



# eco|mate®

## Aquarius Fathomlock



### General Information


















- Eco|mate Aquarius Fathomlock has a unique Quicklock fastener for better handling and reliability
- The series comes in three different shell sizes with 17 different contact arrangements
- 3 - 19pin arrangements including hybrid options available; customized solutions on request
- Wire range 30 - 10AWG, up to 45A transmittable, solutions for voltages up to 600V
- Cost efficient, vibration resistant, IP67/IP69K waterproof

### Technical Data

Housing material	Thermoplastic
Gasket material	Rubber
Voltage	250V-500V
Current	13A-45A
Contact resistance	Size #16 contacts: < 6mΩ Size #20 contacts: < 15mΩ
Insulation resistance	Min. 5000mΩ at 25°C
Wire Range	10AWG-30AWG
Protection class	IP67/IP69K
Minimum Mating Cycles	No electrical or mechanical defects after more than 500 cycles of locking and unlocking
Temperature range	-40°C - 125°C

# eco | mate<sup>®</sup> Aquarius Fathomlock

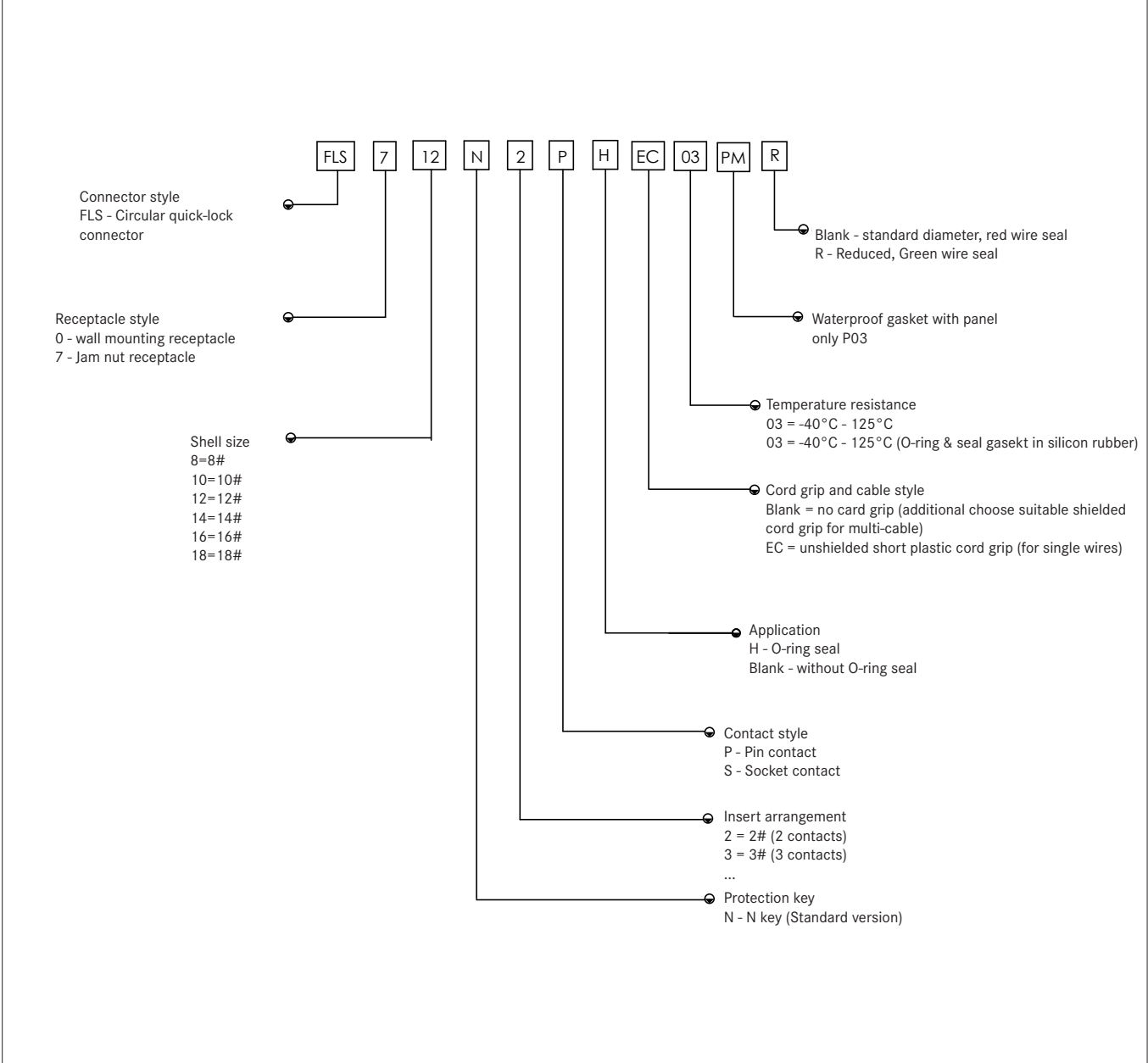
## Overview contact arrangements

FLS				
	16# Contacts (1.6mm) 13A	Mixed Power & Signal	Contacts (2.5mm) 23A	20 # Contacts (1.0mm) 5A (Stamped cont.) 7.5A (Machined cont.)
SHELL 10	 <p>10 - 3 500V AC/DC</p>  <p>10 - 4 500V AC/DC</p>	 <p>10 - 2 16# (13A) &amp; 20# (5A) 500V AC/DC</p>  <p>10 - 3W3 16# (13A) &amp; 20# (5A) 500V AC/DC</p>	N/A	 <p>10 - 6 250V AC/DC</p>
SHELL 12	 <p>12 - 3 600V AC/DC</p>  <p>12 - 4 500V AC/DC</p>  <p>12 - 8 500V AC/DC</p>	 <p>12 - 2 2.5mm (23A) &amp; 20# (5A) 500V AC/DC</p>	N/A	 <p>12 - 10 250V AC/DC</p>
SHELL 14	 <p>14 - 7 500V AC/DC</p>  <p>14 - 8 500V AC/DC</p>  <p>14 - 12 500V AC/DC</p>	 <p>14 - 2 2.5mm (23A) &amp; 16# (13A) 500V AC/DC</p>  <p>14 - 3 8# (45A) 600V AC/DC</p>	 <p>14 - 4 500V AC/DC</p>	 <p>14 - 19 250V AC/DC</p>

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## Part number systematic - Receptacles

