

Pneumatic turret stop with 6, 8 and 12 stop positions for automation

PRVA 12MA left
30° division
with absolute query of the positions
and sensor



PRVA 8VM left
45° division with 3/2 way
integrated micro valve and sensor

PRVA 6M right
60° division
with sensor



Application:

With our turret stop, many problems can be solved inexpensively in mechanical and plant engineering. For example, if one or more stops need to be adjusted at the same time, if stops are located in inaccessible places, or to make a work process more efficient and safer.

Operation:

A 3/2 way valve is required to operate the stop, either fitted externally or as a direct installation on V and M stop types.

On the external variant, the cable should be kept as short as possible, otherwise the stop can only be adjusted with very low number of cycles.

When in operation, the stop remains under pressure because in its unpressurised condition the stop has a larger radial clearance. For switching forward, the air pressure is then only briefly interrupted and reapplied. The initiation of the switch operation lasts approximately 0.12 seconds. For V and VM stop types this lasts at least 0.17 seconds.

When used for sequential processing, the cycle time should be divided in such a way that approximately 2/3 of the time is used for deaeration and 1/3 of the time is used for aeration.

Design:

The stop is designed for maintenance-free operation. It is recommended to use only clean and dry air. All aluminium parts (in so far as they represent an advantage) are anodized; the steel parts are burnished and the wearable parts hardened and ground.

Service life of the stop:

Several factors play a role in the service life of the stop.

For example:

- Amount of air pressure with which the stopper is operated
- Throttled or unthrottled operation of the stop
- Weight of the screwed stop pin
- Cycles per second

It is recommended that the stop is operated with an inlet restrictor, which is to be set in such a way that it does not produce any loud clicking noises. The operating pressure of a correctly installed inlet restrictor plays a minor role.

When selecting the clock frequency, it should be noted that the larger the weight of the screwed stop, the lower the clock frequency should be. This is preferably 4-6 cycles per second.

Endurance tests carried out on the stop have yielded the following results:

- At 7 bar unthrottled approx. 80,000 cycles.
- At 5 to 6 bar throttled approx. 4,000,000 cycles.

If in your case the stop is to be used in the extreme and these figures are insufficient, it is recommended that you carry out an endurance test yourself, taking into account the above points in order to determine whether the stop can withstand your requirements.

Service life of the stop with integrated micro valve:

The same points as already mentioned above apply for service life of the stop fitted with an integrated micro valve. Under normal operating conditions, an inlet restrictor is not required here since the valve body already has a throttle bore of 0.7mm.

If the stop is to be operated at its full load limit, the use of an inlet restrictor can increase the service life in order to better match it to the application.

Turret stop series:

The turret stop is available in the following variants:

- 6-fold, 8-fold and 12-fold (number of stop points)
- Right or left design (position of the cylinder housing) *all subsequent illustrations are shown in the right design.*
- According to the type of equipment, e.g. 3-fold binary coding for the sensor or valve seat for integrated micro valve.

Turret stop designations:

PRVA 6 right	Pneumatic turret stop, 6-fold right, without the possibility of query
PRVA 6 <u>M</u> right	Pneumatic turret stop, 6-fold right, with binary coded <u>magnetic pins</u> for position query, but without the associated sensor
PRVA 6 <u>V</u> right	Pneumatic turret stop, 6-fold right, with a <u>valve seat</u> for MV 1.5 integrated micro valve, but without the associated valve
PRVA 6 <u>VM</u> right	Pneumatic turret stop, 6-fold right, with a <u>valve seat</u> for MV 1.5 integrated micro valve and binary coded <u>magnetic pins</u> for position query, but without the associated sensor and the associated valve

The same designations apply to the 8-fold and 12-fold turret stop, as well as for the left design. On the last page you will find all the accessories and respective item numbers listed for our turret stops.

Special versions for complete query:

On 8-fold and 12-fold turret stops there are additional variants **MA** and **VMA**. Here, the designation **A** stands for an **absolute query of the positions**.

On an 8-fold stop, a zero position is thus avoided and on a 12-fold stop the 6 intermediate positions are omitted.

These special versions have a 4-fold binary encoding and are also equipped with a 4-fold sensor.

Position display:

