Hand in hand for tomorrow

Product data sheet

Centric Grippers EZU 30

Robust. Flexible. Intelligent.

Versatile 3-finger centric gripper enables eccentrically positioned workpieces to be gripped and centered with consistently high gripping force.

Field of application

Flexible loading and unloading of machine tools with cylindrical workpieces and handling of shafts and gears in the production and assembly process of powertrains in automotive manufacturing. The sealed design makes the gripper particularly suitable for use in harsh environments with contamination caused by chips or coolant.

Advantages – Your benefits

Flexible workpiece handling Cylindrical workpieces of different sizes can be handled efficiently thanks to the extensively adjustable, freely programmable jaw stroke

High fault tolerance The drive train ensures reliable centering of the workpiece and a constantly high gripping force even in the event of horizontal positioning errors of the workpiece or robot

Increased efficiency No start-up distance is required for gripping, which simplifies handling and speeds up the overall process

High robustness The sealed design with the proven sliding guide makes the gripper resistant to harsh operating conditions

Particularly reliable The risk of workpiece loss is minimized thanks to the integrated gripping force maintenance with loss detection

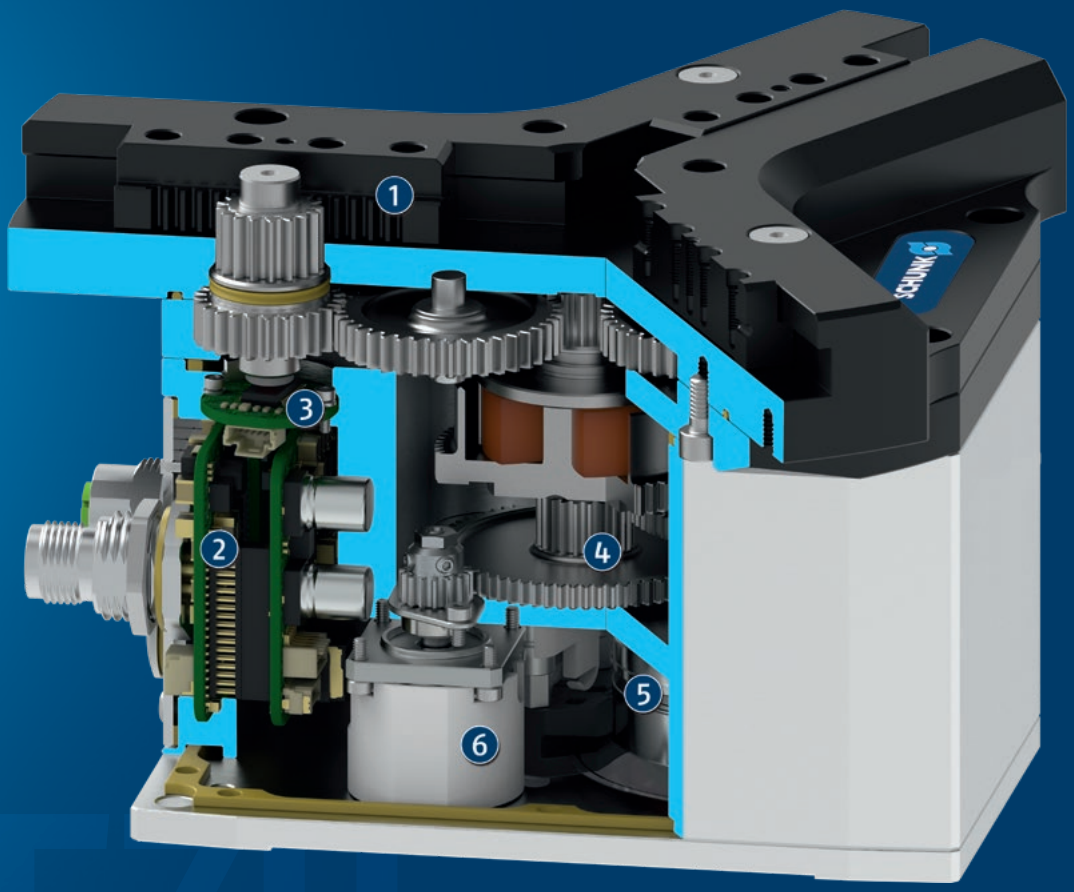
High availability The integrated absolute encoder ensures permanent referencing, even in the event of an emergency stop or power failure

Easy integration The integration effort is significantly reduced thanks to a wide range of communication interfaces, PLC function blocks and robot plug-ins compatible with leading manufacturers

Sizes	Weight	Gripping force	Stroke per jaw
Quantity: 3	2.25 .. 7.55 kg	350 .. 3600 N	20 .. 40 mm

Functional description

The brushless DC servomotor drives the three gear racks integrated in the slide-guided base jaws via a spur gear unit with rack-and-pinion principle. The spur gear unit reliably generates the gripping force, which remains constant even in the event of horizontal positioning errors of the workpiece or robot, thereby ensuring reliable centering of the workpiece as well as a high fault tolerance. The gripping force is generated without a minimum approach distance, which simplifies handling and speeds up the process.
An integrated absolute encoder ensures that the gripper is immediately ready for use even after an emergency stop or power failure. The gripping force maintenance, which is achieved in combination with a permanent magnet brake and a damping element in the drive train, reduces the risk of workpiece loss, which is detected by the integrated workpiece loss detection.



① **Sturdy and resistant T-slot guidance**
for large finger lengths, external forces and moments. Optionally available as dust-tight version.

② **Fully integrated and sealed control and power electronics**
with status LEDs and M12 plug connectors for connecting the voltage supply and communication.

③ **High-resolution, output-side absolute encoder**
for precise positioning of the gripper jaws with permanent absolute position feedback.

④ **Sealed drive train with spur gear and pinion/rack principle**
enables reliable generation of the gripping force without a minimum approach distance.

⑤ **Brushless flat motor**
for limited space and high torques due to external rotor.

⑥ **Electromagnetic brake**
with additional mechanism for maintaining gripping force and position during standstill or power failure.

Detailed functional description

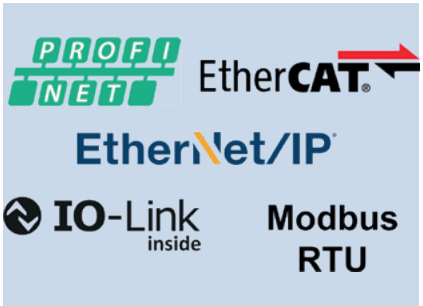
Increased protection class with dust-tight version SD

The dust-tight version increases the degree of protection against dust and liquids entering the guidance and base jaw. In combination with the sealed electronics (IP67), the dust-tight version is thus suitable for use in particularly harsh ambient conditions, such as for loading a grinding machine. The achieved protection of the guidance corresponds to the IP64 protection class and is thus absolutely dust-tight and protected against splashing water from all directions. You can find additional information on the product in the operating manual.

Mounting option for additional attachment

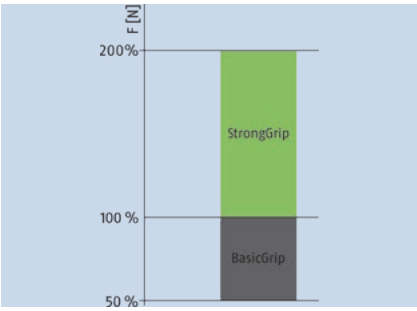
Additional threads and fittings are located in the guidance housing for mounting an application-specific design in order to implement additional functions. For example, a spring-loaded pressure element can be fitted for spring-supported positioning of the workpiece against a stop.

Connectivity



A wide range of available communication interfaces simplifies handling with a wide variety of control and robot manufacturers and ensures time savings during integration. Industrial Ethernet (PROFINET, EtherCAT, EtherNet/IP) enables direct integration without additional gateways into the control environment of leading PLC manufacturers on the market. With the Modbus RTU serial interface, the gripper can be connected to the tool flange of leading robot manufacturers without external cable routing. IO-Link is independent and offers flexibility in connecting to other networks.

Gripping modes

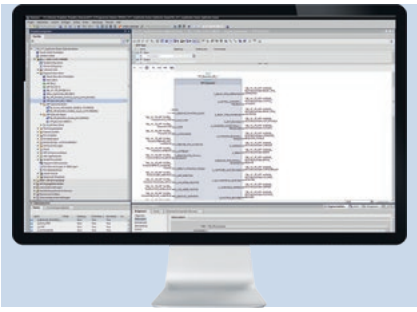


The BasicGrip and StrongGrip gripping modes are available.BasicGrip: The gripping speed is automatically optimized for gripping force adjustment, permanent re-gripping is possibleStrongGrip: Maximum gripping force is generated and then stored by the gripping force maintenance, permanent re-gripping is possible within an adjustable time window, pause times between gripping cycles must be taken into account

Software Service – Robot integration

For seamless interaction between gripper and robot, software modules for integration into the robot control system of leading manufacturers are available. This means that the gripper's range of functions can be used directly without any additional programming effort and programming of the application can be started immediately. Robot compatibility: Universal Robots e-Series via Modbus RTU, FANUC CRX via Modbus RTU, ABB OmniCore C30 via EtherNet/IP, YASKAWA YRC1000micro via EtherNet/IP, Kassow Robots via Modbus RTU.Software and other compatibility notes can be downloaded at schunk.com/egu-software.

