

## Peristaltic Pumps

**THOMAS**  
by Gardner Denver

### FEATURES

- > Compact design
- > Quick change of cassette (SR10)/tubing (SR25, SR18)
- > Endless tubing possible (SR10)
- > Self priming
- > Safe to run dry
- > Maintenance free
- > Different tubing materials

### TYPICAL APPLICATIONS

- > Chemical industry
- > Medical industry
- > Laboratory and analysis technology
- > Food sector
- > Hygiene, disinfection
- > Industrial dishwasher
- > Glass washing

### BASE MODEL

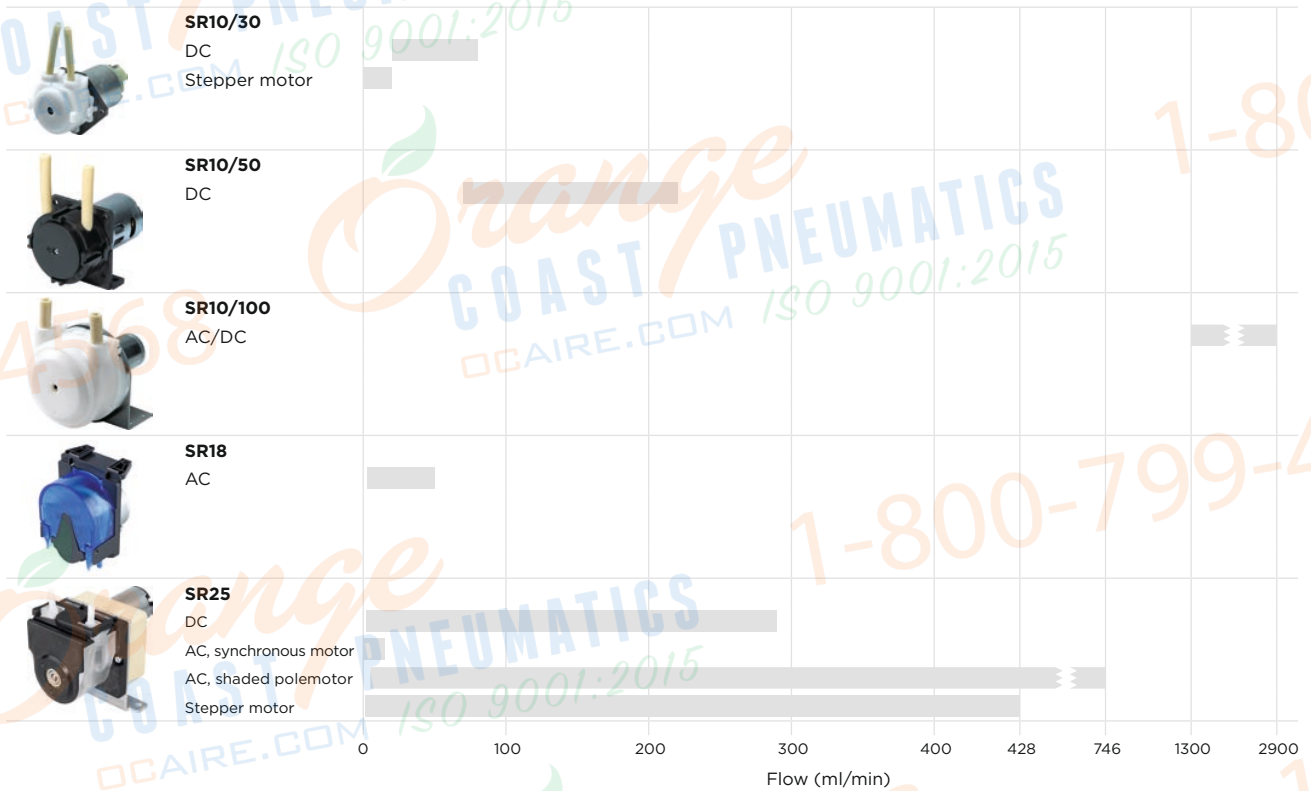
SR10/30  
SR10/50  
SR10/100  
SR18  
SR25



Peristaltic

# Peristaltic Pumps

## CHARACTERISTICS OVERVIEW



## PRESELECTION

|                                                                                     |          | Drive      |                     |          |               | Operation mode       |                      | Stand-by pump |                  | Page    |
|-------------------------------------------------------------------------------------|----------|------------|---------------------|----------|---------------|----------------------|----------------------|---------------|------------------|---------|
|                                                                                     |          | 12/24 V DC | 12/24 V DC LC motor | 230 V AC | Stepper motor | Continuous operation | Short time operation | IP54          | IP54, adjustable |         |
|  | SR10/30  | •          | •                   |          | •             |                      | •                    |               |                  | 5 - 7   |
|  | SR10/50  |            | •                   |          |               |                      | •                    |               |                  | 8       |
|  | SR10/100 | •          |                     | •        |               |                      | •                    | •             |                  | 9       |
|  | SR18     |            |                     | •        |               | • <sup>1)</sup>      | •                    |               |                  | 11      |
|  | SR25     | •          |                     | •        | •             | •                    | •                    |               | •                | 12 - 17 |

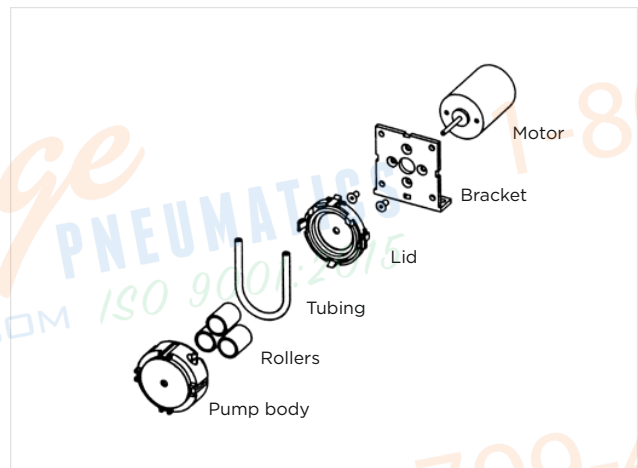
<sup>1)</sup> pumps with sequencer

# Peristaltic Pumps

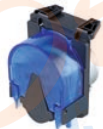
## SERIES SR10



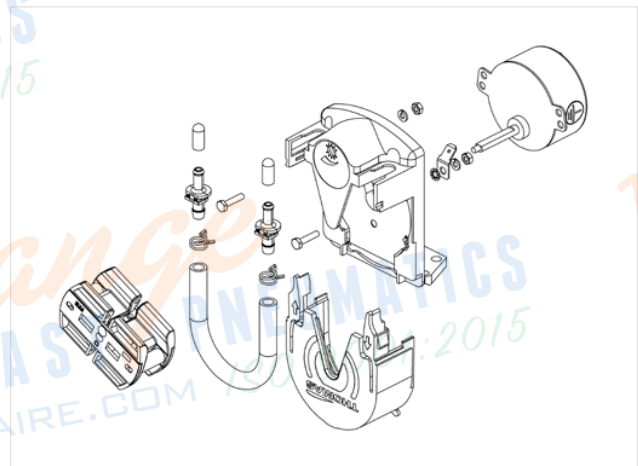
- Speed reduction through frictional connection from the motor shaft to the rollers.
- Very simple construction with the use of few parts only.
- Easy change of the cassette.
- Generally 3 rollers.
- For short time operation only.
- If the pump is stored longer than three months, we recommend to take the cassette off the motor shaft and store it separately.
- Different motors available (DC, low cost DC, AC and stepper motor).



## SERIES SR18



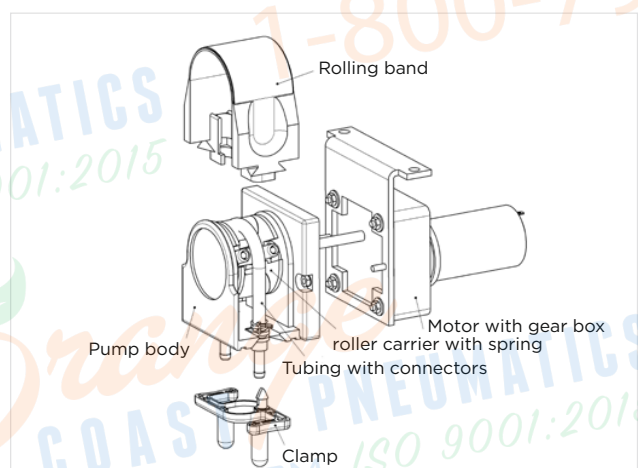
- Peristaltic pump with QuiXchange system
- Tube exchange without tooling within seconds
- Spring loaded roller carrier with two rollers for extremely long durability
- Optional „sequencer“ for flow adjustment
- AC-motor



## SERIES SR25



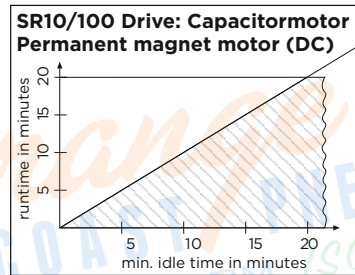
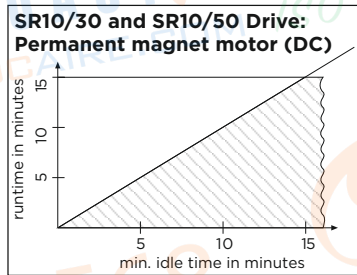
- Protection of the tubing due to spring loaded rollers and guiding side rollers.
- Quick and easy change of the tubing.
- Roller carrier with two rollers.
- Also suitable for continuous operation, depending on the drive.
- If stored longer than three months, we recommend to remove the tubing.
- Different gear motors available (DC, AC and stepper motor).



