



Made for Robots.

Multi Function Feeder

Stand Alone Wire Feeders



Multi Function Feeder



With the Multi Function Feeder MFF, the industrial proven technology of the PF5 Power Feeder is now available as a stand-alone solution. The Multi Function Feeder can be controlled independently of the equipment in use. For cost-effectiveness, three different types with a different range of functions were developed:

Multi Function Feeder (MFF)

- MFF Basic
- MFF Advanced
- MFF Expert

MFF Basic: With the basic solution, the wire feeding speed can be set via an analog input voltage and can be outputted analog.

MFF Advanced: The MFF Advanced can also take over the control for gas flow, wire, robot motion, laser or TIG power sources. 63 jobs are available for manual parameter selection.

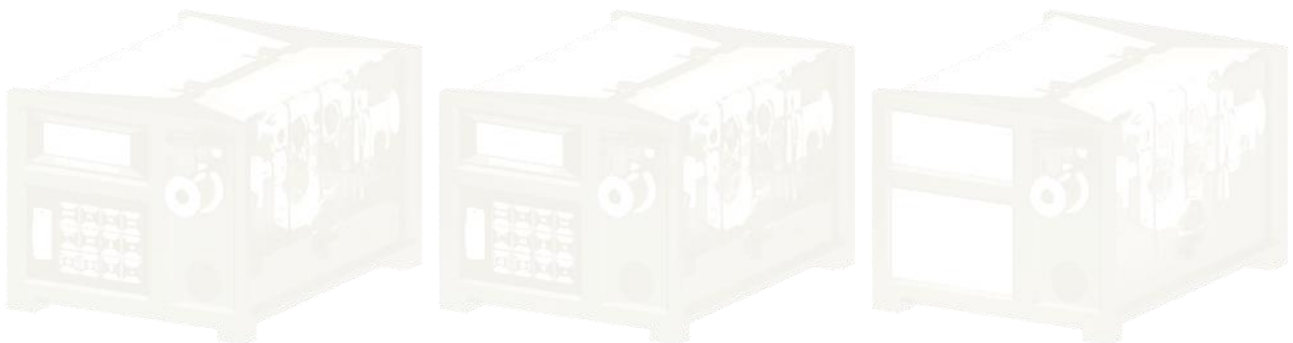
MFF Expert: The MFF Expert can do up to 255 jobs and additionally output digital alarms. With its comprehensive inputs and outputs via the associated I/O5-Interface (analog and digital), the MFF is prepared for various applications.