Software Service – PLC integration



For seamless interaction between gripper and PLC control, function modules for the programming interface of leading manufacturers is available. This means that the gripper's range of functions can be used directly without any additional programming effort and programming of the application can be started immediately. PLC compatibility: Siemens TIA Portal (PROFINET and IO-Link), Beckhoff TwinCAT (EtherCAT and IO-Link), Allen Bradley Studio 5000 Logix Designer (EtherNet/IP and IO-Link), Bosch Rexroth ctrlX (EtherCAT, only with Bosch Nexeed Automation).Software and other compatibility notes can be downloaded at schunk.com/egu-software.

Commissioning app in the SCHUNK control center

The mechatronic grippers app simplifies commissioning, operation, diagnostics and service thanks to an extensive catalog of functions Users can control the gripper directly and perform application validation without the need for a PLC. The functions include network configuration, firmware updates, parameter adjustments and backups as well as comprehensive diagnostic options. The app is compatible with Windows and can be downloaded at schunk.com/downloads-software.

General notes about the series

Housing material: Aluminum alloy, anodized

Base jaw material: Steel, corrosion-protected

Warranty: 24 months or 5 million cycles BasicGrip / 3 million cycles StrongGrip (one cycle consists of a complete gripping process: "Open gripper" and "Close gripper")

Scope of delivery: Gripper including safety information and accessory kit with centering sleeves for gripper and finger mounting. Product-specific instructions and software can be downloaded at schunk.com/downloads-manuals and schunk.com/downloads-software.

Gripping force: is the arithmetic sum of the individual force applied to each jaw at distance P (see illustration).

Repeat accuracy (gripping): defined as the spread of the actual position during 100 consecutive closing or opening movements on a rigid workpiece or a fixed workpiece stop under constant conditions.

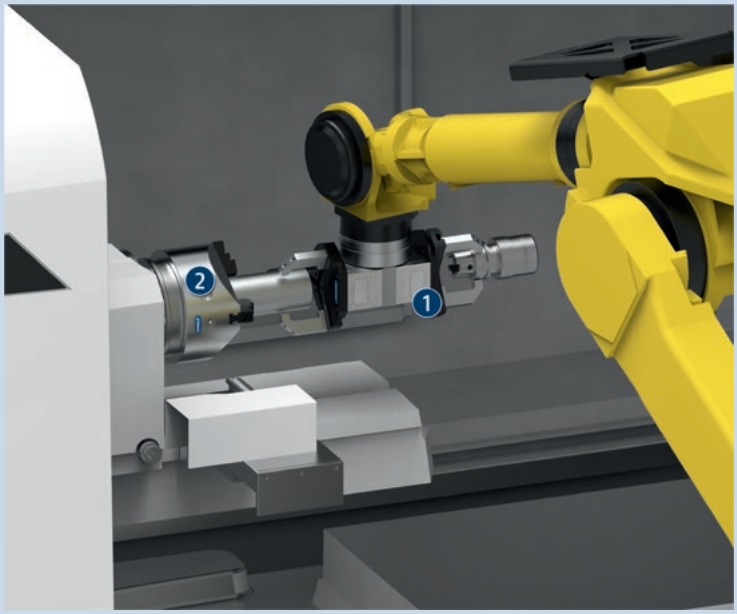
Repeat accuracy (positioning, unidirectional): defined as the spread of the actual position per base jaw during 100 consecutive movements to a target position from the same direction under constant conditions.

Repeat accuracy (positioning, bi-directional): defined as the distribution of the actual position per base jaw during 100 consecutive movements to a target position from both directions under constant conditions.

Finger length: is measured from the reference surface as the distance P in direction to the main axis.

Closing and opening times (positioning): Closing and opening times are only the movement times of the fingers at max. speed, max. acceleration with observance of the maximum permissible masses per finger and refer to 50% of the available stroke per jaw in the basic version.

Max. speed (positioning) and max. acceleration: is the speed and acceleration acting on each jaw.



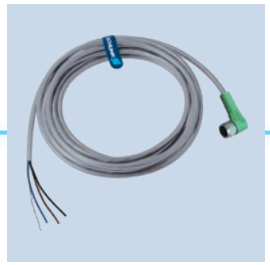
Application example

Flexible, cycle-time optimized loading and unloading of a machine tool. By using two grippers on the robot, the machine tool can be automatically loaded in a way that is optimized in terms of cycle time, meaning that productivity can be increased. Finished part and pre-machined part can be transported in one loading cycle. Due to the large and freely programmable jaw stroke of the gripper, different diameters can be gripped without having to change the gripper.

1. EZU double gripper for handling raw and finished parts
2. Machine tool with ROTA THW3 power lathe chuck

SCHUNK offers more ...

The following components make the product even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.



Power cable

Communication cables

Intermediate jaw

Robot adaptation kits

Robot-specific connection cables

Customizable gripper fingers

Finger blank

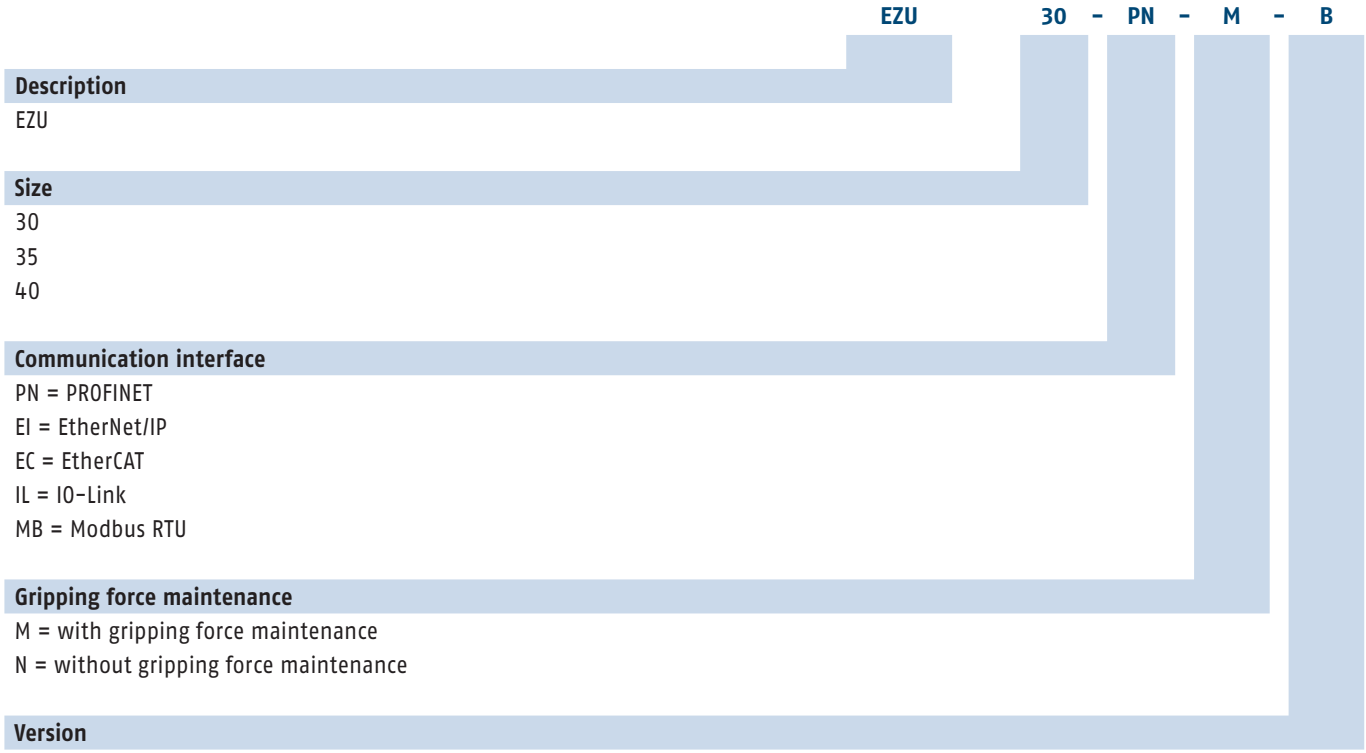
Jaw quick-change system

ⓘ For more information on these products can be found on the following product pages or at schunk.com.

Options and special information

Gripping modes: The BasicGrip and StrongGrip gripping modes are available. With BasicGrip continuous operation of the motor and thus permanent re-gripping of the workpiece is possible. The gripping speed is automatically optimized for gripping force adjustment. With StrongGrip, the maximum gripping force is generated and then stored by the gripping force maintenance. Permanent regripping is possible within an adjustable time frame. In addition, defined pause times and maximum ambient temperatures must be taken into account in StrongGrip mode. Further details can be found in the operating manual.
Gripping force maintenance: In the event of an emergency stop or a voltage drop, more than 80% of the originally applied gripping force can be reliably maintained due to a combination of an electric holding brake and the initial tension of the elastic element. If the gripping force and position maintenance is activated preventatively, 100% of the originally applied gripping force can be maintained. Overrun of the gripper fingers when removing the workpiece is a few millimeters and depends on the gripping force generated. Variants without gripping force maintenance are also available as an option.
Seal: The gripper comes strandard with enhanced protection against the ingress of dust or liquids. The IP protection of the electronics is only given if the plug connectors have been mounted properly. The gearbox of the gripper is additionally protected by a seal on the output pinions.
Interface of the base jaws: When the intermediate jaw is used, the interface of the base jaws corresponds to that of the universal gripper PZN-plus. This means that the extensive range of finger accessories for the PZN-plus can also be used for this gripper, taking into account the interfering contours, and the application limits that apply.

