

The Kotron series 805 is a budget minded but “full function” 24 V DC, 2-wire loop powered RF transmitter. The micro-processor based electronics allow the user to calibrate the 805 with only one small level change. The electronics are housed in an ergonomical dual compartment housing which is directly mounted on top of the probe.

FEATURES

- Accepted, proven RF capacitance technology.
- Two-wire, 24 V DC, loop-powered level transmitter.
- One small level change needed for initial calibration.
- Full diagnostics if using HART® digital communication (optional).
- Innovative, ergonomic dual compartment housing.
- Transmitter head can be removed from probe without depressurizing the vessel.
- Two-line, 8-character LCD and 3-button keypad (optional).
- Probe designs: up to +540 °C / 345 bar (+1000 °F / 5000 psi).

Transmitter with digital display and keypad:

- Continuous local display of level, % and loop signal.
- Fault identification via FAULT message on LCD.

APPLICATIONS

- Hydrocarbons & solvents.
- Corrosives, acids and caustics.
- Powders & granulars.
- High temperature/pressure liquids.

Budget minded level solution



AGENCY APPROVALS

| | |
|---------------|--|
| ATEX | II 1G EEx ia IIC T4 (ambient -40 °C to +80 °C) II 1G EEx ia IIC T6 (ambient -40 °C to +40 °C) |
| FM/CSA | Intrinsically safe Non Incendive (Consult factory for proper partnumber) |

SELECTION DATA

A complete measuring system consists of:

1. Kotron 805 transmitter head/electronics.
2. KOTRON® Probe; a full range of rigid and flexible probes for conductive and non-conductive media is available (see bulletin BE 50-125).
Rigid probes: from 150 mm (6") to 6000 mm (20') insertion length.
Flexible probes: from 1 m (3,28') to 45 m (150') insertion length.

1. Order code for KOTRON® 805 transmitter head/electronics

BASIC MODEL NUMBER

| | | | |
|---|---|---|-------------------------|
| 8 | 0 | 5 | KOTRON® 805 transmitter |
|---|---|---|-------------------------|

POWER

| | |
|---|--------------------------------|
| 5 | 24 V DC, two wire loop powered |
|---|--------------------------------|

SIGNAL OUTPUT

| | |
|---|--|
| 0 | 4 - 20 mA analog output |
| 1 | 4 - 20 mA analog output with HART® communication |

MENU LANGUAGE

| | |
|---|---|
| 0 | None, for use with blind transmitter (requires HART® communication) |
| 1 | English for use with transmitter with LCD display and keypad |
| 2 | Spanish for use with transmitter with LCD display and keypad |
| 3 | French for use with transmitter with LCD display and keypad |
| 4 | German for use with transmitter with LCD display and keypad |

ACCESSORIES

| | |
|---|--|
| 0 | Blind transmitter (no display/keypad) - requires HART® communication |
| A | Digital display and keypad |

APPROVAL

| | |
|---|---|
| 1 | Weatherproof |
| A | Intrinsically safe, ATEX II 1G EEx ia II C T6 |

HOUSING

| | |
|---|---|
| 1 | Cast aluminium, dual compartment housing – IP 66 |
| 2 | Stainless steel, dual compartment housing – IP 66 |

CABLE ENTRY

| | |
|---|-------------------------------------|
| 0 | 3/4" NPT (2 entries - one plugged) |
| 1 | M20 x 1.5 (2 entries - one plugged) |

| | | | | | | | | | |
|---|---|---|---|--|--|--|--|--|--|
| 8 | 0 | 5 | 5 | | | | | | |
|---|---|---|---|--|--|--|--|--|--|

complete order code for KOTRON® 805 transmitter head/electronics

→ X = product with a specific customer requirement

2. Order code for KOTRON® Probe (see bulletin BE 50-125)

A complete line of rigid and flexible probes are available for the Kotron 805 Transmitter.

