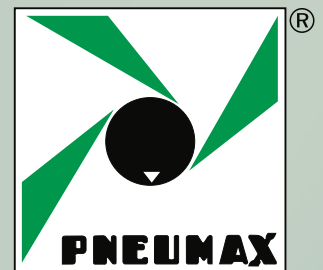


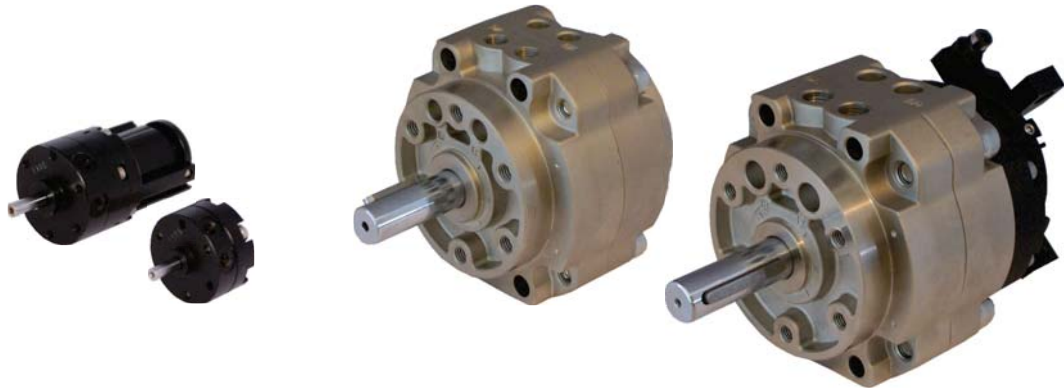
Components for Pneumatic Automation

Vane type rotary actuators



PNEUMAX GREEN LINE: TECHNOLOGY & INNOVATION





Ordering code

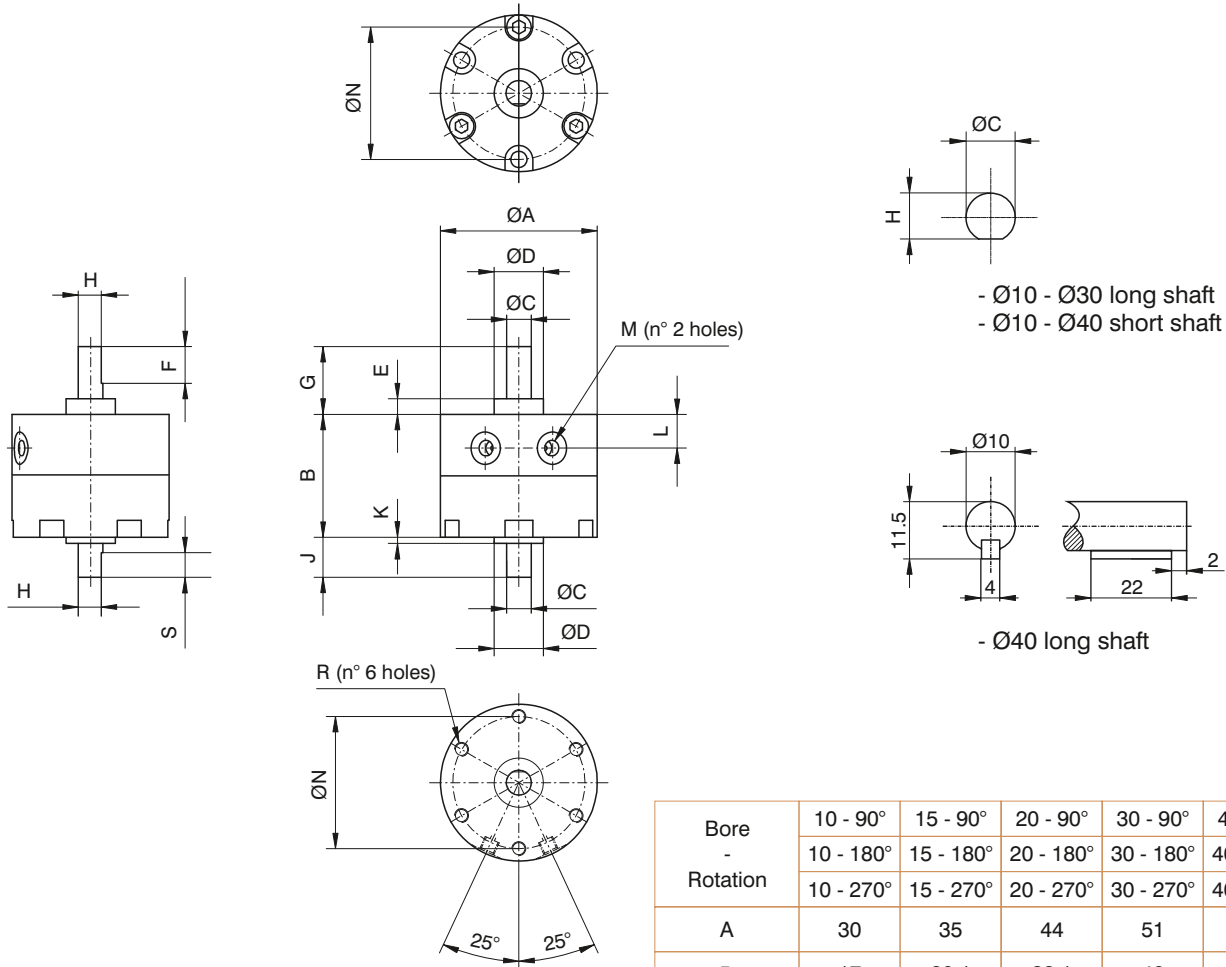
6420.Ø.		
Size	Rotating angle	Version
Ø10	90 = 90°	/ = Without adjustable rotation angle, and without sensor support
Ø15	180 = 180°	R = With adjustable rotation angle
Ø20	270 = 270°	S = With sensor supports
Ø30		T = With adjustable rotation angle and sensor supports
Ø40		
Ø50		
Ø63		
Ø80		
Ø100		

Construction characteristics

Body	aluminium
Rod	steel
Seals	NBR
Vane	vulcanized NBR rubber on steel core
Cushoning	elastic bumper; hydraulic dampers from size Ø50 - Ø100 versions R or T

Technical characteristics

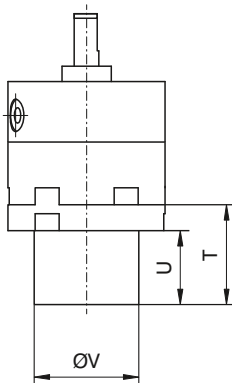
Fluid	Filtered and not lubricated air
Working pressure	1,5 - 7 bar
Temperature	0°C - 50°C
Rotation range	90° - 180° - 270°
Max. allowed leak	Ø10 - Ø40 = 0,3 NI/min / Ø50 - Ø100 = 0,5 NI/min