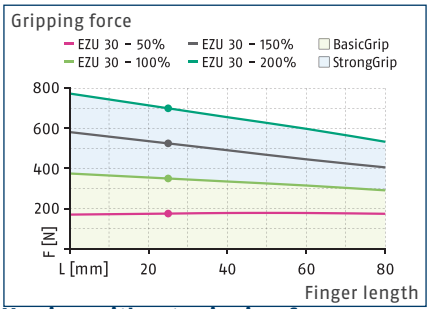
Ordering example



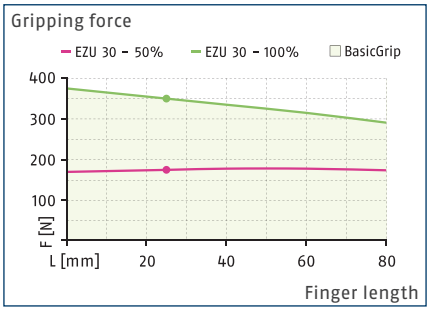
EZU 30

Centric Grippers

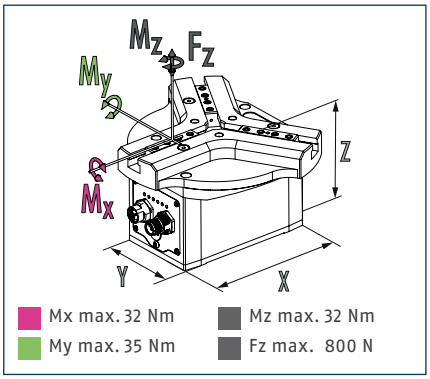
Version with gripping force maintenance device



Version without gripping force maintenance



Dimensions and maximum loads



ⓘ The indicated torques and forces are static values, apply for each base jaw, and may occur simultaneously.

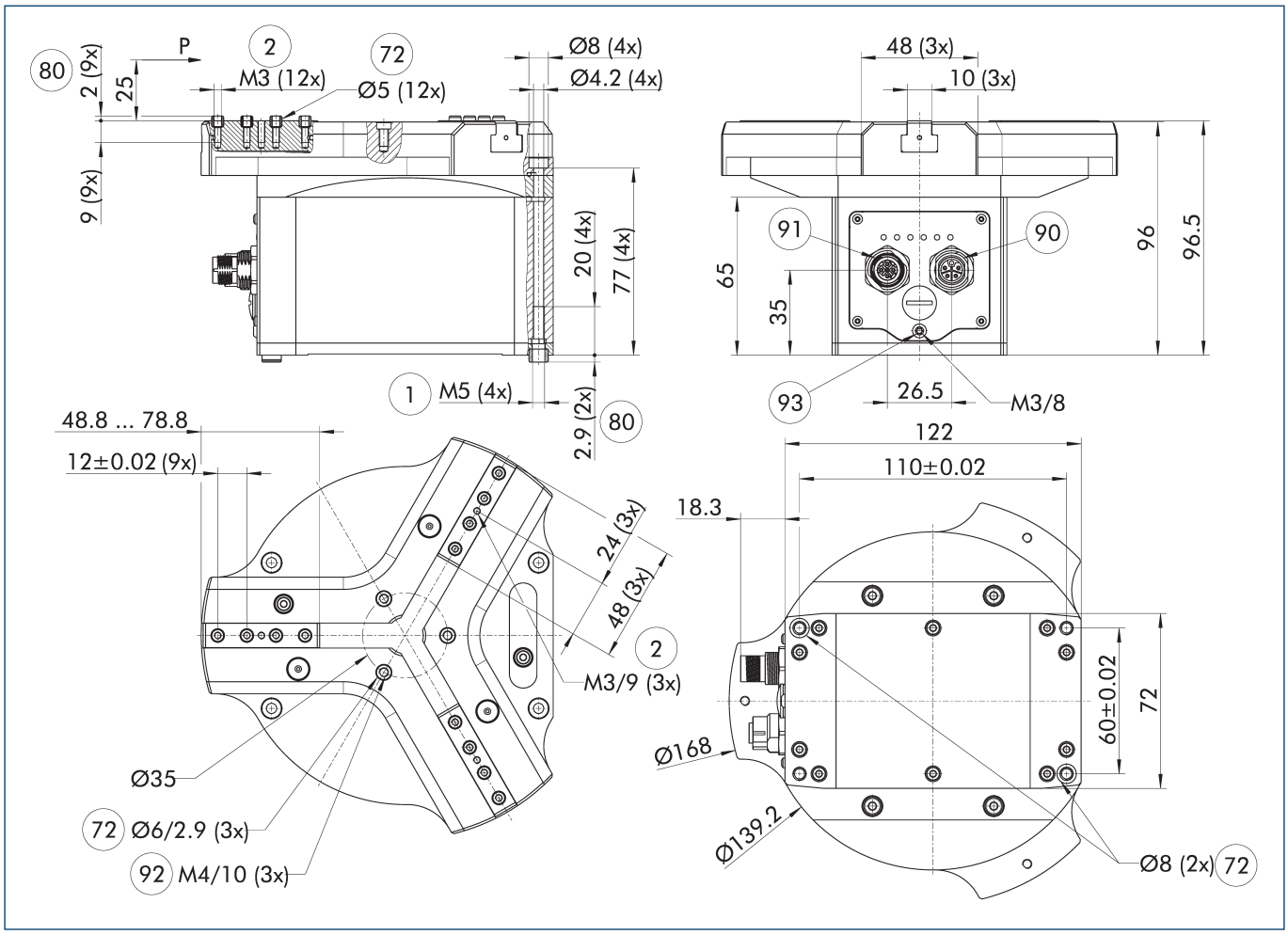
Technical data EZU with gripping force maintenance

Description		EZU 30-PN-M-B	EZU 30-EI-M-B	EZU 30-EC-M-B	EZU 30-IL-M-B	EZU 30-MB-M-B
ID		1581935	1581970	1581972	1581976	1581979
General operating data						
Stroke per jaw	[mm]	30	30	30	30	30
Min./max. gripping force	[N]	175/700	175/700	175/700	175/700	175/700
Min./max. gripping force maintenance	[%]	90/100	90/100	90/100	90/100	90/100
Max. permissible finger length	[mm]	80	80	80	80	80
Max. permissible weight per finger	[kg]	0.4	0.4	0.4	0.4	0.4
Repeat accuracy (gripping)	[mm]	0.02	0.02	0.02	0.02	0.02
Repeat accuracy (positioning, unidirectional)	[mm]	0.05	0.05	0.05	0.05	0.05
Repeat accuracy (positioning, bi-directional)	[mm]	0.15	0.15	0.15	0.15	0.15
Closing/opening time (positioning, 50% stroke)	[s]	0.6/0.6	0.6/0.6	0.6/0.6	0.6/0.6	0.6/0.6
Max. speed (positioning)	[mm/s]	40	40	40	40	40
Max. acceleration	[mm/s²]	250	250	250	250	250
Weight	[kg]	2.3	2.3	2.3	2.3	2.3
Min./max. ambient temperature	[°C]	5/55	5/55	5/55	5/55	5/55
IP protection class, electronics		67	67	67	67	67
IP protection class guide/base jaws		40	40	40	40	40
Cleanroom class ISO 14644-1:2015		5	5	5	5	5
Electrical operating data						
Nominal voltage	[V]	24	24	24	24	24
Communication interface		PROFINET	EtherNet/IP	EtherCAT	IO-Link	Modbus RTU
BasicGrip nominal/max. current consumption	[A]	0.28/0.96	0.28/0.96	0.28/0.96	0.28/0.96	0.28/0.96
StrongGrip nominal/max. current consumption	[A]	0.7/1.2	0.7/1.2	0.7/1.2	0.7/1.2	0.7/1.2
Logic nominal/max. current consumption	[A]	0.16/0.2	0.16/0.2	0.16/0.2	0.16/0.2	0.16/0.2
Options and their characteristics						
Dustproof version		1582002	1582004	1582020	1582029	1582033
IP protection class guide/base jaws		64	64	64	64	64
Stroke per jaw	[mm]	20	20	20	20	20
Min./max. gripping force	[N]	210/700	210/700	210/700	210/700	210/700
Weight	[kg]	2.35	2.35	2.35	2.35	2.35
Cleanroom class ISO 14644-1:2015		4	4	4	4	4