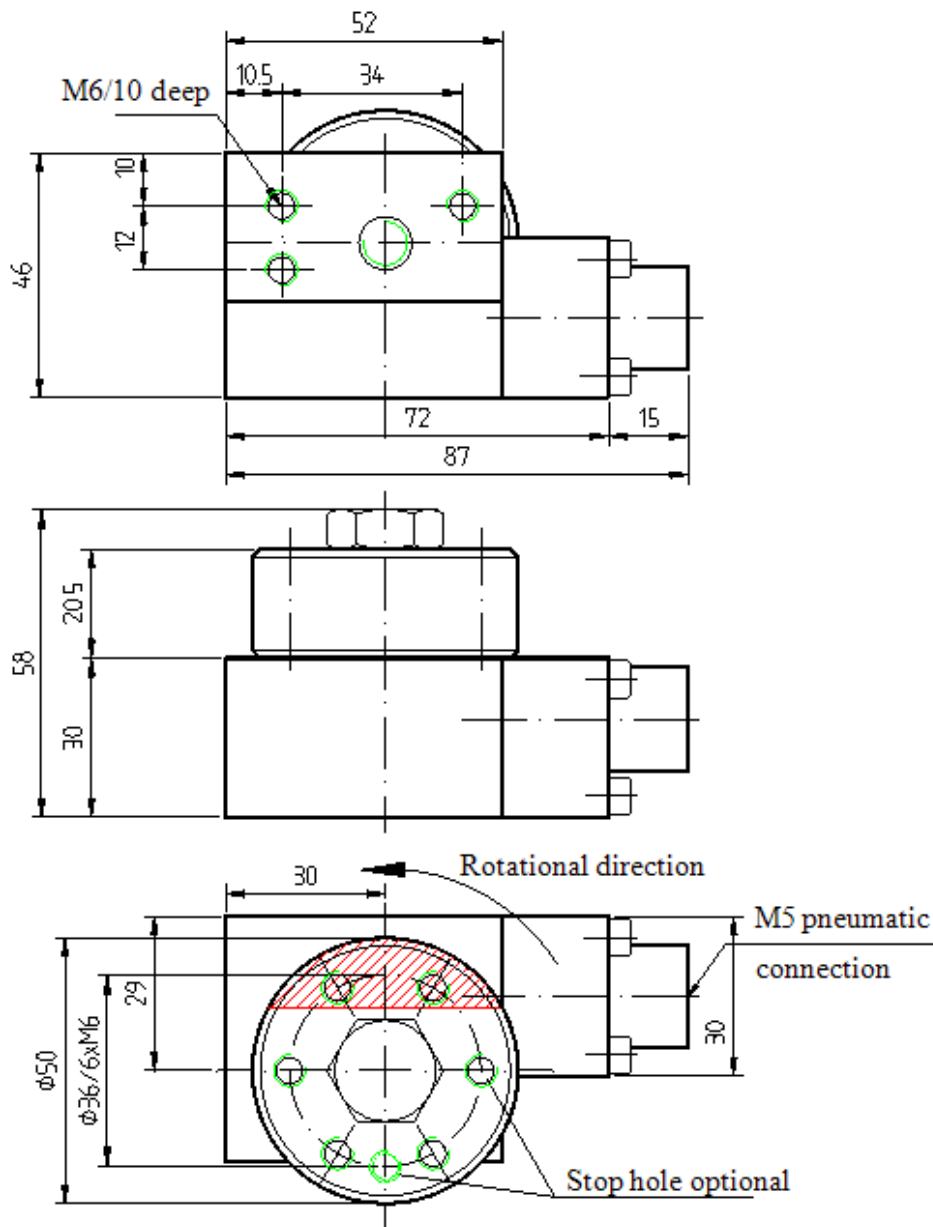
For the stops PRVA 6M or 6VM and PRVA 8M and 8VM, there is a single-digit digital display for decoding the positions.


Even on machines with no controller, this allows for the turret stop positions to be displayed on the control panel of the machine with very little effort.

The display is not required for machines with their own controller.

Turret stop PRVA 6 right

Left design as mirror image



 Do not overstrain the stop screw in this area of the drive

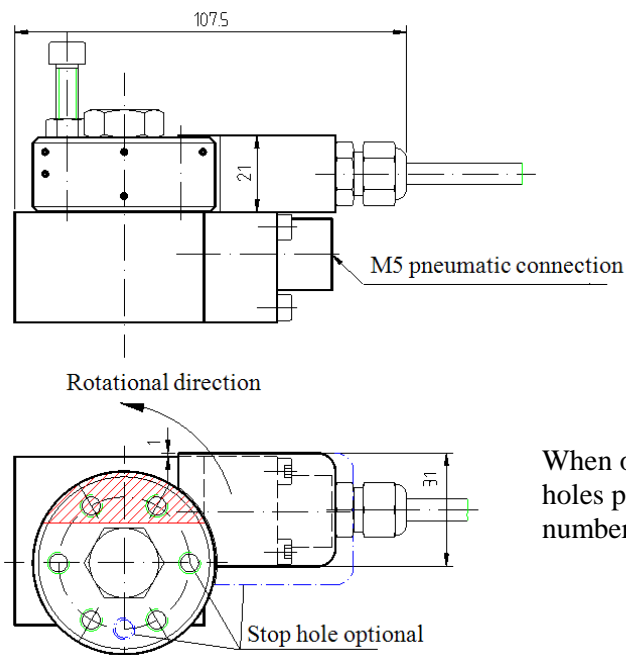
When ordering displaced stop holes please specify the item number _____ **90°** in addition.

Technical data:

Stop points:	6 pieces
Mass shift:	approx. 150 g
Impact mass:	approx. 500 N at 3 - 4 m per min. undamped (approx. 1860 N at damped drives)
Weight:	approx. 450 g
Air consumption:	at 6 bar approx. 0.014 NL
Clock rate:	approx. 0.12 sec. (min. 0.09 sec.)