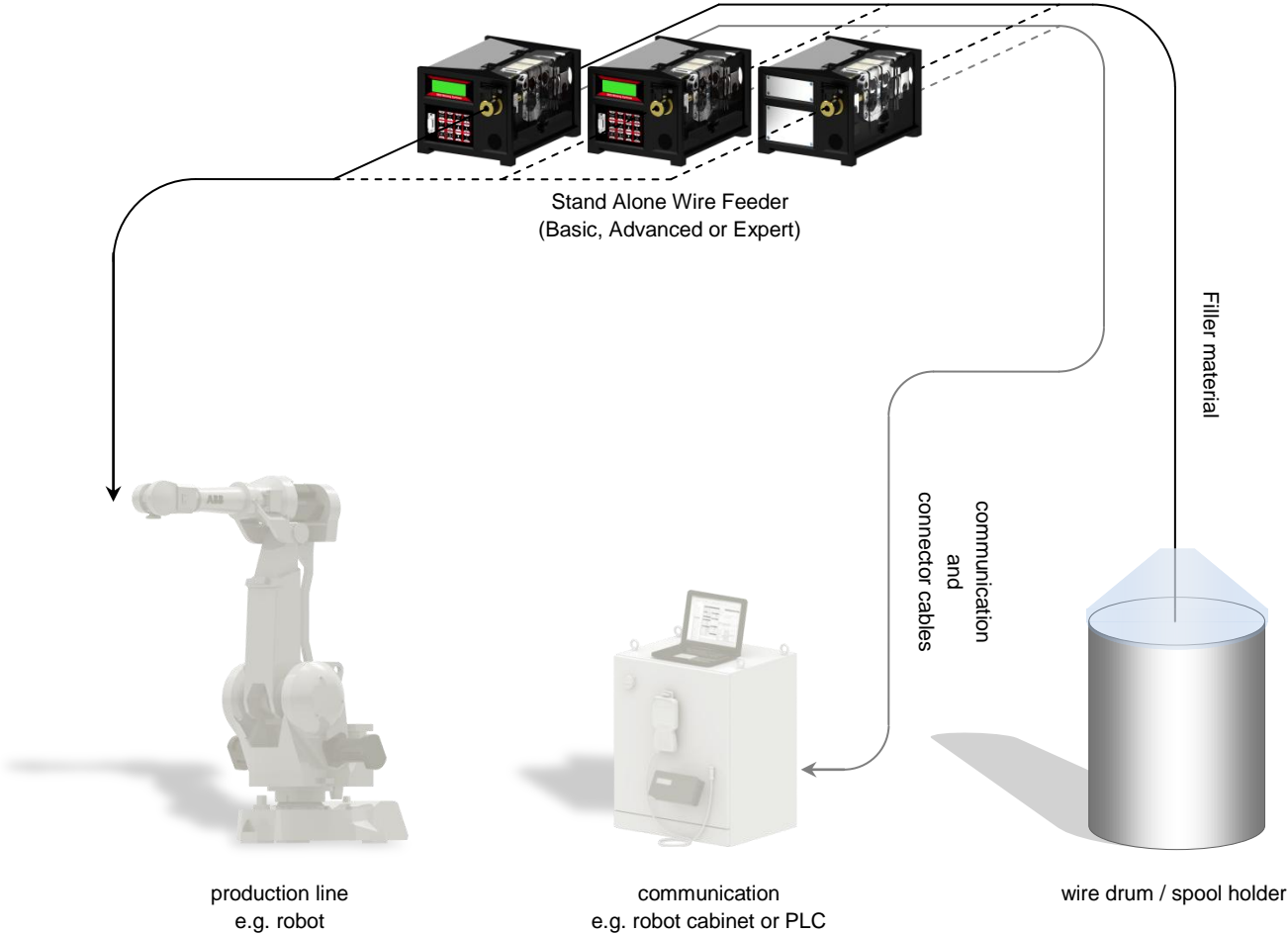
Based on the proven power feeder technology with its advanced engine, transmission and control technology ensure high performance and high precision. With the fast control capabilities of the microprocessor-controlled motor card, the feeder can accelerate immediately, while slippage is minimized. The plastic housing is electrically insulated. Based on the PF5 housing concept, this feeder is with its compact dimensions and low weight a perfect solution for stand-alone applications.

Application examples:

- Laser cold wire
- TIG cold wire
- Dedicated wire feeding, direct control analog / digital



System setup



System “Basic”



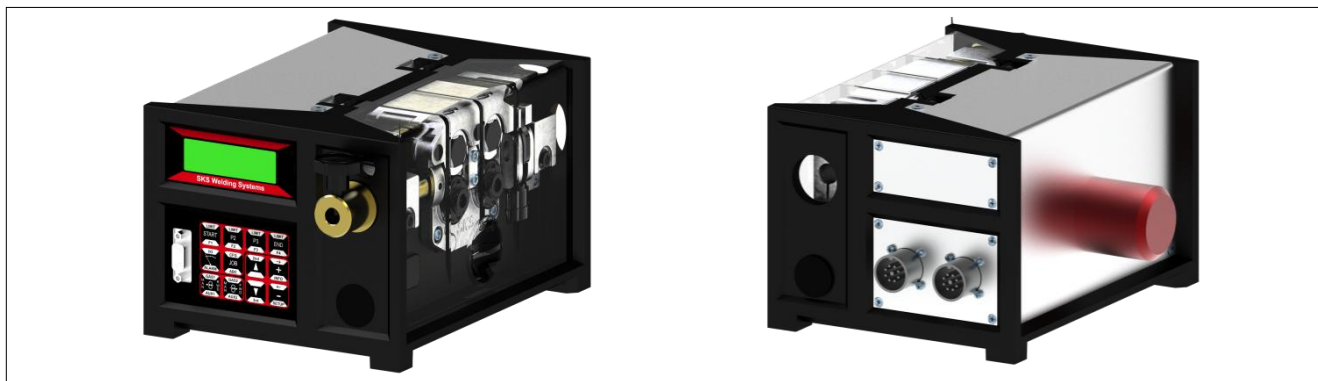
Multi Function Feeder Basic: With an analog voltage, the wire feeding speed can be controlled and can also be outputted analog.