Technical data EZU without gripping force maintenance

Description		EZU 30-PN-N-B	EZU 30-EI-N-B	EZU 30-EC-N-B	EZU 30-IL-N-B	EZU 30-MB-N-B
ID		1581956	1581971	1581974	1581978	1582001
General operating data						
Stroke per jaw	[mm]	30	30	30	30	30
Min./max. gripping force	[N]	175/350	175/350	175/350	175/350	175/350
Max. permissible finger length	[mm]	80	80	80	80	80
Max. permissible weight per finger	[kg]	0.4	0.4	0.4	0.4	0.4
Repeat accuracy (gripping)	[mm]	0.02	0.02	0.02	0.02	0.02
Repeat accuracy (positioning, unidirectional)	[mm]	0.05	0.05	0.05	0.05	0.05
Repeat accuracy (positioning, bi-directional)	[mm]	0.15	0.15	0.15	0.15	0.15
Closing/opening time (positioning, 50% stroke)	[s]	0.6/0.6	0.6/0.6	0.6/0.6	0.6/0.6	0.6/0.6
Max. speed (positioning)	[mm/s]	40	40	40	40	40
Max. acceleration	[mm/s²]	150	150	150	150	150
Weight	[kg]	2.25	2.25	2.25	2.25	2.25
Min./max. ambient temperature	[°C]	5/55	5/55	5/55	5/55	5/55
IP protection class, electronics		67	67	67	67	67
IP protection class guide/base jaws		40	40	40	40	40
Cleanroom class ISO 14644-1:2015		5	5	5	5	5
Electrical operating data						
Nominal voltage	[V]	24	24	24	24	24
Communication interface		PROFINET	EtherNet/IP	EtherCAT	IO-Link	Modbus RTU
BasicGrip nominal/max. current consumption	[A]	0.14/0.67	0.14/0.67	0.14/0.67	0.14/0.67	0.14/0.67
Logic nominal/max. current consumption	[A]	0.16/0.2	0.16/0.2	0.16/0.2	0.16/0.2	0.16/0.2
Options and their characteristics						
Dustproof version		1582003	1582007	1582025	1582031	1582037
IP protection class guide/base jaws		64	64	64	64	64
Stroke per jaw	[mm]	20	20	20	20	20
Min./max. gripping force	[N]	210/350	210/350	210/350	210/350	210/350
Weight	[kg]	2.3	2.3	2.3	2.3	2.3
Cleanroom class ISO 14644-1:2015		4	4	4	4	4

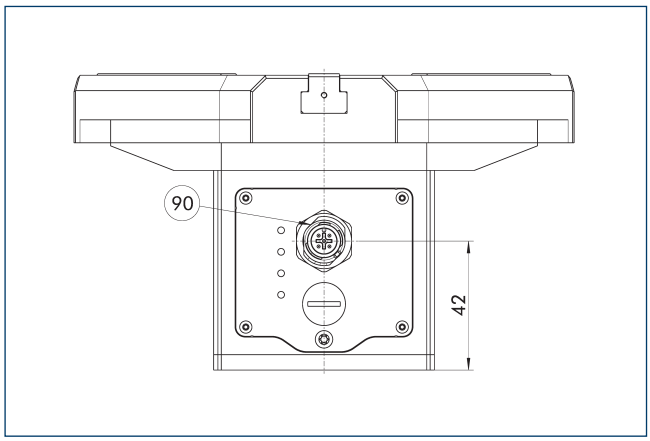
Main view



The drawing shows the gripper in PROFINET, EtherNet/IP or EtherCAT version, with and without gripper force maintenance with opened jaws. Refer to the operating manual of the product to find the minimum number of fastening screws for mounting the gripper fingers.

- (1) Gripper connection
- (2) Finger connection
- (72) Fit for centering sleeves
- (80) Depth of the centering sleeve hole in the counter part
- (90) Voltage supply (M12, connector, 4 pin, L-coded)
- (91) Communication (M12, socket, 4 pin, D-coded)
- (92) Screw connection with fittings for additional attachment (these centering sleeves are not included in the scope of delivery)
- (93) Functional ground connection

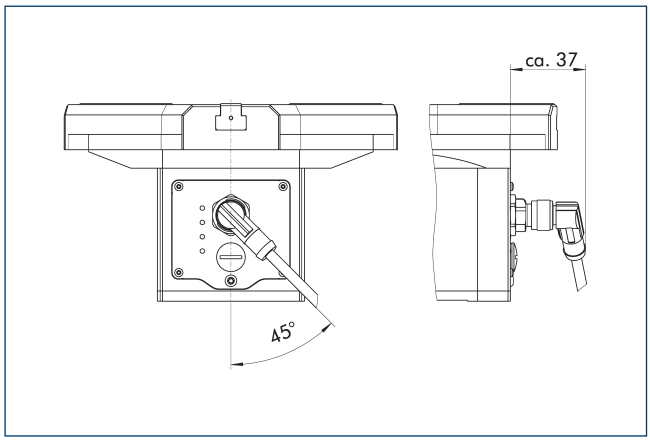
IO-Link and Modbus RTU version



(90) Voltage supply and communication (M12, connector, A-coded, IL: 5 pin, MB: 4 pin)

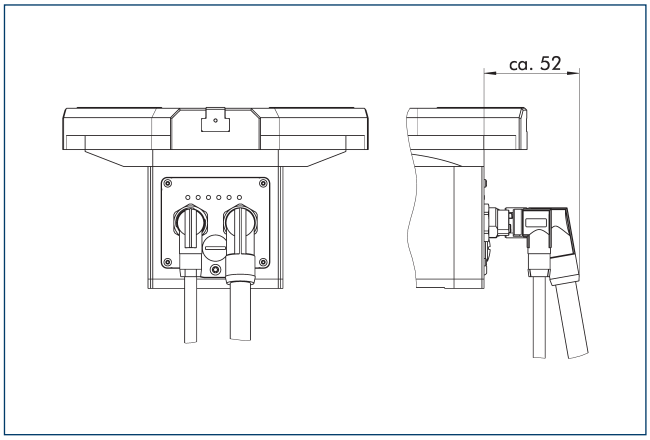
The drawing shows the changes in dimension of the IO-Link and Modbus RTU versions compared to the basic version found in the main view.

Angled plug connectors for IO-Link and Modbus RTU version



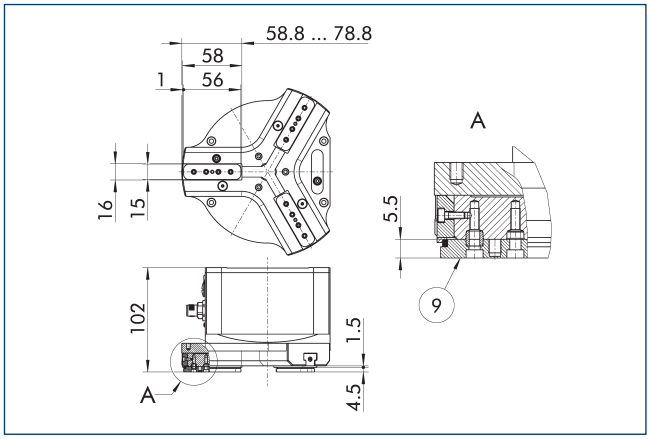
The drawing shows the direction of the cable outlet when using angled connectors. The distance from the plug connector to the gripper housing may vary depending on the cable manufacturer used.

Angled plug connectors for PROFINET, EtherNet/IP and EtherCAT version



The drawing shows the direction of the cable outlet when using angled connectors. The distance from the plug connector to the gripper housing may vary depending on the cable manufacturer used.

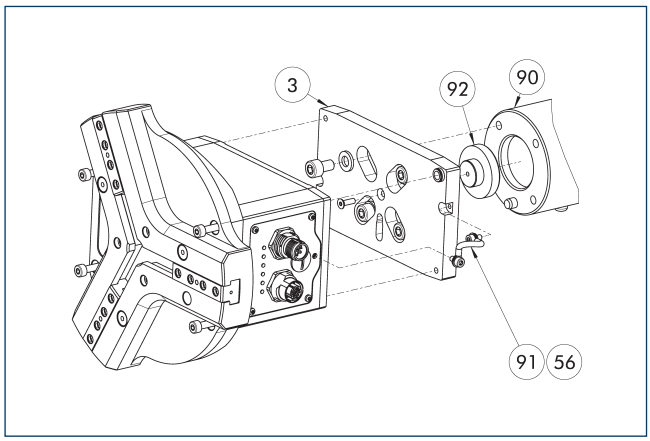
Dustproof version



(9) For mounting screw connection diagram, see basic version

The "dustproof" option increases the degree of protection against penetrating substances. The assembly diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

Robot adaptation packages single gripper

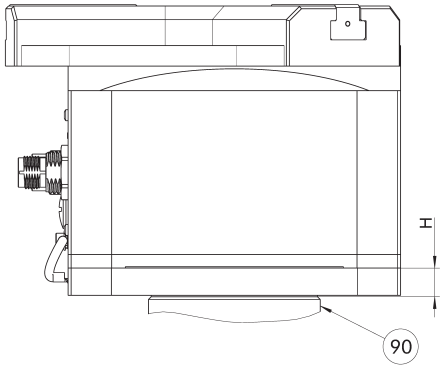


(3) Adapter
(56) Included in the scope of delivery
(90) Robot flange
(91) Cable functional ground
(92) Centering disc

Robot adaptation packages for single grippers contain all components required to mechanically adapt the gripper to the desired robot flange. Depending on the flange pattern, suitable screws, centering pins and the centering collar are included.

