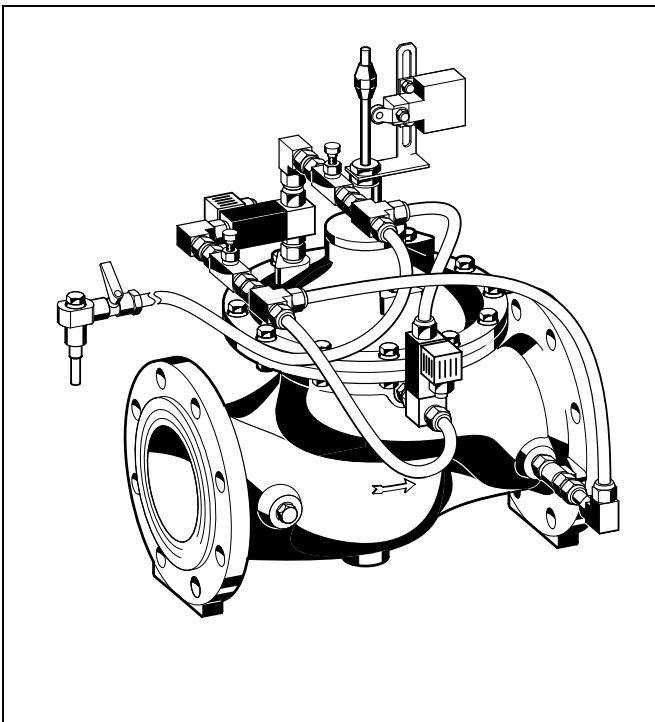


TC300

Protection valve for deep well pumping

Product specification sheet



Construction

The surge anticipating valve comprises:

- Housing with PN16 flanges per ISO7005-2, EN1092-2
- 2 magnetic solenoid valves
- 2 needle valves
- End switch
- Control circuit with ball valves on inlet and outlet
- Control circuit with integral rinsable filter insert

Materials

- Ductile iron housing, cover plate and diaphragm plate (ISO 1083), powder coated
- Red bronze/stainless steel regulating cone
- Stainless steel pressure spring and control rod
- Fibre-reinforced NBR diaphragm
- NBR and EPDM seals
- Stainless steel valve seat
- High quality synthetic material control circuits
- Brass compression fittings
- Brass magnetic solenoid valve housing
- Stainless steel filter insert

Application

Protection valves of this type for deep well pumping is used to permit pressure shock free starting and stopping of deep well pumps.

Special Features

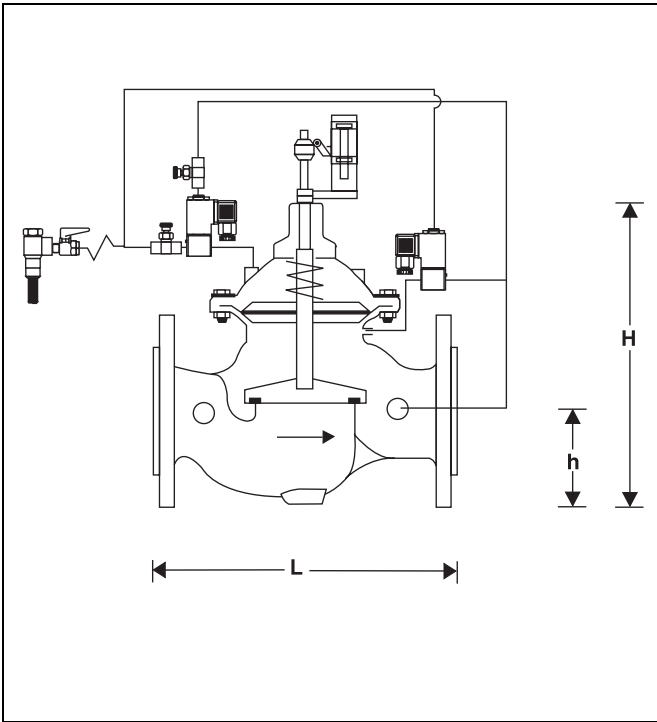
- High flow capacity
- Light weight
- High control accuracy
- Powder coated inside and outside - Powder used is physiologically and toxicologically safe
- Integral control circuit and ball valves

Range of Application

Medium	Water
Operating pressure	Max. 16 bar
Magnetic solenoid pilot valve	24 V AC, IP 65

Technical Data

Operating temperature	Max. 80 °C
Nominal pressure	PN 16 PN 25 on request
Minimum pressure	0.7 bar
Connection size	DN 50 - 450



Method of Operation

Protection valves of this type for deep well pumping are controlled by two adjustable magnetic solenoid valves. One magnetic solenoid valve is normally open when there is no electrical supply and the other is normally closed. In both magnetic solenoid valves the upper or lower diaphragm chambers are subjected to the outlet pressure to the pumping system. The operation of the pump is controlled by the end switch on the main valve.

