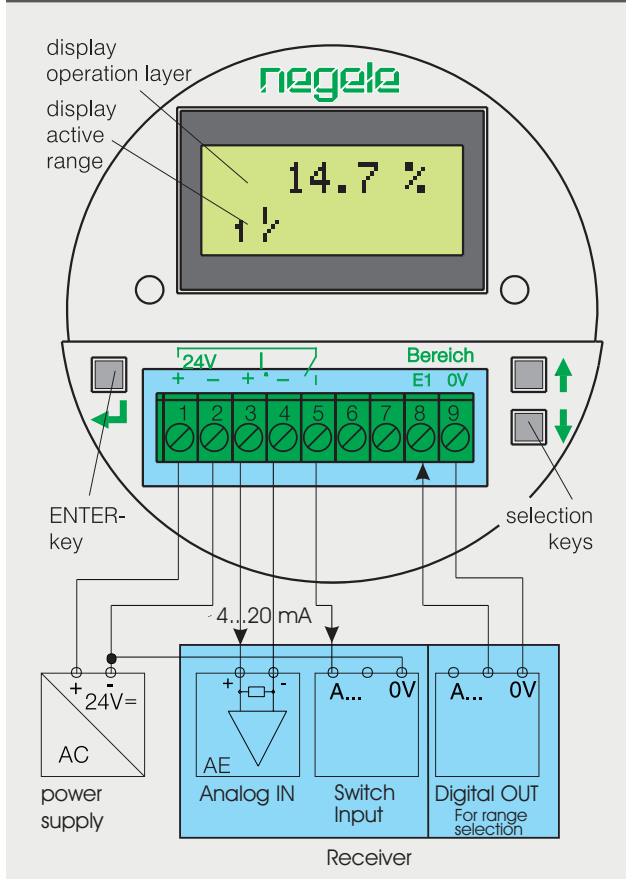


Installation

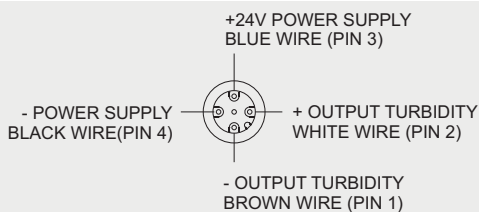
ITM-3A

Electrical Connection ITM-3A

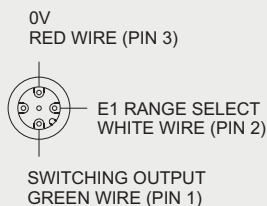


M12 Plug-In Configuration ITM-3A

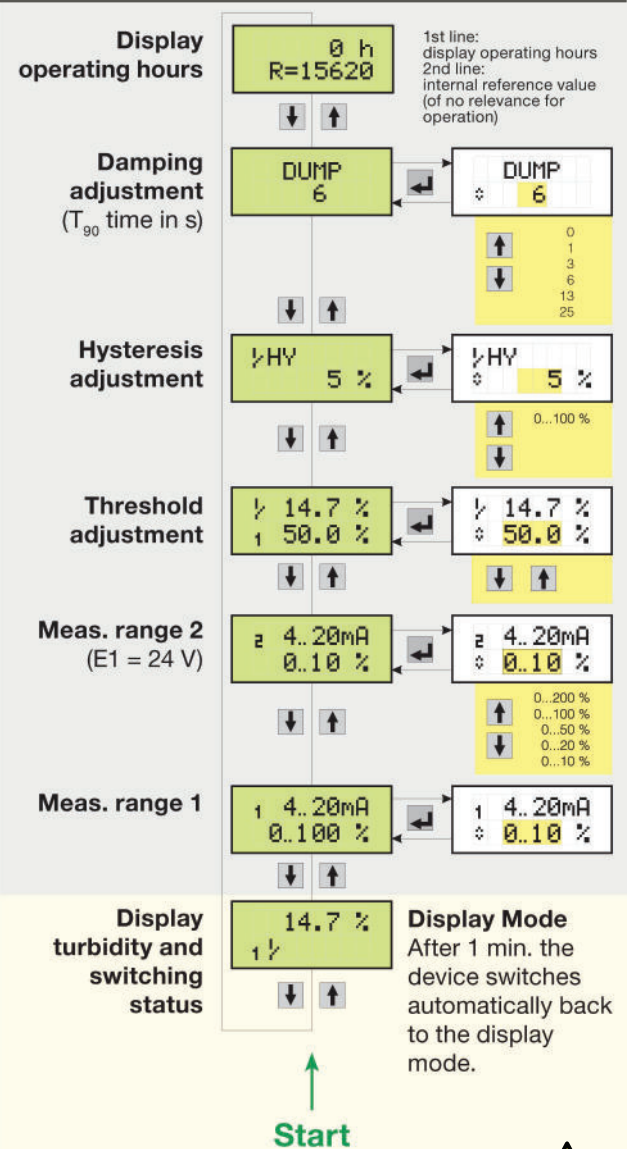
M12 PLUG-IN LEFT 4-20mA OUTPUTS CABLE TERMINATIONS