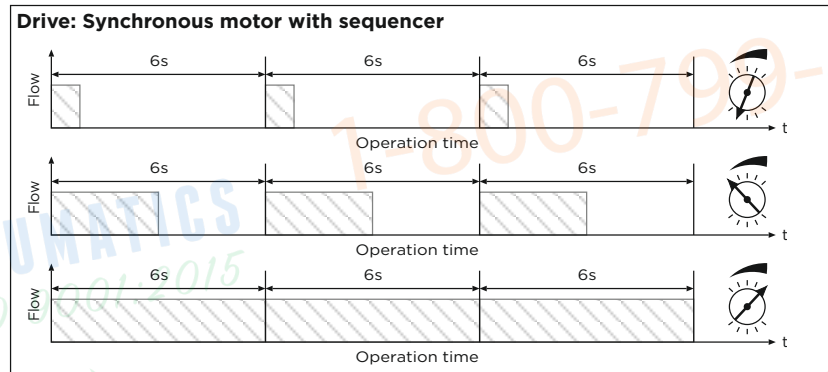
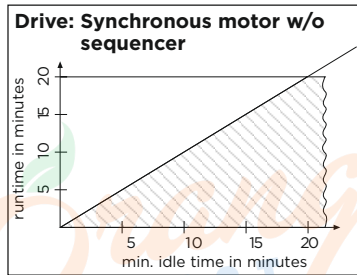
# Peristaltic Pumps

## DUTY CYCLES

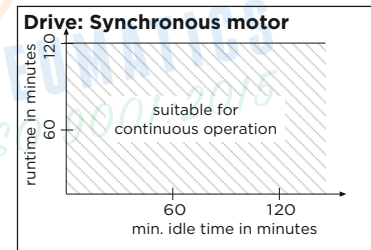
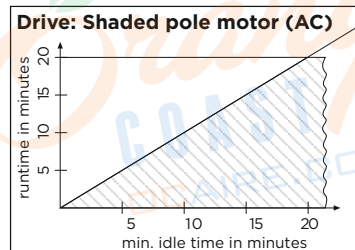
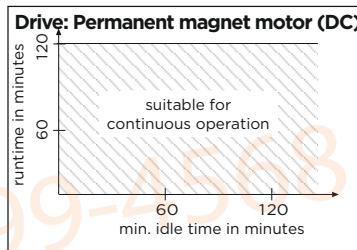
### SR10



### SR18



### SR25



| DUTY CYCLES          | SR10                                                                       |                     |          | SR18          | SR25          |                |
|----------------------|----------------------------------------------------------------------------|---------------------|----------|---------------|---------------|----------------|
|                      | SR10/30                                                                    | SR10/50             | SR10/100 | SR18 - 15 rpm | SR25 - 10 rpm | SR25 - 500 rpm |
|                      | Lifetime of the tubing                                                     |                     |          |               |               |                |
| Novoprene            |                                                                            |                     |          |               |               |                |
| Norprene®            | 500 h                                                                      | 500 h <sup>2)</sup> | 200 h    | 4000 h        | > 5000 h      | 500 h          |
| PharMed BPT®         |                                                                            |                     |          |               |               |                |
| Silicon              | 200 h                                                                      | 200 h               | -        | 500 h         | 500 h         | 100 h          |
|                      | Other wearing parts                                                        |                     |          |               |               |                |
| Roller carrier       | Change the complete cassette <sup>1)</sup><br>(see lifetime of the tubing) |                     |          | 2500 h        | > 5000 h      | 500 h          |
| Rolling band/lid     |                                                                            |                     |          |               |               |                |
|                      | Drive                                                                      |                     |          |               |               |                |
| DC motor             | 1000 h                                                                     | 1000 h              | 1000 h   | -             | 3000 h        |                |
| AC motor             | -                                                                          | -                   | 5000 h   | -             | 5000 h        | 2000 h         |
| AC synchronous motor | -                                                                          | -                   | -        | 4000 h        | 10000 h       | -              |

| GENERAL DATA             | SR10                     | SR18                   | SR25                     |
|--------------------------|--------------------------|------------------------|--------------------------|
| Max. suction height      | 8 m H <sub>2</sub> O     | 8 m H <sub>2</sub> O   | 8 m H <sub>2</sub> O     |
| Max. pressure height     | 8 m H <sub>2</sub> O     | 10 m H <sub>2</sub> O  | 10 m H <sub>2</sub> O    |
| Max. ambient temperature | 40 °C                    | 40 °C                  | 40 °C                    |
| Media temperature        | 50 °C (short time 90 °C) | 50 °C (short t. 90 °C) | 50 °C (short time 90 °C) |

1) We recommend to roughen the shaft in axial direction when changing the cassette  
(sand paper grit size 150).

2) Ø 4 inner diameter on request

Norprene®, PharMed BPT® Norton Co. Reg. TM's

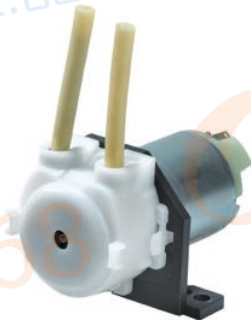


## Peristaltic Pumps **SR10/30**

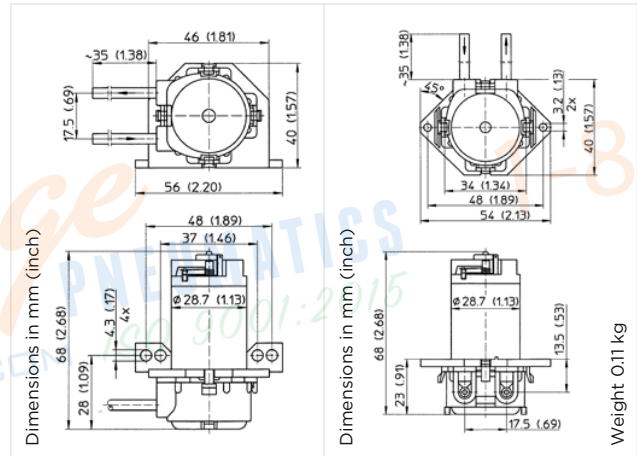
12/24 V low cost DC  
For short time operation only

Flow

16 - 55 ml/min



**SR10/30 DC**  
angled fixing  
(straight without drawing)



| Tubing Novoprene         |                          | Tubing PharMed BPT <sup>+</sup> |                          | Fixing   | Inner tubing Ø<br>mm | Flow <sup>2)</sup><br>ml/min |
|--------------------------|--------------------------|---------------------------------|--------------------------|----------|----------------------|------------------------------|
| 12 V DC                  | 24 V DC                  | 12 V DC                         | 24 V DC                  |          |                      |                              |
|                          |                          | <a href="#">20300512</a>        | 20300542                 | straight | 1.0                  | 16                           |
|                          |                          | <a href="#">20300513</a>        | 20300543                 | angled   |                      |                              |
| 20300314                 | 20300344                 | 20300514                        | <a href="#">20300544</a> | straight | 1.5                  | 28                           |
| 20300315                 | <a href="#">20300345</a> | 20300515                        | 20300545                 | angled   |                      |                              |
| <a href="#">20300316</a> | 20300346                 |                                 |                          | straight | 2.0                  | 38                           |
| <a href="#">20300317</a> | <a href="#">20300347</a> |                                 |                          | angled   |                      |                              |
| <a href="#">20300318</a> | <a href="#">20300348</a> | 20300235                        | 20300237                 | straight | 2.5                  | 55                           |
| <a href="#">20300319</a> | <a href="#">20300349</a> | 20300236                        | <a href="#">20300238</a> | angled   |                      |                              |

| Tubing Silicon           |                          | Fixing   | Inner tubing Ø<br>mm | Flow <sup>2)</sup><br>ml/min |
|--------------------------|--------------------------|----------|----------------------|------------------------------|
| 12 V DC                  | 24 V DC                  |          |                      |                              |
| 20300412                 | 20300442                 | straight | 1.0                  | 16                           |
| 20300413                 | 20300443                 | angled   |                      |                              |
| <a href="#">20300414</a> | 20300444                 | straight | 1.5                  | 28                           |
| <a href="#">20300415</a> | 20300445                 | angled   |                      |                              |
| 20300416                 | 20300446                 | straight | 2.0                  | 38                           |
| <a href="#">20300417</a> | <a href="#">20300447</a> | angled   |                      |                              |
| 20300418                 | 20300448                 | straight | 2.5                  | 55                           |
| 20300419                 | <a href="#">20300449</a> | angled   |                      |                              |

**2030...** Stock programme

Current consumption depending on the tubing diameter,  
at free flow and nominal voltage  
12 V DC: 180 - 300 mA  
24 V DC: 90 - 150 mA

2) Note: The indicated values are average measured with water.  
The actual values depend on different parameters like quality and age of  
tubing, pressure of tubing beds, pressure ratios, viscosity.  
Please see page 4 for recommended running times and general data.

