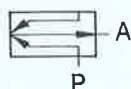


## Reflex sensor Type RML-5

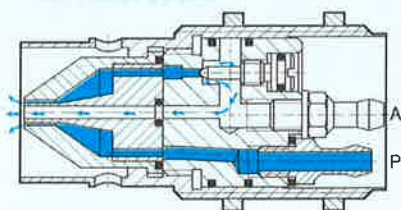
## Reflex sensor Type RFL-4 RFL-15



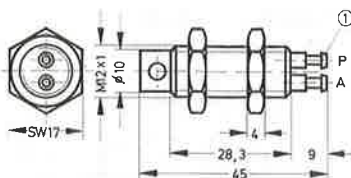
This reflex sensor is used as a non-contacting signal generator. Possible uses include the sensing of indicating instruments, monitoring of pressing and punching tools (thicknesses, perforations, position, sheet doubling), edge sensing control, magazine checking, counting, measuring (detectable change in distance 0.1 to 0.2 mm, depending on type).

The operation of the reflex sensor is not affected by heavy accumulation of dirt, noise, danger of explosion, total darkness, transparent or magnetic objects.

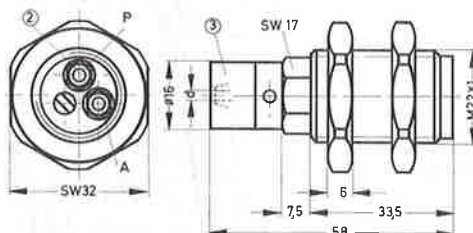
The sensor nozzle is supplied with filtered, non-lubricated compressed air with a supply pressure of 0.1 to 0.2 bar via port P. If the constantly escaping air flow is interrupted, a signal pressure  $\geq 0.5$  mbar is produced at outlet A. This pressure signal can be increased to the desired pressure by using a suitable amplifier.



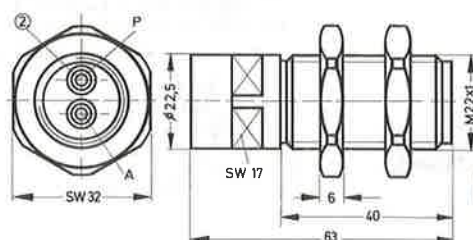
### Type RML-5



### Type RFL-4






### Type RFL-15



- ① Barbed fitting for 3 mm plastic tubing  
Port P black, Port A yellow
- ② Barbed fitting for 4 mm plastic tubing
- ③ Coloured band

- 1 (P) = Supply port
- 2 (A) = Outlet line

| Type   | Nozzle dia<br>mm | Coloured identification | Max. sensing distance<br>mm | Smallest detectable change in distance<br>mm | Minimum detectable workpiece size with workpiece at rest                              |   |   |
|--------|------------------|-------------------------|-----------------------------|--|---|---|---|
|        |                  |                         |                             |  |  |  |  |
|        |                  |                         |                             |  | w x h mm  | w x h mm  | d mm  |
| RML-5  | —                | —                       | 5.5                         | 0.2  | 3 x 10  | 8 x 10  | 3.5   |
| RFL-4  | 2.25             | yellow                  | 4.5                         | 0.1  | 3 x 20  | 8 x 20  | 3   |
| RFL-15 | —                | —                       | 15.5                        | 0.3  | —   | —   | 20  |

| Order code                 | Part No./Type                            | 7050 RML-5                  | 3649 RFL-4      | 7454 RFL-15    |
|----------------------------|--|-----------------------------|-----------------|----------------|
| Medium                     | Compressed air, filtered, non-lubricated |                             |                 |                |
| Design                     | Sensor nozzle without moving parts       |                             |                 |                |
| Mounting                   | M 12 x 1 with mounting nuts              | M 22 x 1 with mounting nuts |                 |                |
| Installation dia.          | 12.5 mm                                  | 22.5 mm                     | 22.5 mm         | 22.5 mm        |
| Connection                 | Barbed fitting                           | for 3 mm tubing             | for 4 mm tubing |                |
| Supply pressure range at P | 0.1 to 0.2 bar                           |                             |                 | 0.2 to 0.3 bar |
| Max. supply pressure range | 0.5 bar                                  |                             |                 | 1.5 bar        |
| Signal pressure range at A | See graph overleaf                       |                             |                 |                |
| Air consumption            | See graph overleaf                       |                             |                 |                |
| Ambient temperature        | – 40 to + 100 °C*                        |                             |                 |                |
| Medium temperature         | – 10 to + 60 °C                          |                             |                 |                |
| Materials                  | Brass                                    | Aluminium, brass            |                 |                |
| Weights                    | 0.025 kg                                 | 0.050 kg                    |                 | 0.085 kg       |