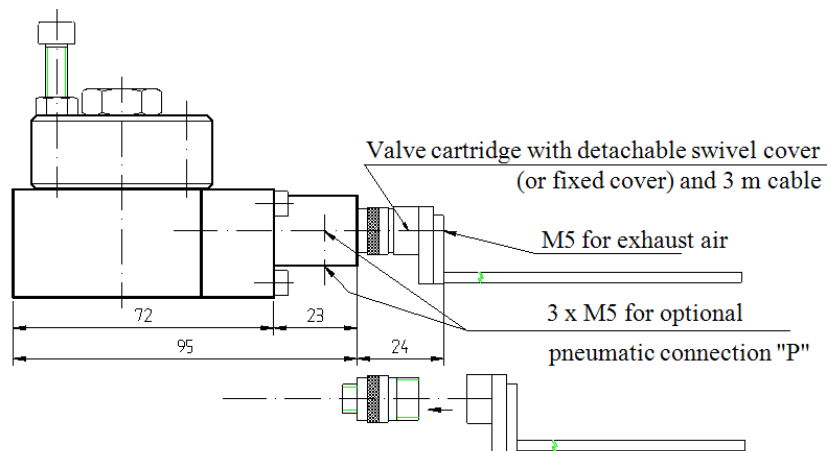
PRVA 6M right for sensor

Left design as mirror image

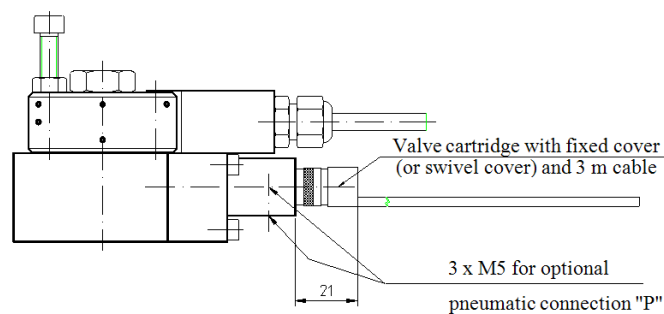


When ordering displaced stop holes please specify the item number _____ 90° in addition.

