

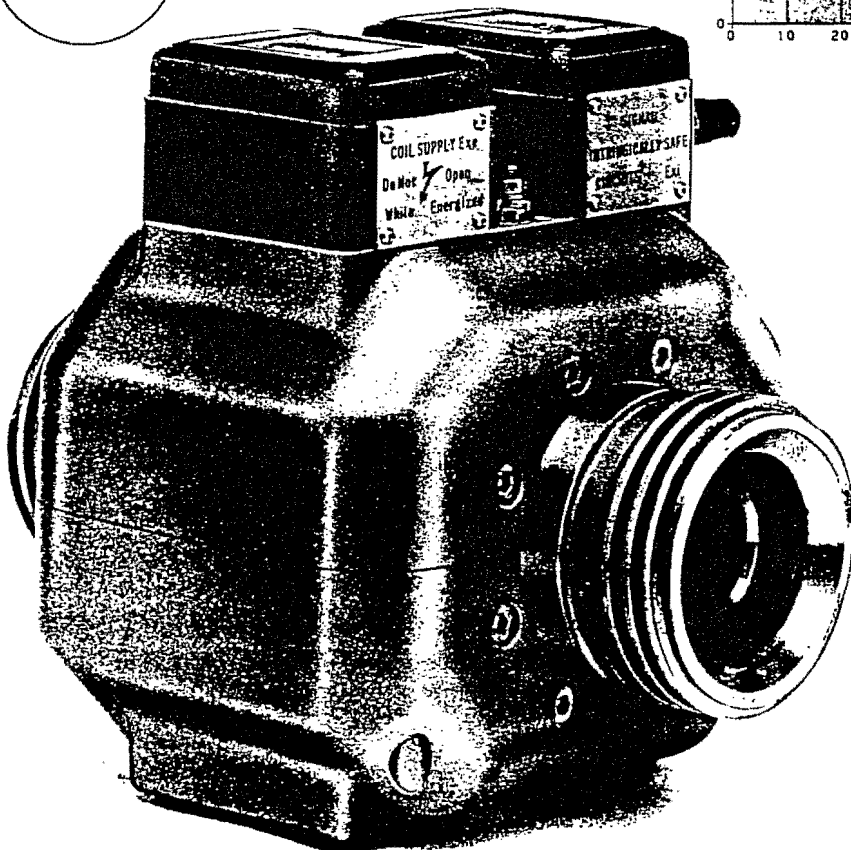
Danfoss MAGFLO[®] electromagnetic flowmeter for high pressures

The Danfoss MAGFLO[®] type MAG 360 is a high pressure electromagnetic flow sensor.

It is made of stainless steel for use in the oil exploration industry, or any other industry where high pressure is encountered.

The MAG 360 is capable of operating at 15,000 psi continuous working pressure and measuring flow rates up to 1,240 US gallons per minute. The units are equipped with 2" or 3" WECO fittings for ease of installation and safety.

The high pressure flowmeters are certified by BASEEFA. Danfoss has ISO 9001 certified quality assurance system, and calibration rigs that are approved by NAMAS.



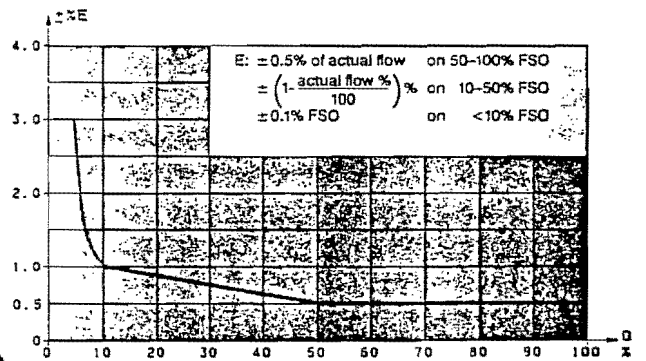
Applications

The MAG 360 is a highly accurate measuring (full bore) flowmeter for conductive liquids under very high pressure in hazardous areas. There are no moving parts and no pressure drops, therefore no mechanical wear takes place. This gives the advantages of low maintenance and low operating costs.