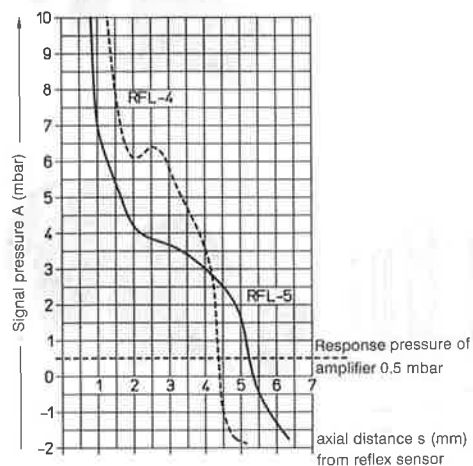
\* depending on tubing used

Subject to change

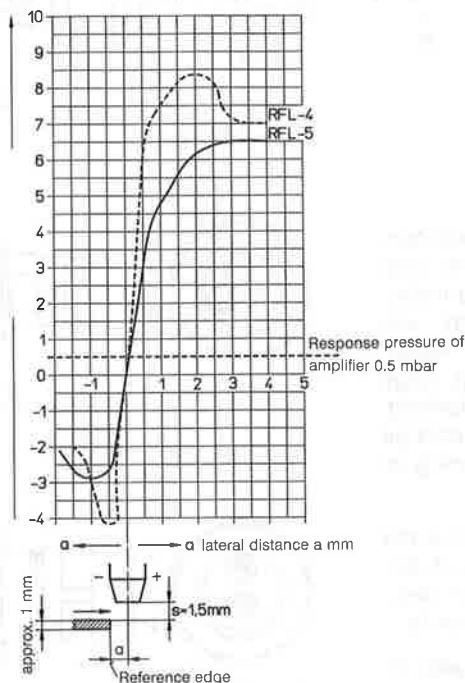
2.330

## Signal pressure as a function of supply pressure and nozzle distance for Types RML-5, RFL-4

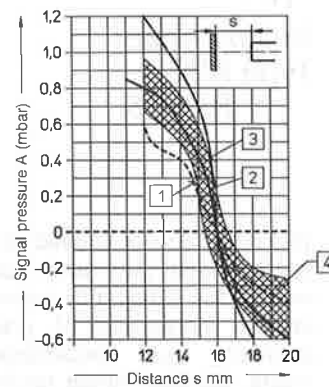
Axial sensitivity  
at a supply pressure of 150 mbar



Lateral sensitivity  
at a supply pressure of 150 mbar

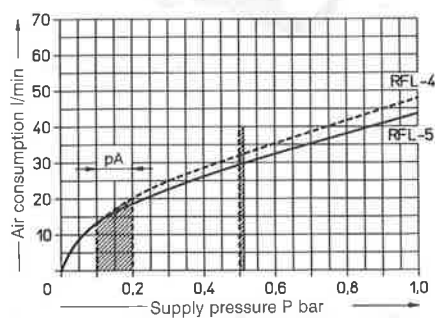


for Type RFL-15

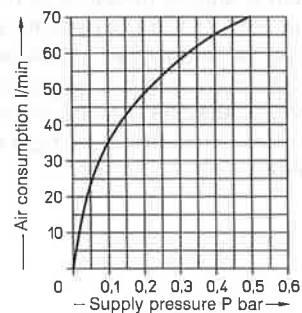


- ① Supply pressure 150 mbar
- ② Supply pressure 200 mbar
- ③ Supply pressure 300 mbar
- ④ Scatter for supply pressure 200 mbar

Air consumption as a function of supply pressure with unimpeded air outflow for Types RML-5, RFL-4



for RFL-15



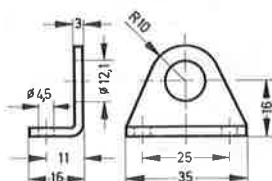
Additional mounting attachments

for mounting thread M12 x 1:

Foot mounting

Order code

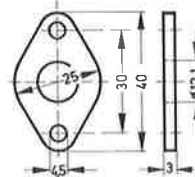
5123 HBN-8/10-1



Flange mounting

Order code

5129 FBN-8/10

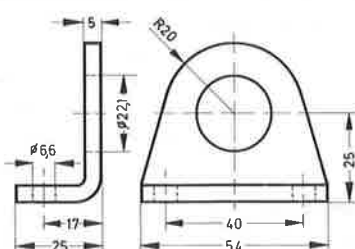


For mounting thread M22 x 1

Foot mounting

Order code

5127 HBN-20/25-1



Flange mounting

Order code

5131 FBN-20/25

