45	45
Supply voltage [V DC]	10 ... 30	10 ... 30
Voltage drop [V]	2,5	2,5
Load current capacity [mA]	100	100
Current consumption max. [mA]	<8	<8
Protected against polarity reversal	Yes	Yes
Short-circuit-proof	Yes	Yes
Ambient temperature range [°C]	-25 ... +85	-25 ... +85
Protection to IEC 60529	IP67	IP67
Housing Material	LCP	LCP
Connection type	Cable	Cable/Connector M8
Cable length [m]	5	0,3
Certification	CE	CE

Get all needed parts in just one sensor-set!

The sets include all sensors, cables and plugs for trouble-free installation position sensing of a gripper with integrated magnetic field sensors.

Set 1: Order no.: MFS103S-01

consisting of:

- 2x Magnetic Field Sensors: MFS103SKHC
- 2x Plug-in Connector: KAG500
- 2x Plug-in Connector: S8-G-3

Set 2: Order no.: MFS103S-02

consisting of:

- 2x Magnetic Field Sensors: MFS103SKHC
- 1x Y-Plug-in Connector: S8-Y-4
- 1x Plug-in Connector: KAG500B4
- 1x Plug-in Connector: S12-G-4

► SERIES MFS - MAGNETIC FIELD SENSORS



- For monitoring piston position on pneumatic cylinders
- Non-contacting and wear-free for long service life

Order no.	► Technical Data	
	MFS204KHC	MFS204SKHC
Assured switching field streng [kA/m]	2	2
Hysteresis of %	<45	<45
Supply voltage [V DC]	10 ... 30	10 ... 30
Voltage drop [V]	2,5	2,5
Load current capacity [mA]	100	100
Current consumption max. [mA]	<12	<12
Protected against polarity reversal	Yes	Yes
Short-circuit-proof	Yes	Yes
Ambient temperature range [°C]	-25 ... +85	-25 ... +85
Protection to IEC 60529	IP67	IP67
Housing Material	PA12	PA12
Connection type	Cable	Cable/Connector M8
Cable length [m]	5	0,3
Certification	CE	CE

Get all needed parts in just one sensor-set!

The sets include all sensors, cables and plugs for trouble-free installation position sensing of a gripper with integrated magnetic field sensors.

Set 3: Order no.: MFS204S-01

consisting of:

- 2x Magnetic Field Sensors: MFS204SKHC
- 2x Plug-in Connector: KAG500
- 2x Plug-in Connector: S8-G-3

Set 4: Order no.: MFS204S-02

consisting of:

- 2x Magnetic Field Sensors: MFS204SKHC
- 1x Y-Plug-in Connector: S8-Y-4
- 1x Plug-in Connector: KAG500B4
- 1x Plug-in Connector: S12-G-4

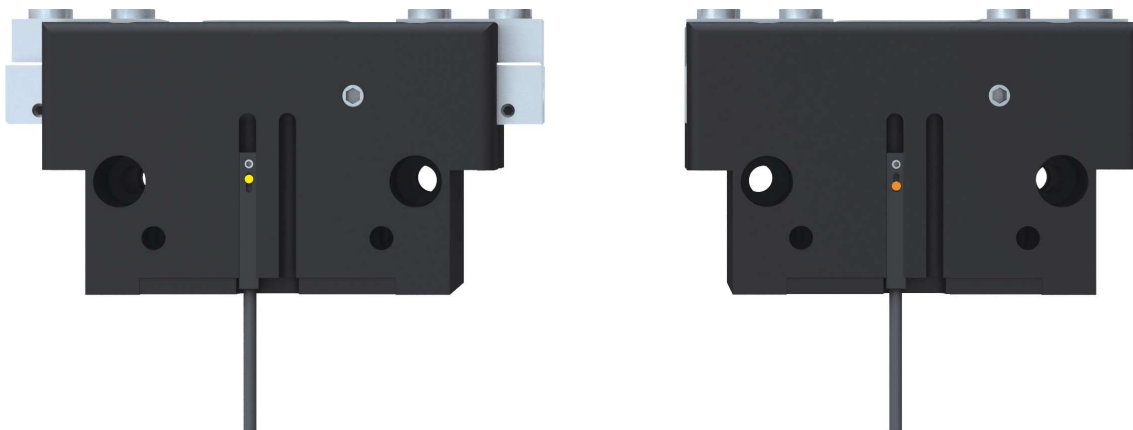
► SERIES MFSP - MAGNETIC FIELD SENSORS



- Two freely programmable switching points
- Straightforward teach-in procedure
- Reduced installation and wiring requirements

► Technical Data

Order no.	MFSP2KHC-02	MFSP2SKHC-02
Supply voltage [V DC]	10 ... 30	10 ... 30
Voltage drop [V]	≤2.2	≤2.2
Load current capacity [mA]	<50	<50
Current consumption max. [mA]	<10	<10
Protected against polarity reversal	Yes	Yes
Short-circuit-proof	Yes	Yes
Operating temperature [°C]	-20 ... +75	-20 ... +75
Protection to IEC 60529	IP67	IP67
Housing Material	Plastics	Plastics
Connection type	Cable, 4-wire, 5 m	Cable with connector M8, 4-pin, with knurled nuts, 0,3 m
Cable length [m]	5	0,3
Certification	CE	CE



