



Type	centric
Number finger	3
Lubrication	endurance lubrication
Ambient temperature min./max.	+5°C / +60°C
Medium	compressed air
Max. particle size	5 µm
Compressed air oil content	0 mg/m³ - 5 mg/m³
Operating pressure min./max.	2 bar / 8 bar
Pressure for determining the forces	6 bar
Materials:	
Housing	Aluminium, hard anodized
Seal	NBR + PU (NBR + Polyurethane)
Functional components	Steel, hardened

Technical Notes

The pressure dew point must be 15 °C below the environmental and medium temperature and must not be higher than 3 °C.
The compressed air oil content must stay constant during the whole life cycle.

Type	Material number	SCHUNK ID
GSP-Z-16	R412000429	311140
GSP-Z-32	R412000432	311170
GSP-Z-50	R412000435	311190

	Type	Operating principle	Connection	Effective total gripping force I.D. gripper per finger, min.	Effective total gripping force O.D. gripper per Finger, min.	Effective total gripping force I.D. gripper min.	Material number
				[N]	[N]	[N]	
	GSP-Z-16	double-acting	M5	48	40	144	R412000429
	GSP-Z-32	double-acting		180	150	540	R412000432
	GSP-Z-50	double-acting		440	380	1320	R412000435

Material number	Effective total gripping force O.D. gripper min.	Gripping tolerance	Max. permitted finger length	Max. permitted finger mass	Mass moment of inertia	Closing times for 6 bar	Opening times for 6 bar	Recommended workpiece mass
	[N]		[mm]	[kg]	[kgcm²]	[s]	[s]	[kg]
R412000429	120	0,02 mm	30	0,03	0,11	0,02	0,02	0,6
R412000432	450	0,02 mm	60	0,08	0,97	0,02	0,02	2,25
R412000435	1140	-	80	0,25	6,29	-	-	5,7

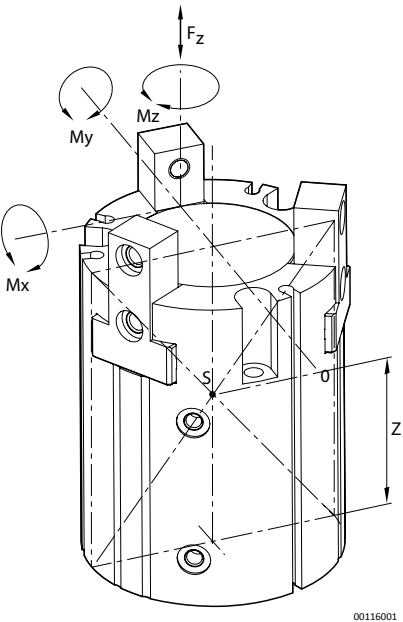
Material number	Air consumption per double stroke bei 1 bar	Weight
	[cm³]	[kg]
R412000429	4	0,1
R412000432	21	0,32
R412000435	93	0,95

Max. permitted finger length: measured starting from the upper edge of the housing
Permitted inertia (kg m²) depending on the size and angular velocity (1/s)

