

# DIGITAL REFRACTOMETER FOR IN-LINE CONCENTRATION ANALYSIS

# UR 62

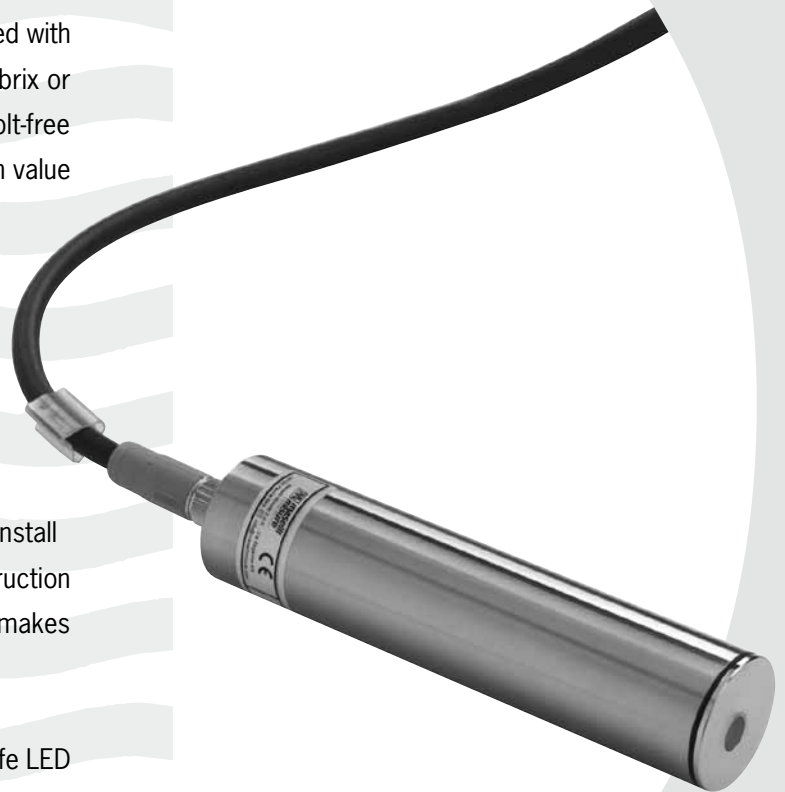
The **UR-62** Digital Refractometer is a process refractometer for continuous in-line measurement of liquid concentration. It has the advantages of being extremely compact, rugged and simple to install, while offering an excellent performance to cost ratio.

The **UR-62** is designed for those applications where a continuous concentration measurement is required combined with a 4-20mA output. The output has a resolution of 0.2 brix or concentration equivalent. In addition there are two volt-free alarm contacts that can be set for both concentration value and hysteresis.

The **UR-62** is easily set up and configured through a PC or portable computing device using its built in RS485 interface. It can also be connected to the optional **RC-24** touch screen operator display unit.

A series of special fittings make it quick and easy to install the **UR-62** directly into a process line or tank. Construction in 316 stainless steel and a protection rating of IP67 makes it suitable for most process environments.

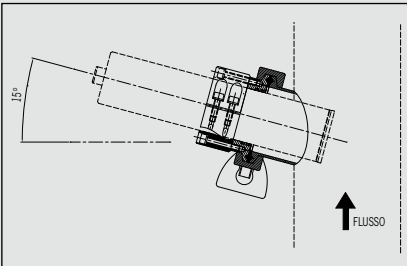
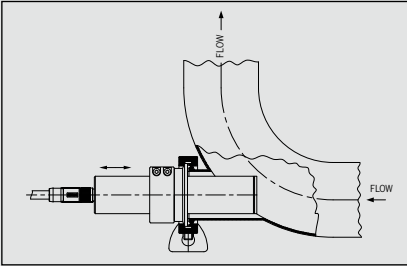
The **UR-62** uses a hard wearing spinel prism, a long-life LED light source, CCD optical detection and automatic temperature compensation for reliable, stable, drift-free operation.



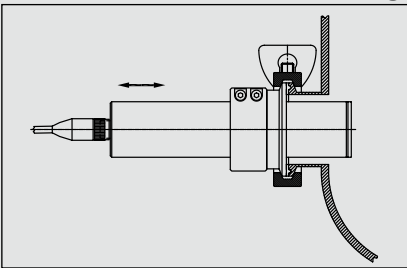
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## INSTALLATION DRAWINGS

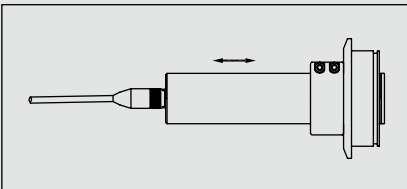
### Standard installation on piping with DF6N fittings



### Standard installation on tank with DF6N fittings



### Installation with standard "Maselli" fittings (DF15)



**Note:** For product temperature higher than 70 °C (158 °F), the maximum insertion of the instrument must not exceed 30 mm.



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PROCESS ANALYZERS

## TECHNICAL FEATURES

**Range:**  
1.3170...1.4907 nD (0...80 Brix)

**Accuracy:**  
max:  $\pm 0.2$  Brix

**Resolution:**  
0.2 Brix or equivalent for USER scale.

**Product temperature:**  
-5...+90 °C (23...194 °F)  
with automatic compensation of the temperature by a PT1000 Probe.

**Max. temperature during sanitization:**  
Hot Water: 95 °C (203 °F) for 30'.  
Steam: (0.5 bar) 110 °C (230 °F) for 30'.

**Line pressure:**  
max. 10 bar (145 psi) at 20 °C (68 °F)  
max. 8 bar (116 psi) at 90°C (194 °F)

**Interfaces:**  
Digital:  
RS485 for connection to programming PC or Remote Control Repeater RC-24.

**Outputs:**  
2 relay outputs (alarm condition signaling)  
+ 1 relay output for cleaning system control with DC/AC 24V/500mA contacts.

**Analog (with external adapter):**  
4...20mA on 470Ω / proportional "step" type with 0.20 Brix resolution (optional).

**Power supplies:**  
- AC 24V  $\pm 10\%$  50...60Hz 80mA  
- DC 24V  $\pm 10\%$  80mA

## CONSTRUCTION FEATURES

**Execution:**  
- AISI 316 stainless steel Enbloc casing for installation on the process line by means of the special adapter.  
- Degree of Protection IP67 (EN60529)

**Measurement section:**  
- Spinel measurement prism.  
- Electronically compensated LED light source.  
- CCD sensitive element with 2546 pixels.  
- Pt1000 temperature probe inside the appliance.  
- Integrated prism cleaning system with electric actuator (optional).

**Electronic section:**  
- Central "CPU" unit with microprocessor which can be programmed with the special "Utility Software" for setup and configuration of the alarm threshold values, relative hysteresis, resetting and scale changeover  
- Internal temperature/humidity sensor for continuous temperature readings and the detection of humidity with relative alarm signaling.

**Parts in contact with the product:**  
- Structure in AISI 316 stainless steel  
- O-ring in Kalrez 6230 (Kalrez 6375 or 6380 on request) and Viton FKM 75.5.  
- Spinel measurement prism.

**Accessories:**  
- AISI 316 stainless steel fitting for installation on the line or in by-pass with Tri-Clamp® fittings or fittings of a different type to be defined depending on the application  
- Conditioning system for forced circulation of cooling air to permit continuous operation at high temperatures.

**Dimensions and weight:**  
ø38.5 (b) x 173 (d), 500 g

## UR62 Standard Dimensions

