



ECOLAB®

*The Global Leader in Commercial
Cleaning and Sanitizing Solutions*

**Ecolab GmbH & Co. OHG
P.O. Box 130406
D-40551 Düsseldorf**
certifies that for
**ifm electronic gmbh
Teichstraße 4
D-45127 Essen**

material resistance tests

were performed with P3-topax 19, P3-topax 52, P3-topax 66, P3-topax 99 and demineralized water as a zero-valent factor.

The material resistance of the tested stainless steel modules and flat cable insulation displacement connectors of the ProcessLine series, as well as the AS-i flat cables for the food industry to the P3 products used in the test can be considered to be positive according to the cleaning procedure mentioned overleaf.

Düsseldorf, 14 January 2005

i.A. T. Tyborski



reddot design award
winner 2004

i.V. R. Laaff



This certificate is based on

- documented test procedures (test method: F & E/ P3-E no. 40-1) for material resistance
- defined product specifications
- a standardised cleaning plan

Test procedure

Ecolab test procedure F&E no. 40-1

Dipping test:

Complete immersion
in solutions

Test period: 28 days

Temperature: Room temperature

Analysis:

Gravimetric: Mass difference in %

Visual inspection with respect to
swelling, embrittlement, change
of colour

Compared to zero-valent factor
(demineralized water)

Test reports to ifm electronic dated
23 March 2004 and 23 July 2004

Product specification

P3-topax 19: Alkaline foam cleaning agent
for the food industry

P3-topax 52: Acid foam cleaning agent
for the food industry

P3-topax 66/99: Alkaline disinfectant
for the food industry

Standard cleaning plan for food-processing plants



Rinsing with water 40 - 50 °C

Rinsing with low pressure. Rinsing from top to
bottom in the direction of the drains.
Cleaning of the drains.



Foaming for cleaning

Alkaline: **P3-topax 19** 5 % or **P3-topax 66** 5 %
Acid: **P3-topax 52** 5 %

Foaming for disinfection **P3-topax 99** 3 %



Contact time

A contact time of approx. 15 minutes is
recommended.



Rinsing with water 40 - 50 °C

Rinsing from top to bottom with low pressure.



The partner in the food industry

IP 68 test

Short description:

Protected against exposure to permanent submersion
in water.

Definition:

The conditions must be agreed between manufacturer
and user.

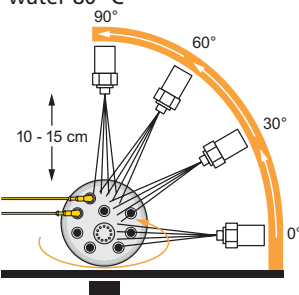
The conditions must however be more severe than for IP 67.

ifm definition:

Submersion in 1 m depth (0.1 bar)

Time: 7 days

**IP 69 K test acc. to
DIN 40050 part 9**
30-seconds cycle
14 - 16 litres per minute
water 80 °C



Designed, manufactured and
tested to perform in washdown
applications.

The stainless steel modules and flat
cable insulation displacement con-
nectors of the ProcessLine for use
in hygienic applications were test-
ed in accordance with the IP 69 K
standard. The goal of this test is to
simulate high-pressure cleaning
conditions on a plant floor. In the
test fixture, the modules were ex-
posed to a water jet of 80 - 100 bar
at a temperature of 80 °C. The du-
ration of each cleaning cycle was
30 seconds. The test was perfor-
med with a spray nozzle located at
defined angles and at a distance of
10 - 15 cm from the module.

Product specification ProcessLine stainless steel modules



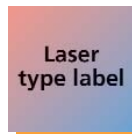
The high protection rating guarantees maxi-
mum sealing even in applications which
are subjected to frequent cleaning, for example in
the food industry.



Connection via M12 connectors with gold-pla-
ted contacts.



High-grade stainless steel housing for use in
hygienic applications with cleaning require-
ments.



Laser type label for permanent identification
of the unit.



ProcessLine stainless steel modules are availa-
ble as passive splitters and as active AS-i
modules.