

EVALUATION SYSTEM FOR MUST DELIVERED ONTO THE TRANSFER LINE BETWEEN THE GRAPE CRUSHER AND THE FERMENTER

BL 01

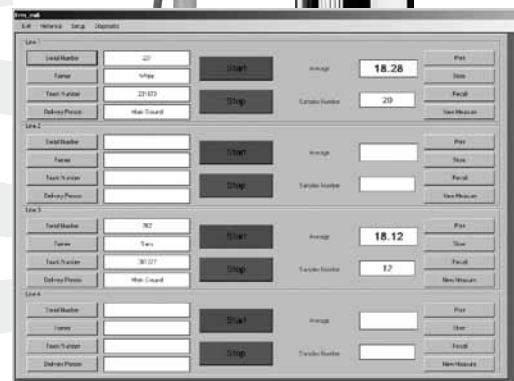
The **BL-01** system for evaluating must (crushed grapes) on delivery, directly measures the characteristic parameters on the transfer line between the grape crusher and the fermenter. The application of this system can be executed when crushing is performed batch by batch.

The system can be configured to analyze 1 to 4 lines. The parameter detected by the **BL-01** is the degrees Brix value. The measurement is made using a **UR-24** refractometer installed on the main piping downline from the crusher, which then transmits the measured values to a control console (Personal Computer) connected via a RS485/USB converter.

The system is made up of:

- Between 1 - 4 refractometer units to detect the °Brix of the must.
- Between 1 - 4 connector fittings to be installed on the main pipe (diameter 80 or 100 DIN).
- An interconnection box.
- A control console which receives the data sent by the refractometric units and then processes and stores it in a special database and transmits it to the Central Computer.
- The control console is usually installed on a platform or box on which a trained operator works, managing between one to four crushing lines in the manner indicated in the Operating Cycle described below.

The system can be completed with a pH measurement.



Description of the operating cycle

System ready to start the cycle

The batch number is entered in the Control Console and the Central Computer receives the batch data

Start crusher (from the Client's Control Panel)

Start Evaluation Cycle command (flashing mean value indicated)

End Analysis Cycle command (fixed value indicated)

Close the evaluation cycle with the following operations:
 a) Print data using a local printer
 b) Save data
 c) Transmission of data to the Central Computer
 d) Activation of line free status

TECHNICAL FEATURES

Refractometric measurement limits:

1.3403...1.3902 nD
 5...35 degrees Brix
 4...30 degrees Babo
 0...22 degrees Alcohol
 20...153 degrees Oechsle
 3...20 degrees Baumé
 3...32 kg/q

Refractometric measurement accuracy:

±0.10 Brix or equivalent for corresponding scales.

pH measurement limits (optional):

2...14 pH

pH measurement accuracy:

±0.05 pH units

Product temperature:

5...45°C with automatic temperature compensation

Line pressure

max. 7 bar (101 psi) at 65 °C (149 °F)

Interfaces:

Digital:

- USB converted by RS422/485 for serial connection of the UR24 Units
- USB for computer/printer connection
- USB converted by 485 for connection with remote repeaters (optional)
- Ethernet for connection to a Central Computer if envisaged

Inputs:

1 input for "Line Stopped" (HOLD) for each measurement line.

Power supplies

UR24 interconnection box:

L/N/PE AC 85...264V, 50...60Hz, 60W

Personal Computer and Printer:

L/N/PE AC 115...230V, 50...60Hz, 500W

CONSTRUCTION FEATURES

Execution of Refractometric Unit UR24:

- INOX AISI 316 stainless steel Enbloc casing with cover PEEK™ thermal insulation flange
 AISI 316 stainless steel prism holder with 3" Tri-Clamp® fitting BS 4825 ASME-BPE for installation on the process line.

Degree of Protection:

- In-line refractometric Unit, IP67
 - Electrical Junction Box, IP55.

Measurement prism:

- Synthetic sapphire

Light source:

- Electronically compensated, high efficiency LED diode

Refractometric measurement element:

- High resolution CCD

Temperature measurement element:

- with Pt100 installed on the line

Languages:

- 5 language options (Italian, English, German, Spanish, French) for menu and message display.

Parts in contact with the product:

- Pt100 and prism holder in AISI 316 stainless steel
 - O-ring and gaskets in Kalrez 6230
 - Synthetic sapphire measurement prism

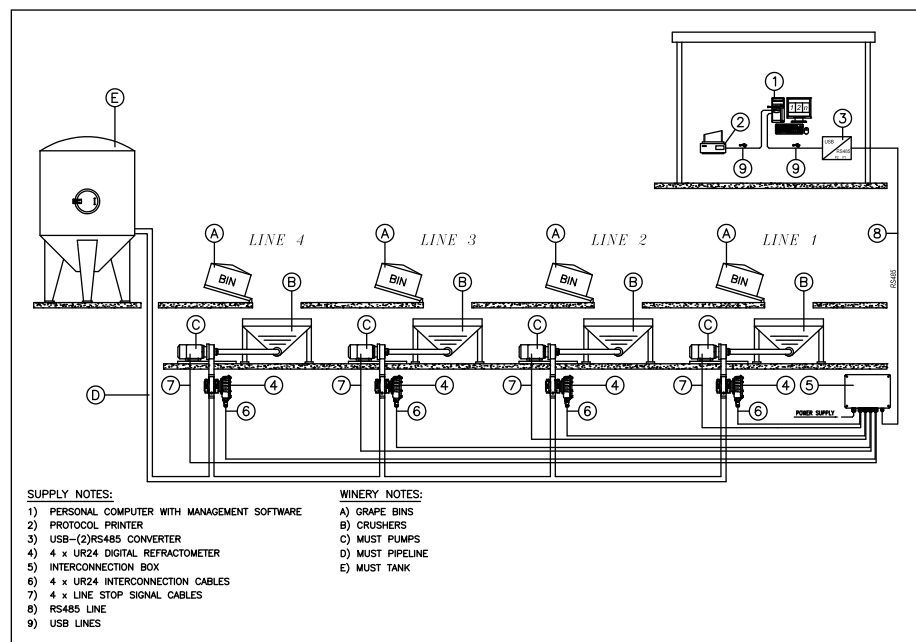
Measurement display:

- 17" LCD Monitor

ACCESSORIES

AISI 316 stainless steel deflectors for in-line installation (others on request) with welded or flanged Tri-Clamp® fittings, DIN Standard and 1" - 4" pipes.

BL-01: System layout (4 lines)



MASELLI MISURE s.p.a.

43125 Parma - Italy
 Via Baganza 4/3
 Tel. +39.0521.257411
 Fax +39.0521.250484
 info@masellimisure.com
 www.masellimisure.com