Description	ID	Height	DIN ISO-9409 bolt circle	Manufac-turer	Model
		[mm]	[mm]		
Adapter					
AKO EZU30/ GP12	1597759	11		YASKAWA	GP12
AKO EZU30/ GP7,8	1597758	10.5		YASKAWA	GP7, GP8
AKO EZU30/ ISO31.5	1597749	10.5	31.5	ABB	SWIFTI CRB1100, IRB1100, IRB1200
AKO EZU30/ ISO40	1597756	10.5	40	ABB	IRB1300
AKO EZU30/ ISO50	1597757	10.5	50	ABB	GoFa CRB15000
AKO EZU30/ ISO50	1597757	10.5	50	FANUC	CRX-5iA, CRX-10iA, CRX-20iA, CRX-25iA
AKO EZU30/ ISO50	1597757	10.5	50	Kassow Robots	
AKO EZU30/ ISO50	1597757	10.5	50	Universal Robots	UR7e, UR12e, UR16e, UR15
AKO EZU30/ ISO50	1597757	10.5	50	YASKAWA	HC10DTP, HC20DTP

Robot adaptation packages single gripper

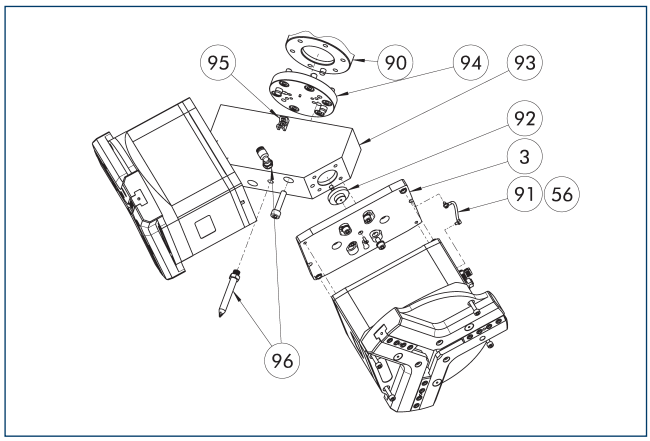


(90) Robot flange

The single-piece design enables a flat construction of the entire system. The adapter is manufactured from blank aluminum. The listed robot manufacturers with their associated models constitute useful recommendations taking the total mass into account. SCHUNK nevertheless recommends that the payload of the robot will be considered in detail.

Description	ID	Height	DIN ISO-9409 bolt circle	Manufac-turer	Model
		[mm]	[mm]		
Adapter					
AKO EZU30/ GP12	1597759	11		YASKAWA	GP12
AKO EZU30/ GP7,8	1597758	10.5		YASKAWA	GP7, GP8
AKO EZU30/ ISO31.5	1597749	10.5	31.5	ABB	SWIFTI CRB1100, IRB1100, IRB1200
AKO EZU30/ ISO40	1597756	10.5	40	ABB	IRB1300
AKO EZU30/ ISO50	1597757	10.5	50	ABB	GoFa CRB15000
AKO EZU30/ ISO50	1597757	10.5	50	FANUC	CRX-5iA, CRX-10iA, CRX-20iA, CRX-25iA
AKO EZU30/ ISO50	1597757	10.5	50	Kassow Robots	
AKO EZU30/ ISO50	1597757	10.5	50	Universal Robots	UR7e, UR12e, UR16e, UR15
AKO EZU30/ ISO50	1597757	10.5	50	YASKAWA	HC10DTP, HC20DTP

Robot adaptation packages double gripper

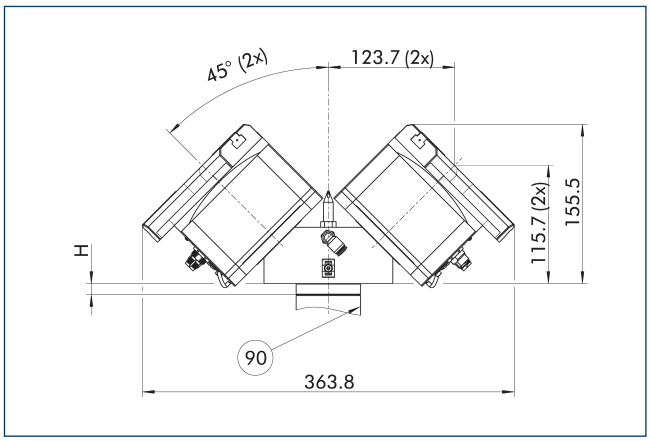


(3) Adapter
(56) Included in the scope of delivery
(90) Robot flange
(91) Cable functional ground
(92) Centering collar gripper
(93) angle adapter
(94) Adapter robot
(95) Cable holder (included in the scope of delivery of the cable package)
(96) Attachment set blow-off nozzle

Robot adaptation packages for double grippers contain all components required to mechanically adapt two grippers to the desired robot flange. Depending on the flange pattern, suitable screws, centering pins and centering material are included in the delivery. A short or long blow-off nozzle can be added as an option.

Description	ID	Height	DIN ISO-9409 bolt circle	Manufacturer	Model
		[mm]	[mm]		
Adapter					
AKO 2xEZU30/ GP12	1597809	15.8		YASKAWA	GP12
AKO 2xEZU30/ ISO50	1597804	10.8	50	FANUC	CRX-10iA, CRX-20iA, CRX-25iA
AKO 2xEZU30/ ISO50	1597804	10.8	50	Kassow Robots	
AKO 2xEZU30/ ISO50	1597804	10.8	50	Universal Robots	UR12e, UR16e, UR15
AKO 2xEZU30/ ISO50	1597804	10.8	50	YASKAWA	HC10DTP, HC20DTP
AKO 2xEZU30/ ISO63	1597806	14.8	63		
AKO 2xEZU30/ ISO80	1597808	14.8	80	Universal Robots	UR20, UR30
Attachment set blow-off nozzle (short)	1524788				

Robot adaptation packages double gripper



(90) Robot flange

The adapter is manufactured from blank aluminum. The listed robot manufacturers with their associated models constitute useful recommendations taking the total mass into account. SCHUNK nevertheless recommends that the payload of the robot will be considered in detail.

Description	ID	Height	DIN ISO-9409 bolt circle	Manufacturer	Model
		[mm]	[mm]		
Adapter					
AKO 2xEZU30/ GP12	1597809	15.8		YASKAWA	GP12
AKO 2xEZU30/ ISO50	1597804	10.8	50	FANUC	CRX-10iA, CRX-20iA, CRX-25iA
AKO 2xEZU30/ ISO50	1597804	10.8	50	Kassow Robots	
AKO 2xEZU30/ ISO50	1597804	10.8	50	Universal Robots	UR12e, UR16e, UR15
AKO 2xEZU30/ ISO50	1597804	10.8	50	YASKAWA	HC10DTP, HC20DTP
AKO 2xEZU30/ ISO63	1597806	14.8	63		
AKO 2xEZU30/ ISO80	1597808	14.8	80	Universal Robots	UR20, UR30

Robot-specific connection cables

Connection cables and connection cable kits for electrical connection to specific robot models and controllers. Depending on the manufacturer, a direct connection to the tool flange is possible or external cabling is required. In combination with mechanical adapters and software modules, this allows commissioning on the robot to be carried out in just a few steps. Cables for external cable routing are designed to withstand torsion.

Description	ID	Manufacturer	Series	Model	Controller	Connection	Cable length	Interface
							[m]	
Single gripper								
EGU/EGK/EZU CNK-SG-FANUC-CRX	1532240	FANUC	CRX	CRX-5iA, CRX-10iA, CRX-20iA, CRX-25iA, CRX-30iA	R-30iB Plus Mini	Tool (male), internal feed-through		Modbus RTU
EGU/EGK/EZU CNK-SG-KR-Gen2	1620284	Kassow Robots	KR Series, Edge Edition (Gen2)	KR810, KR1018, KR1205, KR1410, KR1805		Tool (male), internal feed-through		Modbus RTU
EGU/EGK/EZU CNK-SG-UR-eSeries (female)	1615303	Universal Robots	e series, UR series	UR3e, UR7e, UR12e, UR16e, UR15, UR20, UR30	CB5	Tool (female), internal feed-through		Modbus RTU
EGU/EGK/EZU CNK-SG-UR-eSeries (male)	1532237	Universal Robots	e series, UR series	UR3e, UR7e, UR12e, UR16e, UR15, UR20, UR30	CB5	Tool (male), internal feed-through		Modbus RTU
EGU/EZU CNK-SG-ABB-OmniCoreC30	1529600	ABB	IRB, CRB		OmniCore C30	Controller, external cable routing	5	EtherNet/IP
EGU/EZU CNK-SG-YASKAWA-YRC1000micro	1529619	YASKAWA	GP, HC		YRC1000MICRO	Controller, external cable routing	5	EtherNet/IP

ⓘ The performance data of the robot must be taken into account. SCHUNK also recommends the use of a suitable strain relief.