## Peristaltic Pumps **SR10/30**

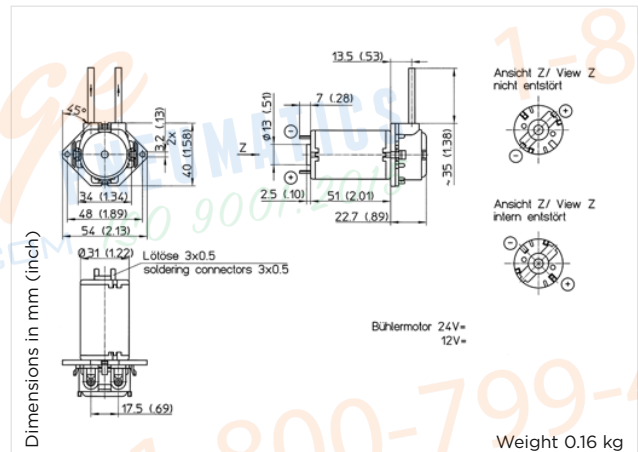
12/24 V Direct current motor  
For short time operation only

Flow

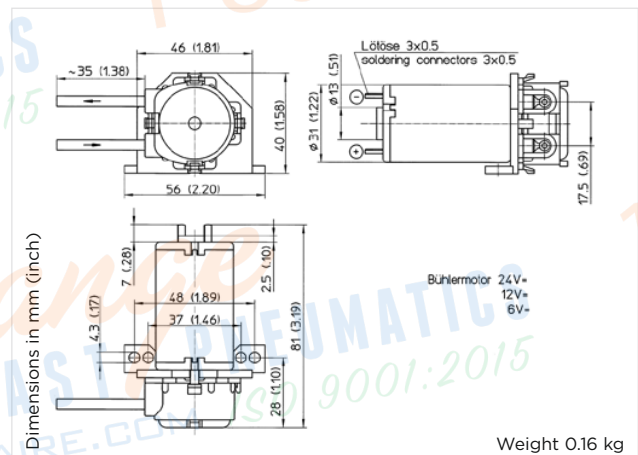
20 - 80 ml/min



**SR10/30 DC**  
Straight flange



**SR10/30 DC**  
Angled flange



| Tubing Novoprene <sup>1)</sup> |          | Fixing   | Inner tubing Ø<br>mm | Flow <sup>2)</sup><br>ml/min |
|--------------------------------|----------|----------|----------------------|------------------------------|
| 12 V DC                        | 24 V DC  |          |                      |                              |
|                                |          | straight | 1.0                  | 20                           |
|                                |          | angled   |                      |                              |
| 20300122                       | 20300130 | straight | 1.5                  | 37                           |
| 20300126                       | 20300134 | angled   |                      |                              |
| 20300123                       | 20300131 | straight | 2.0                  | 55                           |
| 20300127                       | 20300135 | angled   |                      |                              |
| 20300124                       | 20300132 | straight | 2.5                  | 80                           |
| 20300128                       | 20300136 | angled   |                      |                              |

1) other tubing materials on request

Current consumption depending on the tubing diameter,  
at free flow and nominal voltage

12 V DC: 180 - 300 mA  
24 V DC: 90 - 150 mA

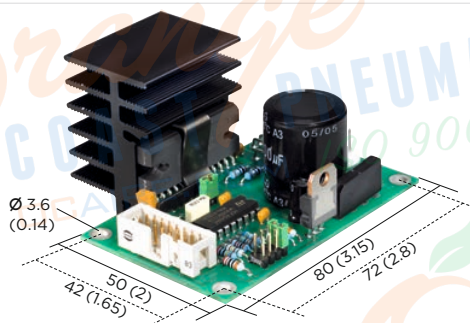
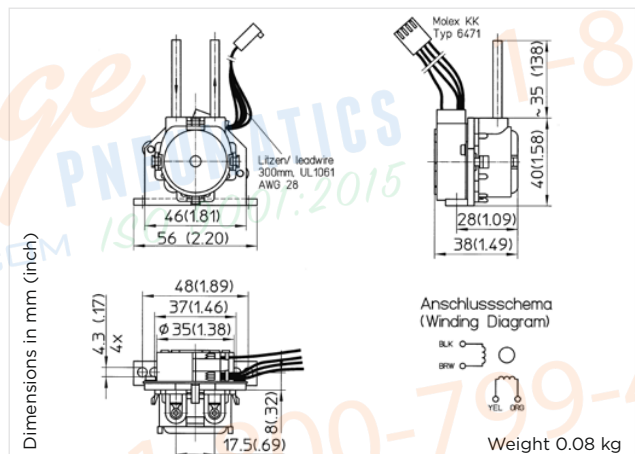
2) Note: The indicated values are average measured with water.  
The actual values depend on different parameters like quality and age of  
tubing, pressure of tubing beds, pressure ratios, viscosity.  
Please see page 4 for recommended running times and general data.

# Peristaltic Pumps SR10/30

24 V DC with stepper motor  
For short time operation only  
Circuit board recommended for test purposes

Flow

0.5 - 20 ml/min



## 4 possible operating methods

- internal speed selection via jumper - option with wiring set<sup>1)</sup>
- external speed selection
- analog input via pc
- digital input (clocked pulse)

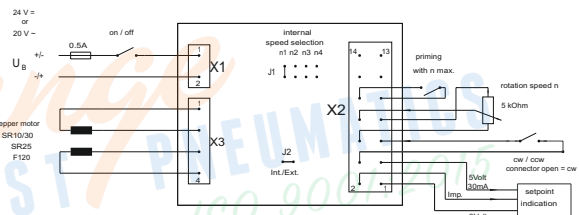
## Features

- speed pre-selection
- clockwise-, counter clockwise operation
- instant priming
- selective operating method

pin assignment X3

|      | SR25 / F120 | SR10/30 |
|------|-------------|---------|
| X3/1 | yellow      | black   |
| X3/2 | red         | brown   |
| X3/3 | blue        | yellow  |
| X3/4 | orange      | orange  |

| Item No.   | 29004320 | 29004319  |
|------------|----------|-----------|
| Motor      | SR10/30  | SR25 F120 |
| pulses/rev | 384      | 1600      |
| rot speed  | rpm      | rpm       |
| n1         | 2...100  | 0.2...10  |
| n2         | 4...210  | 0.8...40  |
| n3         | 8...430  | 3...150   |
| n4         | 20...900 | 6...300   |



| Adjustable range | I           | II          | III          | IV           |
|------------------|-------------|-------------|--------------|--------------|
| Speed            | 4 - 100 rpm | 8 - 210 rpm | 16 - 430 rpm | 40 - 900 rpm |

| Tubing PharMed BPT*                      | Max. flow <sup>2)</sup> ml/min (adjustable range 4 - 100%) |   |    |          |
|------------------------------------------|------------------------------------------------------------|---|----|----------|
| Ph 1.0 x 1.1                             | 0.5                                                        | 1 | 2  | 4        |
| Part number - pump without circuit board |                                                            |   |    | 20301012 |
| Part number - pump with circuit board    |                                                            |   |    | 20301002 |
| Ph 1.5 x 1.1                             | 1                                                          | 2 | 5  | 10       |
| Part number - pump without circuit board |                                                            |   |    | 20301013 |
| Part number - pump with circuit board    |                                                            |   |    | 20301003 |
| Ph 2.5 x 1.0                             | 2                                                          | 5 | 10 | 20       |
| Part number - pump without circuit board |                                                            |   |    | 20301014 |
| Part number - pump with circuit board    |                                                            |   |    | 20301004 |

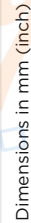
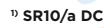
| Electrical Data                                  | Max. flow <sup>2)</sup> ml/min (adjustable range 4 - 100%) |
|--------------------------------------------------|------------------------------------------------------------|
| Nominal voltage (drive through electronic board) | 24 V/DC oder 20 V/AC                                       |
| Motor                                            | Stepper motor, bipolar, stepping angle 7.5°                |
| Current consumption                              | 0.4 A                                                      |
| Max. restart consumption                         | 3 A*                                                       |
| Inductance at 1 kHz, 1 V                         | 13 mH                                                      |
| Winding resistance                               | 13 Ω                                                       |

\* Delay fuse to be used.

1) Option: 14-pole connecting cable with plug, rocker switch for clockwise and lefthanded running Potentiometer and speed-push-button, part number 29000702

2) Note: The indicated values are average measured with water. The actual values depend on different parameters like quality and age of tubing, pressure of tubing beds, pressure ratios, viscosity. Please see page 4 for recommended running times and general data.

