

Flow switch EARL Types 700 and 720

Application

The heavy duty flow switches EARL type 700 and 720 serve to control liquid and high velocity gas flows in pipes DN 25 to DN 250. The type 720 is from DN 25 to DN 65 only available within T-piece with flanged connection. The type 700 is connected either with flange DN 80 PN 16 or according to DIN resp. 3" 150 lbsRF according to ANSI B 16.5. The rugged construction with metal bellows sealing makes the unit suitable to control liquids containing impurities or gas containing solid particles.

Advantages

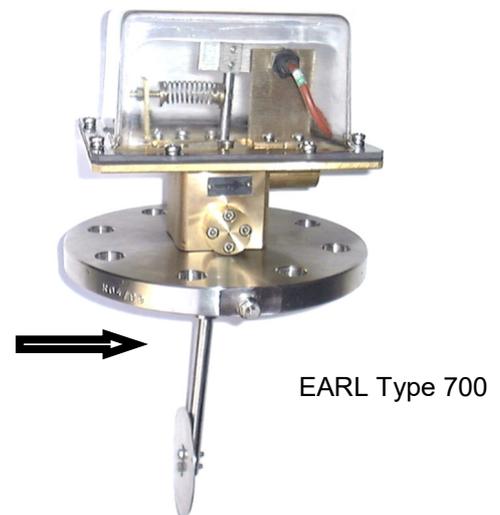
- Unit operates in any direction
- Vibrationproof construction
- Suitable for contaminated media
- Design for long-term reliable operation
- Simple installation and connection
- Unit virtually maintenance free
- Long-term continuity of spares supply

Suitability

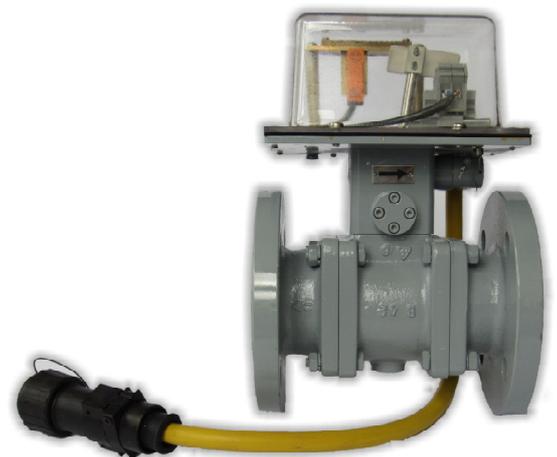
- Lubricating control on large gears
- Flow control of pneumatically transported saw- or coal-dust
- Monitoring of cooling water circuits in industrial plants
- Bitumen control in refineries
- Tank filling and emptying control
- Sprinkler released fire alarm
- Process control in chemical industry
- Flow monitoring in water purifying plants

Operation

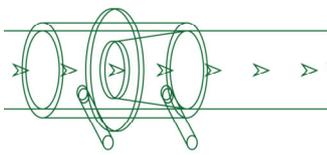
When the medium enters in the direction of flow indicated by the arrow it acts upon the target disc. The movement of the target disc is transferred against the force of a measuring spring via a lever to a micro switch or inductive switch. A metal bellows is used to seal the switching area, enabling the level bearing to be placed outside the medium area.



EARL Type 700



EARL Typ 720RBWind



Technical Data

Pipe sizes	type 700	DN 80 to DN 250
	type 720	DN 25 to DN 65
Nominal pipe pressure	PN 16	
Process connection either	flange DN..., PN 16 flange... 150 lbsRF according to ANSI B16.5	
Set point, fixed	within the range 0.3 - 4 m/s (referred to liquids)	
Set point, adjustable	in the range 1 : 2.5 e. g. . 0,4 - 1 m/s or 1 – 2.5 m/s	
Admissible deviation	± 2% of set point	
Hysteresis	about. 10% of set point	
Operating temperature	max. 100 °C, temperatures up to 400 °C as special construction available.	
Contacts	Micro switch with potential free S.P.C.O.-contact Capacity 250V AC, 10A 230V DC, 0,25A Inductive contact; three or two conductor also directly switching.	
Protection class	IP54	
Materials wetted parts:	corrosion and acid resistant steel, Material no. 1.4571	
Switch housing	aluminium (alternative gun metal) or ground plate bass with cover made of acrylic glass for visible control	
Cable entry	M 20 x 1.5	

Further models

- Unit with local mechanical indication (types 700 az and 720 az)
- Unit with sealing plate suitable for contaminated media

Note

The specification required for the flow switch depends upon the nominal bore of the pipe concerned and not upon the connecting flange, e. g. flow switch type 700 DN 100 with connecting flange DN 50 PN 16. Mounting of flow switch in either horizontal or vertical position such that the shaft of the bearing pivots in the horizontal plane. Straight runs of the pipe 10 x pipe diameter upstream, and 3 pipe diameters downstream.