

# Lauris Ultrasonic Flow Meter Ordering Information

FF A - B - C - D - E - F - G - H - I - J - K - L - M - N - O

| Item    | Description  |  |  |
|---------|--|--|--|
| Α       | Number of Paths                                      |  |  |
| 1225    | Single Path, 2 transducers                           |  |  |
| 2225    | Dual Path, 4 transducers                             |  |  |
| 3225    | Three Path, 6 transducers                            |  |  |
| 4225    | Four Path, 8 transducers                             |  |  |
|         |  |  |  |
| В       | Arrangement (Appendix 1)                             |  |  |
| А       | Regular inline, with isolation ball valves           |  |  |
| E       | Compact inline, with retraction tool (Note 5)        |  |  |
| G       | Insertion vertical, with isolation valves            |  |  |
| U       | Insertion, single port with isolation valve (Note 1) |  |  |
| С       | Pipe size in Inches, Two Digits                      |  |  |
| D       | Transmitter Mount (Note 2)                           |  |  |
| LM      | Local (Integral) Mount Transmitter                   |  |  |
| 10      | Remote Mount, Cable Length 10m (33ft)                |  |  |
| 20      | Remote Mount, Cable Length 20m (65ft)                |  |  |
| 30      | Remote Mount, Cable Length 30m (100ft)               |  |  |
|         |  |  |  |
| E       | Spool & Flange Material (Note 3)                     |  |  |
| 00      | No Spool, On Pipe Installation                       |  |  |
| ST      | Regular Carbon Steel, A105 / A106                    |  |  |
| LT      | Low Temp Carbon Steel, A333 / A350LF2                |  |  |
| SS      | Stainless Steel Pipe and Flanges, SS 316             |  |  |
| СМ      | Other Material and/or coating per IFC Datasheet      |  |  |
|         |  |  |  |
| F       | Pipe Schedule (corresponding to pipe dia.)           |  |  |
| STD     | Schedule Standard                                    |  |  |
| 010     | Schedule 10  |  |  |
| 040     | Schedule 40  |  |  |
| 080     | Schedule 80  |  |  |
| XH      | Schedule Extra Strong                                |  |  |
| 160     | Schedule 160   |  |  |
|         |  |  |  |
| G       | Spool Flange Rating                                  |  |  |
| 1       | ANSI 150   |  |  |
| 2       | ANSI 300   |  |  |
| 3       | ANSI 600   |  |  |
| 4       | ANSI 900   |  |  |
| 5       | ANSI 1500  |  |  |
|         |  |  |  |
|         |  |  |  |
| Н       | Spool Flange Type                                    |  |  |
| H<br>RF | Spool Flange Type<br>Raised Face                     |  |  |
|         |  |  |  |
| RF      | Raised Face  |  |  |