## 52 – 220 ml/min



| Tubing Novoprene |          | Tubing PharMed BPT * |          | Tubing dimensions | Flow <sup>2)</sup> |
|------------------|----------|----------------------|----------|-------------------|--------------------|
| 12 V DC          | 24 V DC  | 12 V DC              | 24 V DC  | mm                | ml/min             |
| 20500501         | 20500505 | 20500702             | 20500705 | 2.4 x 1.6         | 100                |
| 20500502         | 20500506 |                      |          | 3.2 x 1.6         | 170                |
| 20500503         | 20500507 | 20500703             | 20500706 | 4.0 x 1.6         | 220                |

| Tubing Silicon |          | Tubing PharMed BPT * |         | Tubing dimensions | Flow <sup>1)</sup> |
|----------------|----------|----------------------|---------|-------------------|--------------------|
| 12 V DC        | 24 V DC  | 12 V DC              | 24 V DC | mm                | ml/min             |
| 20500602       | 20500606 |                      |         | 2.5 x 1.6         | 100                |
| 20500603       | 20500607 |                      |         | 4.0 x 1.6         | 220                |

ocpneumatics.com



## Peristaltic Pumps SR10/100

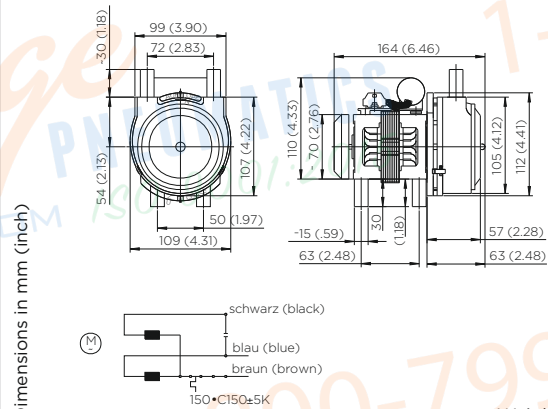
230 V/50 Hz, 12/24 V Direct current motor  
For short time operation only

Flow

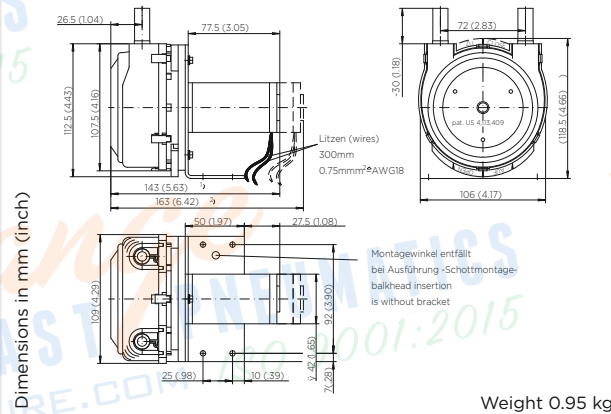
1300 – 3000 ml/min



SR10/100 AC



SR10/100 DC  
With bracket



| Tubing Norprene® 1) |          |  | Fixing      | Tubing        | Flow 2) |
|---------------------|----------|--|-------------|---------------|---------|
| 12 V DC             | 24 V DC  |  | 24 V DC     | dimensions mm | l/min   |
| 21001008            | 21001009 |  | bracket     | 8.0 x 2.4     | 2.3     |
| 21001014            | 21001015 |  | flush mount |               |         |
| 21001200            | 21001122 |  | bracket     | 9.5 x 2.4     | 3.0     |
| 21001205            | 21001206 |  | flush mount |               |         |

| Tubing Norprene® |  | Motor speed | Tubing dimensions | Flow 1) |
|------------------|--|-------------|-------------------|---------|
| 230 V/50 Hz      |  | rpm         | mm                | ml/min  |
| 21001000         |  | 2800        | 6.35 x 2.4        | 1.3     |
| 21001002         |  | 2800        | 9.5 x 2.4         | 3.0     |

1) other tubing material on request

Option: Recommended inference suppression according to EN 55011 B (CE-conform)  
12/24 V DC - with additional circuit board (on request)

Current consumption at free flow and nominal voltage

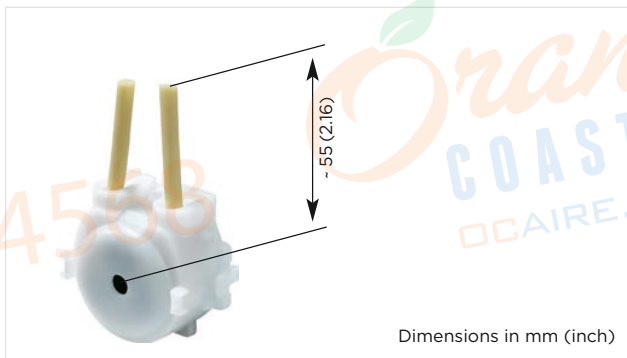
|                    |
|--------------------|
| 12 V DC: 3.0 A     |
| 24 V DC: 1.5 A     |
| 230 V/50 Hz: 0.4 A |

2) Note: The indicated values are average measured with water.  
The actual values depend on different parameters like quality and age of tubing, pressure of tubing beds, pressure ratios, viscosity.  
Please see page 4 for recommended running times and general data.

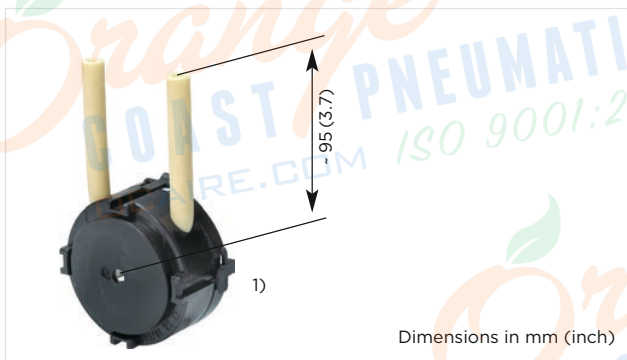
# Peristaltic Pumps **SR10**

## Spare parts SR10 series

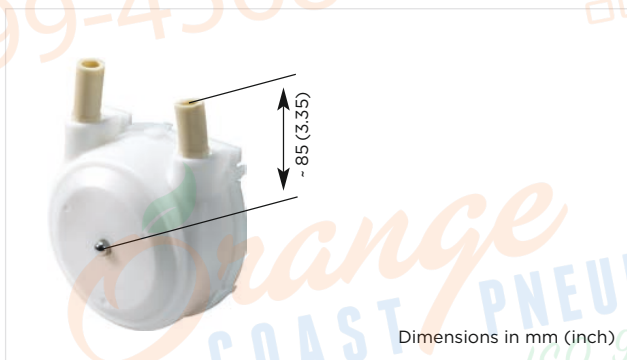
### Model SR10/30



### Model SR10/50



### Model SR10/100



1) on request in white

| Tubing       | Inner Ø x Wall thickness | Drive                 |                        |
|--------------|--------------------------|-----------------------|------------------------|
|              |                          | DC low cost<br>Page 5 | DC + AC<br>Pages 5/6/7 |
| Novoprene    | 1.5 x 1.0 mm             | 92030703              | 92030514               |
| Novoprene    | 2.0 x 1.0 mm             | 92030702              | 92030513               |
| Novoprene    | 2.5 x 1.0 mm             | 92030701              | 92030704               |
| PharMed BPT* | 1.0 x 1.1 mm             | 92030548              | 92030604               |
| PharMed BPT* | 1.5 x 1.1 mm             | 92030534              | 92030549               |
| PharMed BPT* | 2.5 x 1.0 mm             | 92030611              | 92030603               |
| Silicon      | 1.0 x 1.0 mm             | 92030800              | 92030505               |
| Silicon      | 1.5 x 1.0 mm             | 92030802              | 92030554               |
| Silicon      | 2.0 x 1.0 mm             | 92030804              | 92030555               |
| Silicon      | 2.5 x 1.0 mm             | 92030806              | 92030553               |

|              |              |          |
|--------------|--------------|----------|
| Novoprene    | 2.4 x 1.6 mm | 92050576 |
| Novoprene    | 3.2 x 1.6 mm | 92050577 |
| Novoprene    | 4.1 x 1.6 mm | 92050594 |
| PharMed BPT* | 2.4 x 1.6 mm | 92050586 |
| PharMed BPT* | 4.0 x 1.6 mm | 92050587 |
| Silicon      | 2.0 x 1.6 mm | 92050581 |
| Silicon      | 2.5 x 1.6 mm | 92050582 |
| Silicon      | 4.0 x 1.6 mm | 92050583 |

|           |               |          |
|-----------|---------------|----------|
| Norprene* | 6.35 x 2.4 mm | 92100512 |
| Norprene* | 8.0 x 2.4 mm  | 92100504 |
| Norprene* | 9.5 x 2.4 mm  | 92100501 |