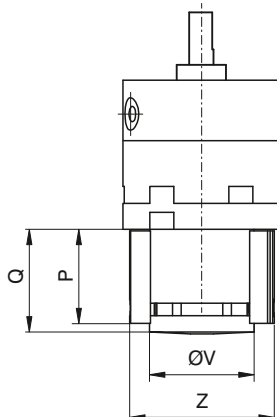
- Ø10 - Ø30 long shaft
- Ø10 - Ø40 short shaft

- Ø40 long shaft

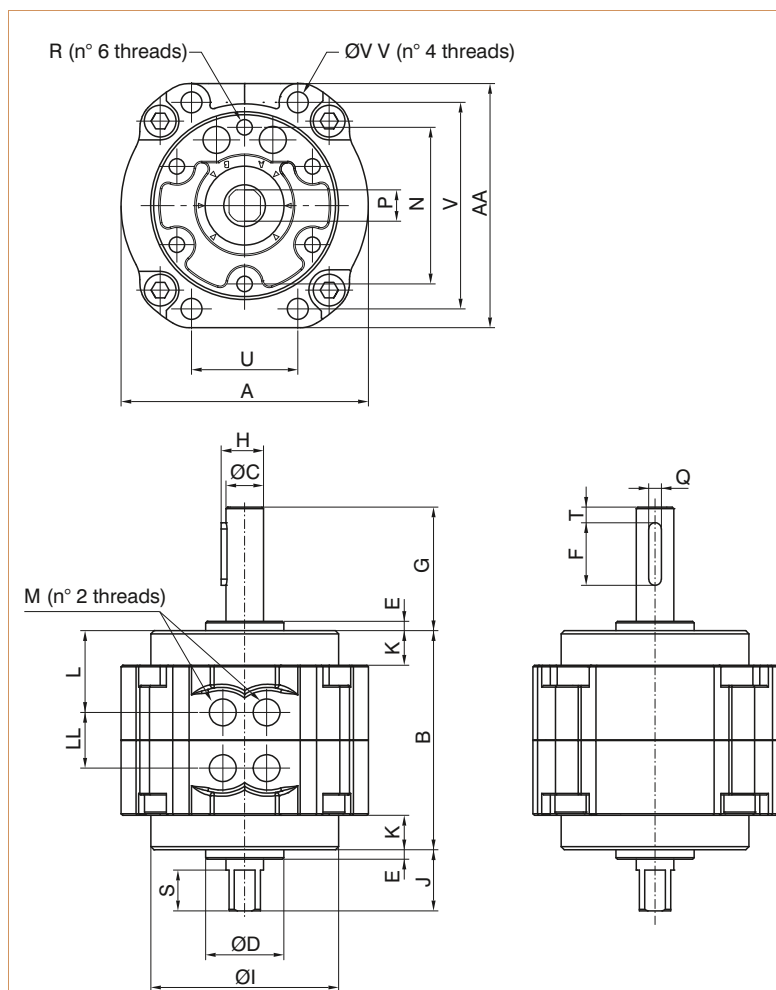
Adjustable rotation angle version



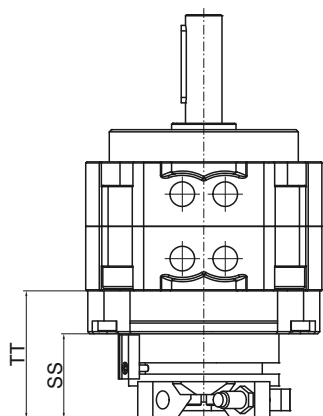
With sensor support version



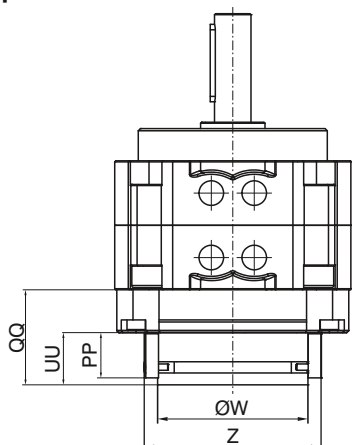
Bore - Rotation	10 - 90°	15 - 90°	20 - 90°	30 - 90°	40 - 90°	
	10 - 180°	15 - 180°	20 - 180°	30 - 180°	40 - 180°	
	10 - 270°	15 - 270°	20 - 270°	30 - 270°	40 - 270°	
A	30	35	44	51	64	
B	17	20,1	29,1	40	45	
C	4	5	6	8	10	
D	9	12	14	16	25	
E	3	4	4,5	5	6,5	
F	9	10	10	12	22	
G	14	18	20,3	22	30	
H	3,5	4,5	5,5	7,5	9	
J	8	9	9,6	13	15	
K	1	1,5	1,6	2	4,5	
L	4,2	5	8,5	11	9,5	
M	M5x0,8	M5x0,8	M5x0,8	M5x0,8	M5x0,8	
N	24	29	36	43	56	
P	23,3	28	28	30,8	33	
Q	24	29,5	30,5	34	36	
R	M3x0,5	M3x0,5	M4x0,7	M5x0,8	M5x0,8	
S	5	6	7	8	9	
T	24	28	28,5	32,5	34,5	
U	18	22	21	24	26	
V	18	24	30	34	34	
Z	29	34	42	47	47	
Weight (gr.)	Base	28	48	112	200	342
	with regulation rotation system	78g	116g	240g	390g	805g



