

# MICRONAUT-S

## Microplates for automated or manual susceptibility testing of bacteria

### Principle of the test

The susceptibility testing with MICRONAUT-S plates is based on the rehydration of antibiotics by adding a standardized bacteria suspension. After incubation of 18-24 hours at 35-37°C the result is read photometrically with the Skan device and evaluated with the MICRONAUT Software or read visually and interpreted.

### Storage conditions

Because of a special vacuum drying process the plates can be stored at usual room temperature of 15-25°C. The MICRONAUT-S test plates have a shelf life of 24 months.

### Test procedure

- ▼ Preparation of bacteria suspension in NaCl (McFarland 0.5)
- ▼ Transfer to broth (i.e. Mueller-Hinton II-broth, H-broth)
- ▼ Inoculation of MICRONAUT-S test plate
- ▼ Incubation for 18-24 hours at 35-37°C
- ▼ Photometric reading with the Skan device
- ▼ Interpretation of the results with the MICRONAUT software

### Antibiotics

Any customer defined antibiotic configuration (MIC or break point) can be offered. Depending on the antibiotics and concentration ranges selected (breakpoint or MIC) 1, 2 or 4 isolates may be tested on a single MICRONAUT-S plate. In addition, customers have the choice to select between a diversity of standard AST panels.

## MICRONAUT-S

### preparation of the samples

MCN Software enter „Rx“, „Hx“ for fastidious bacteria

**MICRONAUT-S**  
1,2 or 4 test/ plate

bacteria

### preparation of the inoculum

McFarland 0,5 in 5 ml NaCl

**gram negative**  
bacteria

**gram positive**  
bacteria

**1) pneumococci**  
**2) fastidious** bacteria (streptococci,  
coryneform bacteria, Haemophilus,  
Neisseria)  
**3) fastidious** Nonfermenter  
(CF strains)

50 µl in 11 ml  
Mueller-Hinton  
broth

100 µl in 11 ml  
Mueller-Hinton  
broth

**1) 200 µl** Mueller-Hinton broth  
+ 275 µl (2.5%) lysed horse blood  
**2) 200 µl** in 11 ml H broth  
**3) 50 µl** in 11 ml H broth

### inoculation

transfer suspension into 1, 2 or 4 channel reservoir

100 µl in each well of the test

### sealing and incubation

seal the plate with the unperforated plate sealer or stack up a maximum of 5 plates and cover only the one on top

incubation 18-24 h at 35-37°C  
(fastidious bacteria if necessary in an enriched CO<sub>2</sub> -  
atmosphere for 22 - 24 hours)

### reading

reading visually or with photometer