GSP-Z

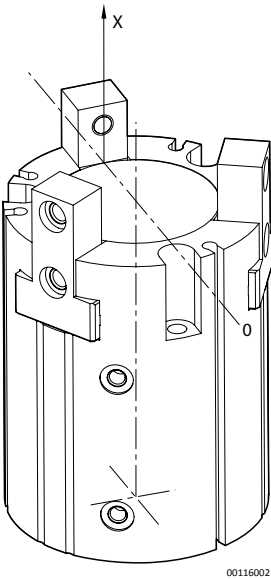
3-Finger Centric Gripper

Max. permitted forces and torques for gripper



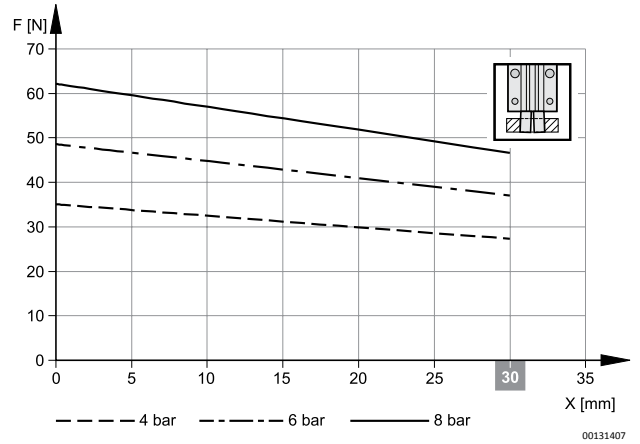
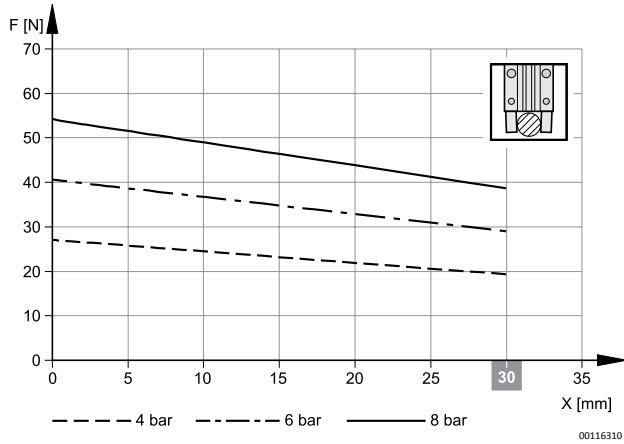
Type	Z	Max. permitted Force F_z	Torque (M_x)	Torque (M_y)	Torque (M_z)				
		[N]	[Nm]	[Nm]	[Nm]				
GSP-Z-16	29,9	100	1,8	0,5	1,4				
GSP-Z-32	38,8	120	4,5	1,2	2				
GSP-Z-50	56,2	160	11	2,7	3				

Permitted gripping range

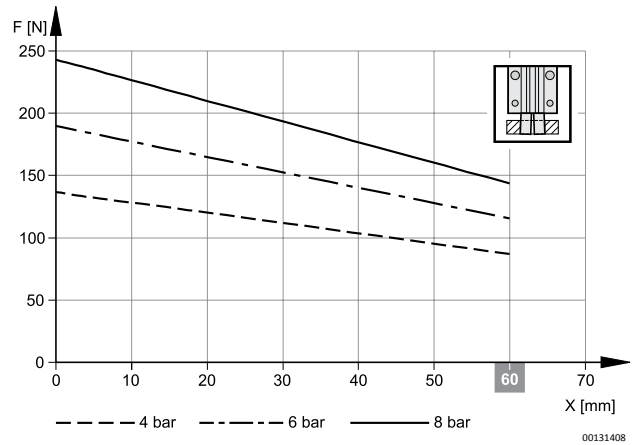
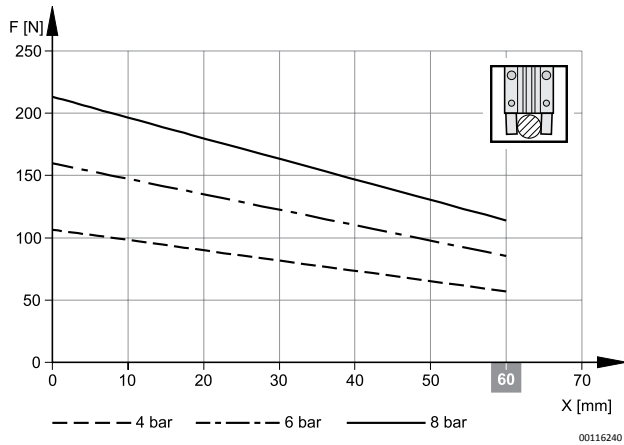