Adjustable rotation angle version

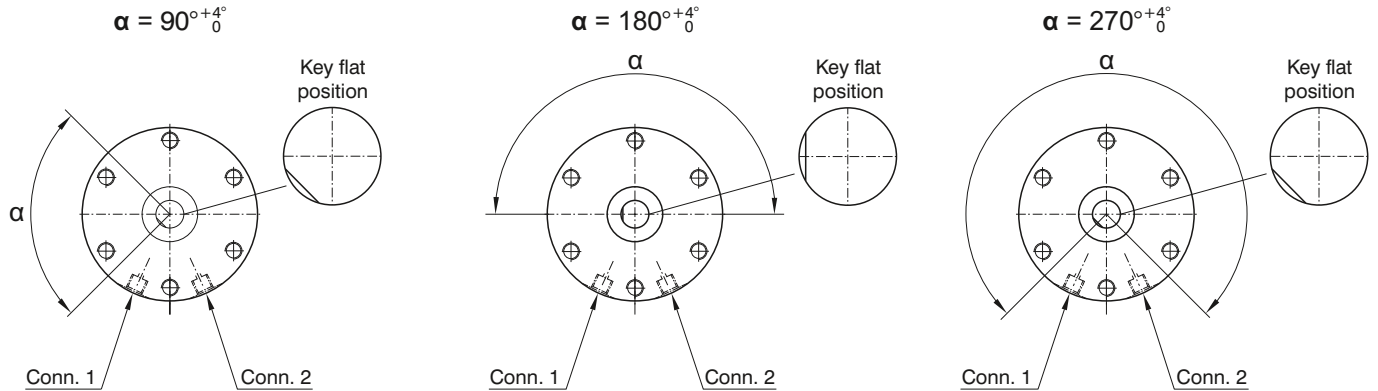


With sensor support version



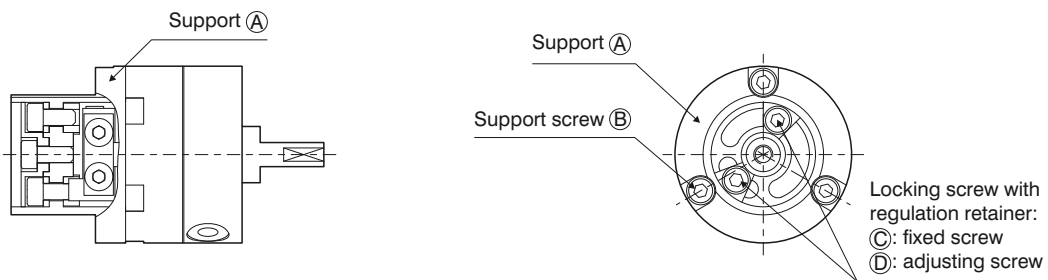
Bore - Rotation	50 - 90°	63 - 90°	80 - 90°	100 - 90°	
	50 - 180°	63 - 180°	80 - 180°	100 - 180°	
	50 - 270°	63 - 270°	80 - 270°	100 - 270°	
A	79	98	110	140	
AA	78	98	110	140	
B	70	80	90	103	
C	12	15	17	25	
D	25	28	30	45	
E	3	3	3	4	
F	20	25	36	40	
G	39,5	45	53,5	65	
H	13,5	17	19	29	
I	60	75	88	108	
J	19,5	21	23,5	30	
K	11	14	15	11,5	
L	26	28,9	30	35,4	
LL	18	22,2	30	32,2	
M	G1/8"	G1/8"	G1/4"	G1/4"	
N	50	60	70	80	
P	10	12	13	19	
PP	21	21	21	21	
Q	4	5	5	7	
QQ	39,4	43	44	48,5	
R	M6x1	M8x1,25	M8x1,25	M10x1,5	
S	13	14	16	16	
SS	38	38	39	39,5	
T	5	7,5	5	5	
TT	53	56,5	59	63	
U	34	39	48	60	
UU	24,5	24,5	24,5	24,5	
V	66	83	94	120	
V V	6,5	9	9	11	
W	60	60	70	70	
Z	73	73	83	83	
Weight (gr.)	Base	760	1290	1920	4100
	with regulation rotation system	1100g	1690g	2370g	4840g

ROTATING SHAFT KEY FLAT POSITION



ROTATION ANGLE SETUP

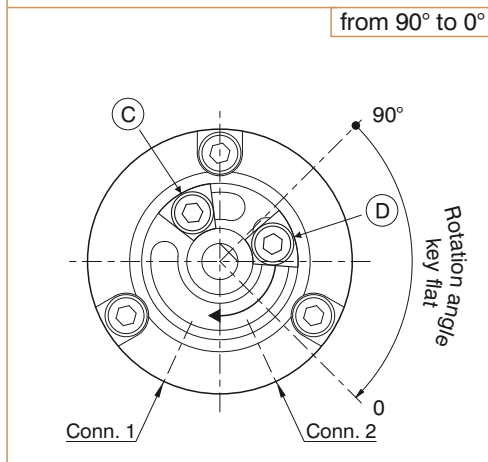
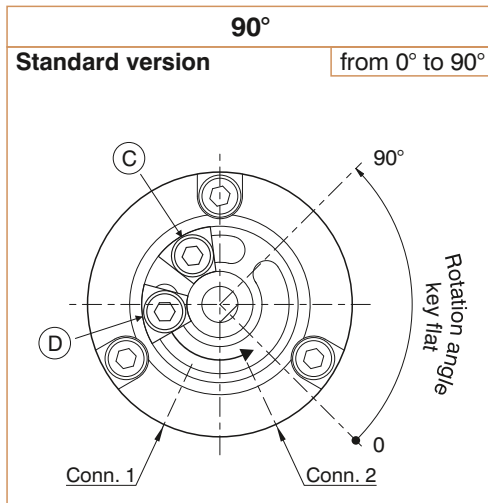
To regulate the rotation angle (codes 6420..R or T), follow the instructions below



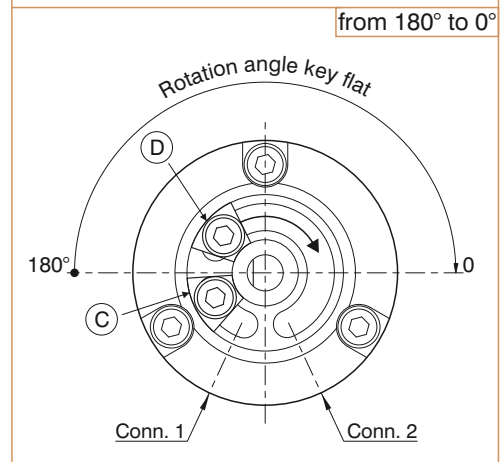
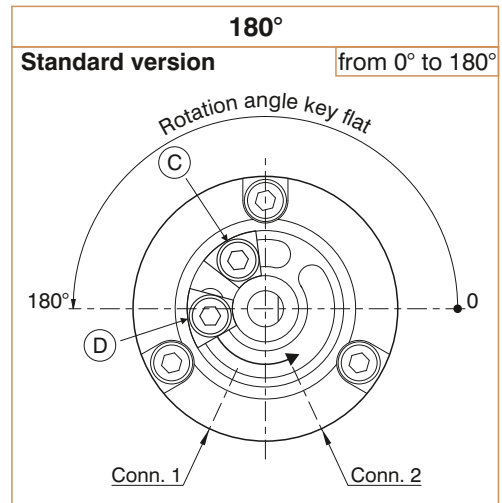
Phase 1 : Choose the regulation configuration based on the following options
(consider the actuator base position):

rotation 90°, regulation 0 - 90°, rotation 180°, regulation 0 - 180°, rotation 270°, regulation 0 - 175°