SENSORS AND HOLDERS

INDUCTIVE PROXIMITY SWITCHES

► SERIES NJ - INDUCTIVE PROXIMITY SWITCHES



- Contact-free, wear-free and short-circuit proof
- Available starting at 3 mm Ø

► Technical Data

Order no.	NJ3-E2	NJ3-E2SK	NJ4-E2-01	NJ4-E2SK-01	NJ5-E2	NJ5-E2SK
Sensor-Ø [mm]	3.0	3.0	4.0	4.0	M5x0.5	M5x0.5
Installation type	flush	flush	flush	flush	flush	flush
Rated operating distance S_n [mm]	1.00	1.00	1.50	1.50	0.80	0.80
Assured switching distance S_a [mm]	0,80	0,80	1,21	1,21	0,65	0,65
Supply voltage [V DC]	10 ... 30	10 ... 30	10 ... 30	10 ... 30	10 ... 30	10 ... 30
Load current capacity [mA]	100	100	100	100	100	100
Current consumption max. [mA]	<12	<12	<12	<12	<12	<12
Protected against polarity reversal	Yes	Yes	Yes	Yes	Yes	Yes
Short-circuit-proof	Yes	Yes	Yes	Yes	Yes	Yes
Repetition accuracy [%]	<5	<5	<5	<5	<5	<5
Ambient temperature range [°C]	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70
Switching frequency [Hz]	3500	3500	5000	5000	5000	5000
Protection to IEC 60529	IP67	IP67	IP67	IP67	IP67	IP67
Housing Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Active surface material	PBT	PBT	PBT	PBT	PBT	PBT
Connection type	Cable	Cable/Connector M8	Cable	Cable/Connector M8	Cable	Cable/Connector M8
Cable length [m]	5	0,3	5	0,3	5	0,3
Certification	CE	CE	CE	CE	CE	CE

► Technical Data

Order no.	NJ6.5-E2-01	NJ6.5-E2-02	NJ6.5-E2S	NJ8-E2	NJ8-E2-01
Sensor-Ø [mm]	6.5	6.5	6.5	M8x1	M8x1
Installation type	flush	flush	flush	flush	flush
Rated operating distance S_n [mm]	1.50	1.50	1.50	1.50	2.00
Assured switching distance S_a [mm]	1.20	1.20	1.20	1.20	1.60
Supply voltage [V DC]	10 ... 30	10 ... 30	10 ... 30	10 ... 30	10 ... 30
Load current capacity [mA]	200	200	200	200	200
Current consumption max. [mA]	<25	<25	<25	<8	<25
Protected against polarity reversal	Yes	Yes	Yes	Yes	Yes
Short-circuit-proof	Yes	Yes	Yes	Yes	Yes
Repetition accuracy [%]	<5	<5	<5	<5	<5
Ambient temperature range [°C]	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70
Switching frequency [Hz]	3000	4000	3000	1000	1500
Protection to IEC 60529	IP68	IP67	IP67	IP67	IP68
Housing Material	Stainless steel	Stainless steel	Stainless steel	CuZn nickel plated	Stainless steel
Active surface material	PBT	PBT	PBT	PA12	PBT
Connection type	Cable	Cable	Connector M8	Cable	Cable
Cable length [m]	5	5		5	5
Certification	CE	CE	CE	CE	CE

Order no.	► Technical Data			
	NJ8-E2S	NJ8-E2S-05	NJ12-E2	NJ12-E2S
Sensor-Ø [mm]	M8x1	M8x1	M12x1	M12x1
Installation type	flush	flush	flush	flush
Rated operating distance Sn [mm]	2.00	1.50	2.00	2.00
Assured switching distance Sa [mm]	1.60	1.20	1.60	1.60
Supply voltage [V DC]	10 ... 30	10 ... 30	10 ... 30	10 ... 30
Load current capacity [mA]	200	200	200	130
Current consumption max. [mA]	<25	<8	<12	<25
Protected against polarity reversal	Yes	Yes	Yes	Yes
Short-circuit-proof	Yes	Yes	Yes	Yes
Repetition accuracy [%]	<5	<5	<5	<5
Ambient temperature range [°C]	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70
Switching frequency [Hz]	1500	3000	5000	1000
Protection to IEC 60529	IP68	IP68	IP68	IP67
Housing Material	Stainless steel	Stainless steel	CuZn nickel plated	CuZn nickel plated
Active surface material	PBT	PBT	PBT	PA12
Connection type	Connector M8	Connector M8	Cable	Connector M8
Cable length [m]			5	
Certification	CE	CE	CE	CE

SENSORS AND HOLDERS

SENSOR CABLES

► SERIES KAW - PLUG-IN CONNECTOR ANGLED WITH CABLE



- Plug-in Connector angled with Cable
- with 3 and 4 poles, with M8 or M12 connection thread size
- Halogen, silicone and PVC free
- Suitable for drag chains (10xØ)