PRVA 6V right for integrated micro valve

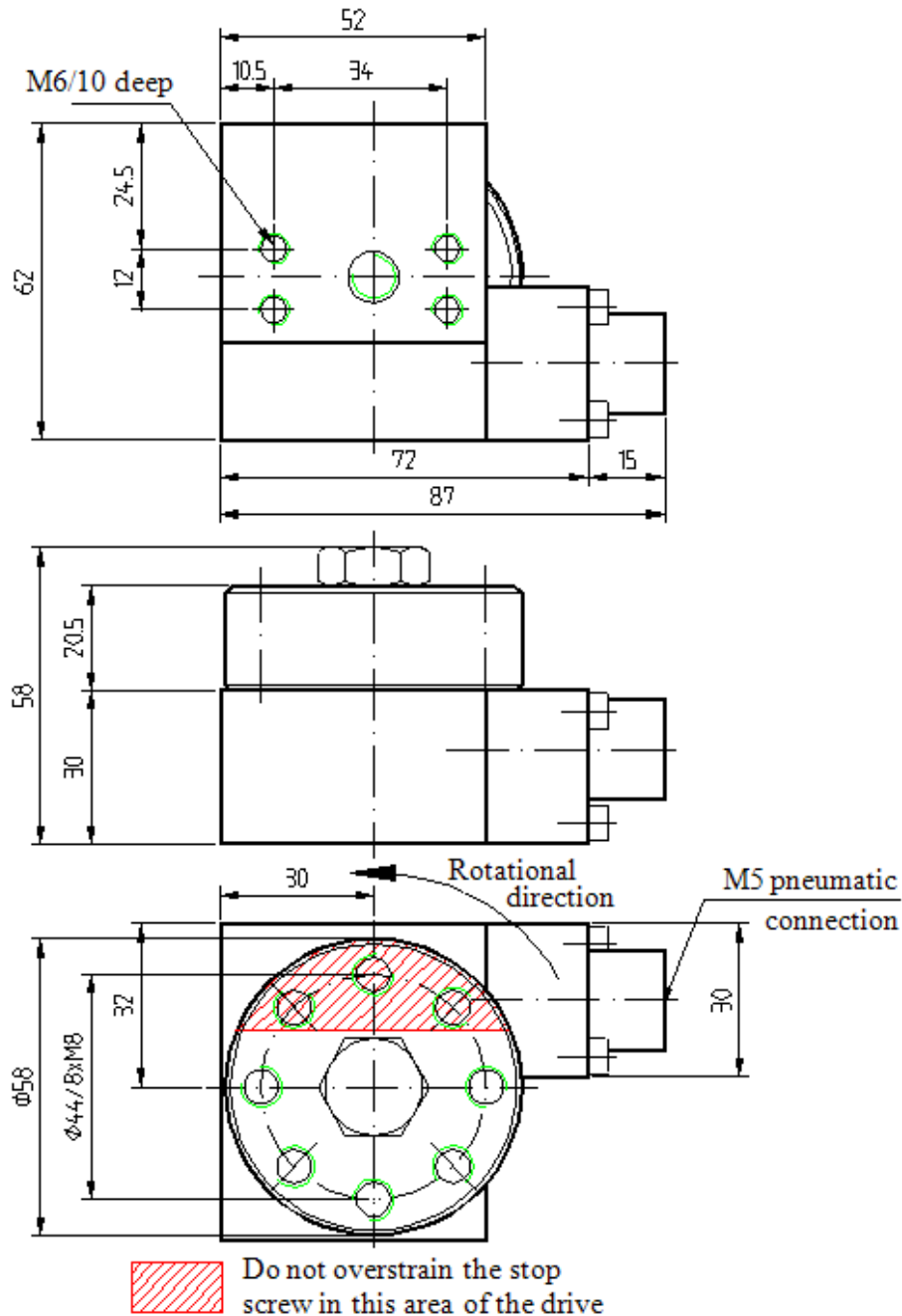


PRVA 6VM right for integrated micro valve and sensor



Turret stop PRVA 8 right

Left design as mirror image

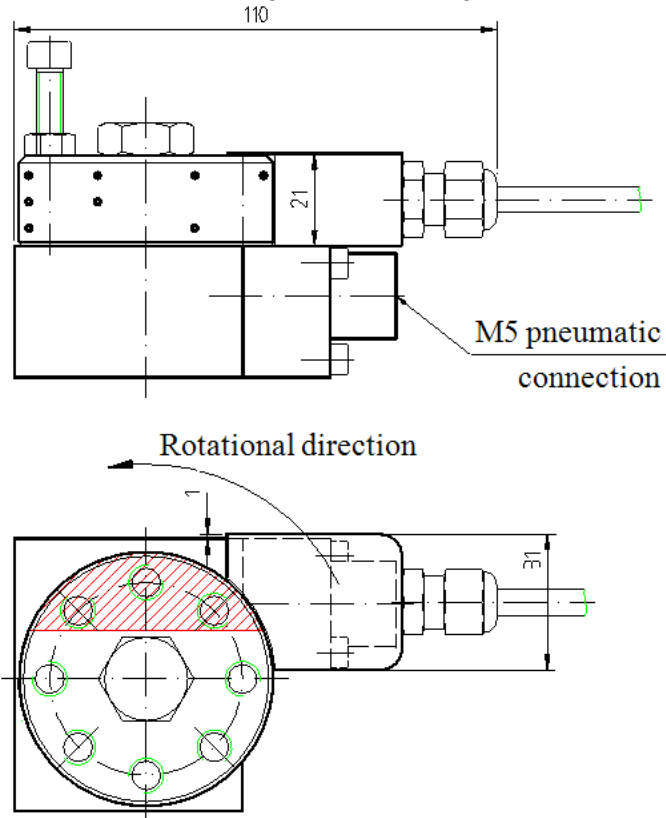


Technical data:

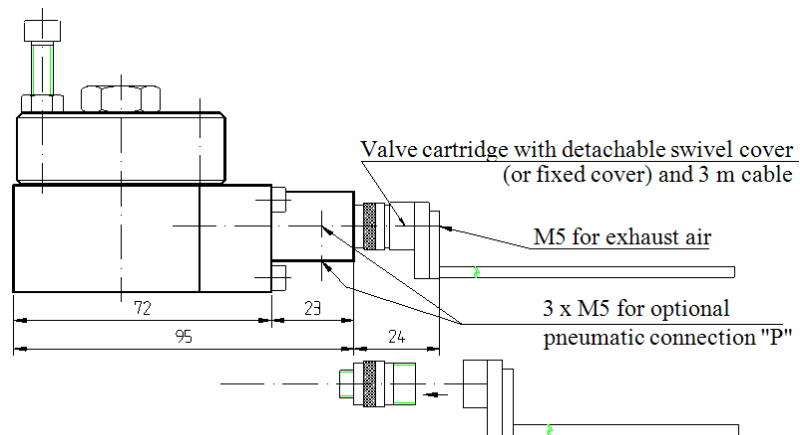
Stop points:	8 pieces
Mass shift:	approx. 500 g
Impact mass:	approx. 800 N at 3 - 4 m per min. undamped (approx. 4700 N at damped drives)
Weight:	approx. 600 g
Air consumption:	at 6 bar approx. 0.014 NL
Clock rate:	approx. 0.12 sec. (min. 0.09 sec.)