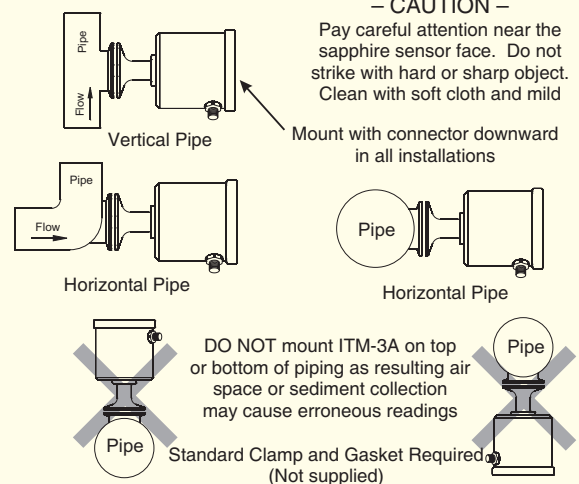
M12 PLUG-IN RIGHT SWITCHING OUTPUT RANGE CONTROL VOLTAGE CABLE TERMINATIONS



Installation ITM-3A



ITM-3A Mounting



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Adjustment

- The factory setting of the device is measuring range 1 (0-100 % = 4-20 mA).
- With an external control voltage (24 V DC) range 2 can be selected (E1 = 24 V DC). (See "Electrical Connection")

Switching the Measurement Range

- The digital control input E1 is galvanically isolated from the power supply. Ground: clamp 9 (0 V)

E1*	Measurement Range
0	1 (factory setting: 0-100 %)
1	2 (factory setting: 0-10 %)

*0 = 0 V DC / 1 = 24 V DC

Note

- Select suitable measurement range in applications with high turbidity variances (e.g. milk / milk water mixture) for precise measurement.

Cleaning / Maintenance



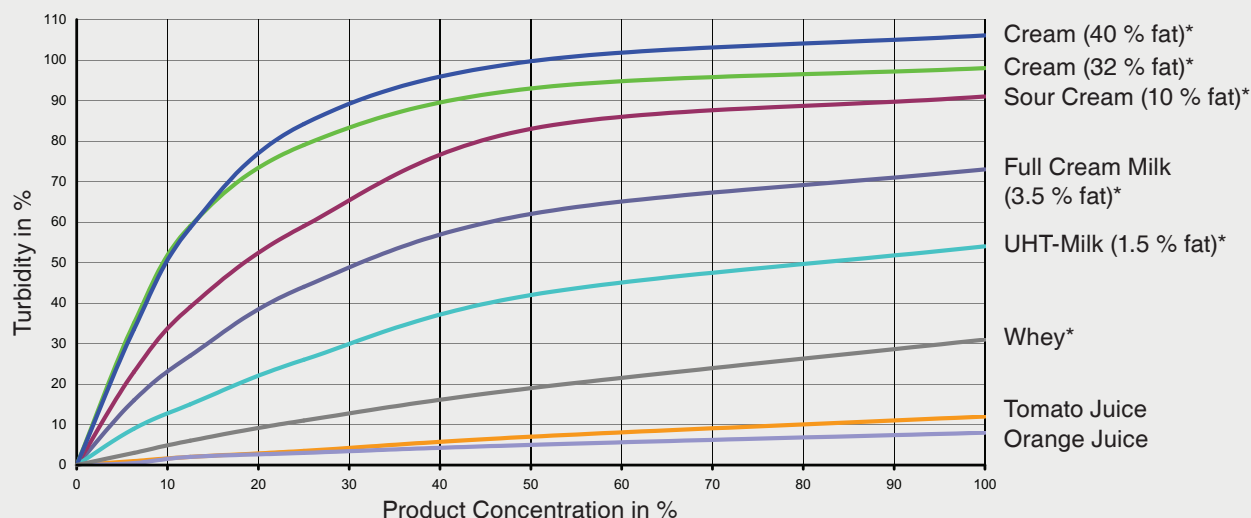
- Don't use sharp items or aggressive detergents for cleaning the optics.
- In case of using pressure washers, don't point nozzle directly to electrical connections!

Calibration

Device is factory calibrated. A periodical calibration is not necessary. To check the sensor drift perform the following steps:

- Clean the optics and immerse the sensor into a basin with distilled water.
- Ensure that no air bubbles or dirt particles falsify the measurement and agitate the sensor slightly.
- The ITM-3A shows a value between 0.4 - 0.7 % for distilled water.
- If displayed value is outside the specified range, send the unit in for recalibration.

Showcase Diagram of different Media



* Average turbidity of customary milk products at different dilutions.

Depending on particle form and size, the slope of the characteristic curve is decreasing while turbidity is increasing. This is primarily caused by dampening/absorption effects due to multiple reflections inside the media. The turbidity measured in the production process can deviate from the graphs shown above, depending on product, process step and production process.

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