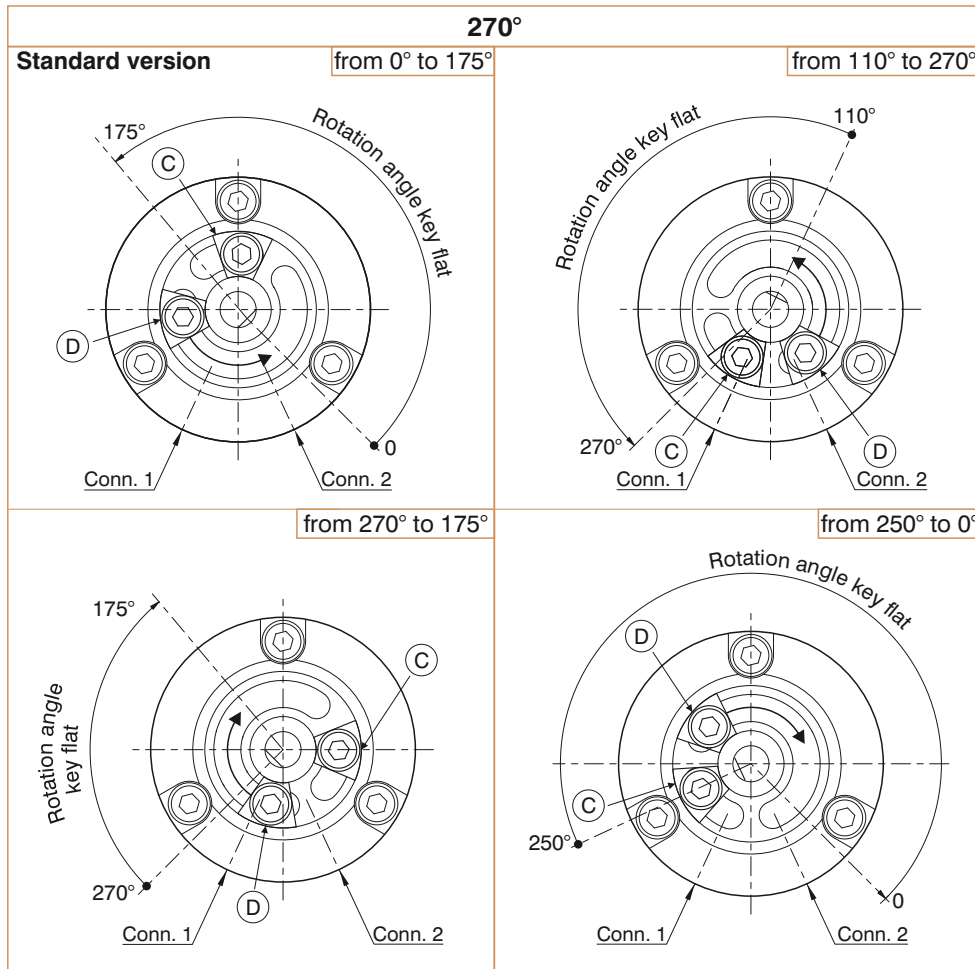
ROTATION CONFIGURATION



ROTATION CONFIGURATION



ROTATION CONFIGURATION



Ⓒ = Fixed screw Ⓓ = Adjusting screw

Phase 2 : If the desired settings do not correspond to the basic version settings:

- remove screw (E) and disk (F) or (G) (depending on the version) (see figure 1)
- remove screws (B), the actuator support (A) (see figure 1) and unlock blocking screws (C) and (D) (see rotation configuration)
- position screws (C) and (D) and the key flat of rotating shaft as indicated in the chosen rotation configuration in order to align the key flat of rotating shaft (see figure 2)
- re-assemble actuator support (A), tighten screws (B)
- position screws (C) and (D) according to the desired adjustment and tighten the screws
- re-assemble disk (F) or (G) and screw (E)

Figure 1

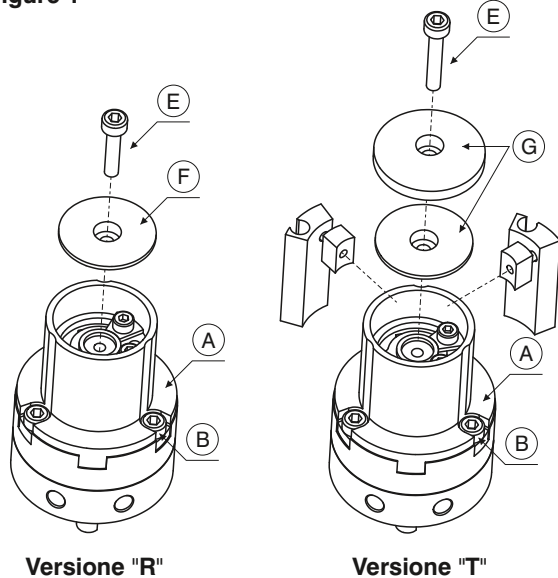
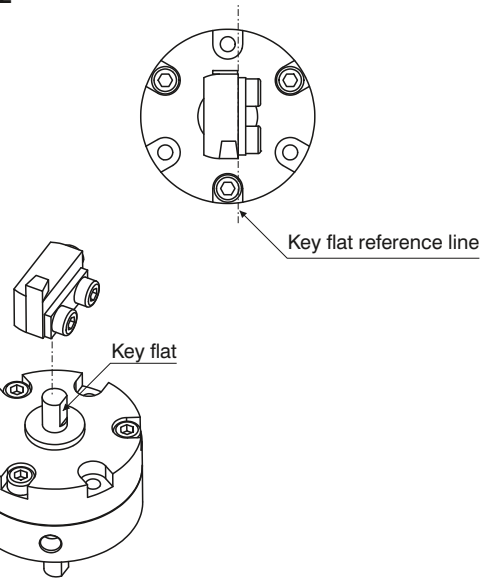
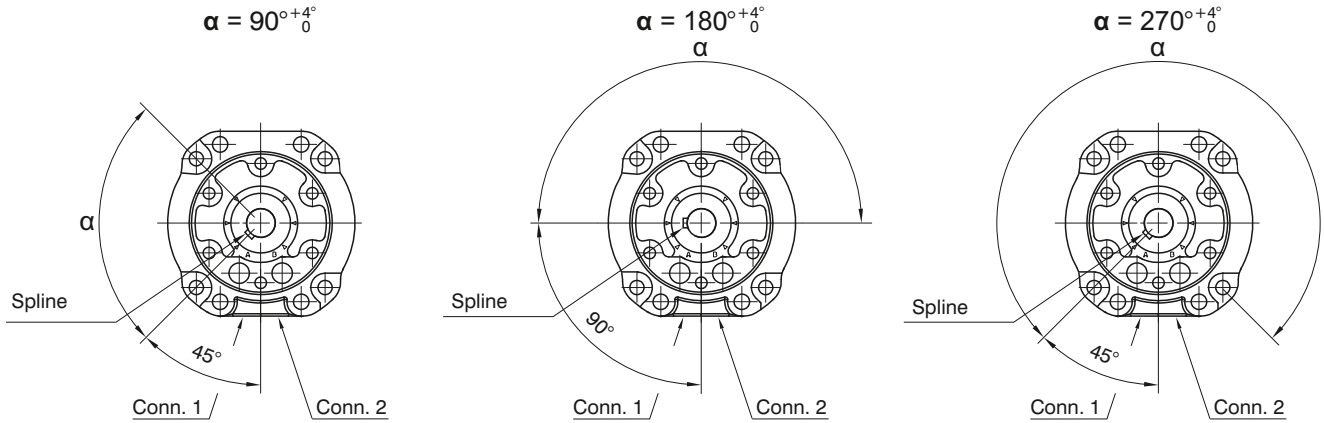