PRVA 8M right for sensor

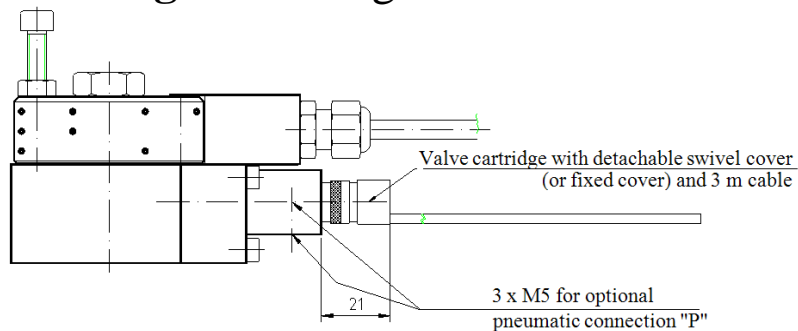
Left design as mirror image



PRVA 8V right for integrated micro valve

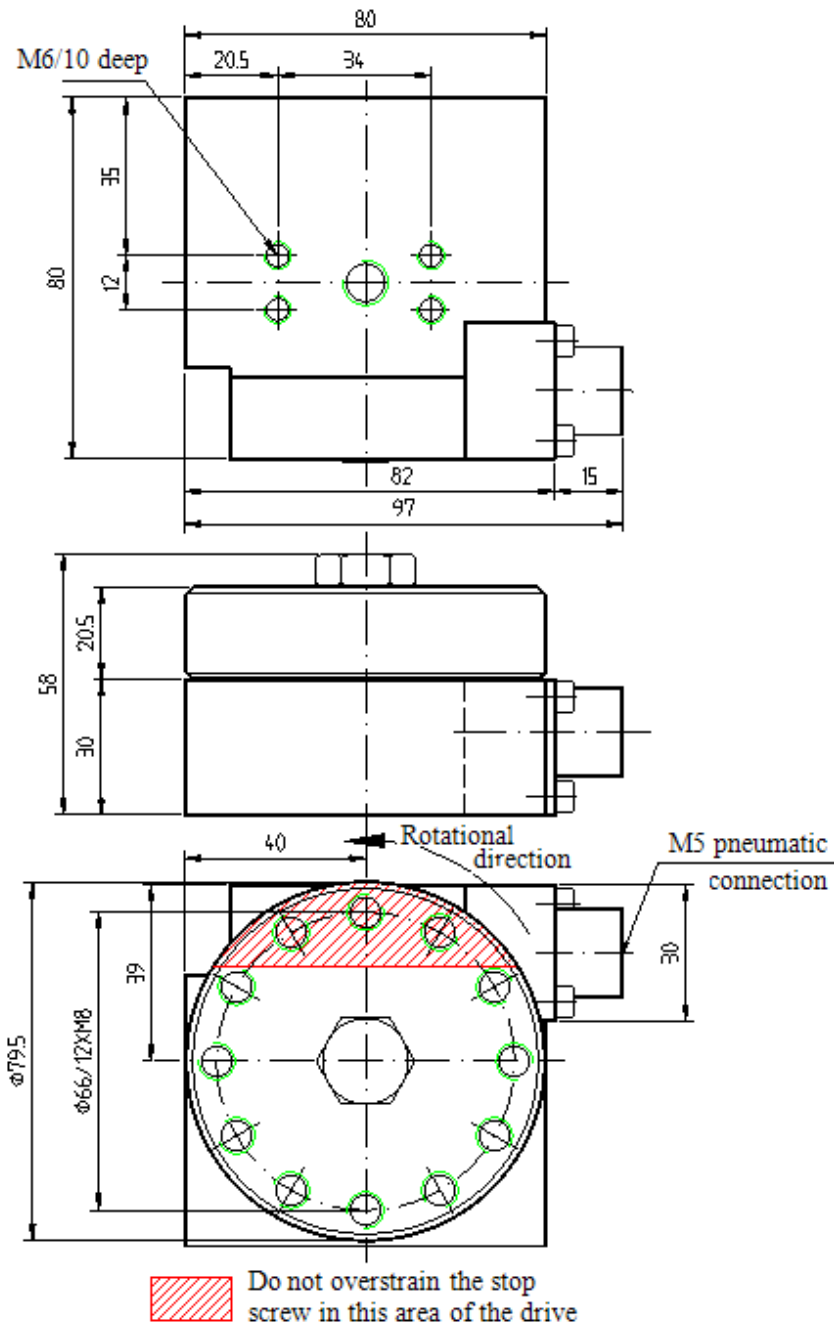


PRVA 8VM right for integrated micro valve and sensor



Turret stop PRVA 12 right

Left design as mirror image

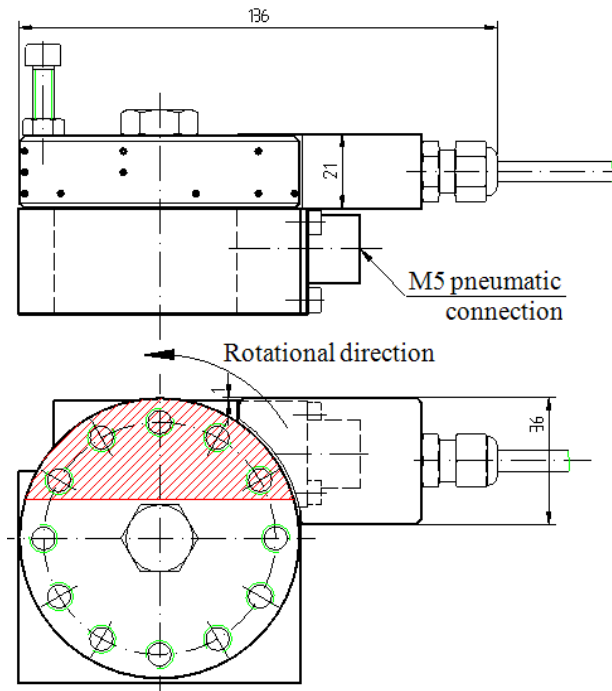


Technical data:

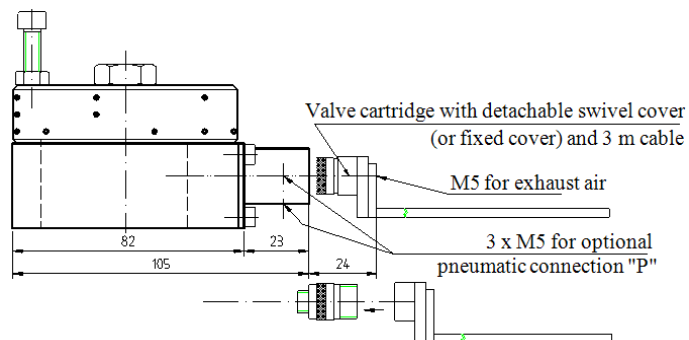
Stop points:	12 pieces
Mass shift:	approx. 700 g
Impact mass:	approx. 800 N at 3 - 4 m per min. undamped (approx. 4700 N at damped drives)
Weight:	approx. 600 g
Air consumption:	at 6 bar approx. 0.014 NL
Clock rate:	approx. 0.12 sec. (min. 0.09 sec.)