► Technical Data

Order no.	KAW500	KAW500-12	KAW500S4	KAW500B4	KAW1000B8
Fixing thread	M8	M12	M8	M8	M12
No. of contacts	3	3	4	4	8
Cable length [m]	5	5	5	5	10
Cable-Ø [mm]	4,0	4,3	4,3	4,3	6,7
Cable sheath material	PUR	PUR	PUR	PUR	PUR
Bend radius	10xØ	10xØ	10xØ	10xØ	10xØ
Protection to IEC 60529	IP67	IP67	IP67	IP67	IP67
Connection type	Female	Female	Male	Female	Female
Version [Type]	Angle	Angle	Angle	Angle	Angle

► SERIES KAG - PLUG-IN CONNECTOR STRAGHT WITH CABLE



- Plug-in Connector straight with Cable
- with 3 and 4 poles, with M8 or M12 connection thread size
- Halogen, silicone and PVC free
- Suitable for drag chains (10xØ)

► Technical Data

Order no.	KAG500	KAG500-02	KAG500S4	KAG500B4	KAG1000B8
Fixing thread	M8	M12	M8	M8	M12
No. of contacts	3	3	4	4	8
Cable length [m]	5	5	5	5	10
Cable-Ø [mm]	4,0	4,3	4,3	4,3	6,7
Cable sheath material	PUR	PUR	PUR	PUR	PUR
Bend radius	10xØ	10xØ	10xØ	10xØ	10xØ
Protection to IEC 60529	IP67	IP67	IP67	IP67	IP67
Connection type	Female	Female	Male	Female	Female
Version [Type]	Straight	Straight	Straight	Straight	Straight

► SERIES S - PLUG-IN CONNECTOR CUSTOMIZABLE WITH SCREW-CUT-TERMINAL



- Plug-in connector for flexible fabrication on-site
- Time-saving fabrication without stripping insulation from individual wires

► Technical Data

Order no.	S8-G-3	S8-G-4	B8-G-4	S12-G-3	S12-G-4	S12-G-8
Connection type	Male	Male	Female	Male	Male	Male
Fixing thread	M8	M8	M8	M12	M12	M12
No. of contacts	3	4	4	3	4	8
Protection to IEC 60529	IP67	IP67	IP67	IP67	IP67	IP67
Version [Type]	Straight	Straight	Straight	Straight	Straight	Straight

► SERIES S - PLUG-IN CONNECTOR CUSTOMIZABLE WITH SOLDER CONNECTION



- Plug-in connector for flexible fabrication on-site

► Technical Data

Order no.	S8-W-3	S8-W-4	S12-W-8	B8-W-4
Connection type	Male	Male	Male	Female
Fixing thread	M8	M8	M12	M8
No. of contacts	3	4	8	4
Protection to IEC 60529	IP67	IP67	IP67	IP67
Version [Type]	Angle	Angle	Angle	Angle

► SERIES S - Y-PLUG-IN CONNECTOR



► Technical Data

Order no.	B8-Y-4	S8-Y-4
Connection type	Male / Socket / Male	Socket / Male / Socket
Fixing thread	M8	M8
No. of contacts	3 / 4 / 3	3 / 4 / 3
Protection to IEC 60529	IP67	IP67

SENSORS AND HOLDERS

STOP STROKE ADJUSTMENT SCREWS

► SERIES AI - STOP STROKE ADJUSTMENT SCREWS



- Stop stroke adjustment screw for M12 sensor mount
- Stop stroke adjustment screw with customizable sensor mount

► Technical Data

Order no.	AI-M8X1-38	AI-M8X1-53	AI-M10X1-70
Fixing thread	M8X1	M8X1	M10X1
to match for Sensors-Ø [mm]	M12X1	M12X1	M12X1

► SERIES AO - STOP STROKE ADJUSTMENT SCREWS



- Stop stroke adjustment screw with customizable sensor mount

► Technical Data

Order no.	AO-M8X1-38	AO-M8X1-53	AO-M10X1-70
Fixing thread	M8X1	M8X1	M10X1
to match for Sensors-Ø [mm]	customizable	customizable	customizable

SENSORS & HOLDERS

HOLDERS

► SERIES KB - MOUNTING BLOCK



- Mounting for inductive proximity switch
- Available starting at \varnothing 3 mm

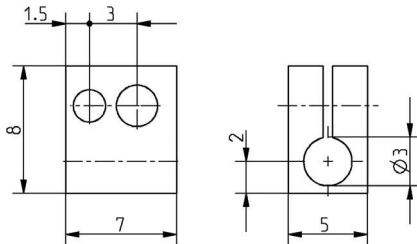
► Technical Data

Order no.