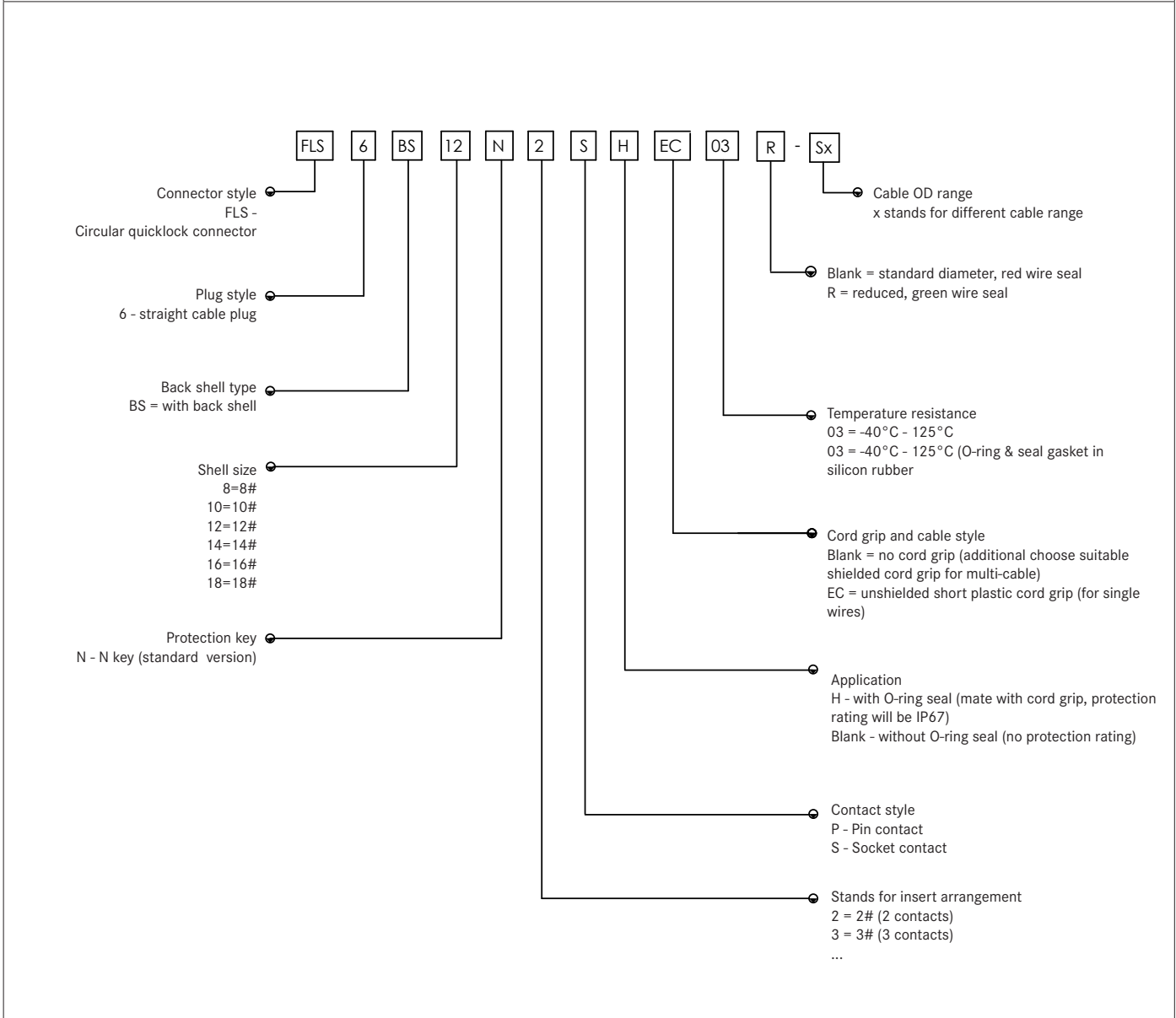
Example: FLS714N2P FLS series, jum nut receptacle, #14 shell, N key, 2 position with pin contact, protection grade IP67& IP69k.



# eco | mate® Aquarius Fathomlock

## Part number systematic - Plugs

Example: FLS6BS14N2P-S1, FLS series, straight plug with back shell (cable range refer to S1), #14 shell, N key, 2 position with pin contact, protection grade IP67 & IP69k.



eco|mate® Aquarius Fathomlock - Shell size 10  
**Female Plug (using socket contacts)**

Plug part number	Contact size	Picture	Remarks
FLS6BS10N2S03-Sx	16# & 20#		Cable O.D. S1: 4.0 ~ 6.5 mm S2: 5.0 ~ 8.8 mm
FLS6BS10N3S03-Sx	16#		
FLS6BS10N4S03-Sx	16#		
FLS6BS10N603-Sx	20#		
FLS6BS10N3W3S03-Sx	16# & 20#		
FLS610N2SHEC03	16# & 20#		16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS610N4SHEC03	16#		
FLS610N6SHEC03	20#		

eco|mate® Aquarius Fathomlock - Shell size 10  
**Male Plug (using pin contacts)**