PRVA 12M right for sensor

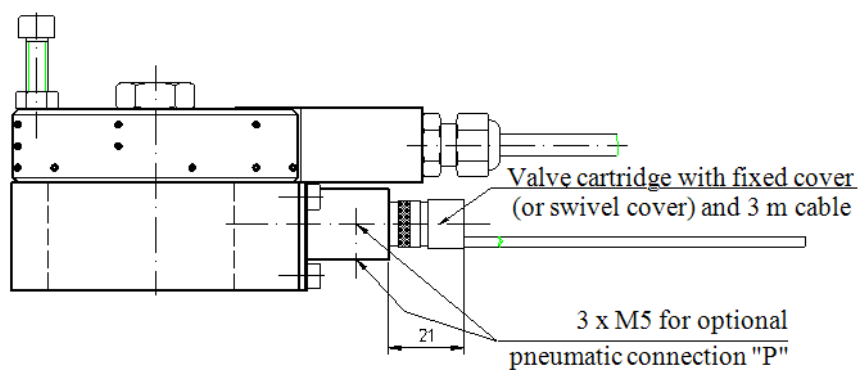
Left design as mirror image



PRVA 12V right for integrated micro valve

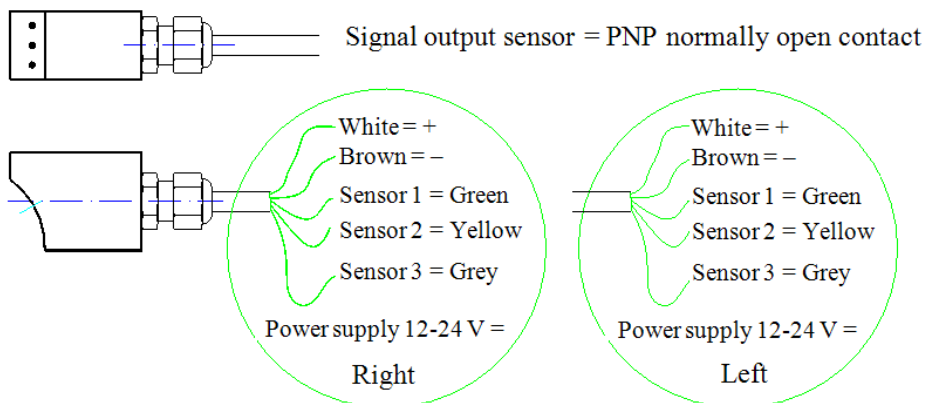


PRVA 12VM right for integrated micro valve and sensor

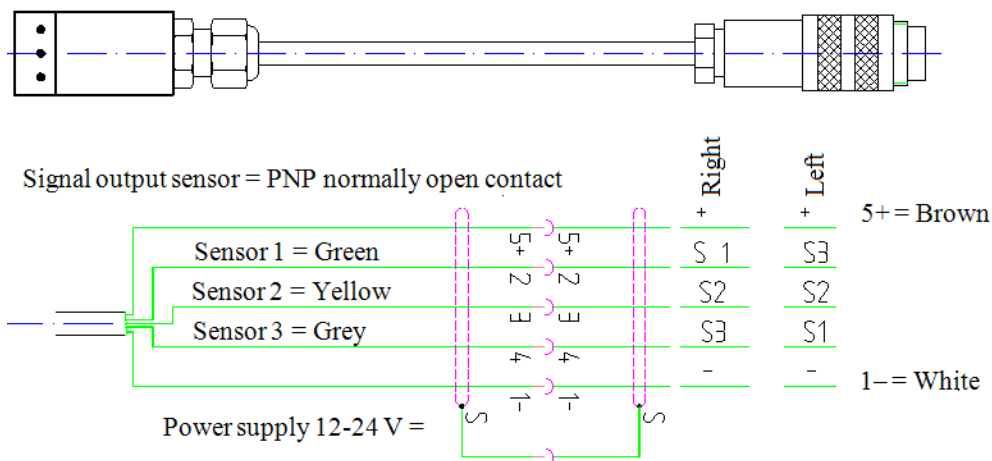


Sensor with PUR cable for PRVA 6M; PRVA 8M; PRVA 12M

Do not use for binder plug connection



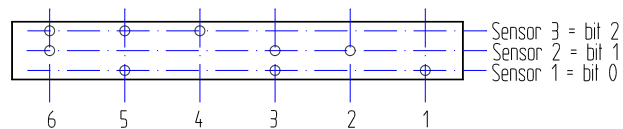
Sensor with 0.4m cable and binder plug – coupling plug S.423 7 pin. PG7 for PRVA 6M; PRVA 8M; PRVA 12M



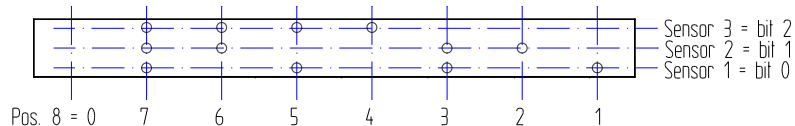
Processing the indexing plate and binary code positions