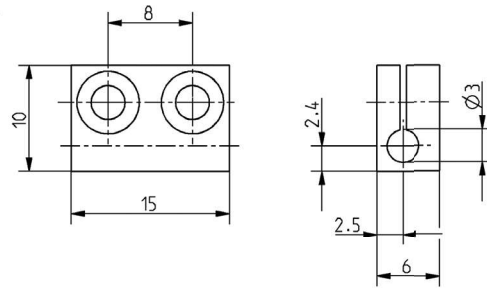
to match for Sensors- \varnothing [mm]

KB3	KB3M	KB4	KB5	KB6.5	KB8	KB12
3	3	4	5	6.5	8	12

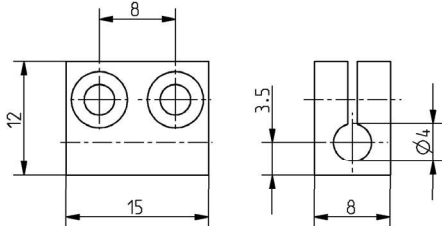
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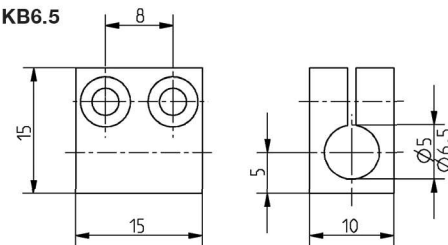
KB3



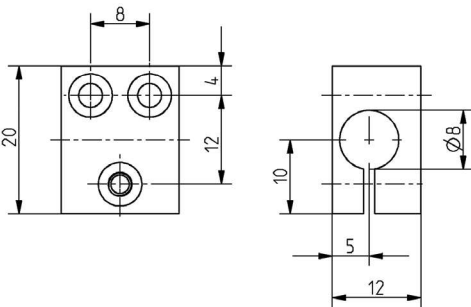
KB4



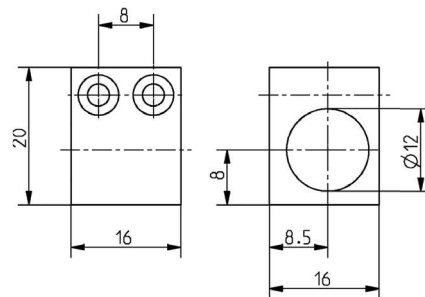
KB5 / KB6.5



KB8



KB12



VALVES, FITTINGS, ACCESSORIES

OVERVIEW OF SERIES



▶ FITTINGS



Series GV

864



Series WV

865

▶ VALVES



Series DRV

866



Series DSV

867



Series DEV

867

▶ JAW ACCESSORIES



Series DG

868



Series GR

868



Series J

868



Series GU

869



Series KF

870



Series BGM

870



Series BN

870



Series GU800

871

▶ JAW EXTENSIONS



Series GBV

872

▶ ROTARY DISTRIBUTORS



Series DV

874

▶ BUSBOX



Series ZUBBOX9000

875

VALVES, FITTINGS, ACCESSORIES

FITTINGS

► SERIES GV - STRAIGHT FITTINGS - BARB-STYLE CONNECTION



- For assembling with hose clips
- Straight version

► Technical Data

Order no.	GVM3	GV1-8X5ID	GV1-8X6ID	GV1-8X8ID	GV1-4X8ID
Fixing thread	M3	G1/8"	G1/8"	G1/8"	G1/4"
Inside-Ø for hose [mm]	2	5	6	8	8
Length [mm]	9,9	30	30	30	32,5

► Technical Data

Order no.	GV1-4X10ID	GV3-8X13ID	GV1-2X13ID	GV1-2X16ID
Fixing thread	G1/4"	G3/8"	G1/2"	G1/2"
Inside-Ø for hose [mm]	10	13	13	16
Length [mm]	32,5	33,5	35	39,5

► SERIES GV - STRAIGHT FITTINGS - QUICK CONNECT STYLE



- Cost reduction through quick assembly and disassembly
- Straight version

► Technical Data

Order no.	GVM5	GV1-8X4	GV1-8X6	GV1-8X8	GV1-4X6	GV1-4X8
Fixing thread	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/4"
Outside-Ø for hose [mm]	4	4	6	8	6	8
Length [mm]	20	19	20	25	21,5	23

► **SERIES WV - ANGLED FITTING, BARB STYLE CONNECTION**



- For assembling with hose clips
- Angled version

► **Technical Data**

Order no.	WVM3
Fixing thread	M3
Inside-Ø for hose [mm]	2

► **WV SERIES - ANGLED FITTINGS- QUICK CONNECT STYLE**



- Cost reduction through quick assembly and disassembly
- Angled and swivel-mounted

► **Technical Data**

Order no.	WVM5	WV1-8X4	WV1-8X6	WV1-8X8	WV1-4X6	WV1-4X8
Fixing thread	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/4"
Outside-Ø for hose [mm]	4	4	6	8	6	8

VALVES, FITTINGS, ACCESSORIES

VALVES

► SERIES DRV - FLOW CONTROL VALVES - WITH SWIVEL JOINT



- Configurable flow control valves for regulating the exhaust air
- Optimal for regulating the speeds during piston movements
- Angled version

► Technical Data

Order no.	DRVM5X4	DRV1-8X6	DRV1-8X8	DRV1-4X8
Fixing thread	M5	1/8"	1/8"	1/4"
Outside-Ø for hose [mm]	4	6	8	8
Length [mm]	25.5	35	35	38.5
Operating pressure [bar]	0,2 ... 10	0,2 ... 10	0,2 ... 10	0,2 ... 10
Operating temperature [°C]	5 ... +80	5 ... +80	5 ... +80	5 ... +80