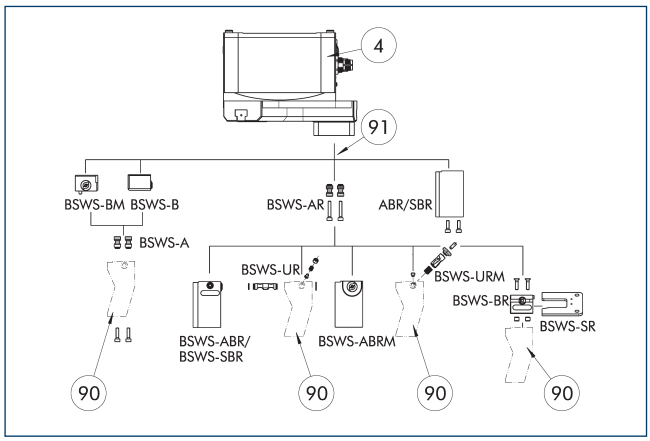
Robot-specific connection cables double gripper

Connection cables and connection cable kits for electrical connection to specific robot models and controllers. Depending on the manufacturer, a direct connection to the tool flange is possible or external cabling is required. In combination with mechanical adapters and software modules, this allows commissioning on the robot to be carried out in just a few steps. Cables for external cable routing are designed to withstand torsion.

Description	ID	Manufacturer	Series	Model	Controller	Connection	Cable length	Interface
							[m]	
Double gripper								
EGU/EGK/EZU CNK-DG-FANUC-CRX	1532241	FANUC	CRX	CRX-5iA, CRX-10iA, CRX-20iA, CRX-25iA, CRX-30iA	R-30iB Plus Mini	Tool (male), internal feed-through		Modbus RTU
EGU/EGK/EZU CNK-DG-KR-Gen2	1620285	Kassow Robots	KR Series, Edge Edition (Gen2)	KR810, KR1018, KR1205, KR1410, KR1805		Tool (male), internal feed-through		Modbus RTU
EGU/EGK/EZU CNK-DG-UR-eSeries (female)	1615305	Universal Robots	e series, UR series	UR3e, UR7e, UR12e, UR16e, UR15, UR20, UR30	CB5	Tool (female), internal feed-through		Modbus RTU
EGU/EGK/EZU CNK-DG-UR-eSeries (male)	1532238	Universal Robots	e series, UR series	UR3e, UR7e, UR12e, UR16e, UR15, UR20, UR30	CB5	Tool (male), internal feed-through		Modbus RTU
EGU/EZU CNK-DG-ABB-OmniCoreC30	1529608	ABB	IRB, CRB		OmniCore C30	Controller, external cable routing	5	EtherNet/IP
EGU/EZU CNK-DG-YASKAWA-YRC1000micro	1529621	YASKAWA	GP, HC		YRC1000MICRO	Controller, external cable routing	5	EtherNet/IP

ⓘ The performance data of the robot must be taken into account. SCHUNK also recommends the use of a suitable strain relief.

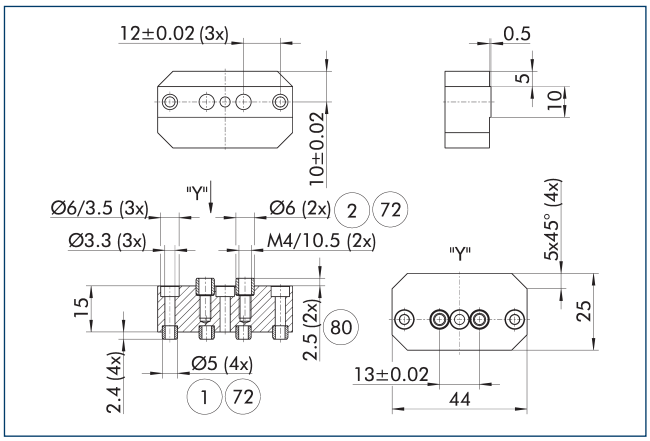
BSWS jaw quick-change jaw systems



(4) Grippers
(91) Intermediate jaw
(90) Customized gripper fingers

There are various jaw quick-change systems available for the gripper. For detailed information, please refer to the corresponding product.

Intermediate jaw ZBA-EZU 30

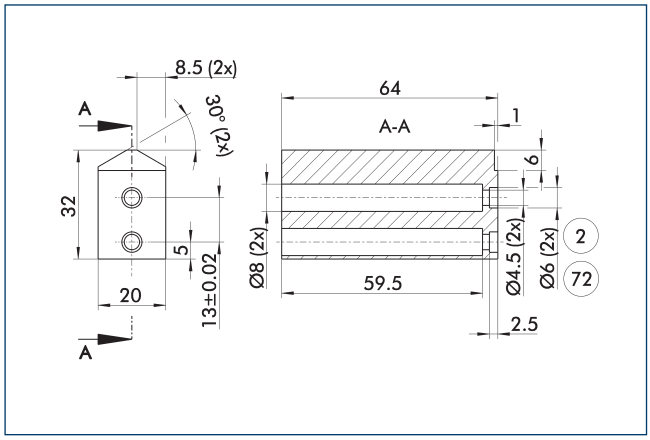


(1) Gripper connection
(2) Finger connection
(72) Fit for centering sleeves
(80) Depth of the centering sleeve hole in the counter part

When used, the interface of the base jaws corresponds to the one of the universal gripper PZN-plus. This means that the extensive range of finger accessories for the PZN-plus can also be used for this gripper, taking into account the interfering contours, and the application limits that apply.

Description	ID	Material	Scope of delivery
Intermediate jaw			
ZBA EZU 30	1582547	Steel	3
ZBA EZU 30 SD	1591235	Steel	3

Finger blanks ABR/SBR-PGZN-plus 64



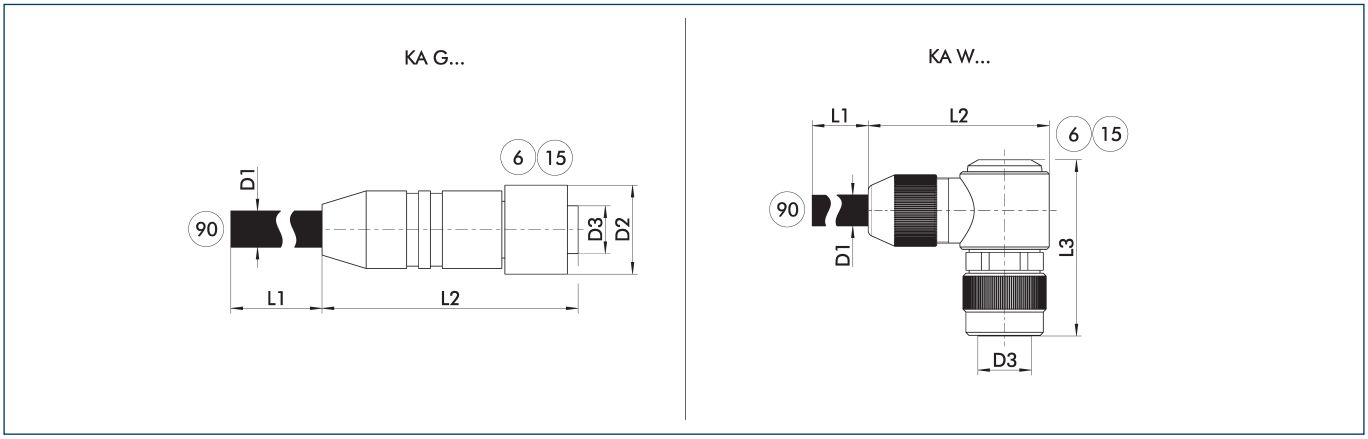
(2) Finger connection
(72) Fit for centering sleeves

The drawing shows the finger blank which can be reworked by the customer.

Description	ID	Material	Scope of delivery
Finger blank			
ABR-PGZN-plus 64	0300010	Aluminum (3.4365)	1
SBR-PGZN-plus 64	0300020	Steel (1.7131)	1

ⓘ When finger blanks are used, the closing stroke of individual gripper series may be limited. Please check this in detail in advance using the CAD data and adjust the reworking of the fingers accordingly.

Voltage supply connection cable



KA G... Connection cable with straight plug connector
KA W... Connection cable with angled plug connector

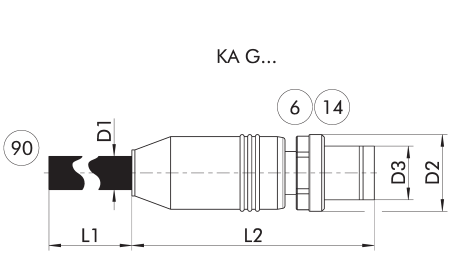
(6) Connection module side
(15) Socket
(90) Cable end with open wire strands

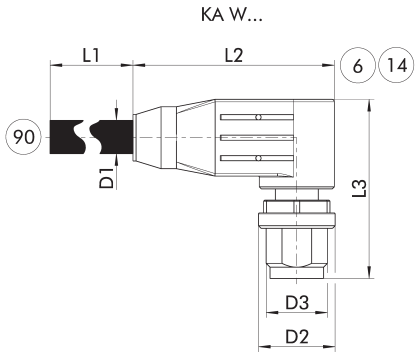
The connection cables are used to connect the SCHUNK product to the voltage supply.