Tubing dimensions  
1.5 x 1.0 mm  
Inner Ø Wall thickness

# Peristaltic Pumps **SR18** with QuiXchange System

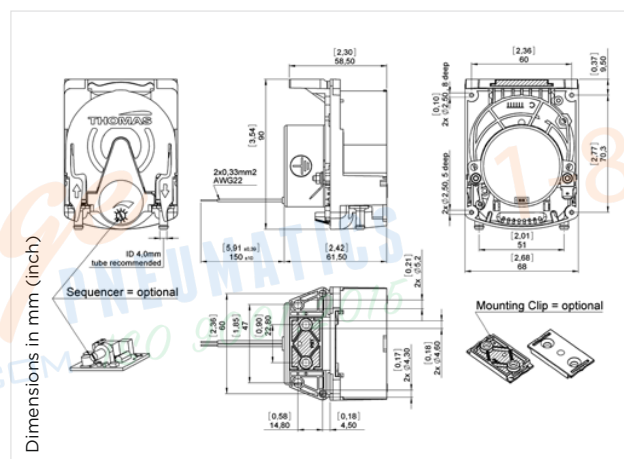
**230 V/50 Hz, synchronous gear motor**  
**Suitable for continuous running**

**Flow**

**5 – 50 ml/min**

Tube QuiXchange

**Features**  
 Sequencer to adjust on/off-time (0% – 100%)



|  | Nominal speed | QuiXchange |
|--|---------------|------------|
|  | 15 rpm        |            |

| Tubing Novoprene (ID x WT)           | Flow <sup>2)</sup> ml/min | Tubing only |
|--------------------------------------|---------------------------|-------------|
| N 6.0 x 1.6 mm                       | 50                        |             |
| Part number – pump without sequencer | <b>20180251</b>           | 92018551    |
| Part number – pump with sequencer    | <b>20181251</b>           | 92018551    |
| N 4.1 x 1.6 mm                       | 20                        |             |
| Part number – pump without sequencer | 20180252                  | 92018552    |
| Part number – pump with sequencer    | 20181252                  | 92018552    |
| N 2.4 x 1.6 mm                       | 10                        |             |
| Part number – pump without sequencer | 20180253                  | 92018553    |
| Part number – pump with sequencer    | 20181253                  | 92018553    |
| N 1.6 x 1.6 mm                       | 5                         |             |
| Part number – pump without sequencer | <b>20180254</b>           | 92018554    |
| Part number – pump with sequencer    | 20181254                  | 92018554    |

| Tubing Silicon (ID x WT)             | Flow <sup>1)</sup> ml/min | Tubing only |
|--------------------------------------|---------------------------|-------------|
| S 5.0 x 1.6 mm                       | 40                        |             |
| Part number – pump without sequencer | 20180202                  | 92018502    |
| Part number – pump with sequencer    | 20181202                  | 92018502    |
| S 4.0 x 1.6 mm                       | 25                        |             |
| Part number – pump without sequencer | 20180203                  | 92018503    |
| Part number – pump with sequencer    | 20181203                  | 92018503    |
| S 2.5 x 1.6 mm                       | 10                        |             |
| Part number – pump without sequencer | <b>20180201</b>           | 92018501    |
| Part number – pump with sequencer    | <b>20181201</b>           | 92018501    |

| Running Data       |           |  |
|--------------------|-----------|--|
| Rotation direction | clockwise |  |

| Electrical Data        |             |  |
|------------------------|-------------|--|
| Voltage                | 230 V/50 Hz |  |
| Motor                  | synchronous |  |
| Motor insulation class | E           |  |
| Power consumption      | 5.5 W       |  |

| General Data       |         |  |
|--------------------|---------|--|
| Connector material | PP      |  |
| Weight             | 0.23 kg |  |

2018... Stock programme

2) Note: The indicated values are average measured with water.  
 The actual values depend on different parameters like quality and age of tubing, pressure of tubing beds, pressure ratios, viscosity.  
 Please see page 4 for recommended running times and general data.

Options: mounting clip  
 compression fitting

Art. Nr. 29027360  
 Art. Nr. 29027298

# Peristaltic Pumps SR25

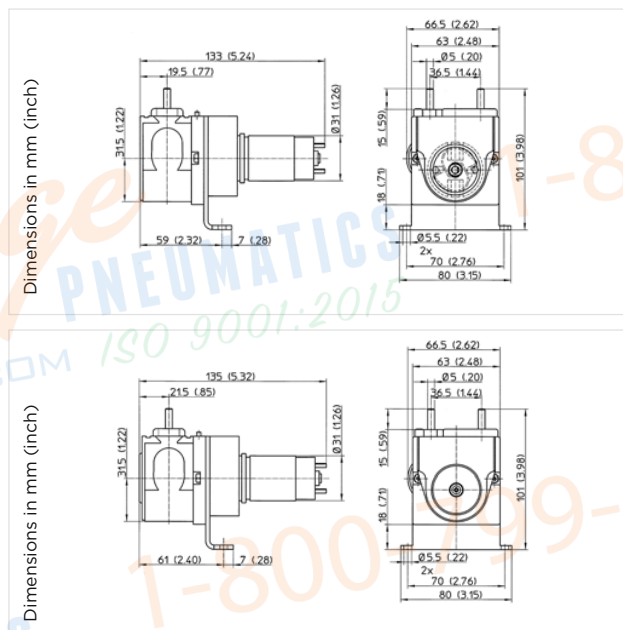
|                               |                |
|-------------------------------|----------------|
| 12/24 V, Direct current motor |                |
| Flow                          | 2 – 287 ml/min |



SR25, 10 to 80 rpm  
Direct current motor



SR25 -170 rpm<sup>1)</sup>  
Direct current motor



Bore pattern to fit in a housing see page 14.

| Nominal speed |        |        |        |                       |
|---------------|--------|--------|--------|-----------------------|
| 10 rpm        | 30 rpm | 65 rpm | 80 rpm | 170 rpm <sup>1)</sup> |

| Tubing Novoprene | Flow <sup>2)</sup> ml/min |                 |                 |                 |
|------------------|---------------------------|-----------------|-----------------|-----------------|
| N 1.6 x 1.6 mm   | 2                         | 7               |                 |                 |
| Part number 12 V |                           | 20251397        |                 |                 |
| Part number 24 V | <b>20251388</b>           | 20251401        |                 |                 |
| N 3.2 x 1.6 mm   | 8.4                       | 25              | 56              |                 |
| Part number 12 V |                           | 20251398        | 20251411        |                 |
| Part number 24 V | 20251371                  | <b>20251255</b> |                 |                 |
| N 4.1 x 1.6 mm   |                           | 36              | 82              | 102             |
| Part number 12 V |                           | 20251399        | 20250083        | 20251261        |
| Part number 24 V |                           | 20251402        | 20250082        | 20251010        |
| N 4.8 x 1.6 mm   | 17                        | 48              | 125             | 132             |
| Part number 12 V |                           | 20251400        | 20250426        | <b>20251224</b> |
| Part number 24 V | 20251247                  | <b>20251403</b> | <b>20251413</b> | <b>20250287</b> |
|                  |                           |                 | <b>20250287</b> | <b>20250130</b> |

| Tubing Silicon   | Flow <sup>2)</sup> ml/min |          |          |          |
|------------------|---------------------------|----------|----------|----------|
| S 2.0 x 1.0 mm   | 3.5                       |          |          |          |
| Part number 12 V |                           |          |          |          |
| Part number 24 V | <b>20251394</b>           |          |          |          |
| S 3.0 x 1.5 mm   | 6.5                       | 19       |          |          |
| Part number 12 V |                           | 20251405 |          |          |
| Part number 24 V | 20251395                  | 20251408 |          |          |
| S 4.0 x 1.5 mm   | 13                        | 38       | 103      |          |
| Part number 12 V |                           | 20250302 |          |          |
| Part number 24 V | 20251396                  |          | 20251434 |          |
| S 5.0 x 1.5 mm   | 18                        | 54       | 143      | 287      |
| Part number 12 V |                           | 20251406 |          | 20251441 |
| Part number 24 V | <b>20250092</b>           | 20251366 | 20251435 | 20251444 |

| Electrical Data   |                      |
|-------------------|----------------------|
| Motor             | Direct current motor |
| Power consumption | 2 W 3.5 W 7 W        |

| General Data |        |
|--------------|--------|
| Weight       | 0.6 kg |

1) Pump with counter bearing

**2025...** Stock programme

## Material of tubing connectors:

Tubing Silicon: for all Ø PVC  
Tubing Novoprene: Ø 1.6/3.2 mm - PVC  
Ø 4.1/4.8 mm - PP

Option: Recommended inference suppression according to EN 55011 B (CE-conform)  
12/24 V DC - with additional circuit board (on request)

2) Note: The indicated values are average measured with water.  
The actual values depend on different parameters like quality and age of tubing, pressure of tubing beds, pressure ratios, viscosity.  
Please see page 4 for recommended running times and general data.