Plug part number	Contact size	Picture	Remarks
FLS6BS10N2P03-Sx	16# & 20#		Cable O.D.: S1: 4.0 ~ 6.5 mm S2: 5.0 ~ 8.8 mm
FLS6BS10N3P03-Sx	16#		
FLS6BS10N4P03-Sx	16#		
FLS6BS10N6P03-Sx	20#		
FLS6BS10N3W3P03-Sx	16# & 20#		
FLS610N2PHEC03	16# & 20#		16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS610N4PHEC03	16#		
FLS610N6PHEC03	20#		

eco|mate® Aquarius Fathomlock - Shell size 10  
 Male Receptacle (using pin contacts)

Receptacle part number	Contact size	Picture	Remarks
FLS010N2P03	16# & 20#		Gasket: RTFD10B & RTFD10B1
FLS010N3P03	16#		
FLS010N4P03	16#		
FLS010N6P03	20#		
FLS010N3W3P03	16# & 20#		
FLS010N2PHEC03	16# & 20#		16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm Gasket: RTFD10B & RTFD10B1
FLS010N4PHEC03	16#		
FLS010N6PHEC03	20#		
FLS710N2P03	16# & 20#		
FLS710N3P03	16#		
FLS710N4P03	16#		
FLS710N6P03	20#		
FLS710N3W3P03	16# & 20#		
FLS710N2PHEC03	16# & 20#		16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS710N4PHEC03	16#		
FLS710N6PHEC03	20#		
FLS010N2P03-PM	16# & 20#		
FLS010N3P03-PM	16#		
FLS010N4P03-PM	16#		
FLS010N6P03-PM	20#		
FLS010N3W3P03-PM	16# & 20#		

eco | mate® Aquarius Fathomlock - Shell size 10  
 Female Receptacle (using socket contacts)

Receptacle part number	Contact size	Picture	Remarks
FLS010N2S03	16# & 20#		Gasket: RTFD10B & RTFD10B1
FLS010N3S03	16#		
FLS010N4S03	16#		
FLS010N6S03	20#		
FLS010N3W3S03	16# & 20#		
FLS010N2SHEC03	16# & 20#		16#: wire diameter $\Phi 2.0\text{--}3.2\text{mm}$ 20#: wire diameter $\Phi 1.4\text{--}2.1\text{mm}$ Gasket: RTFD10B & RTFD10B
FLS010N4SHEC03	16#		
FLS010N6SHEC03	20#		
FLS710N2S03	16# & 20#		
FLS710N3S03	16#		
FLS710N4S03	16#		
FLS710N6S03	20#		
FLS710N3W3S03	16# & 20#		
FLS010N2S03-PM	16# & 20#		
FLS010N3S03-PM	16#		
FLS010N4S03-PM	16#		
FLS010N6S03-PM	20#		
FLS010N3W3S03-PM	16# & 20#		

eco | mate® Aquarius Fathomlock - Shell size 12  
**Female Plug (using socket contacts)**

Plug part number	Contact size	Picture	Remarks
FLS6BS12N2S03-Sx	2.5mm & 20#		Cable O.D.: S1: 6.0 ~ 9.0 mm S2: 8.5 ~ 12.0 mm
FLS6BS12N3S03-Sx	16#		
FLS6BS12N4S03-Sx	16#		
FLS6BS12N8S03-Sx	16#		
FLS6BS12N10S03-Sx	20#		
FLS612N2SHEC03	2.5mm & 20#		2.5mm: wire diameter $\Phi$ 3.3~4.3mm 16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS612N3SHEC03	16#		
FLS612N8SHEC03	16#		
FLS612N10SHEC03	20#		

eco | mate® Aquarius Fathomlock - Shell size 12  
**Male Plug (using pin contacts)**

Plug part number	Contact size	Picture	Remarks
FLS6BS12N2P03-Sx	2.5mm & 20#		Cable O.D.: S1: 6.0 ~ 9.0 mm S2: 8.5 ~ 12.0 mm
FLS6BS12N3P03-Sx	16#		
FLS6BS12N4P03-Sx	16#		
FLS6BS12N8P03-Sx	16#		
FLS6BS12N10P03-Sx	20#		
FLS612N2PHEC03	2.5mm & 20#		2.5mm: wire diameter $\Phi$ 3.3~4.3mm 16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS612N3PHEC03	16#		
FLS612N8PHEC03	16#		
FLS612N10PHEC03	20#		



eco|mate® Aquarius Fathomlock - Shell size 12  
**Male Receptacle (using pin contacts)**