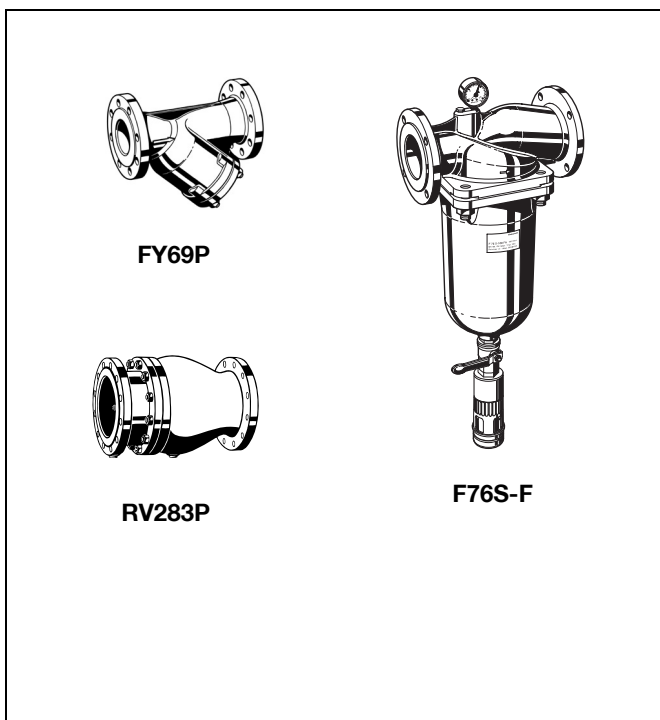
Options

TC300- ... A = Housing with flange, PN 16, ISO 7005, EN 1092-2

TC300- ... Z = PN 25, on request

Connection size

Connection size	DN	50	65	80	100	150	200	250	300	350	400	450
Weight	approx. kg	14	15	24	39	82	159	247	407	512	824	947
Dimensions	(mm)											
	L	230	292	310	350	480	600	730	850	980	1100	1200
	H	235	294	400	433	558	650	823	944	990	1250	1250
	h	83	93	100	110	143	173	205	230	260	290	310
Flow rate (Q _{max}) in m ³ /h - V=5.5 m/s		40	40	90	160	350	480	970	1400	1900	2500	3150
K _{VS} -value	m ³ /h	43	43	103	167	407	676	1160	1600	1600	3300	3300



Accessories

FY69P Strainer

With double mesh, grey cast iron housing, powder coated inside and outside.