Figure 2

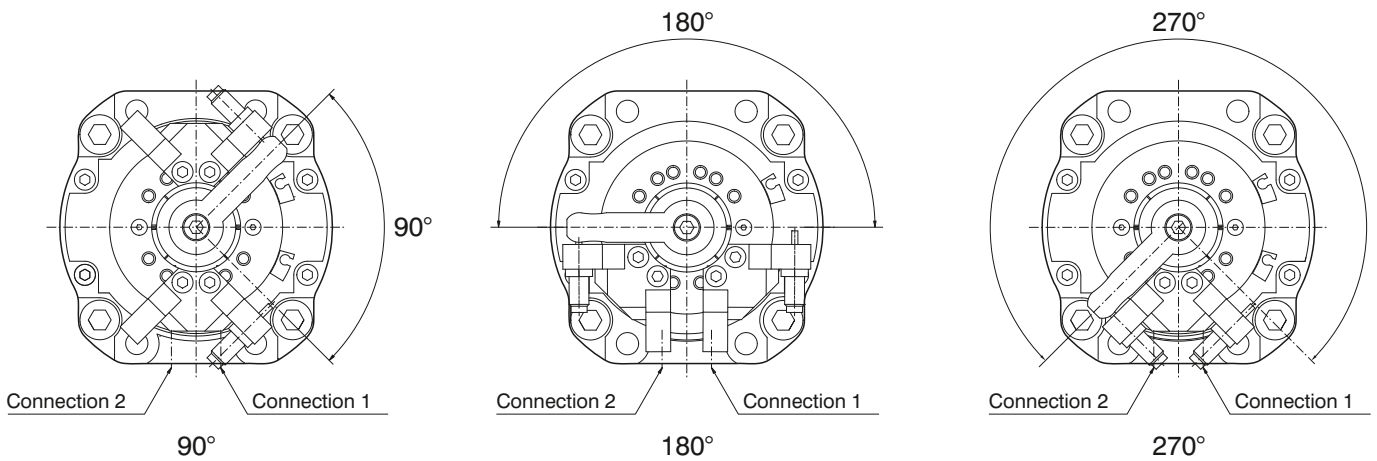


ROTATING SHAFT SPLINE POSITION



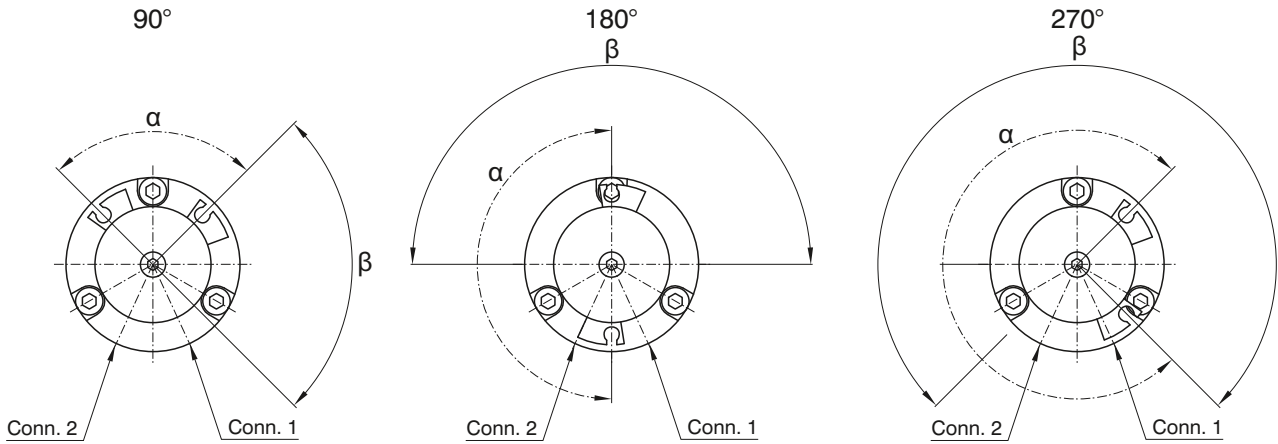
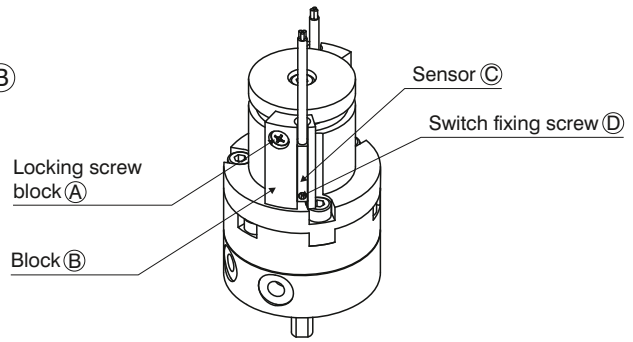
ROTATION ANGLE SETUP

The version with adjustable rotation angle (cod. 6420..R or T) is available with hydraulic dampers which enable to regulate the rotation angle by 10° and to decelerate moving mass.



Ø10 - Ø40

- Phase 1** - Assemble the switch (C) into the dedicated housing (B) and lock with screw (D)
- Phase 2** - Unfasten screw (A)
- Phase 3** - Rotate block (B) in the desired position (see following image)

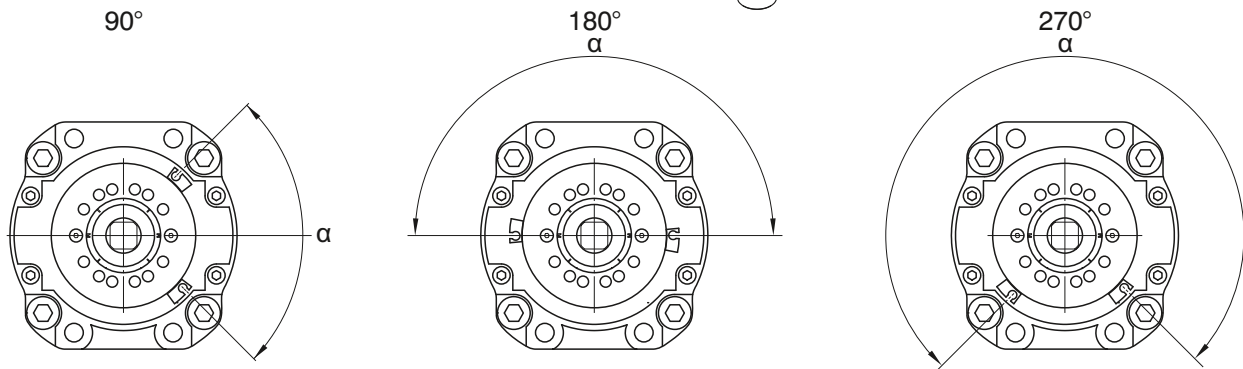
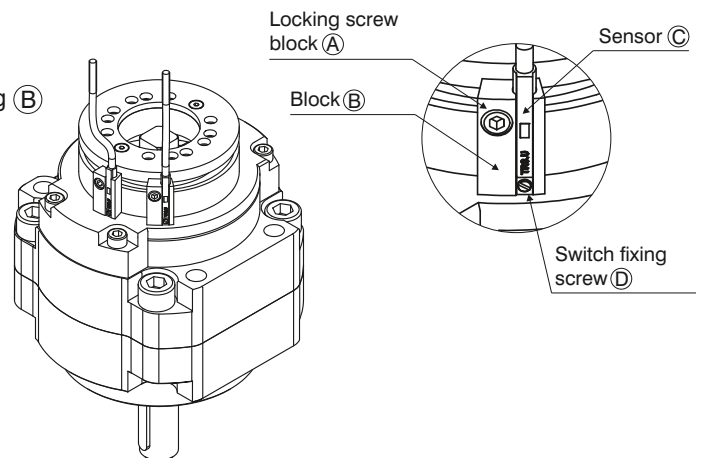