X = Clamping height

GSP-Z-16 Gripping force/finger



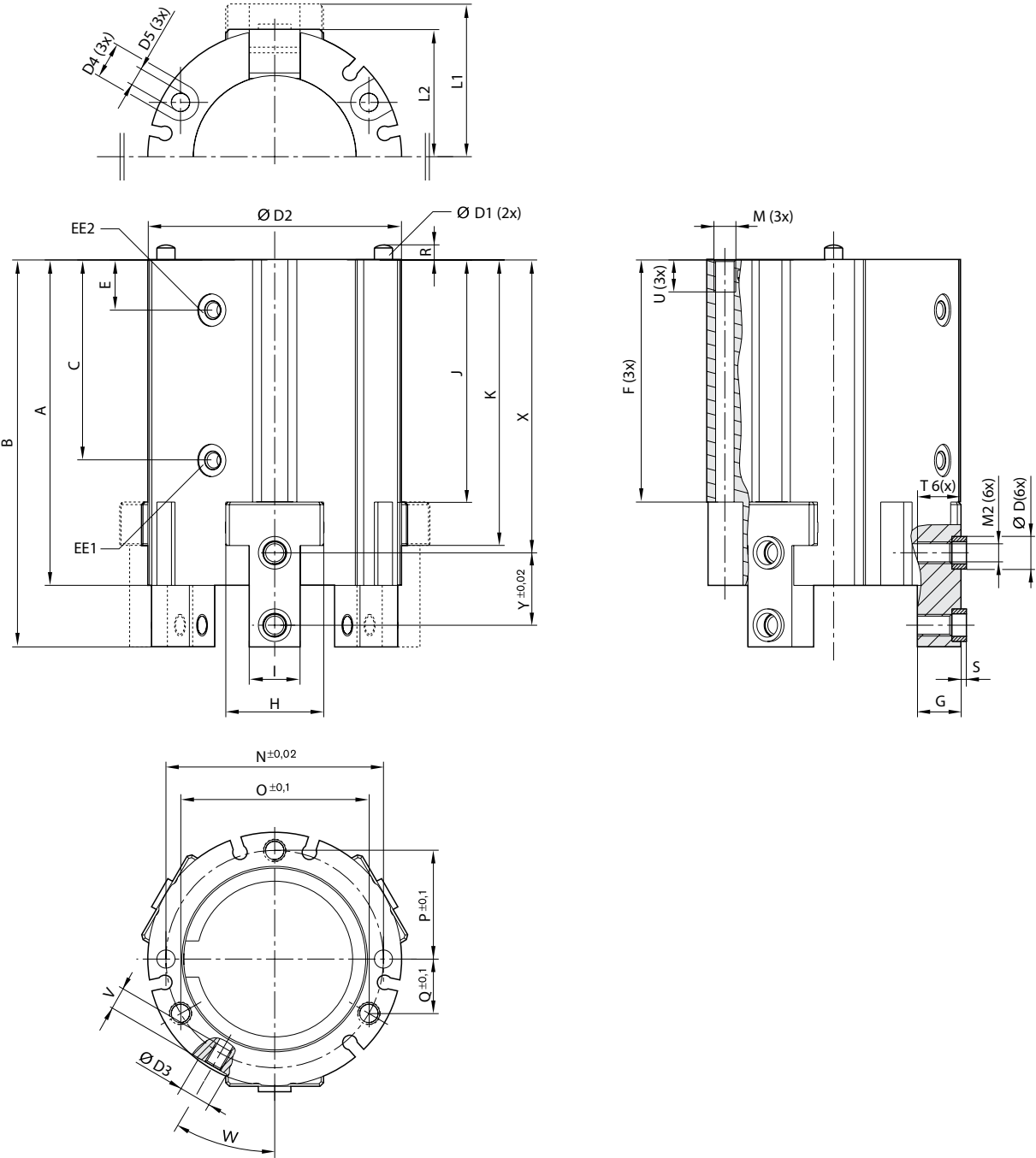
GSP-Z-32 Gripping force/finger



GSP-Z

3-Finger Centric Gripper

GSP-Z-16/-32



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L1 = Gripper open
L2 = Gripper closed
EE1 = Close gripper air connection
EE2 = Open gripper air connection
Centering rings (2 pieces) and cylindrical pins are included in the scope of delivery.