- Cement slurries
- Injection water
- Rock fracturing-acids
- Drilling mud
- Produced water
- Other media

Measuring accuracy

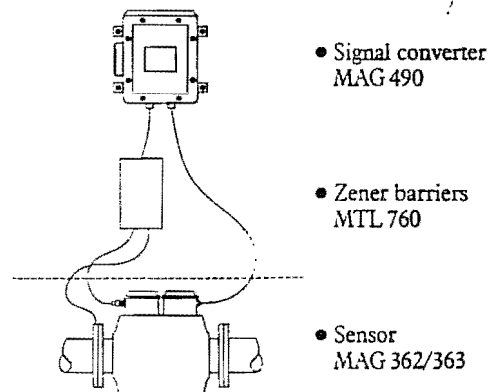
E: Measurement deviation in % of actual flow



Q: Actual flow in %

Explosion protection

The explosion proof high pressure flowmeter consists of:



Approval EEx e ia IIC T4

Flow sensor type MAG 362/363

Diameter:	2 and 3 inch
Max. pressure:	15,000 psi (1,000 bar)
Test pressure:	22,500 psi (1,500 bar)
Connections:	WECO I502
Lining:	Polyurethane
Material (tube):	Stainless steel (special grade)
Housing:	Cast and painted metal casing
Temperature:	Ambient -10 to +40°C. Media 0 to +50°C
Electrodes:	Hastelloy C ceramic coated
Conductivity:	Min. 1 µmho (1 µS) per centimetre
Enclosure:	NEMA 3, IP 65 to IEC 529 and DIN 40050
Connections:	By cable entry M20 x 1.5 to screw terminals
Design:	For fixed installation
Environment:	Hazardous area, zone 1 (EEx ia IIC T4, CENELEC)
Name plate:	With manufacture type and serial number
Flow capacity:	2 inch version: 47,500 US gallon/hour (180 m ³ /h) 3 inch version: 74,500 US gallon/hour (282 m ³ /h)
Coil current:	Pulsating d.c., frequency 2.6 Hz

Signal converter type MAG 490

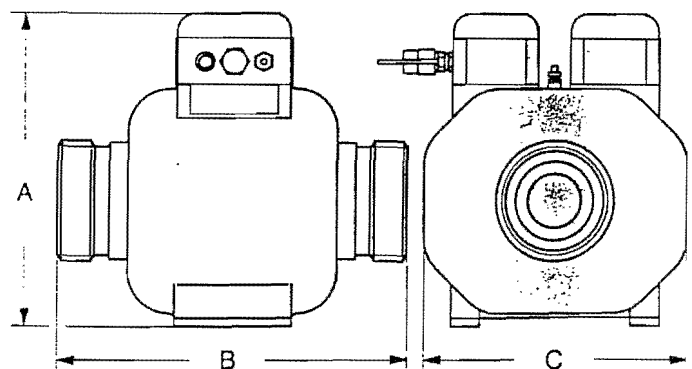
Range:	Adjustable
Analogue output:	0/4-20 mA
Indication:	Analogue indication 0-100%
Frequency output:	0-10 kHz (pulse output as option)
Accuracy:	± 0.5% of flow rate from 50-100%
Power supply:	110-120/220-240 V, 50-60 Hz or 12-24 V d.c.
Power consumption:	<8 VA
Temperature:	Ambient 0 to +55°C
Enclosure:	NEMA 3, IP 65 to IEC 529 and DIN 40050
Name plate:	With manufacture type and serial number
Cable:	Steel armoured cable

Zener barriers

Types: MTL 760, PEPPERL & FUCHS Z 360 or Z 660
SAFETY TECHNOLOGY E 924

Dimensions

	MAG 362	MAG 363
A	10.6 inch (265 mm)	12.0 inch (305 mm)
B	11.8 inch (300 mm)	13.0 inch (330 mm)
C	9.1 inch (230 mm)	10.2 inch (260 mm)



Test and certification

Danfoss operate a quality assurance system that conforms to BS 5750 part 1: ISO 9001 and the MAG 362, 363 is manufactured and tested according to BS 5792 where appropriate.

Documentation

The standard documentation consists of a detailed equipment manual, test reports and inspection certificates.

Flowmeters for medium pressure

Danfoss also manufactures a wide range of flowmeters for medium pressures.

This programme is suitable for measuring range 580 psi to 6,000 psi (40 bar to 420 bar) And made in sizes: 1 1/4 inch to 24 inch DIA (32 mm to 600 mm)