- α** - magnet rotating angle
 - β** - shaft key flat rotating angle
- For correct functionality position the switch within angle **α**

- Phase 4** - tighten screw (A)
- Phase 5** - repeat the following phases for the second switch

Ø50 - Ø100

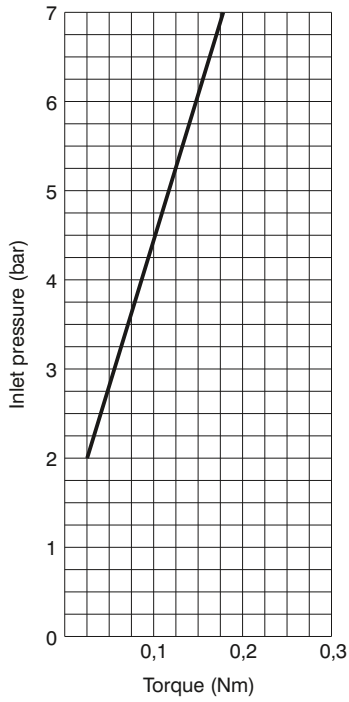
- Phase 1** - Unfasten screw (A)
- Phase 2** - Assemble the switch (C) into the dedicated housing (B) and lock with screw (D)
- Phase 3** - Rotate block (B) in the desired position (see following image)



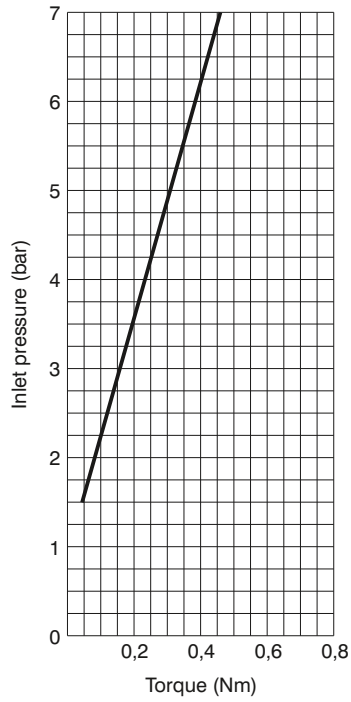
- α** - magnet rotating angle (that corresponds to the shaft key flat rotating angle)
- For correct functionality position the switch within angle **α**

- Phase 4** - tighten screw (A)
- Phase 5** - repeat the following phases for the second switch