Types of probes to choose from include:

- Rigid insulated rod probes in Teflon® (TFE), Halar® (ECTFE), and Kynar® (PVDF)
- Rigid bare probes in 316 SS (1.4401) and Hastelloy C (2.4816)
- Rigid all plastic probes in Halar® (ECTFE), and Kynar® (PVDF)
- Bent, ground wire, and inactive sheath probes in many of the above materials
- Stilling well probes
- Sanitary probes
- Reference rod probes
- Flexible probes

FUNCTIONAL/PHYSICAL

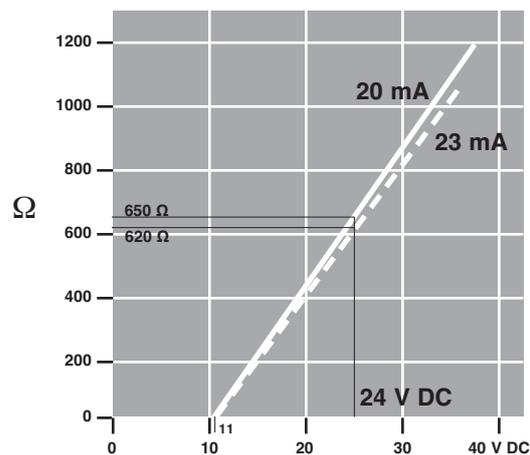
| Description | Specification |
|-------------------------------|--|
| Power (at terminals) | General Purpose: 11 to 36 V DC ATEX Intrinsically Safe: 11 to 28.6 V DC |
| Output | 4-20 mA or 4-20 mA with HART® 3.8 to 20.5 mA useable (meets NAMUR NE 43) |
| Span | minimum 5 pF - maximum 10.000 pF |
| Zero and Range | 0 mm to 45 m (0' to 150') |
| Resolution | Analog: 0.01 mA Digital display: 0,1 cm (0.1") |
| Loop Resistance | ATEX Intrinsically Safe/General Purpose: 650 Ω @ 24 V DC |
| Damping | Adjustable 1-45 s |
| Diagnostic Alarm | Adjustable 3.6 mA, 22 mA, HOLD (3.6 mA is not valid if unit includes HART®) |
| Digital Communication (HART®) | Version 5.x |
| User Interface | 3-button keypad and/or HART communicator |
| Display | 2-line x 8-character LCD |
| Approvals | ATEX II 1 G EEx ia IIC T4 (ambient temperature: -40 °C up to +80 °C) ATEX II 1 G EEx ia IIC T6 (ambient temperature: -40 °C up to +40 °C) |
| Electrical Data | Ui = 28,6 V, Ii = 140 mA, Pi = 1 W |
| Equivalent Data | Ci = 2,2 nF; Li = 0,037 mH |
| Menu Language | English/Spanish/French or German |
| Housing Material | Aluminium A356T6 (< 0.25% copper) or 316 SST (1.4401) / IP 66 |
| Net and Gross Weight | 2.70 kg net; 3.20 kg gross |
| Overall Dimensions | H 214 mm (8.43") x W 111 mm (4.38") x D 188 mm (7.40") |

PROCESS CONDITIONS

| Description | Specification |
|---------------------------------|---|
| Maximum Process Temperature | 540 °C @ 35 bar (1000 °F @ 500 PSIG) - depending probe selection |
| Maximum Process Pressure | 345 bar @ 40 °C (5000 PSIG @ 100 °F) - depending probe selection |
| Ambient temperature electronics | -40 °C to +80 °C (-40 °F to +175 °F) Display not readable below -20 °C (-5 °F) |
| Storage temperature | -40 °C to +80 °C (-40 °F to +175 °F) |
| Humidity | 0-99 %, non-condensing |
| Electromagnetic Compatibility | Meets CE requirements (EN 61326: 1997 + A1 + A2) and NAMUR NE 21 |