Features

- Analoge setting of wire feed speed
- Wire feed speed 0.1-10 m/min, increment 0.01 m/min
- Analog output of actual wire feed speed
- Automatic wire stick control
- Signal-Handshake

| | |
|--------------------------|--|
| Technical data | Stand Alone „Basic“ |
| General | |
| Voltage supply | 24 V DC |
| Power input | Imax 3 A |
| Wire feeder | PF5 20-1000 |
| Motor | MAXON motor with three stage planetary gear |
| Power | 20 Watt |
| Torque | 1.4 Nm |
| Control range | 0.1-10 m/min |
| Connection | circular plug (6 pins), circular plug (16 pins) |
| Input | 7 (digital) + 1 (analog 0-10 V) |
| Output | 6 (digital) + 1 (analog 0-10 V) |
| Weight | 4.0 kg |
| Dimensions (L/W/H) | 220 / 170 / 136 mm |
| Mounting hole size | 200 / 150 mm, M6 |
| System components | |
| 10-12-20-1000 | PF5 20-1000 Basic, Wire feeder with analog control |
| 31-11-10 | SKS communication cable 10 m (16 pins, open end) |
| 31-12-10 | SKS connection cable 10 m (6 pins, open end) |

System “Advanced”



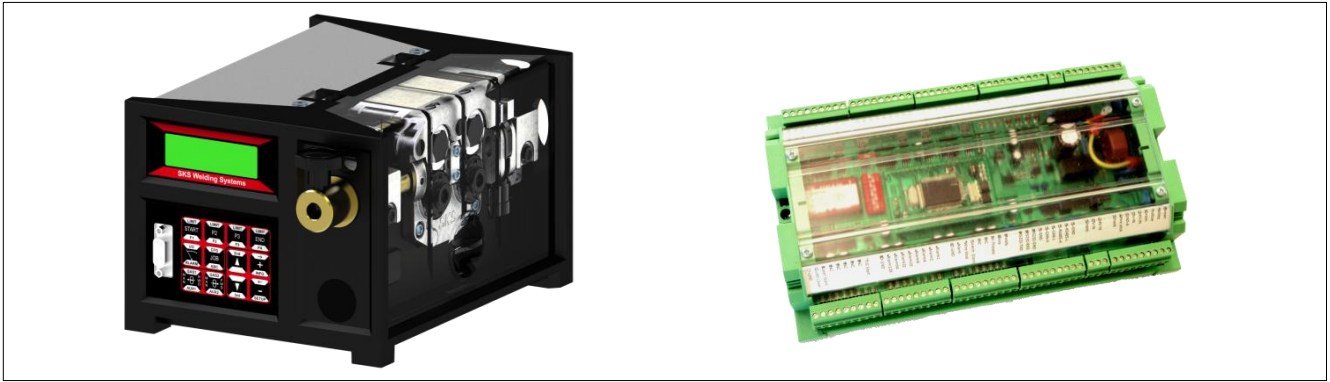
Multi Function Feeder Advanced: An integrated process control for gas, wire, robot motion, laser or TIG power sources and 63 jobs for manual parameter selection are available.

Features

- Process control for gas, wire, Laser or TIG power source
- Manual job selection of parameters (63 Jobs)
- Setpoint setting (analog) for Laser power or TIG electrode current
- Wire feed speed 0.1-10 m/min, increment 0.01 m/min
- Ramp and loop function
- Automatic wire stick control
- Automatic wire-to-part feeding
- Parameterization with terminal program from PC (no additional software)