A = Mesh size approximately 0.5 mm

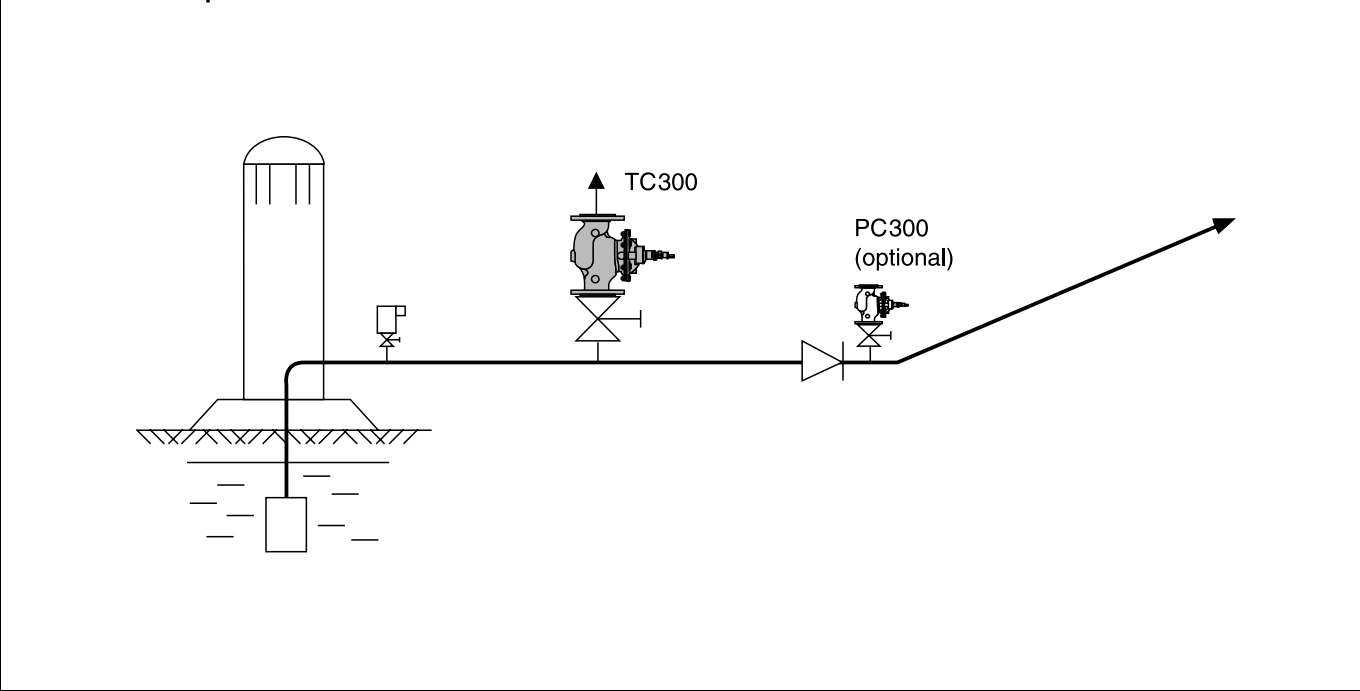
F76S-F Reverse-rinsing filter

Red bronze housing and filter bowl. Available in sizes DN 65 to DN 100, with filter mesh sizes 100 µm or 200 µm

RV283P Check valve

Grey cast iron housing, powder coated inside and outside. DIN/DVGW tested in compulsory test sizes DN 65, DN 80 and DN 100

Installation Example



Installation Guidelines

- Install shutoff valves on both sides of the pressure sustaining valves
- Install with flow in direction of arrow on housing
 - Protects against damage from coarse dirt
- Note flow direction (indicated by arrow)
- Ensure good access
 - Simplifies maintenance and inspection
- The opening period is dependent on the length of the supply pipework and should be increased if this pipework is extremely long
- The valve of this type cannot prevent excess pressure such as may be caused by a sudden electrical power failure
 - For this purpose a PC 300 surge anticipating valve should be fitted as well
- Install connectors for removal and refitting for maintenance