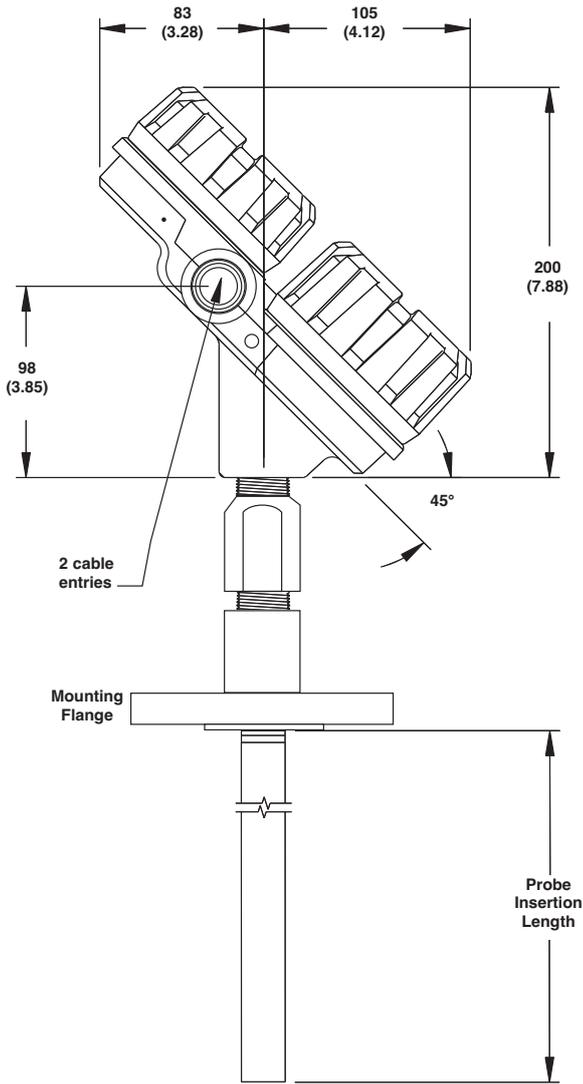
PERFORMANCE

| Description | Specification |
|----------------------------|---|
| Reference conditions | 20 °C (70 °F) |
| Accuracy | +/- 0.5% of span or 2.5 mm whichever is greater |
| Resolution | 0.1 pF |
| Repeatability | +/- 0.1% of span |
| Linearity | +/- 0.25% of span |
| Response time | less than 1 s (adjustable via damping) |
| Ambient temperature effect | approximately +0.03% per °C |
| Warm up time | less than 5 s |

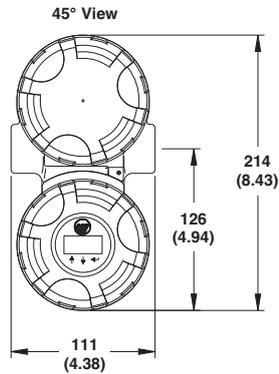


OUTPUT TABLE

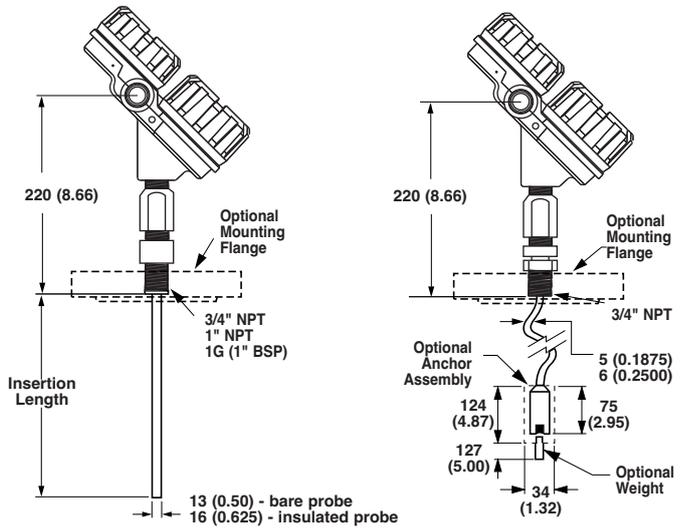
DIMENSIONS in mm (Inches)



Kotron 805 Housing side view



Kotron 805 Housing front View



Rigid probe

Flexible probe



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UNDER RESERVE OF MODIFICATIONS

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