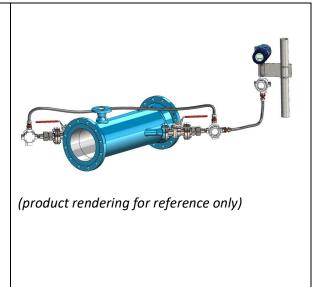
| Item  | Description  |  |  |
|-------|--|--|--|
|       | Process Connection, Transducer Port                  |  |  |
| N10   | NPT 1"   |  |  |
| N15   | NPT 1.5"   |  |  |
| F15   | Flanged 1.5" RF                                      |  |  |
| F20   | Flanged 2" RF  |  |  |
| F30   | Flanged 3" RF  |  |  |
| J     | Power Supply   |  |  |
| А     | 24 VDC   |  |  |
| В     | 120-250 VAC  |  |  |
| К     | Transducer Type                                      |  |  |
| TS    | Material: SS316                                      |  |  |
| TL    | Material: SS316L                                     |  |  |
| TT    | Material: Titanium                                   |  |  |
| TH    | Material: Hastelloy                                  |  |  |
| ТМ    | Material: Monel                                      |  |  |
| L     | Maximum Process Pressure, in bar                     |  |  |
| М     | Maximum Process Temperature                          |  |  |
| 1     | 135C   |  |  |
| 2     | 250C   |  |  |
| 3     | 600C   |  |  |
| Ν     | Pressure Transmitter (Note 4 and 6)                  |  |  |
| P0N00 | By Others, remote mount, no PT port on spool         |  |  |
| P0N05 | By Others, on spool mount, include 1/2" NPT Port     |  |  |
| P0N10 | By Others, on spool mount, include 1" NPT Port       |  |  |
| P1N00 | By Lauris, remote mount, shipped loose               |  |  |
| P1N05 | By Lauris, 1/2" NPT port, installed and wired        |  |  |
| P1N10 | By Lauris, 1" NPT port, PT installed and wired       |  |  |
| P1F10 | By Lauris, 1" Flanged port, PT installed and wired   |  |  |
| P1F15 | By Lauris, 1.5" Flanged port, PT installed and wired |  |  |
| P1F20 | By Lauris, 2" Flanged port, PT installed and wired   |  |  |
| P1CC  | By Lauris, custom PT connection                      |  |  |
| 0     | Temperature Transmitter (Note 4 and 6)               |  |  |
| T0F00 | By Others, remote mount, no TT port on spool         |  |  |
| T0N05 | By Others, on spool mount, include ½" NPT Port       |  |  |
| T0F05 | By Others, on spool mount, include ½" FLG Port       |  |  |
| T0F10 | By Others, on spool mount, include 1" FLG Port       |  |  |
| T0F15 | By Others, on spool mount, include 1.5" FLG Port     |  |  |
| T0F20 | By Others, on spool mount, include 2" FLG Port       |  |  |
| T1N00 | By Lauris, remote mount, shipped loose               |  |  |
| T1N01 | By Lauris, ½" NPT port, installed and wired          |  |  |
| T1F05 | By Lauris, ½" Flanged port, installed and wired      |  |  |
| T1F10 | By Lauris, 1" Flanged port, installed and wired      |  |  |
| T1F15 | By Lauris, 1.5" Flanged port, installed and wired    |  |  |
| T1F20 | By Lauris, 2" Flanged port, installed and wired      |  |  |
| T1CC  | By Lauris, custom TT connection                      |  |  |



### Example:

### FF1225-A-10-30-ST-STD-1-RF-F15-A-TT-10-2-P0N05-T0F20

- Inline regular single path flow meter
- Spool size is 10"
- Remote Mounted Transmitter with 30m coaxial cable
- Spool Body from A106 Carbon Steel, w/ A105 Flanges
- Pipe Schedule is Standard
- Spool Flange Rating is ANSI CL150
- Spool Flange Type is Raised Face
- 1.5" Flanged CL150 transducer ports
- 24VDC power supply
- Titanium Transducers
- 10bar Maximum Process Pressure
- 250C Maximum Process Temperature
- Pressure transmitter by Others, ½" NPT on spool port
- Temperature transmitter by Others, 2" flanged on spool port



#### Notes:

- 1) Insertion single port FF1225-U flow meter can be ordered in single path or dual path configuration.
- 2) Maximum coaxial cable length for remote mounted transmitter is 30m (100ft).
- 3) Standard prep and coating for ST and LT spool materials is blasting per SSPC-SP10 and powder coating in RAL-5005. Please contact your Lauris representative for other prep and coating options.
- 4) Unless otherwise specified the following are the Lauris standard Pressure and Temperature Transmitters:
  - a. Pressure Transmitter (P1N00 and P1N05)- ½ " NPT Port Noshok 621 Series Explosion Proof (P/N 621-30/100-1-1-8-6).
  - b. Temperature Transmitter (T1N00 and T1N05) Aircom ½" NPT Thermowell, 316L Tapered Stem, RTD Assembly 3-wire single element, CSA RTD 2/3/4-wire transmitter (4-20mA Output).
- 5) Only one retraction spool is included per order. Additional retraction tools can be provided upon request.
- 6) Flanged ports are 150#, RF. For flanged PT ports a CL150 SS isolation ball valve is included.



## Appendix 1: Typical Arrangements

| A | Regular inline, single path with isolation ball valves   |  |
|---|--|--|
| E | Compact inline, with retraction tool. High pressure application.   |  |
| G | Vertical, single path, with isolation valves. For on-pipe installation where the process lines are close together. |  |
| U | Insertion, single port with isolation valve  |  |