Receptacle part number	Contact size	Picture	Remarks
FLS012N2P03	2.5mm & 20#		Gasket: RTFD12B & RTFD12B1
FLS012N3P03	16#		
FLS012N4P03	16#		
FLS012N8P03	16#		
FLS012N10P03	20#		
FLS012N2PHEC03	2.5mm & 20#		2.5mm: wire diameter $\Phi$ 3.3~4.3mm 16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm Gasket: RTFD12B & RTFD12B1
FLS012N3PHEC03	16#		
FLS012N8PHEC03	16#		
FLS012N10PHEC03	20#		
FLS712N2P03	2.5mm & 20#		
FLS712N3P03	16#		
FLS712N4P03	16#		
FLS712N8P03	16#		
FLS712N10P03	20#		
FLS712N2PHEC03	2.5mm & 20#		2.5mm: wire diameter $\Phi$ 3.3~4.3mm 16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS712N3PHEC03	16#		
FLS712N8PHEC03	16#		
FLS712N10PHEC03	20#		
FLS012N2P03-PM	2.5mm & 20#		
FLS012N3P03-PM	16#		
FLS012N4P03-PM	16#		
FLS012N8P03-PM	16#		
FLS012N10P03-PM	20#		

eco|mate® Aquarius Fathomlock - Shell size 12  
**Female Receptacle (using socket contacts)**

Receptacle part number	Contact size	Picture	Remarks
FLS012N2S03	2.5mm & 20#		Gasket: RTFD12B & RTFD12B1
FLS012N3S03	16#		
FLS012N4S03	16#		
FLS012N8S03	16#		
FLS012N10S03	20#		
FLS012N2SHEC03	2.5mm & 20#		
FLS012N3SHEC03	16#		
FLS012N8SHEC03	16#		
FLS012N10SHEC03	20#		
FLS712N2S03	2.5mm & 20#		
FLS712N3S03	16#		
FLS712N4S03	16#		
FLS712N8S03	16#		
FLS712N10S03	20#		
FLS012N2S03-PM	2.5mm & 20#		
FLS012N3S03-PM	16#		
FLS012N4S03-PM	16#		
FLS012N8S03-PM	16#		
FLS012N10S03-PM	20#		

eco|mate® Aquarius Fathomlock - Shell size 14  
**Female Plug (using socket contacts)**

Plug part number	Contact size	Picture	Remarks
FLS6BS14N2S03-Sx	2.5mm & 16#		Cable O.D.: S1: 6.0 ~ 12.0 mm S2: 9.0 ~ 14.0 mm
FLS6BS14N3S03-Sx	8#		
FLS6BS14N4S03-Sx	2.5mm		
FLS6BS14N7S03-Sx	16#		
FLS6BS14N8S03-Sx	16#		
FLS6BS14N12S03-Sx	16#		
FLS6BS14N19S03-Sx	20#		
FLS614N2SHEC03	2.5mm & 16#		2.5mm: wire diameter $\Phi$ 3.3~4.3mm 8#: wire diameter $\Phi$ 2.8~5.8mm 16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS614N3SHEC03	8#		
FLS614N4SHEC03	2.5mm		
FLS614N8SHEC03	16#		
FLS614N12SHEC03	16#		
FLS614N19SHEC03	20#		

eco|mate® Aquarius Fathomlock - Shell size 14  
**Male Plug (using pin contacts)**