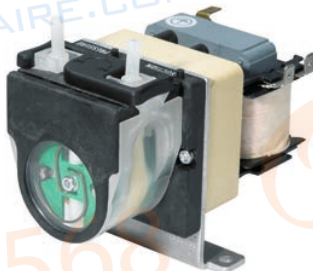


## Peristaltic Pumps SR25

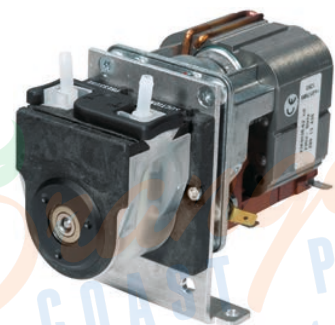
230 V/50 Hz, shaded pole motor  
For short time operation only

Flow

6 - 746 ml/min

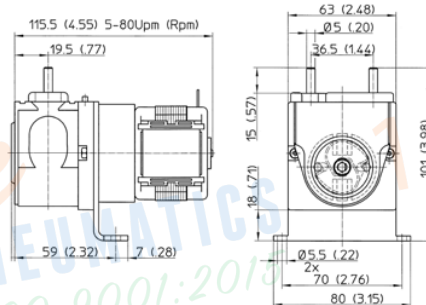


SR25, 30 bis 80 rpm  
shaded pole motor

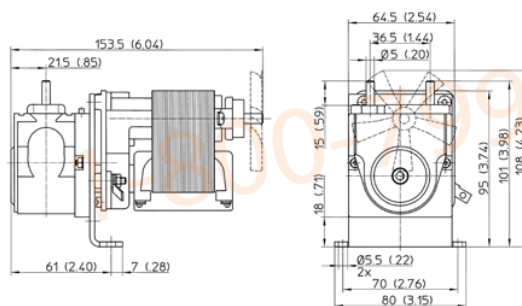


SR25 - 500 Upm  
shaded pole motor<sup>1)</sup>

Dimensions in mm (inch)



Dimensions in mm (inch)



Bore pattern to fit in a housing see page 14.

### Nominal speed

30 rpm

65 rpm

80 rpm

500 rpm<sup>1) 3)</sup>

### Tubing Novoprene

### Flow<sup>2)</sup> ml/min

|                |                 |          |                 |          |
|----------------|-----------------|----------|-----------------|----------|
| N 1.6 x 1.6 mm | 6               | 12       | 15              |          |
| Part number    | 20250009        |          | <b>20250893</b> |          |
| N 3.2 x 1.6 mm | 21              | 47       | 56              |          |
| Part number    | <b>20250010</b> |          | 20250892        |          |
| N 4.1 x 1.6 mm | 30              | 68       | 85              | 545      |
| Part number    | 20250881        | 20250886 | 20250891        |          |
| N 4.8 x 1.6 mm | 40 $\neq$       | 90       | 110             | 690      |
| Part number    | <b>20250880</b> | 20250884 | <b>20250020</b> | 20250913 |

### Tubing Silicon

### Flow<sup>2)</sup> ml/min

|                |          |          |          |          |
|----------------|----------|----------|----------|----------|
| S 4.0 x 1.5 mm | 32       | 70       | 86       | 546      |
| Part number    | 20251280 | 20250888 |          |          |
| S 5.0 x 1.5 mm | 45       | 88       | 119      | 746      |
| Part number    | 20250047 | 20250887 | 20250057 | 20250919 |

### Electrical Data

|                        |                   |                   |
|------------------------|-------------------|-------------------|
| Voltage                | 230 V/50 Hz       | 230 V/50 Hz       |
| Motor                  | Shaded pole motor | Shaded pole motor |
| Power consumption      | 16 W              | 68 W              |
| Motor insulation class | E                 | E                 |

### General Data

|                  |        |        |
|------------------|--------|--------|
| Protection class | IP00   | IP00   |
| Weight           | 0.7 kg | 1.5 kg |

1) Pump with counter bearing  
3) Fan

**2025...** Stock programme

### Material of tubing connectors:

Tubing Silicon: for all Ø PVC  
Tubing Novoprene: Ø 1.6/3.2 mm - PVC  
Ø 4.1/4.8 mm - PP

2) Note: The indicated values are average measured with water.  
The actual values depend on different parameters like quality and age of tubing, pressure of tubing beds, pressure ratios, viscosity.  
Please see page 4 for recommended running times and general data.

# Peristaltic Pumps SR25

230 V/50 Hz, synchronous motor  
Suitable for continuous operation

Flow

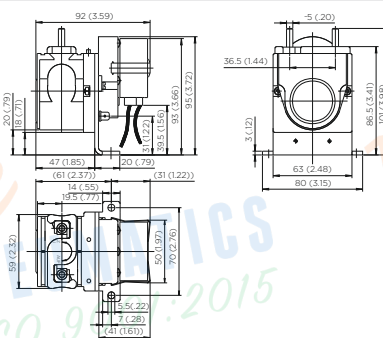
0.2 – 14 ml/min



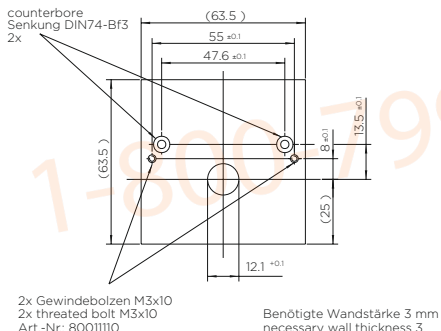
SR25, 1 to 10 rpm  
Synchronous motor

Bore pattern to fit  
in a housing  
(not illustrated)

Dimensions in mm (inch)



Dimensions in mm (inch)



## Nominal speed

1 rpm      5 rpm      10 rpm

## Tubing Novoprene

## Flow <sup>2)</sup> ml/min

|                |          |          |          |
|----------------|----------|----------|----------|
| N 1.6 x 1.6 mm | 0.2      |          |          |
| Part number    | 20251737 |          |          |
| N 3.2 x 1.6 mm |          | 3.5      | 7.0      |
| Part number    |          | 20251351 | 20251355 |
| N 4.1 x 1.6 mm | 1.0      | 5.0      | 10       |
| Part number    | 20251739 | 20251352 | 20251356 |
| N 4.8 x 1.6 mm | 1.3      | 6.8      | 14       |
| Part number    | 20251740 | 20251353 | 20251357 |

## Electrical Data

|                        |             |
|------------------------|-------------|
| Voltage                | 230 V/50 Hz |
| Motor                  | Synchronous |
| Power consumption      | 7.5 W       |
| Motor insulation class | E           |

## General Data

|                  |         |
|------------------|---------|
| Protection class | IP00    |
| Weight           | 0.39 kg |

## Electrical wiring:



2025... Stock programme

## Material of tubing connectors:

Tubing Novoprene: Ø 1.6/3.2 mm - PVC  
Ø 4.1/4.8 mm - PP

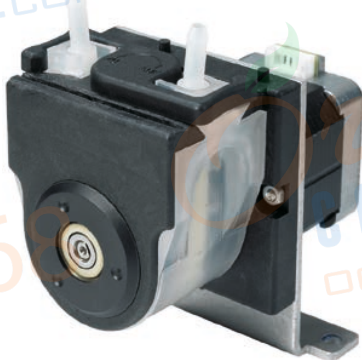
2) Note: The indicated values are average measured with water.  
The actual values depend on different parameters like quality and age of tubing, pressure of tubing beds, pressure ratios, viscosity.  
Please see page 4 for recommended running times and general data.

# Peristaltic Pumps SR25-S300

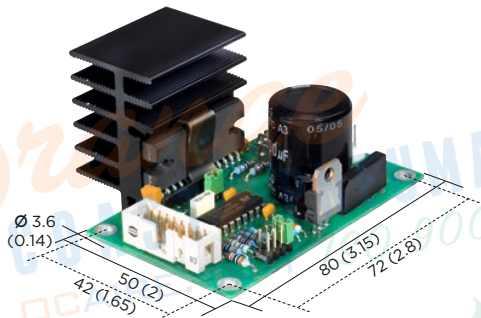
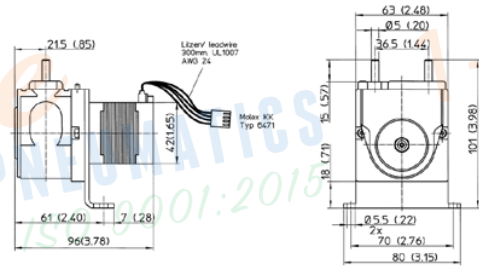
24 V DC with stepper motor  
Circuit board recommended for test purposes

Flow

0.1 – 430 ml/min



Dimensions in mm (inch)



## 4 possible operating methods

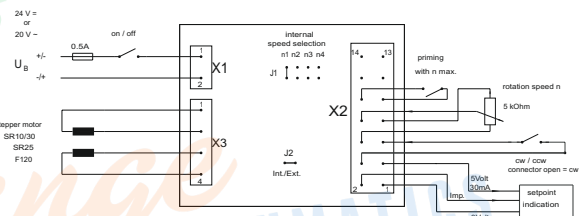
- internal speed selection via jumper – option with wiring set<sup>1)</sup>
- external speed selection
- analog input via pc
- digital input (clocked pulse)

