

# ELECTRONIC FLOW METERS

## K700 Modular Pulse Meter

*Diesel*

*Windscreen*



THE **K700** SERIES REPRESENTS A FAMILY OF METERS DEVELOPED TO SATISFY A WIDE RANGE OF REQUIREMENTS FOR THE CONTROL, MEASUREMENT, DISPENSING AND TRANSFER OF LUBRICATING OILS AND FUELS. ITS MEASUREMENT PRINCIPLE IS BASED ON MODULAR ELLIPTICAL GEARS THAT PROVIDE HIGH ACCURACY OVER A WIDE RANGE OF FLOW RATES TOGETHER WITH REDUCED LOSS OF HEAD. THE FLUID PASSING THROUGH THE INSTRUMENT TURNS THE GEARS WHOSE ROTATION TRANSFERS CONSTANT 'FLUID UNITS'. THE EXACT MEASUREMENT OF THE FLUID DISPENSED IS CARRIED OUT BY COUNTING THE ROTATION OF THE GEARS AND THUS THE 'FLUID UNITS' TRANSFERRED.

THE MAGNETIC COUPLING, CONSISTING OF MAGNETS INSTALLED IN THE GEARS AND A MAGNETIC SWITCH LOCATED OUTSIDE THE MEASUREMENT CHAMBER, GUARANTEES THE SEAL OF THE MEASUREMENT CHAMBER AND ENSURES THE TRANSMISSION OF THE IMPULSES GENERATED BY THE ROTATION OF THE GEARS TO THE MICROPROCESSOR.

THE METER HOUSING IS MANUFACTURED OF EXTRUDED ALUMINIUM AND IS FURNISHED WITH EXTERNAL GUIDES FOR A PRACTICAL AND SIMPLE INSTALLATION. THE VARIOUS MODELS ARE DIFFERENTIATED BY THE LENGTH OF THE HOUSING

WHICH IS RELATED TO THEIR ABILITY TO FUNCTION AT HIGHER FLOW RATES.

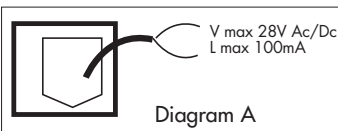
THE METER IS FURNISHED WITH THREADED AND ALIGNED INPUT AND OUTPUT CONNECTIONS TO ALLOW EASY INSTALLATION ON THE TUBING. THE DIAMETER AND THREAD ARE A FUNCTION OF THE MODEL. A NET FILTER IS INSTALLED IN THE OPENING OF THE INPUT CONNECTOR, ACCESSIBLE FROM THE OUTSIDE BY MEANS OF A COVER PROVIDED FOR THE PURPOSE, THAT PROTECTS THE GEARS OF THE METER FROM ANY DIRT PRESENT IN THE SYSTEM.

THE PULSAR VERSION IS A PULSE EMITTER (REED BULB) THAT TRANSLATES VARIATIONS IN THE MAGNETIC FIELD GENERATED BY THE ROTATION OF THE GEARS INTO ELECTRICAL IMPULSES TO BE SENT TO AN EXTERNAL RECEIVER CONNECTED AS SHOWN IN DIAGRAM 'A' BELOW. THE PULSAR DOES NOT NEED ITS OWN ELECTRIC POWER - IN AS MUCH AS IT IS POWERED DIRECTLY BY ITS CONNECTION WITH THE RECEIVER. THE TYPE OF PULSE EMITTED IS REPRESENTED BY A SQUARE WAVE GENERATED BY VOLTAGE (SEE DIAGRAM 'B' BELOW).

### TECHNICAL INFORMATION

Resolution	L/pulse	0.066	Viscosity Range	cSt	2 - 5.35
Range of Flow Rates	L/min	25 - 250	Accuracy (within Capacity Range)		+/- 0.5%
Working Pressure	Bar	20	Repetitiveness		0.2%
Bursting Pressure	Bar	60	Weight	Kg	5.5
Storage Temperature	C	-20 - +70	Input and Output Connection Thread		2" Female
Storage Humidity	RH	95%	Impulse Type		Clean Contact
Working Temperature	C	-10 - +60	Max Current	mA	100 mA
Loss of Head (Maximum Flow Rate with Diesel Fuel)	Bar	0.4	Max Voltage	Volt	28 Vac/dc
Compatible Fluids		Diesel Fuel, Anti-freeze	Impulses per Litre (approx)	n°	14

### CODE



### INSTALLATION

THE K700 IS DESIGNED TO BE PERMANENTLY INSTALLED ON A FUEL DISTRIBUTION LINE. DO NOT USE CONICAL CONNECTIONS THAT COULD CHANGE THE HOUSING OF THE METER OR THE CONNECTION FLANGE. THE POSITION OF THE FILTER DETERMINES THE INPUT DIRECTION OF THE FLOW. THE PULSAR MUST BE CONNECTED BY TWO WIRES OBSERVING THE ELECTRICAL SPECIFICATIONS SHOWN IN THE DIAGRAM.

- 2"
- Optional Remote Display
- Optional Remote Display Pulse Out

**498000**

**F1123600A**

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