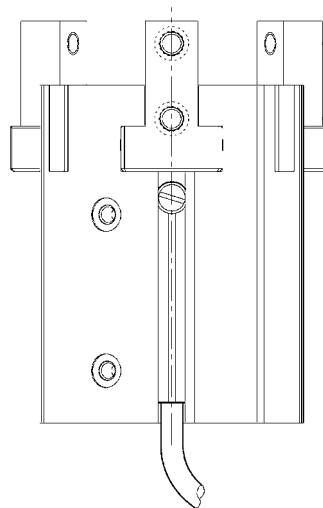
Type	A	B	C	D	D1	D2	D3	D4	D5	E	EE1	EE2
GSP-Z-16	52	57	30,5	Ø 5 K6	Ø 3 M6	Ø 30	Ø 9	Ø 6	Ø 3,3	6,5	M5	M5

Type	A	B	C	D	D1	D2	D3	D4	D5	E	EE1	EE2
GSP-Z-32	65	75,5	40	Ø 7 K6	Ø 4 M6	Ø 48	Ø 9	Ø 8	Ø 4,2	10	M5	M5
GSP-Z-50	90	107	55,5	Ø 9 K6	Ø 5 M6	Ø 70	Ø 9	Ø 10	Ø 5,1	14	M5	M5

Type	F	G	H	I	J	K	L1	L2	M	M2	N	O
GSP-Z-16	39,5	6	10	6	40	45	18	15	M4	M3	25	19,9
GSP-Z-32	49	8,5	17	10	49,5	58,5	28	24	M5	M5	40	34,6
GSP-Z-50	67	12	27	14	67	79	42	35	M6	M6	60	52

Type	P	Q	R	S	T	U	V	W	X	Y		
GSP-Z-16	11,5	5,75	3	1,6	6	6,5	4,2	30°	47,5	6		
GSP-Z-32	20	10	5	1,6	8,5	7,5	4,5	30°	59	12		
GSP-Z-50	30	15	4	2,1	12	9	6	30°	81	20		

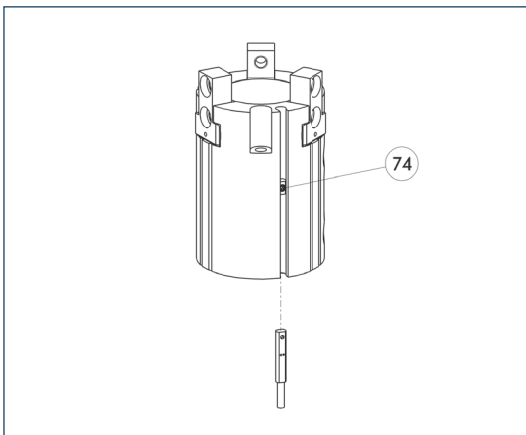
Sensor ST4, ST4-2P



00116003

Groove width = 4 mm
The sensors must be ordered from Aventics.

Sensor MMS-P 22



Stop for MMS-P
Position monitoring with two programmable positions for each sensor.
End position monitoring installed in C-groove.

Designation	ID-No.	Recommended product
Programmable magnetic switch		
MMS-P 22-S-M8-PNP	0301370	•
MMSK-P 22-S-PNP	0301371	
Connection cable		
KA BG08-L 4P-0500	0307767	
KA BG08-L 4P-1000	0307768	
KA BW08-L 4P-1000	0307766	
KA BW08-L 4P-0500	0307765	
Sensor distributor		
V2-M8-4P-2XM8-3P	0301380	

- Observe the minimum permitted bending radii for sensor cables.
The minimum permitted bending radius is usually 35 mm.
- One sensor (turnkey/S) is needed for each gripper and additionally optional extension cables.