Description	ID	L1	D1	L2	D2	L3	D3
		[m]	[mm]	[mm]	[mm]	[mm]	
Voltage supply connection cable – drag chain and torsion resistant M12 socket, straight							
KA GLN12L04-LK-00500-A	1502019	5	7.2	53.5	18		M12 L-coded
KA GLN12L04-LK-01000-A	1502023	10	7.2	53.5	18		M12 L-coded
Voltage supply connection cable – drag chain and torsion resistant M12 socket, angled							
KA WLN12L04-LK-00500-A	1502028	5	7.2	49	18	40	M12 L-coded
KA WLN12L04-LK-01000-A	1502032	10	7.2	49	18	40	M12 L-coded

ⓘ Please observe the min. bending radius for cable track-compatible cables or the max. torsion angle for torsion-compatible cables. These are generally 10 times the cable diameter or +/- 180°/m. Please refer to the product documentation for information about max. cable length and min. wire cross section.

Connection cable communication PROFINET, EtherNet/IP and EtherCAT





KA G... Straight plug connector
KA W... Angular plug connector

6 Connection module side
14 Connector

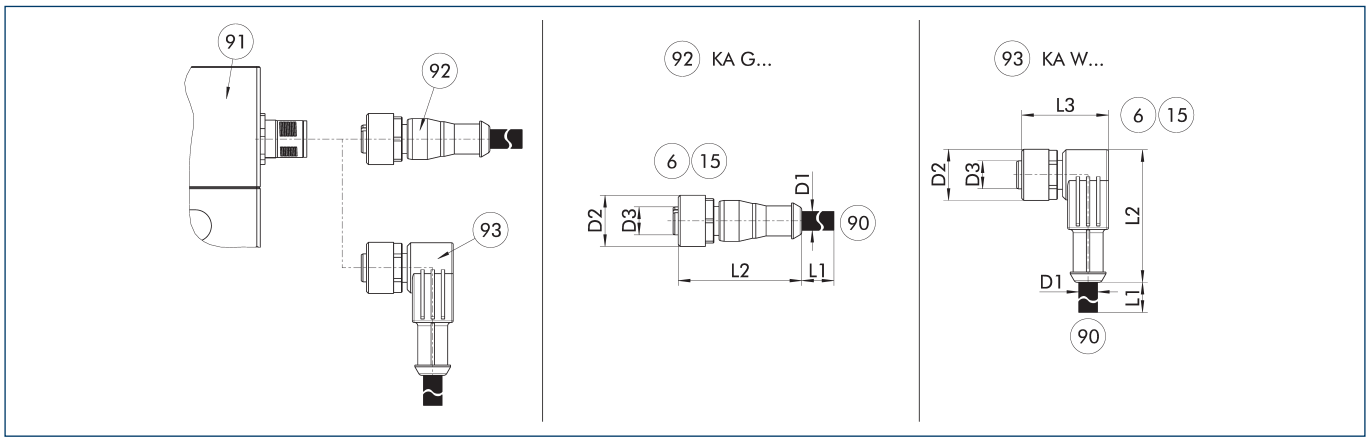
90 Cable ends with second plug connector

The communication cables are suitably assembled for the mechatronic products from SCHUNK and can be used for the PROFINET, EtherNET/IP and EtherCAT communication interfaces. They always have an M12 plug connector on the module side (D-coded, connector). The plug connectors are designed straight (KA G...) or angled (KA W...) on the module side. On the second side, the cables either have a straight M12 plug connector (D-coded, connector) or an RJ45 plug connector.

Description	ID	L1	D1	L2	D2	L3	D3
		[m]	[mm]	[mm]	[mm]	[mm]	
EtherCAT connection cable star distributor M12 D-coded socket, straight; on M8 A-coded connector, straight							
KA GGN12D04-08A04-ET-00020-A	1521990	0.2	6.5	47.3	14.8		M12
Communication cable suitable for drag chain M12 connector, straight – to M12 connector, straight							
KA GGN12D04-12D04-ET-00500-A	1505114	5	6.5	47.3	14.8		M12
KA GGN12D04-12D04-ET-01000-A	1505119	10	6.5	47.3	14.8		M12
Communication cable suitable for drag chain M12 connector, straight – to RJ45 connector, straight							
KA GGN12D04-RJ45-ET-00200-A	1511256	2	6.5	47.3	14.8		M12
KA GGN12D04-RJ45-ET-00500-A	1354681	5	6.5	47.8	14.8		M12
KA GGN12D04-RJ45-ET-01000-A	1505143	10	6.5	47.3	14.8		M12
Communication cable suitable for drag chain M12 connector, angled – to M12 connector, straight							
KA WGN12D04-12D04-ET-00500-A	1354661	5	6.5	47.8	14.8		M12
KA WGN12D04-12D04-ET-01000-A	1505141	10	6.5	36.3	14.8	30	M12
Communication cable suitable for drag chain M12 connector, angled – to RJ45 connector, straight							
KA WGN12D04-RJ45-ET-00500-A	1354688	5	6.5	36.3	14.8	30	M12
KA WGN12D04-RJ45-ET-01000-A	1505142	10	6.5	36.3	14.8	30	M12
Communication cable suitable for torsion-resistant M12 connector, straight – to M12 connector, straight							
KAR GGN12D04-12D04-ET-00500-A	1505146	5	6.5	47.8	14.8		M12
KAR GGN12D04-12D04-ET-01000-A	1505147	10	6.5	47.3	14.8		M12
Communication cable suitable for torsion-resistant M12 connector, straight – to RJ45 connector, straight							
KAR GGN12D04-RJ45-ET-00500-A	1354677	5	6.5	47.8	14.8		M12
KAR GGN12D04-RJ45-ET-01000-A	1505160	10	6.5	47.3	14.8		M12
Communication cable suitable for torsion-resistant M12 connector, angled – to M12 connector, straight							
KAR WGN12D04-12D04-ET-00500-A	1354674	5	6.5	47.8	14.8		M12
KAR WGN12D04-12D04-ET-01000-A	1505148	10	6.5	36.3	14.8	30	M12
Communication cable suitable for torsion-resistant M12 connector, angled – to RJ45 connector, straight							
KAR WGN12D04-RJ45-ET-00500-A	1354692	5	6.5	36.3	14.8	30	M12
KAR WGN12D04-RJ45-ET-01000-A	1505149	10	6.5	36.3	14.8	30	M12

ⓘ Please observe the min. bending radius for cable track-compatible cables or the max. torsion angle for torsion-compatible cables. These are generally 10 times the cable diameter or +/- 180°/m.

Connection cable for voltage supply and communication IO-Link



KA G... Connection cable with straight socket
KA W... Connection cable with angular socket

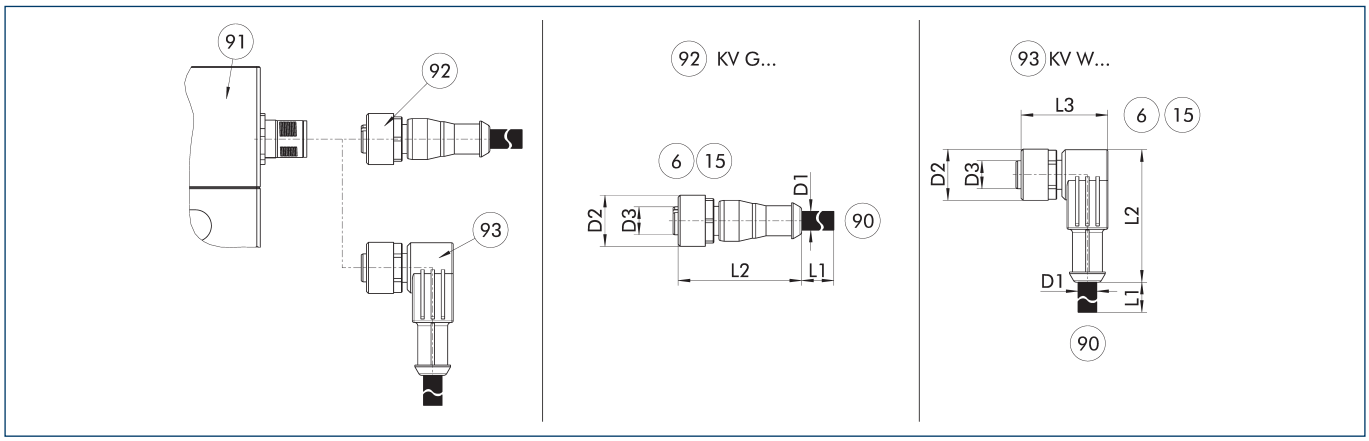
(6) Connection module side
(15) Socket
(90) SAC connection cable with open wire strands
(91) Connection plug component
(92) Cable with straight female connector
(93) Cable with angled female connector

The connection cable is ideal for connecting the corresponding components to the control system. The connection cable has a 5-pin M12 socket on one side, and open wire strands on the other side for individual connections. The connection cables are suitable for use both in the cable track as well as in torsion applications.

