

# Connection Interfaces

EWS connection interfaces are designed for maximum reliability and performance under demanding industrial conditions. Precision-fit components and rugged materials ensure leak-proof sealing, efficient current transmission, and stable fluid flow even under thermal stress and mechanical strain.



## Power Connections

### Design

Flexible, braided copper conductors housed in robust, low-resistance interfaces. The connectors are designed for high current loads, pulse resistance, and frequent movement. Contact zones are optimized for minimal heat generation and durable mechanical locking.

### Benefits

- High current-carrying capacity with low losses
- Reliable under frequent retooling and movement
- Safe connection even under peak loads
- Long service life, also in combination with cooling systems



SK35 - 13mm



SK25 - 9mm



M12x1



3/8"



3/8" x 14 RH



7/8" x 14 RH



7/8" x 14 LH



Fronius Central



ZA ESAB



ZA-LTEC



ZA-Kemppi



## Water Connections

### Design

The water-cooled systems are equipped with the proven SUPERFLEX™ cable, featuring a high-strength braided outer layer and an inner insulation made from natural rubber. Offering excellent flexibility and mechanical durability, even under tight bending radii or drag chain conditions. Couplings are engineered for long-term drip resistance and remain stable under thermal and chemical stress. The system design also allows the return line to be used as a current conductor without causing thermal bottlenecks under high loads.

### Benefits

- High current-carrying capacity with low losses
- Reliable under frequent retooling and movement
- Safe connection even under peak loads
- Long service life, also in combination with cooling systems
- For optimal conductivity and material compatibility, the pH value of the coolant should be maintained between 7.0 and 8.5. We recommend using the antifreeze coolant (BA15-EVO) from Rhino Protection.



NW5



5/8" UNF LH



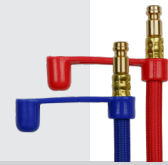
3/8"

### Sealing Caps

All water ports come equipped with high-quality sealing caps for safe delivery and handling.



Rhino Protection Coolant



Sealing Caps



## Gas Connections

### Design

Precision-engineered connectors with high-tolerance brass components and specialized multi-point crimping. Sealing surfaces are designed for permanent tightness without the need for sealing tape or secondary processing. High mechanical stability supports use under fluctuating temperatures.

### Benefits

- Durable, maintenance-free sealing
- Reduced microleakage and wear
- Time-saving installation without post-adjustments
- Stable performance in long-term industrial use



### Cooling Style &

Cooling connectors will be selected and assembled based on the cooling system of the ordered torch. Air cooled torches do not need extra connectors like water torches.



NW2.7



NW5



M10x1



5/8" x 18 RH



NW2.7M



1/8"



1/4"



3/8"

## General Connectors

EWS offers standardized control line interfaces designed for reliable signal transmission and easy integration into common automation systems. All connectors meet industrial safety standards and ensure secure, interference-free operation in demanding environments.

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### Icons

- ⚡ Control Connection
- 💧 Water Connection
- 🔥 Gas Connection

01



EU1 - SK35

NW5

⚡ SK35 - 13mm

NW5

02



EU2 - SK25

NW5

⚡ SK25 - 9mm

NW5

03



UK connection

3/8"

⚡ 3/8"

3/8"

04



US1 - Air

x

⚡ 3/8" x 14 RH

3/8" x 14 RH

05



US2 - Air

x

⚡ 7/8" x 14 RH

7/8" x 14 RH

06



US3 - Water

5/8" x 18 LH

⚡ 7/8" x 14 LH

5/8" x 18 RH

## Manufacturer-Specific Interfaces

For selected OEM systems, EWS provides preconfigured control connectors tailored to proprietary interface standards. These solutions enable direct integration without adapter wiring and ensure full compatibility with the respective machine control architecture.

10



Böhler – 7pol

NW5

⚡ SK35 - 13mm

NW2.7

11



Castolin – 7pol

NW5

⚡ SK35 - 13mm

NW5

12



CEA – 6pol

NW5

⚡ SK35 - 13mm

NW5

13



Cebora – 10pol

NW5

⚡ SK35 - 13mm

1/4"

14



ESAB – 2pol

NW5

⚡ SK35 - 13mm

1/8"

15



ESAB – 8pol

NW5

⚡ SK35 - 13mm

1/8"



# TIGZONE – Connector Options

<b>16</b>  <b>ESAB</b> ⚡ ZA ESAB NW5 ZA ESAB	<b>17</b>  <b>ESS – 5pol</b> ⚡ SK35 - 13mm NW5 1/4"	<b>18</b>  <b>ESS – 5pol</b> ⚡ M12x1 3/8" 1/4"
<b>19</b>  <b>EWM – 5pol</b> ⚡ SK35 - 13mm NW5 1/4"	<b>20</b>  <b>EWM – 8pol</b> ⚡ SK35 - 13mm NW5 1/4"	<b>21</b>  <b>France – 2pol</b> ⚡ SK35 - 13mm NW5 M12x1
<b>22</b>  <b>Fronius – 9pol</b> ⚡ 3/8" 3/8" 1/4"	<b>23</b>  <b>Fronius – 9pol</b> ⚡ Fronius Central NW5 Fronius Central	<b>24</b>  <b>Fronius – 8pol</b> ⚡ Fronius Central NW5 Fronius Central
<b>25</b>  <b>Jasic – 9pol</b> ⚡ SK35 - 13mm NW5 NW5	<b>26</b>  <b>Jasic – 12pol</b> ⚡ SK35 - 13mm NW5 NW5	<b>27</b>  <b>Kemppi – 4pol</b> ⚡ 3/8" 3/8" 1/4"
<b>28</b>  <b>Kemppi – 7pol</b> ⚡ 1/4" MLS NW5 1/4" MLS	<b>29</b>  <b>Lincoln – 5pol</b> ⚡ SK35 - 13mm NW5 NW2.7	<b>30</b>  <b>Lorch – 5pol</b> ⚡ SK35 - 13mm NW5 NW2.7
<b>31</b>  <b>L-TEC – 5pol</b> ⚡ ZA-LTEC NW5 ZA-LTEC	<b>32</b>  <b>Migatronc – 7pol</b> ⚡ SK35 - 13mm NW5 NW2.7M	<b>33</b>  <b>Miller – 14pol</b> ⚡ SK35 - 13mm NW5 5/8UNF RH
<b>34</b>  <b>Miller – 14pol</b> ⚡ SK35 - 13mm 5/8UNF LH 5/8UNF RH	<b>35</b>  <b>Rehm – 7pol</b> ⚡ SK35 - 13mm NW5 NW2.7	<b>36</b>  <b>Rehm – 12pol</b> ⚡ SK35 - 13mm NW5 NW2.7
<b>37</b>  <b>Rehm – 19pol</b> ⚡ SK35 - 13mm NW5 NW2.7	<b>38</b>  <b>Weco – 5pol</b> ⚡ SK35 - 13mm NW5 M10x1	<b>i</b> <b>Disclaimer</b> <p>All references to genuine manufacturer's equipment numbers, and/or trade names or trademarks are for identification and convenience only. The trademarks and trade names are the property of their respective owners.</p>