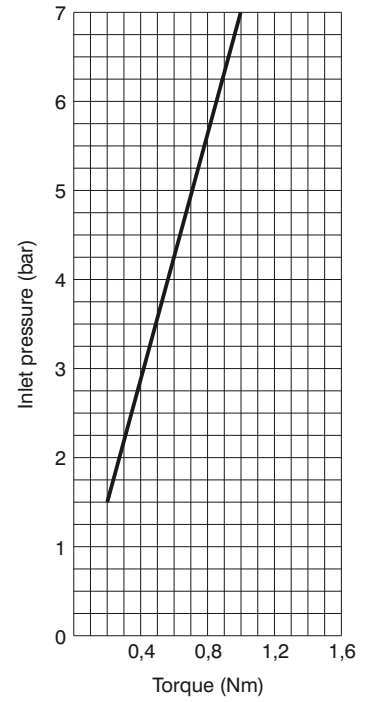
Ø10



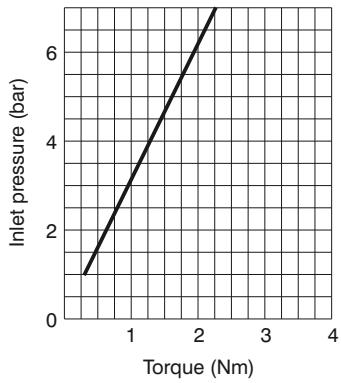
Ø15



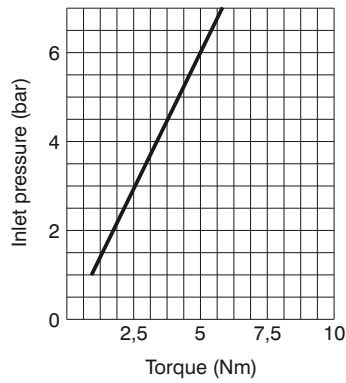
Ø20



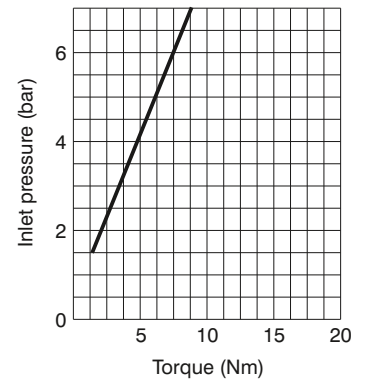
Ø30



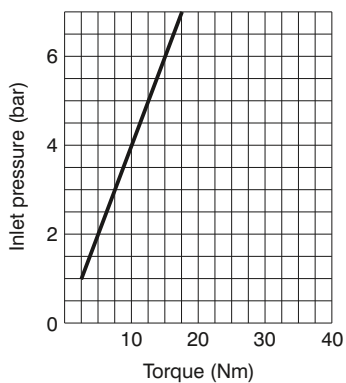
Ø40



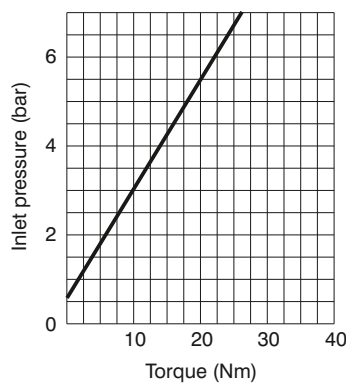
Ø50



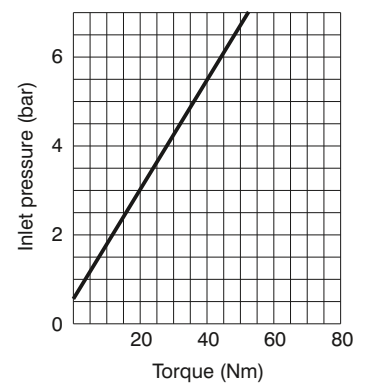
Ø63



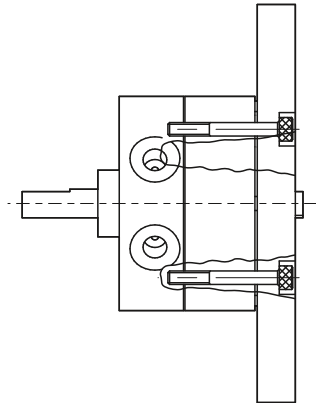
Ø80



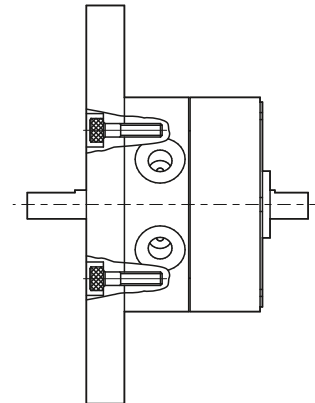
Ø100



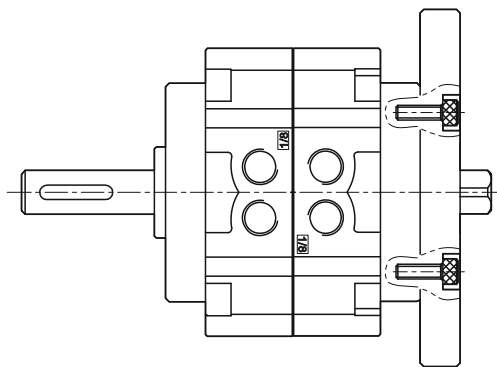
Mounting types



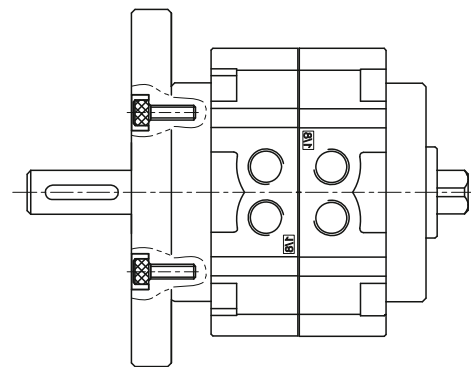
Rear mounting



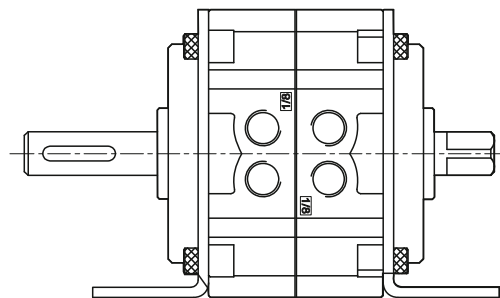
Frontal mounting



Rear mounting



Frontal mounting



Mounting with flange

Sensor with 2.5 m. cable

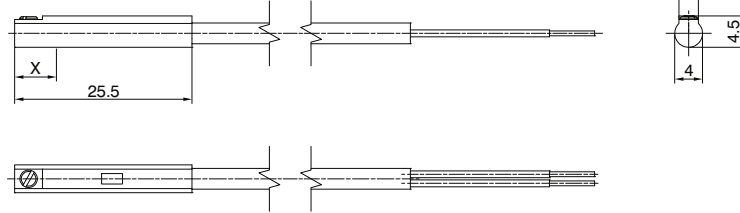
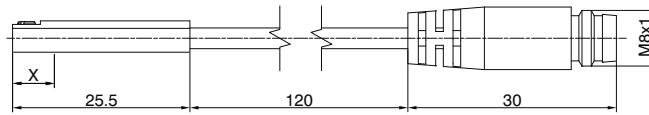


Weight gr. 22

Sensor with cable and M8 connector



Weight gr. 10

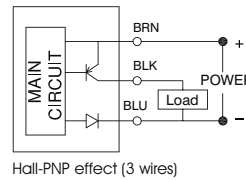
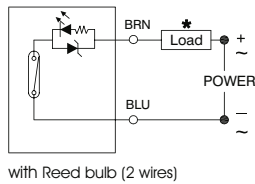


Sensor ordering codes

Ampulla Reed sensors, with led, Universal, N.O. (Normally open)		X=point of commutation
1581.U	(2 wires) cable 2.5 mt.	10 mm
TRS.U	(2 wires) cable 100 mm, M8 connector (use MC1 or MC2 connectors)	10 mm

Hall effect sensors, with led, DC, N.O. (Normally open)		X=point of commutation
1581.HAP	PNP (3 wires) cable 2.5 mt.	7.5 mm
THS.P	PNP (3 wires) cable 100 mm, M8 connector (use MCH1 or MCH2 connectors)	7.5 mm

Diagrams and connections



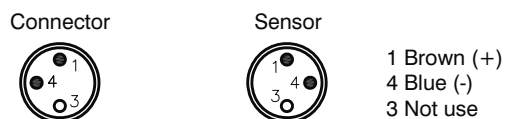
* The load (LOAD) can be connected either to negative or positive pole

Technical characteristics	1581.U	TRS.U	1581.HAP	THS.P
Type of contact	N.O.			
Maximum current	50mA			
Maximum permanent power	8 VA - 1.5 W		1.5 W	
Voltage range	5 - 30V DC/AC		10 - 30 V DC	
Working temperature	-10°C - +70°C			
Maximum voltage drop	3.5 V		1 V	
Cable section (mm ²)	2 x 0.14 Ø2.8 mm PUR		3 x 0.14 Ø2.8 mm PUR	
Degree of protection	IP 67			