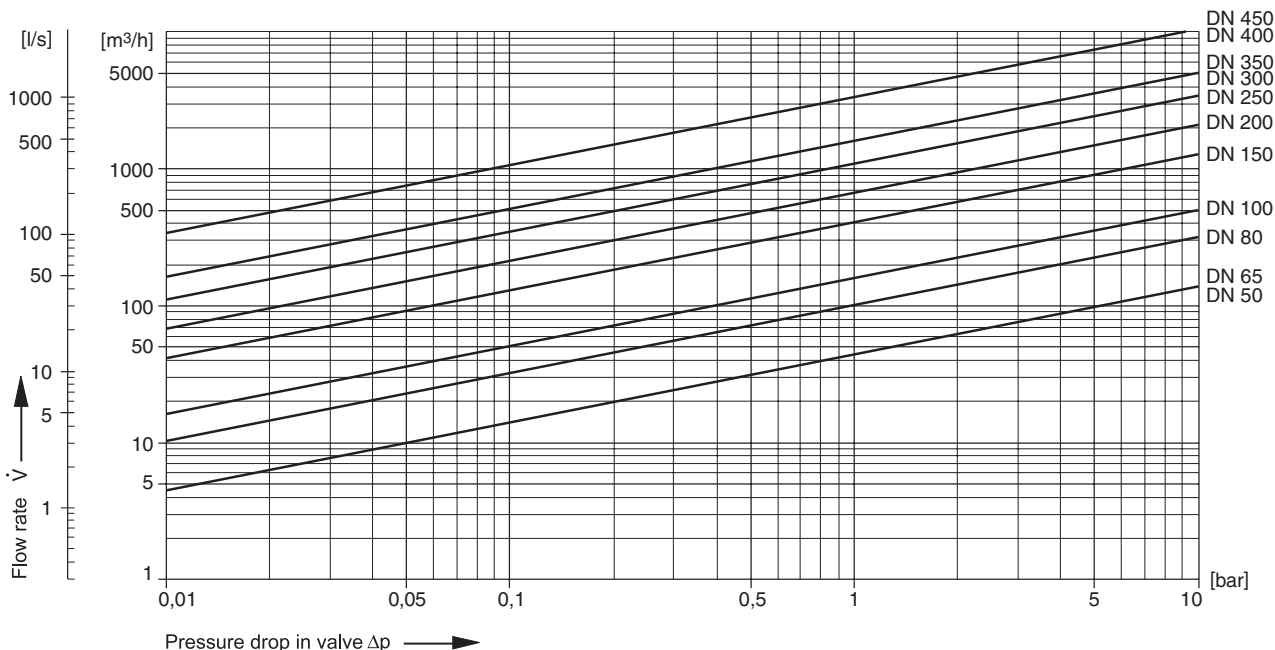
Typical Applications

Surge anticipating valves of this type, within the limits of their specification, are suitable for installation in water supply systems and also in commercial and industrial installations

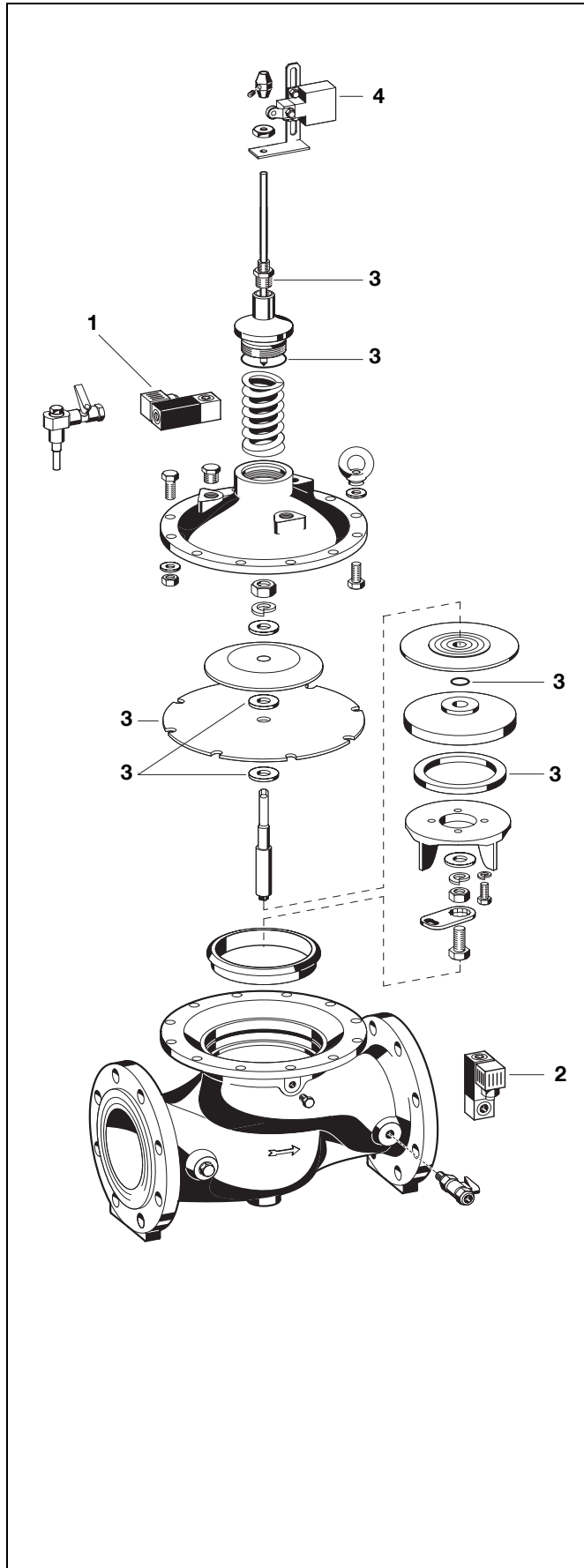
The following are some typical applications:

- Water pressure shock load protection in pressure boosting systems in mining
- Dedicated water supplies to industrial users

Flow Diagram



EN0H-1334/GE23 R0610 • Subject to change



Spare Parts

Protection valve TC300, from 2002 onwards

No.	Description	Dimension	Part No.
1	Replacement magnetic solenoid valve Normally closed when electrical supply is off	DN 50 - 450	30-NC 0903765
2	Replacement magnetic solenoid valve Normally open	DN 50 - 450	30-NO 0903766
3	Set of seals	DN 50 DN 65 DN 80 DN 100 DN 150 DN 200 DN 250 DN 300 DN 350 DN 400 DN 450	0903750 0903751 0903752 0903753 0903754 0903755 0903756 0903757 0903758 0903759 0903760
4	End switch	DN 50 - 450	0903764

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