► DRV SERIES - FLOW CONTROL VALVES - INLINE



- Configurable flow control valves for regulating the exhaust air
- Optimal for regulating the speeds during piston movements

► Technical Data

Order no.	DRV1-4I	DRV1-8I
Fixing thread	1/4"	1/8"
Length [mm]	58	48
Operating pressure [bar]	0,2 ... 10	0,2 ... 10
Operating temperature [°C]	5 ... +80	5 ... +80

► SERIES DSV - PRESSURE SAFETY VALVE



- For maintaining the position of a double-acting cylinder if the operating pressure drops
- The valve consists of 2 check valves that are unlocked pneumatically

► Technical Data

Order no.	DSV1-8
Nominal diameter [mm]	4
Operating pressure [bar]	1 ... 10
Operating temperature [°C]	-10 ... +70

► SERIES DEV - QUICK EXHAUST VALVE



- For higher piston speeds for cylinders
- To bring about quick-action ventilation, the valve must be installed as close to the cylinder's air connection as possible

► Technical Data

Order no.	DEV04	DEV06	DEV08
Outside-Ø for hose [mm]	4	6	8
Operating pressure max. [bar]	10	10	10
Operating temperature [°C]	-5 ... +50	-5 ... +50	-5 ... +50

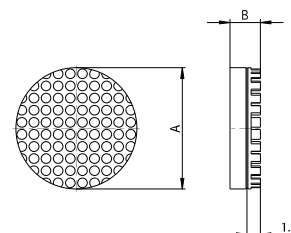
VALVES, FITTINGS, ACCESSORIES

JAW ACCESSORIES

► SERIES DG - RUBBER JAW PADS



- Available in different versions
- A packaging unit includes 6 pcs.



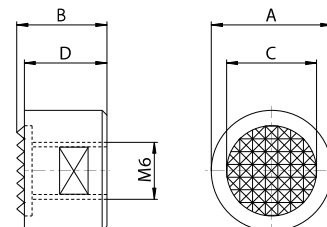
► Technical Data

Order no.	DG6	DG6SI	DG10	DG10SI	DG16	DG16SI	DG20	DG20SI
A [mm]	6	6	10	10	16	16	20	20
B [mm]	5	5	5	5	5	5	5	5
Material	Neoprene	Silicone	Neoprene	Silicone	Neoprene	Silicone	Neoprene	Silicone

► SERIES GR - HARD JAW INSERTS



- Available in different versions



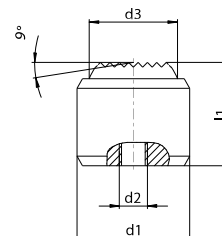
► Technical Data

Order no.	GR4	GR4A	GR4C	GR5	GR6
A [mm]	12.7	12.7	12.7	15.8	19
B [mm]	9.5	12.7	16.5	9.5	9.5
C [mm]	9.5	9.5	9.5	12.7	15.8
D [mm]	8.7	11.9	15.8	8.7	8.7

► SERIES J - HARD JAW INSERTS, FLOATING



- Available in different versions



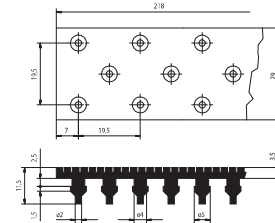
► Technical Data

Order no.	J712	J718	J728
∅- d1	12n6	18n6	28n6
∅- d2 [mm]	M3	M4	M5
∅- d3 [mm]	7	10	20
L1 [mm]	10	16	25

► SERIES GU - RUBBER JAW LINERS



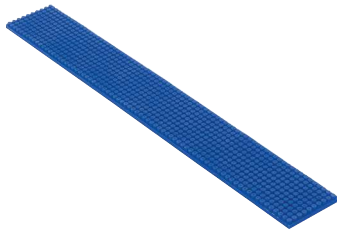
- Available in different versions
- GU1: Basic jaw with infeed knobs
- Receiver holes for infeed knobs - 4.5 mm



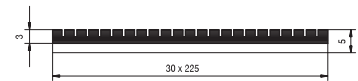
► Technical Data

Order no.	GU1	GU1SI
Resistance DIN53504 min. [N/mm ²]	10	10
Material	Neoprene	Silicone
Color	Black	Blue
Operating temperature max. [°C]	120	200
Shore hardness	65 +/- 3	60 +/- 5

► SERIES GU - RUBBER JAW LINERS



- Available in different versions
- Rubber jaw with baseplate made of aluminum



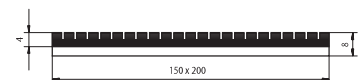
► Technical Data

Order no.	GU2	GU2SI
Resistance DIN53504 min. [N/mm ²]	10	10
Material	Neoprene	Silicone
Color	Black	Blue
Operating temperature max. [°C]	120	200
Shore hardness	65 +/- 3	60 +/- 5

► SERIES GU - RUBBER JAW LINERS



- Available in different versions
- Rubber jaw with baseplate made of aluminum



► Technical Data

Order no.	GU2G	GU2GSI
Resistance DIN53504 min. [N/mm ²]	10	10
Material	Neoprene	Silicone
Color	Black	Blue
Operating temperature max. [°C]	120	200