Cable ordering code

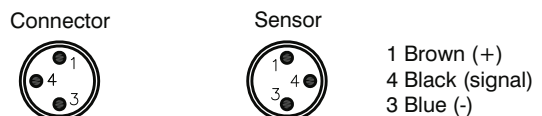
Connection 2 wires

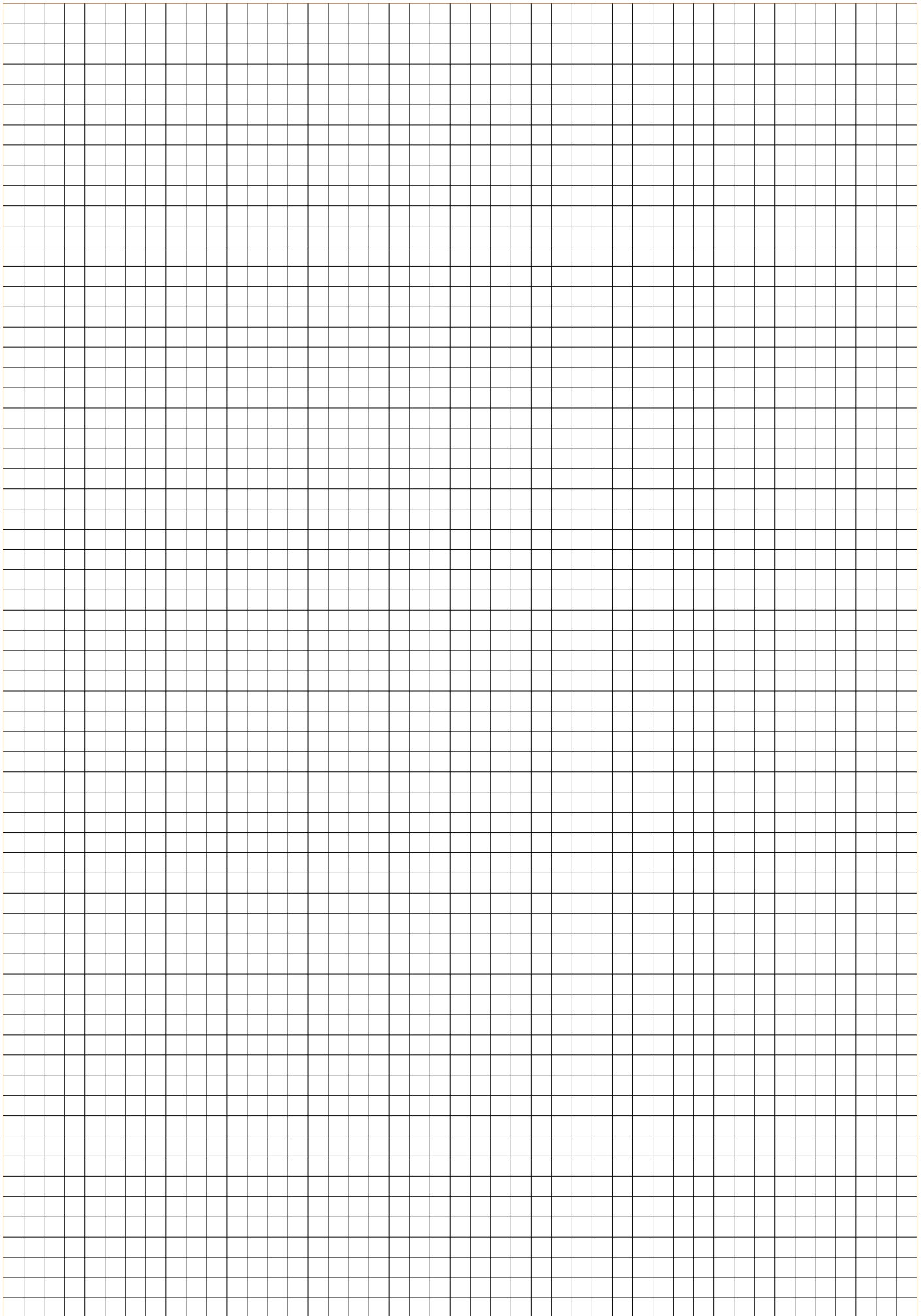
- MC1** cable 2 wires l=2.5m with M8 connector
- MC2** cable 2 wires l=5m with M8 connector
- MC3** cable 2 wires l=10m with M8 connector

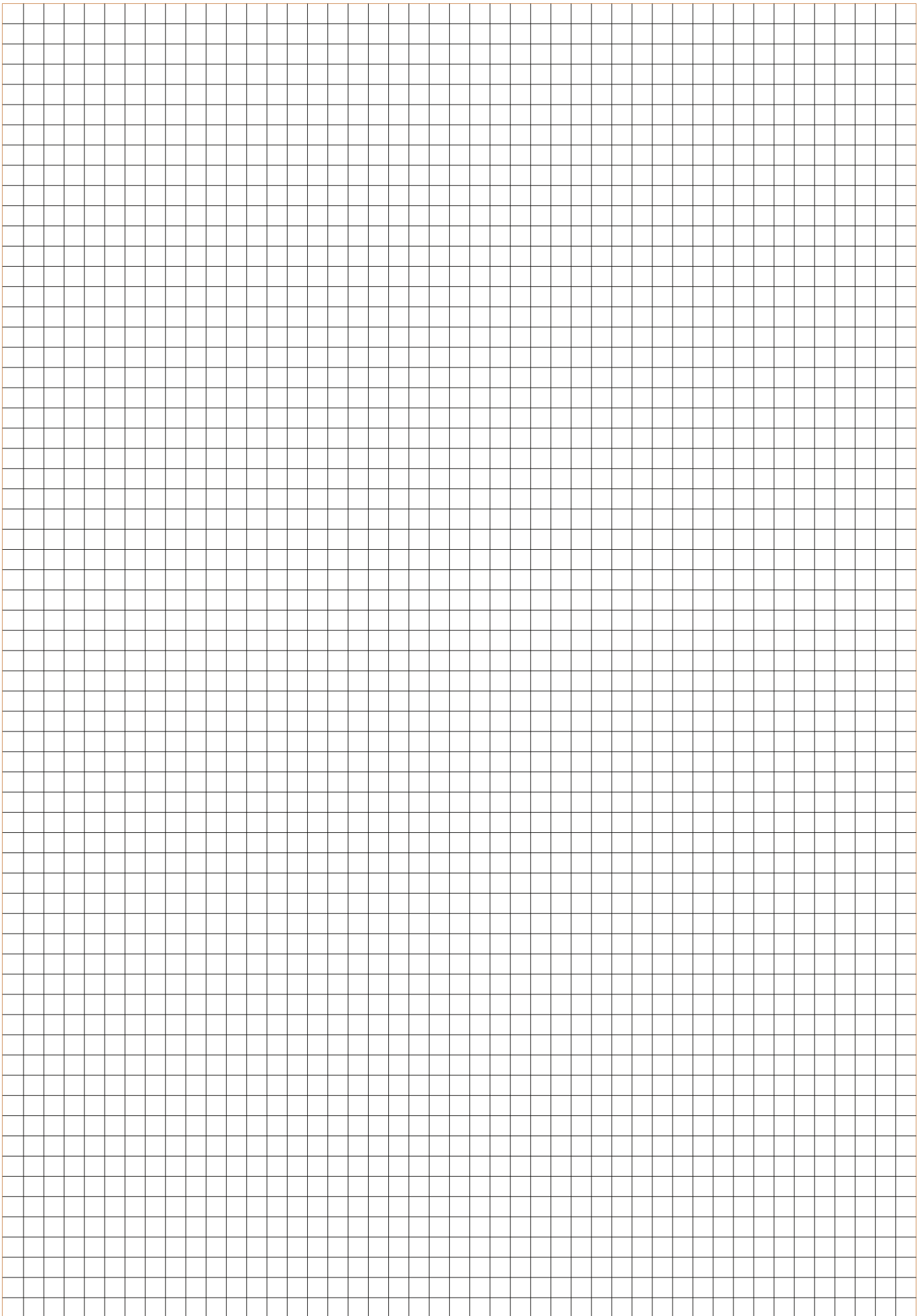


Connection 3 wires

- MCH1** cable 3 wires l=2.5m with M8 connector
- MCH2** cable 3 wires l=5m with M8 connector
- MCH3** cable 3 wires l=10m with M8 connector







PNEUMAX S.p.A.
24050 Lurano (BG) - Italia
Via Cascina Barbellina, 10

Tel +39 (0) 35 4192777
Fax +39 (0) 35 4192740
+39 (0) 35 4192741

info@pneumaxspa.com
www.pneumaxspa.com

D. NW. 73/GB - 01/2015
PRINTED IN ITALY - 01/2015