Description	ID	L1	D1	L2	D2	L3	D3
		[m]	[mm]	[mm]	[mm]	[mm]	
IO-Link connection cable – drag chain and torsion-compatible							
KA GLN1205-IOL-00500-A	1387207	5	4.8	38	15		M12
KA GLN1205-IOL-01000-A	1387209	10	4.8	38	15		M12
KA WLN1205-IOL-00500-A	1387210	5	4.8	39	15	28	M12
KA WLN1205-IOL-01000-A	1387211	10	4.8	39	15	28	M12

ⓘ Please observe the min. bending radius for cable track-compatible cables or the max. torsion angle for torsion-compatible cables. These are generally 10 times the cable diameter or +/- 180°/m.

Cable extension for voltage supply and communication IO-Link



KV G... Cable extension with straight socket

KV W... Cable extension with angled socket

6 Connection module side

15 Socket

90 Cable end with straight connector

91 Connection plug component

92 Cable with straight female connector

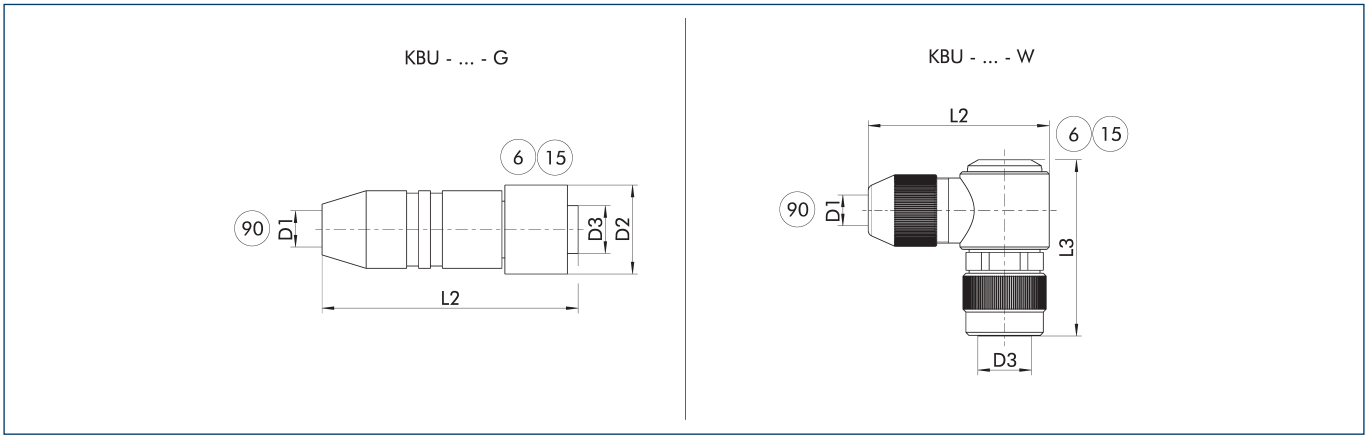
93 Cable with angled female connector

The cable extensions are ideal for connecting the relevant components to the control system, or for use as extension cables. The cable extensions have a 5-pin M12 connector with a straight or angled design on the module side and a 5-pin M12 plug with a straight design on the other side. The cable extensions are suitable for use in the cable track and in torsion applications.

Description	ID	L1	D1	L2	D2	L3	D3
		[m]	[mm]	[mm]	[mm]	[mm]	
IO-Link cable extension – cable track and torsion-compatible							
KV GGN1205-IOL-00200-A	1387195	2	4.8	41	15		M12
KV GGN1205-IOL-00500-A	1387199	5	4.8	41	15		M12
KV WGN1205-IOL-00200-A	1387202	2	4.8	39	15	28	M12
KV WGN1205-IOL-00500-A	1387205	5	4.8	39	15	28	M12

ⓘ Please observe the min. bending radius for cable track-compatible cables or the max. torsion angle for torsion-compatible cables. These are generally 10 times the cable diameter or +/- 180°/m.

Power supply plug-in connector



KBU – ... – G Socket with straight outlet
KBU – ... – W Socket with angular outlet

(6) Connection module side
(15) Socket

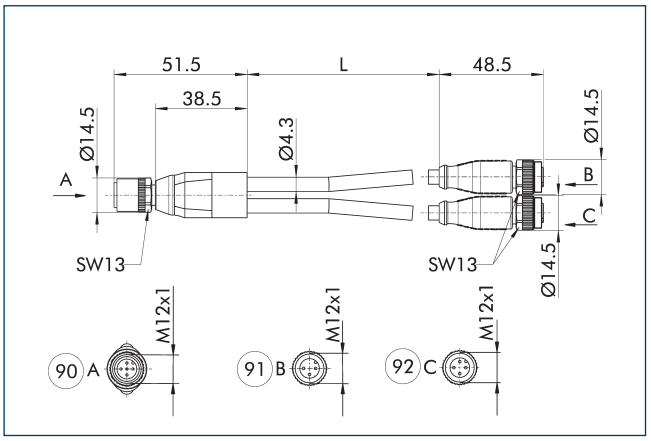
(90) D1 – max. diameter connection cable

The plug connectors are used to connect the SCHUNK product to the voltage supply. A customer cable can be used for this. The individual wire strands are clamped using screw connections in the plug connector.

Description	ID	D1 (max.)	L2	D2	L3	D3
		[mm]	[mm]	[mm]	[mm]	
Plug connector						
KBU-M12L-G	1502044	13	70	25		M12 L-coded
KBU-M12-W 5LP	1543957	13	49	25	99	M12 L-coded

ⓘ For the connection cable, a cross-section for each individual wire strand of 1.5 mm2 is recommended. Please refer to the product documentation for information about max. cable length and min. wire cross section.

Y-distributor for IO-Link for splitting logic and power supply

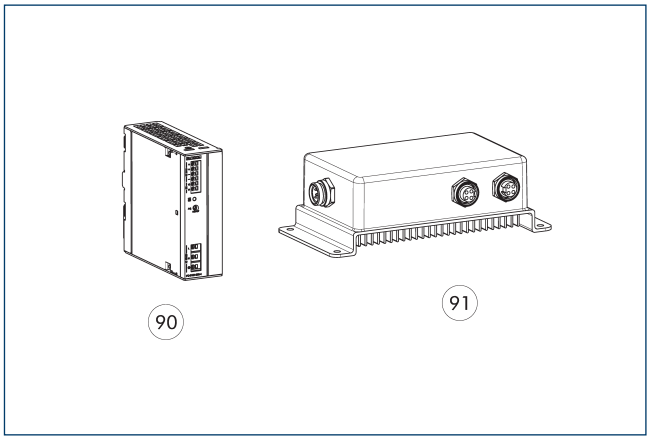


(90) Grippers
(91) Logic (IO-Link master)
(92) Power (24 V power supply)

The Y-distributor enables power to be supplied from a separate voltage source and is recommended when the current consumption of the product exceeds the current output of the IO-Link master. The logic supply and the IO-Link communication continue to run via the IO-Link master. IO-Link masters with port class A or port class B can be used.

Description	ID	Length
		[m]
Y-distributor, M12 socket, straight – on 2xM12 plugs, straight A-coded		
Y-Verteiler M12 5pol. auf 1x M12 3pol.	1523560	0.3

Switched-mode power supply



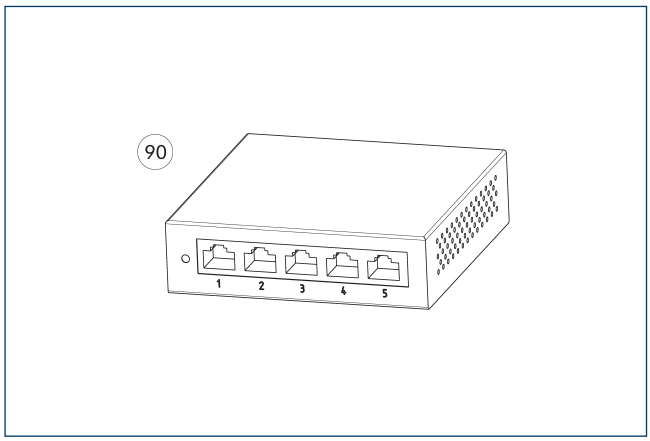
(90) 24 V power supply unit IP2
(91) 24 V power supply unit IP67

The power supply with an output voltage of 24 V and an input voltage range of 100 V – 240 V are matched to the power supply of our SCHUNK products. Whether for mounting in the control cabinet on DIN rail in protection class IP20 or directly in the field in protection class IP67: the power supply units deliver voltage where it is needed. We will be happy to assist you with further selection.

Description	ID	
24 V power supply unit IP2		
BLOCK PC-0124-050-0	31001408	
24 V power supply unit IP67		
TURCK PSU67-12-2480/M	1524336	

ⓘ For the power supply IP67, there are customizable plug connectors for connection to the power supply unit included in the scope of delivery.

Switch



90 Ethernet 5-port switch

The switches enable easy expansion of a high-speed network using wired connections. With the switch, several SCHUNK products can be included in a network and thus controlled via a PLC, for example.

Description	ID	
Ethernet switch		
D-Link DGS-105 5-Port Ethernet Switch	1526496	

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