VALVES, FITTINGS, ACCESSORIES

JAW ACCESSORIES

► SERIES KF - RUBBER COATED TAPE



- Smooth surface or knobbed surface Adjusts itself optimally to the shape of the gripper jaw ideal coefficients of friction and compensates for variations in tolerances
- Resistant against adhesive materials

► Technical Data

Order no.	KF50G	KF50N
Size [mm]	500 x 100	500 x 100
Material	Impregnated cotton fabric with special coating	Impregnated cotton fabric with special coating
Surface	smooth	knobbed
Material thickness [mm]	0,48	0,48
Max. permitted temperature range [°C]	+60 (briefly up to +100 °C)	+60 (briefly up to +100 °C)
Tensile strength	0,9	0,9
Adhesive strength	22	22

► SERIES BGM - EPOXY JAW COMPOUND

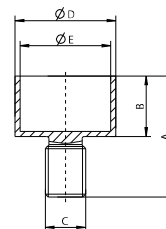


- For your individual gripper jaws in a few steps
- Hard as metal and can be used for the most sensitive parts due to silicone filling
- Sufficient for approximately 10 medium-sized jaw cups

► SERIES BN - JAW CUPS FOR EPOXY JAW COMPOUND



- Jaw Cups for Epoxy Jaw Compound (BGM)



► Technical Data

Order no.	BN8	BN12	BN16	BN20
A [mm]	8	12	16	20
B [mm]	4	6	8	10
C1	M3	M4	M5	M6
Ø-D [mm]	6	10	16	20
Ø-E [mm]	5	9	15	19

► SERIES GU800 - RUBBER MOULDING COMPOUND



- For complicated gripper fingers with boreholes, seals and roller coatings
- Repairs to conveyor belts, solid rubber tires, transport casters, pipes, vibration protection on machines and insulation protection

► Technical Data

Order no.	GU800
Mix ratio	100:50
Shore hardness level after hardening (ISO 868)	80
Sealed	1.04
Tensile strength (ISO 37) [N/mm ²]	8,5
Elongation at break (ISO 37)	900
Tear resistance (DIN 53356)	17
Permitted temperature range [°C]	-60 ... +90

VALVES, FITTINGS, ACCESSORIES

JAW EXTENSIONS

► SERIES GBV - JAW EXTENSIONS

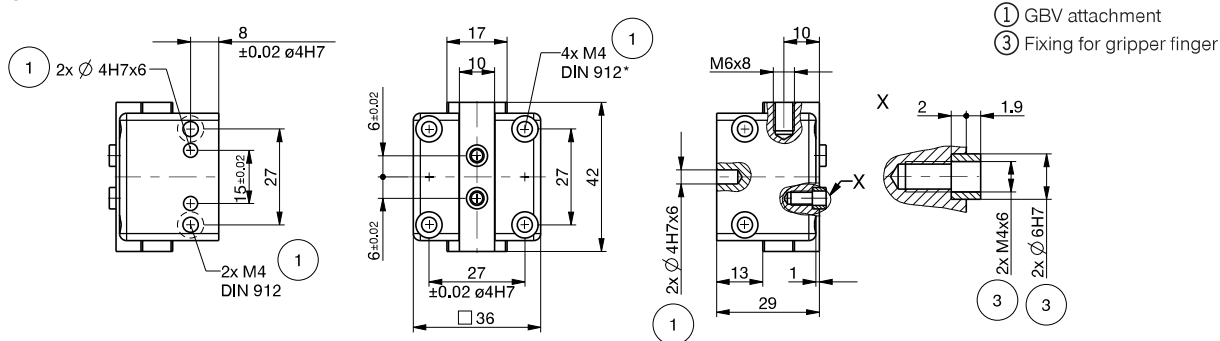


- GBV guide elements can be positioned at any desired distance from the gripper, including different distances
- Connection to gripper is made via threaded rods

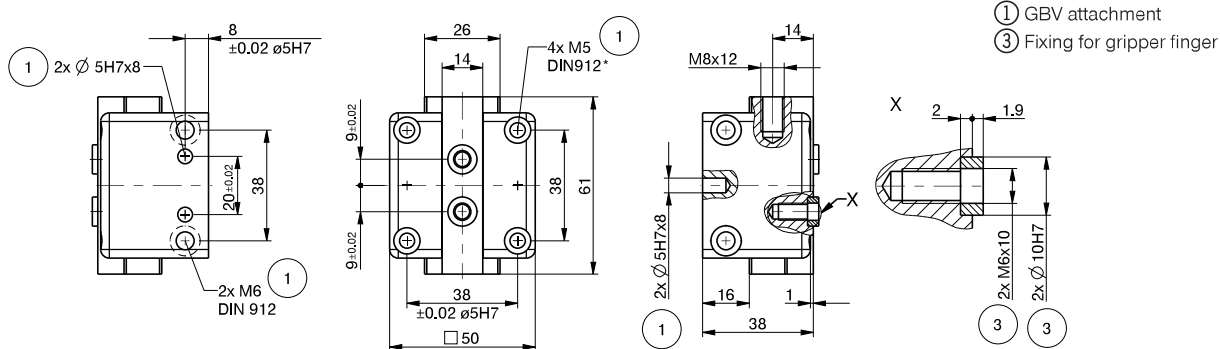
► Technical Data

Order no.	GBV36	GBV50	GBV72
Weight [kg]	0.14	0.4	1.3
Mr [Nm]	20	45	80
Mx [Nm]	50	110	160
My [Nm]	32	65	120
Fa [N]	650	1500	4000