Plug part number	Contact size	Picture	Remarks
FLS6BS14N2P03-Sx	2.5mm & 16#		Cable O.D.: S1: 6.0 ~ 12.0 mm S2: 9.0 ~ 14.0 mm
FLS6BS14N3P03-Sx	8#		
FLS6BS14N4P03-Sx	2.5mm		
FLS6BS14N7P03-Sx	16#		
FLS6BS14N8P03-Sx	16#		
FLS6BS14N12P03-Sx	16#		
FLS6BS14N19P03-Sx	20#		
FLS614N2PHEC03	2.5mm & 16#		2.5mm: wire diameter $\Phi$ 3.3~4.3mm 16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS614N3PHEC03	8#		
FLS614N4PHEC03	2.5mm		
FLS614N8PHEC03	16#		
FLS614N12PHEC03	16#		
FLS614N19PHEC03	20#		

# eco|mate® Aquarius Fathomlock - Shell size 14

## Male Receptacle (using pin contacts)

Receptacle part number	Contact size	Picture	Remarks
FLS014N2P03	2.5mm & 16#		Gasket: RTFD14B & RTFD14B1
FLS014N3P03	8#		
FLS014N4P03	2.5mm		
FLS014N7P03	16#		
FLS014N8P03	16#		
FLS014N12P03	16#		
FLS014N19P03	20#		
FLS014N2PHEC03	2.5mm & 16#		2.5mm: wire diameter $\Phi$ 3.3~4.3mm 8#: wire diameter $\Phi$ 2.8~5.8mm 16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS014N3PHEC03	8#		
FLS014N4PHEC03	2.5mm		
FLS014N8PHEC03	16#		
FLS014N12PHEC03	16#		
FLS014N19PHEC03	20#		
FLS714N2P03	2.5mm & 16#		
FLS714N3P03	8#		
FLS714N4P03	2.5mm		
FLS714N7P03	16#		
FLS714N8P03	16#		
FLS714N12P03	16#		
FLS714N19P03	20#		
FLS714N2PHEC03	2.5mm & 16#		2.5mm: wire diameter $\Phi$ 3.3~4.3mm 8#: wire diameter $\Phi$ 2.8~5.8mm 16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS714N3PHEC03	8#		
FLS714N4PHEC03	2.5mm		
FLS714N8PHEC03	16#		
FLS714N12PHEC03	16#		
FLS714N19PHEC03	20#		
FLS014N2P03-PM	2.5mm & 16#		
FLS014N3P03-PM	8#		
FLS014N4P03-PM	2.5mm		
FLS014N7P03-PM	16#		
FLS014N8P03-PM	16#		
FLS014N12P03-PM	16#		
FLS014N19P03-PM	20#		

eco|mate® Aquarius Fathomlock - Shell size 14  
**Female Receptacle (using socket contacts)**

Receptacle part number	Contact size	Picture	Remarks
FLS014N2S03	2.5mm & 16#		Gasket: RTFD14B & RTFD14B1
FLS014N3S03	8#		
FLS014N4S03	2.5mm		
FLS014N7S03	16#		
FLS014N8S03	16#		
FLS014N12S03	16#		
FLS014N19S03	20#		
FLS014N2SHEC03	2.5mm & 16#		2.5mm: wire diameter $\Phi$ 3.3~4.3mm 8#: wire diameter $\Phi$ 2.8~5.8mm 16#: wire diameter $\Phi$ 2.0~3.2mm 20#: wire diameter $\Phi$ 1.4~2.1mm
FLS014N3SHEC03	8#		
FLS014N4SHEC03	2.5mm		
FLS014N8SHEC03	16#		
FLS014N12SHEC03	16#		
FLS014N19SHEC03	20#		
FLS714N2S03	2.5mm & 16#		
FLS714N3S03	8#		
FLS714N4S03	2.5mm		
FLS714N7S03	16#		
FLS714N8S03	16#		
FLS714N12S03	16#		
FLS714N19S03	20#		
FLS014N2S03-PM	2.5mm & 16#		
FLS014N3S03-PM	8#		
FLS014N4S03-PM	2.5mm		
FLS014N7S03-PM	16#		
FLS014N8S03-PM	16#		
FLS014N12S03-PM	16#		
FLS014N19S03-PM	20#		