

TECHNICAL DATA SHEET

**Wing Nut High Pressure (15,000 PSI)
 Turbine Flowmeters for Liquid Service
 (*10,000 PSIG MAWP for Sour Gas Service— consult factory)**

(For Water, Liquid Carbon Dioxide and Cement Slurry*)



Model Number											Technical Data		
Flowmeter Size (Inches)				(Ref. Note 1) Linear Flow Range (US GPM)		(Ref. Note 2) Bearing Types	(Refer Note 3 for more options) Standard Magnetic Pickup Coil	Ex-Proof Coil Enclosure	Wing Nut End Fitting - FMC (-F) or FMC Sour Gas (-FSG) Nuts & Segments	Service Types	Nominal Pulses/ Gallon 'K' Factor	Nominal Max. Freq. (Hz)	Length (inches)
Wing Nut Size (Inches)				Min.	Max.								
Model HO	2	X	1A	-4 -8.4	-60 -84	-BP or -T	-1MX	-E2 -X	-1502-F -1502-FSG	-H2O -CO2 -C/S	670 650	670 910	7.62
Model HO	2	X	1½A	-5 -8	-175 -130	-CB or -T	-1MX	-E2 -X	-1502-F -1502-FSG	-H2O -CO2 -C/S	240 240	700 520	7.62
Model HO	2	X	2A	-42 -65	-420 -650	-CB or -T	-1MX	-E2 -X	-1502-F -1502-FSG	-H2O -CO2 -C/S	65 50	455 540	7.62
Model HO	3	X	3A	-84 -105	-840 -1050	-CB or -T	-1MX	-E2 -X	-1502-F -1502-FSG	-H2O -CO2 -C/S	55 50	170 875	10.00

FLOW RANGE (Note 1) Ranges are standard ranges — other ranges are available. Contact Hoffer Flow Controls Engineering.

BEARING TYPE (Note 2) (—BP) Hybrid ceramic for 1", self-lubricating shielded ball bearings can be used on CO2 and H2O and never on Cement/Sand Slurry.
 (—CB) Hybrid ceramic, self-lubricating shielded ball bearings can be used on CO2 and H2O and never on Cement/Sand Slurry.
 (—T) Tungsten Carbide sleeve bearings can be used on H2O and C/S and never on Liquid CO2.

PICKUP COILS (Note 3)
 (—1MX) One magnetic pickup coil.
Optional (—2MX180) Two magnetic pickup coils @ 180°.
 (—1ISM)X Intrinsically Safe magnetic coil.
 (—2ISM)X Two Intrinsically Safe magnetic coils.
 (—1ISM-ATEX)X One ISM ATEX coil.
 (—2ISM-ATEX)X Two ISM ATEX coils.
 —(RPM__)X Redi-Pulse magnetic pickup coil providing a user specified conditioned pulse output. See Redi-Pulse Technical Data Sheet for available options.
 —(DMX__)X Intrinsically Safe Redi-Pulse magnetic pickup coil. See Intrinsically Safe Redi-Pulse Technical Data Sheet for available options.

RISER & EXPLOSION-PROOF COIL ENCLOSURES (—E2) 1" MNPT riser with E2 coil enclosure. (See chart)**
 (—X) None

SPECIAL FEATURES (add at end of Model No.)
 (—CE) CE mark required for Europe
 (—EX) Certified Explosion-proof system ***
 (—C-EX) Certified Explosion-proof system (Non-Canada) with Remote Electronics***
 (—BW) Monel 400 internals/Super duplex rotor
 (—SG) Sour Gas Service
 (—SP) Special features that are not covered in the Model number, use —SP and a written description.
 (—X) No Special Features.

****E2 EXPLOSION-PROOF/FLAME-PROOF ENCLOSURE WITH 3/4" FNPT MOUNT AND 3/4" CABLE ENTRY RATINGS:**

FM: CLASS I, DIV. 1, GR. ABCD, CLASS II/III, DIV. 1, GR. EFG, TYPE 4X
 CSA: CLASS I, DIV. 1, GR. ABCD, CLASS II, DIV. 1, GR. EFG, CLASS III, TYPE 4X EX D IIC, CLASS I, ZONE 1, IP 66
 ATEX: EX II 2GD Ex d tD IIC, IP66/68
 IEC: EX D IIC IP68

For Certified Systems, please contact factory.

*FLOWMETER LIFE IS LIMITED IN CEMENT/SAND SLURRY. CUSTOMER MUST SPECIFY MAXIMUM PARTICULATE SIZE ON CEMENT/SAND SLURRY APPLICATIONS.

GENERAL SPECIFICATIONS:

Linearity: $\pm 0.5\%$ of reading ($\pm 0.25\%$ typical) over tabulated linear flow range.

Repeatability: $\pm 0.1\%$ over tabulated useable range.

Temperature Range: -450° to $+450^{\circ}$ F (Standard).

Pressure Drop Characteristics: Request graphical data.

Overrange: 150% of maximum flow (intermittently).

Construction: Housing - A286 alloy steel.
Internals - All stainless steel (except "T" bearings). Rotor: 17.4 PH

FLOWMETERS ARE SUPPLIED WITH A 10-POINT WATER CALIBRATION AND WITH 'K' FACTOR PAPER TAG ATTACHED TO METER.

Wing Nut Calibrated Spare Internal Kits						
Flowmeter Size (Inches)		Linear Flow Range (US GPM)		Bearing Type		Service Types
		Min.	Max.			
Part Number Kit	HO1	-4 -8.4	-60 -84	-BP -T	-INTERNALS-W	-H2O -CO2 -C/S
Part Number Kit	HO1½	-5 -8	-175 -130	-CB -T	-INTERNALS-W	-H2O -CO2 -C/S
Part Number Kit (Note 1)	HO2	-42 -65	-420 -650	-CB -T	-INTERNALS-W	-H2O -CO2 -C/S
Part Number Kit (Note 2)	HO3	-84 -105	-840 -1050	-CB -T	-INTERNALS-W	-H2O -CO2 -C/S
Note: Internal Kits and rotors are water calibrated and supplied with 'K' factor.						

Note 1: Retainer Ring RR181 supplied with 2" kit.

Note 2: Retainer Ring RR262 supplied with 3" kit.

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The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specification are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.



Hoffer Flow Controls Quality Management System

