

TURBINE FLOWMETERS WITH LOCAL DIGITAL DISPLAY

FTB790 Series



- ✓ Indicates Both Rate and Total
- ✓ Up to 1% Reading Accuracy
- ✓ 6-Digit Display
- ✓ Signal Output Capabilities
- ✓ GPM or LPM (Field Selectable)
- ✓ Battery Operated (Included)
- ✓ PVDF (FTB890) or PVC (FTB690) Models Also Available

FTB790 Series turbine meters with microprocessor-based electronics offers a durable, compact, high-precision fluid measurement device, with total and rate indication. Information is clearly displayed on a large 6-digit liquid crystal display with only 2-point floating decimal for totals from 0.01 to 999,999. All operations are easily performed with only 2 buttons. The basic unit and display are powered by 2 lithium batteries, providing up to 5 years of use. Cumulative total, batch total, and rate of flow are standard. A single-point field calibration curve can be stored in memory.

The turbine meter can also be ordered without display electronics. A special pulse output model (FLSC790-P-ND) must be ordered to obtain an open collector current sinking output operated on 9 to 35 Vdc. The output is a square wave pulse with a 3-wire connection.

Accessories for Turbine Meters With the Display:

The FLSC790-MA provides a 4 to 20 mA or 0 to 5 Vdc output for rate indication. The output module requires field calibration. The 4 to 20 mA dc is a 2-wire system requiring 8 to 30 Vdc power (24 Vdc recommended).

All models shown smaller than actual size.



The FLSC790-P pulse output module provides an unscaled open collector sinking output operating on an applied voltage of 0 to 60 Vdc. The output is a square wave pulse with an amplitude the same as the supplied voltage.

The FTB790-RK remote kit allows remote mounting of display electronics. This option expands the applications into wider fluid temperature ranges to -40 to 121°C (-40 to 250°F). The LCD display can be mounted up to 90 m (300') from the turbine meter.

The FLSC790-90D is a 90° mounting adaptor designed to allow displays to be mounted 90° from the standard position.

SPECIFICATIONS

Accuracy:

G2S05N09GMA : ±2% rdg
 G2S07N09GMA,
 G2S10N09GMA : ±1.5% rdg
 G2S15N09GMB,
 G2S20N09GMB: ±1.0% rdg

Extended Low Flow Range Accuracy:

±5.0% of reading (display models only)

Repeatability: ±0.1%

Pressure Rating: 1500 psig (103 bar)

With “-HP” Option:

3000 psig (207 bar)

Temperature Range:

With Remote Electronics Kit:

-40 to 121°C (-40 to 250°F)

Without Remote Electronics:

-10 to 60°C (14 to 140°F)

Viscosity: Rated accuracy for fluids with viscosity of water (1 cSt); meters with display can be used for fluids up to 100 cSt with field calibration

Wetted Components:

Housing: 316 SS

Journal Bearings: Ceramic (96% alumina)

Shaft: Tungsten carbide

Rotor and Supports: PVDF

Retaining Rings: 316 SS

Display: 6-Digit LCD indicates flow rate, batch and cumulative total

Battery Life: 5 years

FM Approvals: Turbine meters with display and no accessories are FM approved for Class 1, Div. 1 hazardous environments

Note: Outputs and accessories are not designed for hazardous environments.



G2S05N09GMA shown larger than actual size.

To Order

Model No. w/Display	Model No. w/o Display*	Range GPM (LPM)	Extended Range Low Flow**	FNPT Size	Pressure Drop (psi)	Length mm (in)	Weight kg (lb) includes display	Opt pulse K-factor pulse/gal (nom)
G2S05N09 -GMA	G2S05NXX -XXA	1 to 10 (3.8 to 37.9)	0.5 (1.9)	½	8.0	107 (4.2)	1.0 (2.3)	2500
G2S07N09 -GMA	G2S07NXX -XXA	2 to 20 (7.6 to 75.7)	1.0 (3.8)	¾	7.5	109 (4.3)	1.1 (2.5)	1100
G2S10N09 -GMA	G2S10NXX -XXA	5 to 50 (18.9 to 190)	2.5 (9.5)	1	5.0	114 (4.5)	1.3 (3.0)	565
G2S15N09 -GMB	G2S15NXX -XXB	10 to 100 (38 to 380)	5.0 (9.0)	1½	4.0	135 (5.3)	2.1 (4.6)	215
G2S20N09 -GMB	G2S20NXX -XXB	20 to 200 (76 to 760)	10.0 (38)	2	4.0	160 (6.3)	3.1 (6.8)	100

* Requires signal output module model **FLSC790-P-ND**, ordered separately.

** Extended low flow range and field calibration for viscosity not available on “-ND” (no display) units.

For units with ISO threads add “-ISO” to the model number, for additional cost.

For units with Tri-Grip mounting add “-TRI” to model number, for additional cost.

For high pressure units [207 bar (3000 psig)], add suffix “-HP” to model number, for additional cost.

Field Installable Options and Accessories

Model Number	Description
FLSC790-MA	4 to 20 mA/0 to 5 Vdc output module†
FTB790-RK	Remote display kit module†
FLSC790-P-ND	Pulse output for models without displays (“-ND” suffix); open collector output†
FLSC790-90D	90° display mounting adaptor

Except as noted, options and accessories are for display models only. Only one module can be installed per unit.

Comes complete with two 3V lithium batteries and operator’s manual.

† Comes complete with 3 m (10’) cable, and operator’s manual.

Ordering Examples: G2S10N09GMA , 1” turbine meter, with FLSC790-MA, field installable 4 to 20 mA dc output.