## Features

- speed pre-selection
- clockwise-, counter clockwise operation
- instant priming
- selective operating method

| pin assignment X3 | SR25 (F120) | SR25 (F120) |
|-------------------|-------------|-------------|
| X3/1              | yellow      | black       |
| X3/2              | red         | brown       |
| X3/3              | blue        | yellow      |
| X3/4              | orange      | orange      |

| Item Nr.   | 29004320 | 29004319  |
|------------|----------|-----------|
| Motor      | SR1030   | SR25 F120 |
| Pushbutton | S84      | S84       |
| Rot speed  | rpm      | rpm       |
| n1         | 2...100  | 0.2...10  |
| n2         | 4...210  | 0.8...40  |
| n3         | 8...430  | 3...150   |
| n4         | 20...900 | 6...300   |



| Adjustable range                                       | I                                           | II           | III         | IV           |
|--------------------------------------------------------|---------------------------------------------|--------------|-------------|--------------|
| Speed                                                  | 0.4 – 10 rpm                                | 1.6 – 40 rpm | 6 – 150 rpm | 12 – 300 rpm |
| Tubing Novoprene                                       | Max. flow <sup>2)</sup> ml/min              |              |             |              |
| N 1.6 x 1.6 mm                                         | 0.1 – 2                                     | 0.3 – 7      | 1 – 26      | 2 – 55       |
| Part number – pump without circuit board               |                                             |              | 20252200    |              |
| Part number – pump with circuit board                  |                                             |              | 20252100    |              |
| N 3.2 x 1.6 mm                                         | 0.3 – 7                                     | 1 – 30       | 4 – 110     | 9 – 210      |
| Part number – pump without circuit board               |                                             |              | 20252201    |              |
| Part number – pump with circuit board                  |                                             |              | 20252101    |              |
| N 4.8 x 1.6 mm                                         | 0.6 – 14                                    | 2 – 60       | 9 – 215     | 20 – 430     |
| Part number – pump without circuit board               |                                             |              | 20252202    |              |
| Part number – pump with circuit board                  |                                             |              | 20252102    |              |
| Running Data                                           |                                             |              |             |              |
| On-time                                                | Continuous operation                        |              |             |              |
| Recommended rotating direction at continuous operation | Clockwise                                   |              |             |              |
| Electrical Data                                        |                                             |              |             |              |
| Nominal voltage (drive through electronic board)       | 24 V/DC oder 20 V/AC                        |              |             |              |
| Motor                                                  | Stepper motor, bipolar, stepping angle 1.8° |              |             |              |
| Current consumption                                    | 0.8 A                                       |              |             |              |
| Max. restart consumption                               | 5 A*                                        |              |             |              |
| Inductance at 1 kHz, 1 V                               | 14 mH                                       |              |             |              |
| Winding resistance                                     | 6 Ω                                         |              |             |              |
| Motor insulation class                                 | B                                           |              |             |              |
| General Data                                           |                                             |              |             |              |
| Material of the hose clip                              | PVDF                                        |              |             |              |
| Weight of the pump                                     | 0.5 kg                                      |              |             |              |

\* Delay fuse to be used.

1) Option: 14-pole connecting cable with plug, rocker switch for clockwise and lefthanded running Potentiometer and speed-push-button, part number 29000702

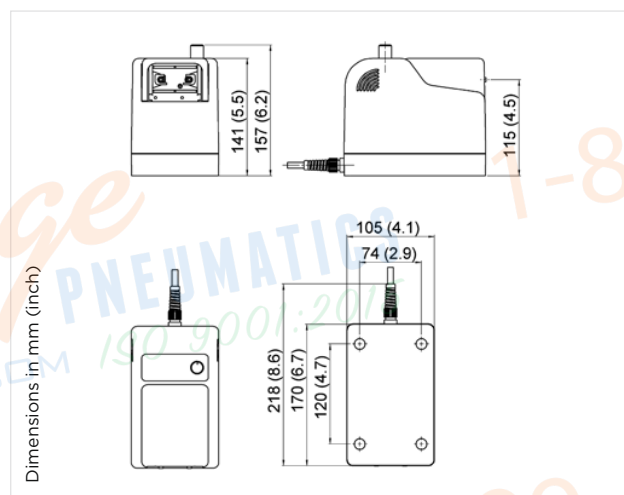
2) Note: The indicated values are average measured with water. The actual values depend on different parameters like quality and age of tubing, pressure of tubing beds, pressure ratios, viscosity. Please see page 4 for recommended running times and general data.

## Peristaltic Pumps **SR25 - Adjustable**

### Synchronous motor

Flow

0.2 – 21 ml/min



### Synchronous motor

|                   |                            |
|-------------------|----------------------------|
| Voltage           | 230 V/50 Hz                |
| Power consumption | 7.5 W                      |
| Tubing            | Novoprene                  |
| Pressure height   | max. 10 m H <sub>2</sub> O |
| Suction height    | max. 8 m H <sub>2</sub> O  |

| Flow range <sup>1)</sup><br>ml/min | Tubing wall<br>thickness Ø x mm | Part number with<br>plastic housing |
|------------------------------------|---------------------------------|-------------------------------------|
| 0.2 – 21                           | N 4.8 x 1.6 mm                  | 20252402                            |

### EMC guide line

Interference resistance according to EN 50082-1  
Emitted interference according to EN 55011 B

1) Note: The indicated values are average measured with water.  
The actual values depend on different parameters like quality and age of tubing, pressure of tubing beds, pressure ratios, viscosity.  
Please see page 4 for recommended running times and general data.

2) Note: Instruction manual available in English and German.  
Other languages on request.



# Peristaltic Pumps SR25

## Spare parts SR25

### Tubing with connectors



| Tubing                    | Diameter x wall thickness | Connectors | Part number              |
|---------------------------|---------------------------|------------|--------------------------|
| Novoprene                 | 1.6 x 1.6 mm              | PVC        | 92025500                 |
| Novoprene                 | 3.2 x 1.6 mm              | PVC        | 92025501                 |
| Novoprene                 | 4.1 x 1.6 mm              | PE         | <a href="#">92025502</a> |
| Novoprene                 | 4.8 x 1.6 mm              | PE         | <a href="#">92025503</a> |
| Test-set with all tubings |                           |            | 92025856                 |
| Silicon                   | 2.0 x 1.0 mm              | PVC        | 92025507                 |
| Silicon                   | 3.0 x 1.5 mm              | PVC        | 92025508                 |
| Silicon                   | 4.0 x 1.5 mm              | PVC        | 92025509                 |
| Silicon                   | 5.0 x 1.5 mm              | PVC        | 92025532                 |
| Test-set with all tubings |                           |            | 92025857                 |
| Option                    |                           |            |                          |
| PharMed BPT®              | 4.0 x 1.6 mm              | PVDF       | 92025849                 |
| PharMed BPT®              | 4.8 x 1.6 mm              | PVDF       | 92025843                 |
| Novoprene                 | 1.6 x 1.6 mm              | PVDF       | 92025552                 |
| Novoprene                 | 3.2 x 1.6 mm              | PVDF       | 92025533                 |
| Novoprene                 | 4.1 x 1.6 mm              | PVDF       | <a href="#">92025549</a> |
| Novoprene                 | 4.8 x 1.6 mm              | PVDF       | <a href="#">92025563</a> |

### Roller carrier



| Speed   | SR25 AC                | SR25 12 V DC           | SR25 24 V DC                          | SR25 Synchron                          |
|---------|------------------------|------------------------|---------------------------------------|----------------------------------------|
| 1 rpm   | -                      | -                      | -                                     | <a href="#">92025799</a> <sup>2)</sup> |
| 5 rpm   | -                      | -                      | -                                     | <a href="#">92025799</a> <sup>2)</sup> |
| 10 rpm  | -                      | -                      | 92025804 <sup>1)</sup>                | <a href="#">92025799</a> <sup>2)</sup> |
| 30 rpm  | 92025803 <sup>1)</sup> | 92025803 <sup>1)</sup> | 92025803 <sup>1)</sup>                | -                                      |
| 65 rpm  | 92025803 <sup>1)</sup> | 92025803 <sup>1)</sup> | 92025803 <sup>1)</sup>                | -                                      |
| 80 rpm  | 92025803 <sup>1)</sup> | -                      | 92025803 <sup>1)</sup>                | -                                      |
| 170 rpm | 92025801 <sup>1)</sup> | 92025806 <sup>1)</sup> | 92025806 <sup>1)</sup>                | -                                      |
| 300 rpm | -                      | -                      | 92025801 <sup>1)</sup> (Steppermotor) | -                                      |
| 500 rpm | 92025801 <sup>1)</sup> | -                      | -                                     | -                                      |

### Pump body with clamp



| Speed         | Type           | Part number                               |
|---------------|----------------|-------------------------------------------|
| 1 - 10 rpm    | SR25 Synchron. | <a href="#">92025625</a> (Counterbearing) |
| 10 - 80 rpm   | SR25 AC/DC     | 92025630                                  |
| 170 - 500 rpm | SR25 AC/DC     | <a href="#">92025625</a> (Counterbearing) |