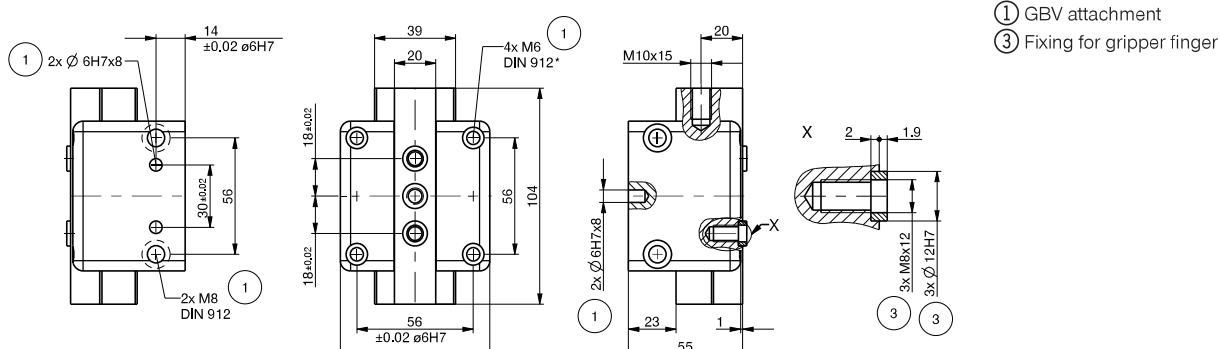
GBV36



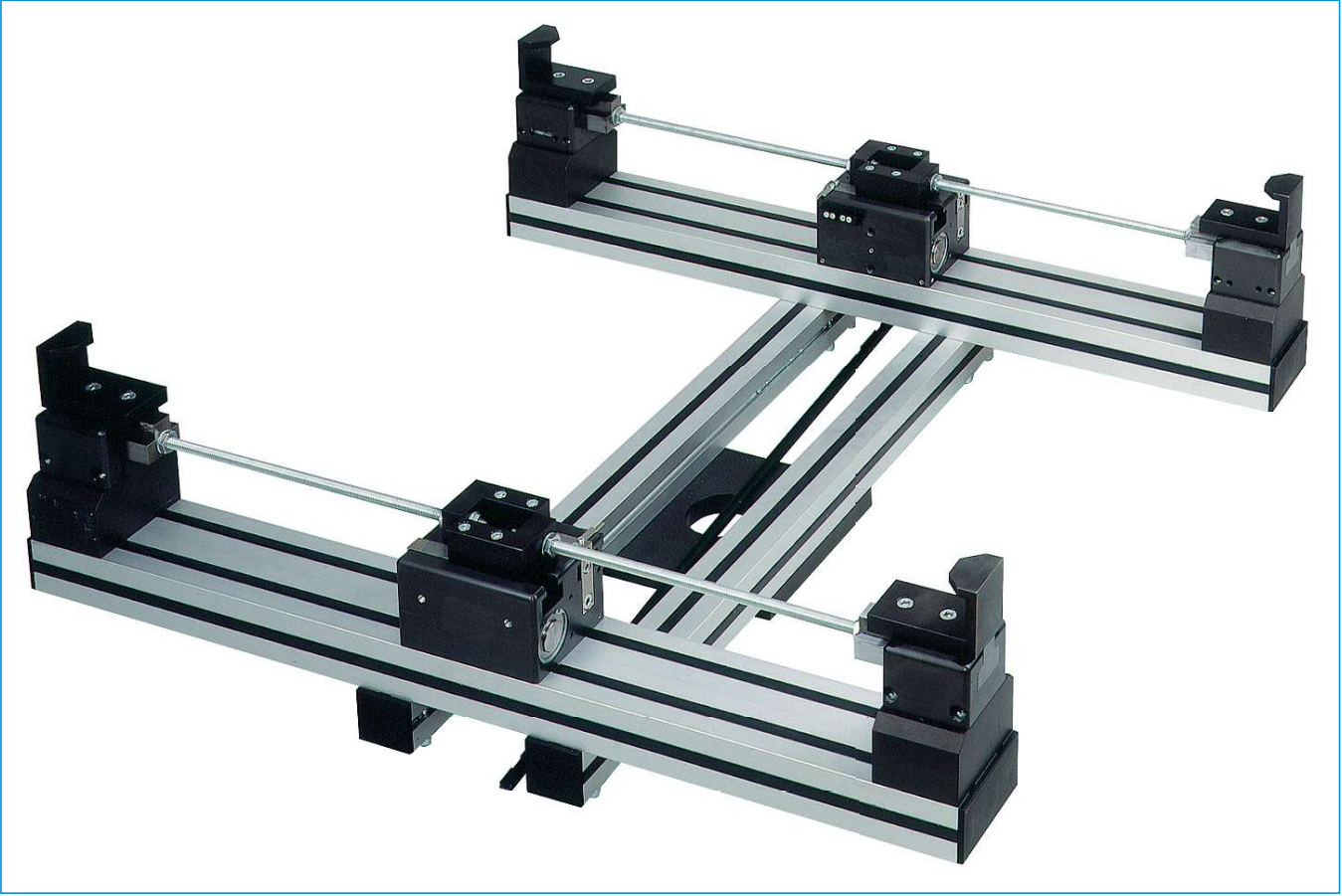
GBV50



GBV72



▶ APPLICATION EXAMPLE



VALVES, FITTINGS, ACCESSORIES

PNEUMATIC ROTARY MANIFOLDS

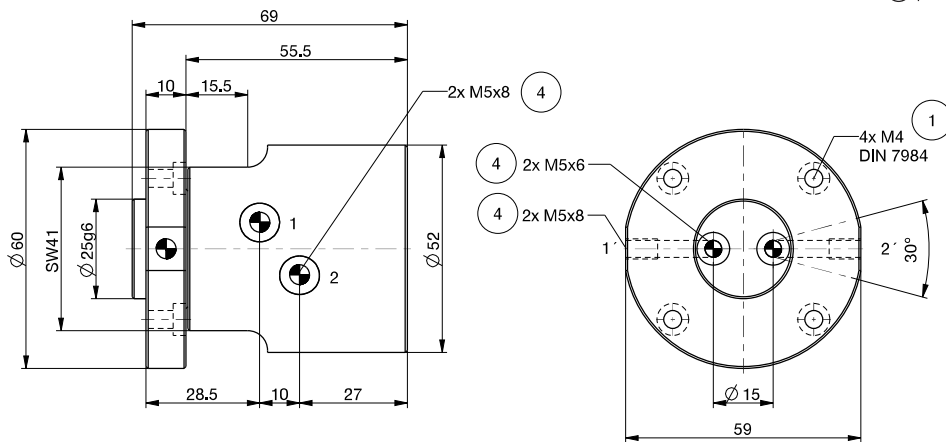
► SERIE DV - ROTARY DISTRIBUTOR



► available with 2 or 4 pneumatic feedthroughs

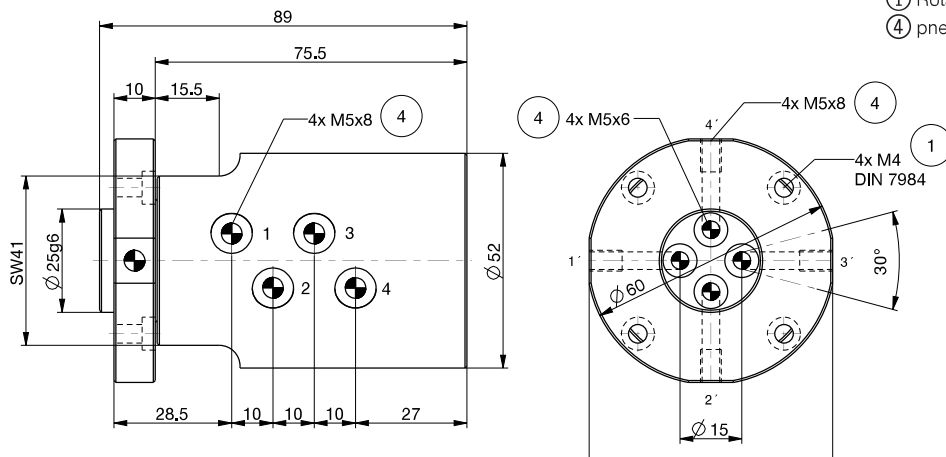
Order no.	► Technical Data	
	DV2N-B	DV4N-B
Air feed-through [Quantity]	2	4
Maximum acceleration [m/s ²]	22	22
Maximum speed [°/s]	720	720
Axial bearing load [N]	1300	1300
Radial bearing load [Nm]	104	156
Operating pressure max. [bar]	10	10
Operating temperature [°C]	5 ... +80	5 ... +80
Weight [kg]	0.45	0.55

DV2N-B



- ① Rotary distributor attachment
- ④ pneumatic feed-through

DV4N-B



- ① Rotary distributor attachment
- ④ pneumatic feed-through

VALVES, FITTINGS, ACCESSORIES

BUSBOX

► SERIES ZUBBOX9000-01



- Control via Profibus
- 4 actuators of the series GEP, GEN and VEE can be connected
- Intelligent Power Supply - IPC
- Power storage via condensers

► Technical Data

Order no.	ZUBBOX9000-01
Control	Profibus
Actuator connectors max.	4
Signal voltage [V DC]	24
Load voltage [V DC]	24
Current feed min. [A]	5
Current feed max. [A]	10
Operating temperature [°C]	0 ... +50
Protection to IEC 60529	IP64
Certification	CE
Weight [kg]	1.1