Left design as mirror image

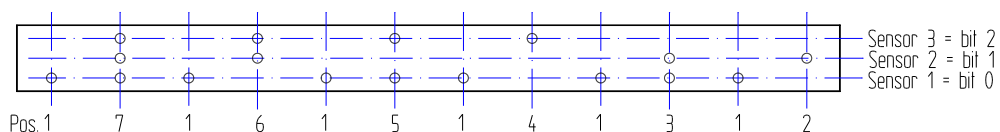
PRVA 6M



PRVA 8M

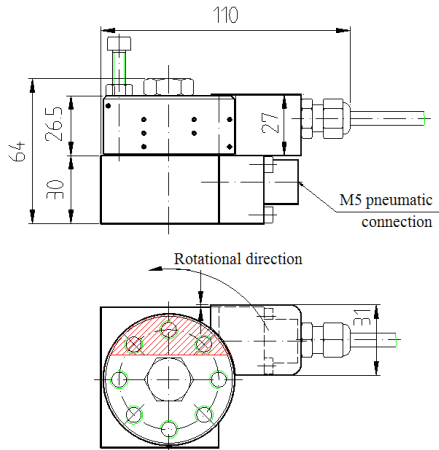


PRVA 12M

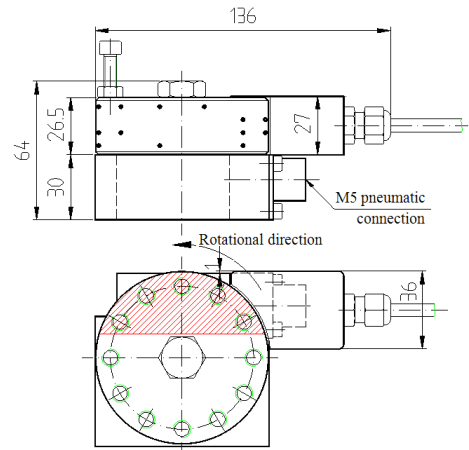


Special – Turret stop for absolute query of all positions

PRVA 8MA right
Left design as mirror image

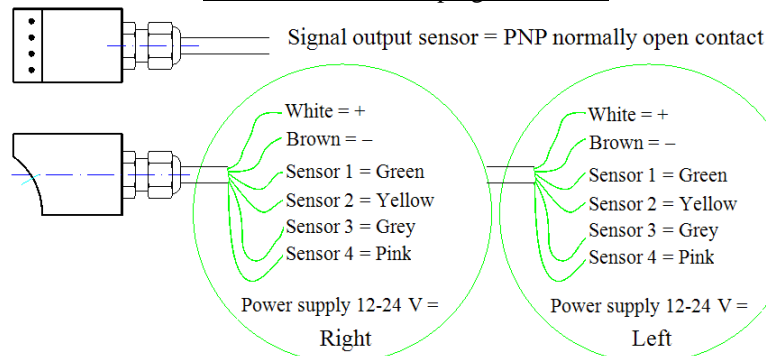


PRVA 12MA right
Left design as mirror image

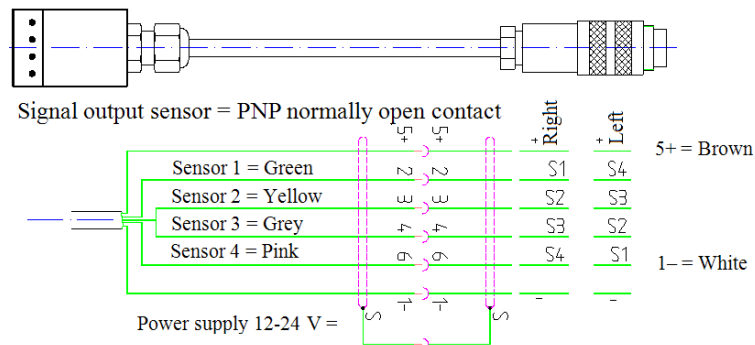


Sensor with PUR cable for PRVA 8MA and PRVA 12MA

Do not use for binder plug connection

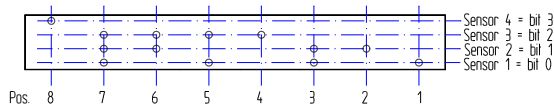
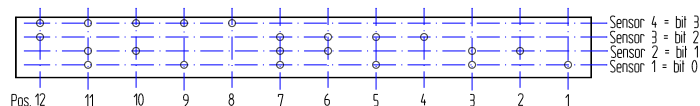


Sensor with 0.4m cable and binder plug – coupling plug S.423 7 pin. PG7 for PRVA 8MA and PRVA 12MA



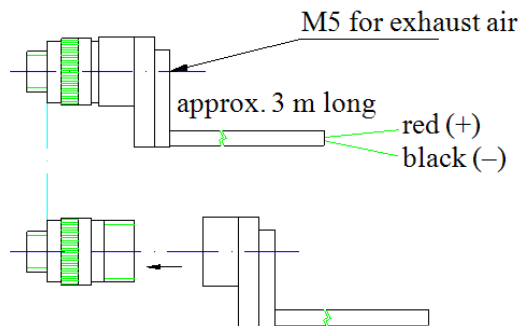
Processing the indexing plate and binary code positions

Left design as mirror image



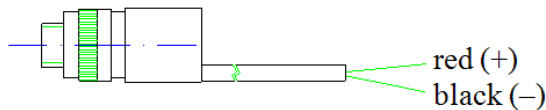
Integrated micro valves with direct attachment for
PRVA 6V; PRVA 8V; PRVA 12V or VM

**Valve cartridge and anchor MV 1.5 with radial swivel lid, cable length 3m
coil body with detachable swivel lid**



Valve cartridge with anchor MV 1.5 with fixed cover, cable length 3m

Pay attention to
the correct polarity!