### Rolling band



| Part number |
|-------------|
| 29008965    |

### Clamp



| Part number |
|-------------|
| 29020480    |

- 1) Clockwise direction  
2) Counter clockwise direction

## Peristaltic Pumps

| Tubing Properties |                                                                                                                                                                                                                                        |                                                                                                |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Tube              | Characteristics                                                                                                                                                                                                                        | Limitations                                                                                    |
| Novoprene         | Standard tubing for the SR10/30, SR10/50 and SR25<br>Long lifetime<br>Wide range of applications                                                                                                                                       | May swell up with oil or oily liquids                                                          |
| Norprene®         | Standard tubing for the SR10/100<br>Long lifetime<br>Suitable especially for alkaline solutions                                                                                                                                        |                                                                                                |
| PharMed BPT®      | High quality for medical, laboratory and research use<br>Homogeneous structure and therefore comparatively better chem. resistance<br>Autoclavable<br>Biocompatible<br>Long lifetime<br>Suitable for mineral, vegetable and animal oil | Expensive                                                                                      |
| Silicon           | Suitable for polar solvents<br>(with the exception of chlorinated aliphatic and aromatized hydrocarbon)<br>No detachment of softening agents<br>Very stable elasticity over a wide temperature range (-30 bis 180 °C)                  | Not recommended with strong acids or alkaline solutions<br>Swells up in many organic solutions |

| Choice of tubing depending on flow medium |                                        |                                                                                                                 |                                                    |                                                  |                                                                |
|-------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------|
|                                           |                                        | Novoprene                                                                                                       | Norprene®                                          | PharMed BPT®                                     | Silicon                                                        |
| Acids                                     | weak<br>medium<br>strong               |                                                                                                                 | very good<br>good<br>not recommended               |                                                  | good<br>unsatisfactory<br>not recommended                      |
| Alkaline solution                         | weak<br>medium<br>strong               | very good<br>good<br>not recommended                                                                            |                                                    | very good<br>very good<br>good                   | good<br>unsatisfactory<br>not recommended                      |
| Hydro-carbons                             | aliphatic<br>aromatized<br>halogenated |                                                                                                                 |                                                    | not recommended                                  |                                                                |
| Standards/<br>physiological<br>behaviour  |                                        | basis material<br>meets FDA<br>(21 CFR 177.2600)<br>doesn't fulfill<br>the EU food<br>requirement<br>2002/72/EC | not recommended for<br>food,<br>drinks or medicine | USP, class VI<br>FDA<br>(21 CFR 177.2600)<br>NSF | physiologically<br>inert                                       |
| Chemical structure                        |                                        | thermoplastic<br>elastomer on<br>PP-Basis<br>with cross linked<br>EPDM parts                                    | thermoplastic<br>elastomer on<br>PP-Basis          | thermoplastic<br>elastomer on<br>PP-Basis        | high cross linked<br>Polysiloxane<br>with anorganic<br>fillers |

# Peristaltic Pumps

| Chemical Resistance of Tubing Materials                              |   |        |   |                             |   |        |   |  |
|----------------------------------------------------------------------|---|--------|---|-----------------------------|---|--------|---|--|
| N = Novoprene    Nor = Norprene®    Ph = PharMed BPT®    S = Silicon |   |        |   |                             |   |        |   |  |
|                                                                      | N | Ph/Nor | S |                             | N | Ph/Nor | S |  |
| Acetaldehyde                                                         | C | C      | C | Hydrogen peroxide           | A | A      | C |  |
| Acetate                                                              | C | B      | D | Hydrogen sulphide           | A | A      | C |  |
| Acetic acid                                                          | A | A      | A | Isoprophyl alcohol          | A | B      | A |  |
| Acetic anhydride                                                     | A | A      | C | Jodine                      | A | A      | C |  |
| Acetone                                                              | C | C      | A | Kaliumhydroxyde             | A | A      | C |  |
| Aluminium chloride                                                   | A | A      | D | Ketones                     | C | C      | - |  |
| Aluminium sulfate                                                    | A | A      | A | Lactic acid                 | A | A      | C |  |
| Ammonia                                                              | A | A      | C | Magnesium chloride solution | A | A      | A |  |
| Amyl acetate                                                         | C | B      | C | Mercury salts               | A | A      | C |  |
| Amyl alcohol                                                         | A | C      | C | Methanol                    | A | A      | A |  |
| Amyl chloride                                                        | C | C      | C | Methyl ethyl ketone         | B | C      | C |  |
| Aniline                                                              | A | B      | C | Nitrous acid 10 %           | B | A      | C |  |
| Aqua regia                                                           | C | C      | C | Oil, animal                 | B | B      | B |  |
| Arsenic acid                                                         | C | C      | A | Oil, hydraulic              | C | C      | D |  |
| Barium hydroxide                                                     | A | A      | A | Oil, linseed                | B | B      | A |  |
| Benzaldehyde                                                         | C | C      | C | Oil, mineral                | C | C      | C |  |
| Benzene                                                              | C | C      | C | Oil, vegetable              | C | B      | A |  |
| Benzoic acid                                                         | A | B      | B | Oleic acid                  | C | C      | C |  |
| Benzylalcohol                                                        | - | A      | B | Oxalic acid                 | B | B      | B |  |
| Bleaching agent                                                      | B | A      | A | Paraffins                   | C | C      | - |  |
| Boric acid                                                           | A | A      | A | Perchloric acid             | C | C      | C |  |
| Break liquid                                                         | A | A      | A | Perchloroethylene           | C | C      | C |  |
| Bromine                                                              | C | C      | C | Petrol                      | C | C      | C |  |
| Butane                                                               | A | A      | C | Phenol                      | A | A      | C |  |
| Butanol                                                              | B | C      | C | Phosphoric acid, 25 %       | A | A      | C |  |
| Calcium hypochlorite                                                 | A | A      | B | Photographic solutions      | B | B      | A |  |
| Carbon disulphide                                                    | C | C      | C | Phtalic acid, 9 %           | - | A      | A |  |
| Chloracetic acid                                                     | A | B      | - | Potassium salts             | A | A      | A |  |
| Chlorine, liquid                                                     | C | C      | C | Pyridine                    | C | C      | C |  |
| Chlorobenzene                                                        | C | C      | C | Soap solution               | A | A      | A |  |
| Chloroform                                                           | C | C      | C | Sodium carbonate            | A | A      | A |  |
| Chromic acid 50 %                                                    | C | C      | C | Sodium chloride             | A | A      | A |  |
| Chromium salts                                                       | A | A      | C | Sodium hydroxide 40 %       | A | A      | B |  |
| Citric acid                                                          | B | B      | A | Sodium hypochlorite <5%     | A | A      | B |  |
| Cyclohexane                                                          | C | C      | C | Sodium hypochlorite 12 %    | A | A      | B |  |
| Diesel fuel                                                          | C | C      | C | Sodium salt                 | A | A      | A |  |
| Ethanol                                                              | A | A      | C | Stearic acid, 5 %           | B | A      | B |  |
| Ether                                                                | C | C      | C | Sulphurdioxide, wet gas     | A | A      | B |  |
| Ethyl alcohol                                                        | A | A      | A | Sulphuric acid, 30 %        | A | A      | C |  |
| Ethyl chloride                                                       | A | A      | C | Sulphuric acid, 75-100%     | C | C      | C |  |
| Ethylene glycol                                                      | - | A      | A | Sulphurtrioxide             | - | B      | - |  |
| Ferric sulfate                                                       | A | A      | A | Tannic acid                 | A | B      | A |  |
| Fluor silicium acid                                                  | C | C      | - | Tetrahydrofurane            | C | C      | C |  |
| Fluoroboric acid, 48 %                                               | B | B      | - | Toluole                     | C | C      | C |  |
| Formaldehyde                                                         | B | C      | B | Trichloroehtylene           | B | B      | C |  |
| Formamide                                                            | A | B      | - | Turpentine                  | C | C      | C |  |
| Formic acid                                                          | A | B      | A | Urea                        | A | A      | A |  |
| Furfural                                                             | C | C      | - | Uric Acid                   | A | A      | - |  |
| Hydrochloric acid                                                    | A | A      | C | Xylene                      | C | C      | C |  |
| Hydrocyanic acid                                                     | A | A      | C | Zinc chloride               | B | B      | B |  |

A = small or no effect  
 B = minor or moderate effect  
 C = severe effect  
 D = no reliable data, please test before use  
 - =no available data

Norprene®, PharMed BPT®, Norton Co. Reg. TM's,

The material resistance is influenced by temperature and concentration of the medium.  
 The data have to be seen as indications and do not guarantee the material properties.



**Orange**  
**COAST PNEUMATICS**  
OCAIRE.COM ISO 9001:2015

PUMP AND COMPRESSOR SOLUTIONS FOR OEMS WORLDWIDE

**THOMAS**  
by Gardner Denver

The information presented in this material is based on technical data and test results of nominal units. It is believed to be accurate and reliable and is offered as an aid to help in the selection of Thomas products. It is the responsibility of the user to determine the suitability of the product for the intended use and the user assumes all risk and liability in connection there with. Thomas does not warrant, guarantee or assume any obligation or liability in connection with this information.

Models presented in this catalog are representative of the product family. Photos of products pictured in this catalog do not necessarily represent a specific model number. To obtain further information for custom options, contact your local Thomas office.

Printed in Germany Form No. 17000056 07/2016 © Gardner Denver Thomas GmbH. All rights reserved.