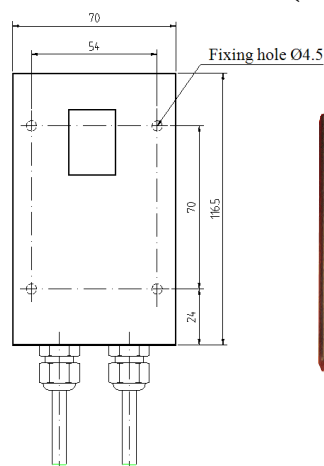


Technical data:

Medium:	filtered air pressure, oiled or dry
Nominal width:	1.5 mm
Nominal flow at 6 bar:	70 NI/min
Throttle bore on stop:	0.7 mm
Pressure range:	2 to 7 bar
Turn-on time t_e at 6 bar with silencer and suppressor diode:	approx. 6 ms
Break time t_a:	approx. 16 ms
Temperature range for valve cartridge:	-15° C to 100°
Temperature range for valve cover:	-0° C to 50°
Sealing material:	Viton
Protection type:	IP 54
Power consumption:	2.8 W
Voltage:	24 V \pm -10%

Position display for PRVA 6M(VM) and PRVA 8M(VM)

The position display is suitable for stops 6M, 6VM, 8M and 8VM, as well as for 12M and 12VM. For machines which do not have a controller, it is a simple aid to display the positions. It requires only a power supply of 12 - 24 volts to operate, which can also simultaneously operate the sensor.



Item – Numbers for turret stop 6-fold, 8-fold and 12-fold

Description	Item no.	May be combined with accessory item no.
PRVA 6 right	1029	
PRVA 6 left	1042	
PRVA 6M right	1045	1179; 1171; 1047
PRVA 6M left	1046	1179; 1171; 1047
PRVA 6V right	1160	1177; 1178
PRVA 6V left	1161	1177; 1178
PRVA 6VM right	1162	1179; 1171; 1177; 1178; 1047
PRVA 6VM left	1163	1179; 1171; 1177; 1178; 1047
PRVA 8 right	1028	
PRVA 8 left	1041	
PRVA 8M right	1108	1180; 1172; 1047
PRVA 8M left	1109	1180; 1172; 1047
PRVA 8V right	1164	1177; 1178
PRVA 8V left	1165	1177; 1178
PRVA 8VM right	1167	1180; 1172; 1177; 1178; 1047
PRVA 8VM left	1168	1180; 1172; 1177; 1178; 1047
PRVA 12M right	1126	1181; 1173
PRVA 12M left	1146	1181; 1173
PRVA 12VM right	1169	1181; 1173; 1177; 1178
PRVA 12VM left	1170	1181; 1173; 1177; 1178

- Order example 1: Turret stop 8-fold right with sensor and valve PRVA 8VM right
 Item no. 1167
 +Sensor 1180 or 1172
 +valve 1177 or 1178
- Order example 2: Turret stop 8-fold right with sensor PRVA 8VM right
 Item no. 1108
 +Sensor 1180 or 1172
- Order example 3: Turret stop 8-fold right with valve PRVA 8V right
 Item no. 1164
 +valve 1177 or 1178
- Order example 4: Turret stop 8-fold right
 Item no. 1028

Item – Numbers for special – Turret stop

Description	Item no.	May be combined with accessory item no.
PRVA 8MA right	1185	1191; 1192
PRVA 8MA left	1184	1191; 1192
PRVA 8VMA right	1186	1191; 1192; 1177; 1178
PRVA 8VMA left	1187	1191; 1192; 1177; 1178
PRVA 12MA right	1188	1194; 1195
PRVA 12MA left	1189	1194; 1195
PRVA 12VMA right	1182	1194; 1195; 1177; 1178
PRVA 12VMA left	1183	1194; 1195; 1177; 1178

Item – Numbers for accessories

Description	Item no.
Sensor with 3 m PUR cable for PRVA 6M right and left	1179
Sensor with binder plug and 0.4 m cable for PRVA 6M right and left	1171
Sensor with 3 m PUR cable for PRVA 8M right and left	1180
Sensor with binder plug and 0.4 m cable for PRVA 8M right and left	1172
Sensor with 3 m PUR cable for PRVA 12M right and left	1181
Sensor with binder plug and 0.4 m cable for PRVA 12MA right and left	1173
Valve cartridge and anchor MV 1.5 with <i>radial swivel lid</i> , cable length 3 m	1177
Valve cartridge and anchor MV 1.5 with <i>fixed lid</i> , cable length 3 m	1178
Digital display for PRVA 6M and 8M right and left	1047
Coupling for binder plug with 5 m cable for 3-fold / 4-fold sensor with binder plug	1107

Item – Numbers for special turret stop accessories

Description	Item no.
Sensor with 3 m PUR cable for PRVA 8MA right and left	1191
Sensor with binder plug and 0.4 m cable for PRVA 8MA right and left	1192
Sensor with 3 m PUR cable for PRVA 12MA right and left	1194
Sensor with binder plug and 0.4 m cable for PRVA 12MA right and left	1195