| | |
|--------------------------|---|
| Technical data | Stand Alone „Advanced“ |
| General | |
| Supply voltage | 24 V DC |
| Power input | I _{max} 3 A |
| Wire feeder | PF5 20-1000 |
| Motor | MAXON motor with three stage planetary gear |
| Power | 20 Watt |
| Torque | 1.4 Nm |
| Control range | 0.1-10 m/min |
| Connection | RS232 connector (Hyperterminal), circular plug (6 pins), circular plug (16 polig) |
| Input | 7 (digital) + 1 (analog 0-10 V) |
| Output | 6 (digital) + 1 (analog 0-10 V) |
| Weight | 4.0 kg |
| Dimensions (L/W/H) | 220 / 170 / 136 mm |
| Mounting hole size | 200 / 150 mm, M6 |
| Keypad | 12 keys |
| Display | LC Display 4 rows, green |
| System components | |
| 10-11-20-1000 | PF5 20-1000 Advanced, wire feeder with integrated process control analog |
| 31-11-10 | SKS communication cable 10 m (16 pins, open end) |
| 31-12-10 | SKS connection cable 10 m (6 pins, open end) |

System "Expert"



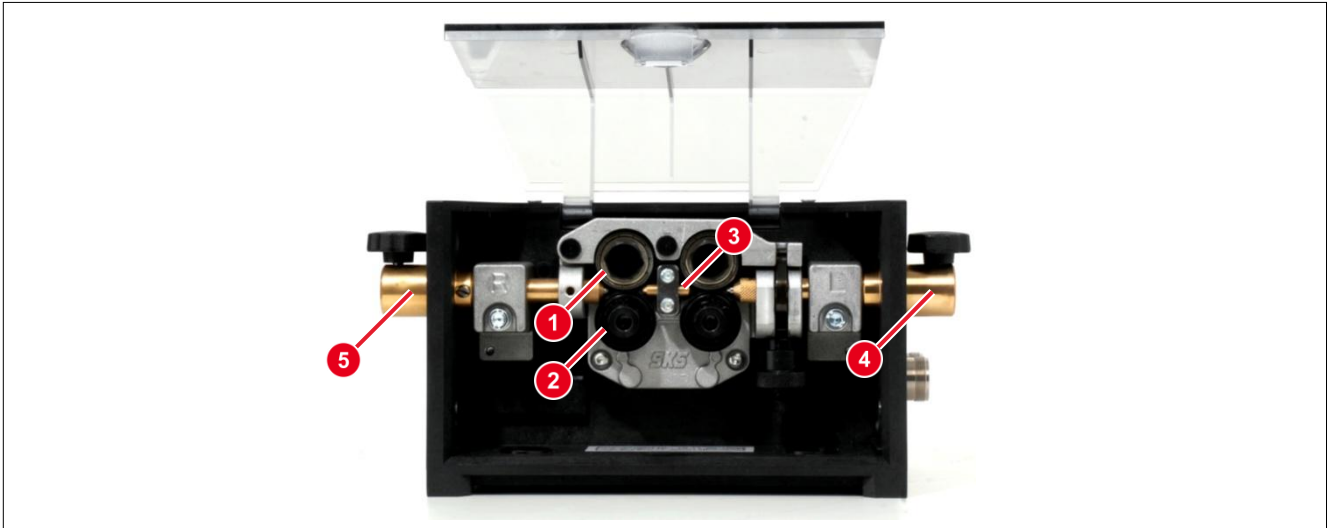
Multi Function Feeder Expert: Up to 255 jobs can be programmed and selected. Alarm messages are displayed fully digital. With its comprehensive inputs and outputs via the associated I/O5-Interface (analog and digital), it's prepared for various applications.

Features

- Process control for gas, wire, robot movement, Laser or TIG power source
- Digital job selection of parameters (255 Jobs)
- Setpoint setting (analog) for Laser power or TIG electrode current
- Wire feed speed 0.1-10 m/min, increment 0.01 m/min
- Ramp and loop function
- Automatic wire stick control
- Automatic wire-to-part feeding
- Digital output of alarm messages
- Parameterization with terminal program from PC (no additional software)

| | |
|--------------------------|---|
| Technical data | Stand Alone „Expert“ |
| General | |
| Supply voltage | 24 V DC |
| Power input | I _{max} 3 A |
| Wire feeder | PF5 20-1000 |
| Motor | MAXON motor with three phase planetary gear |
| Power | 20 Watt |
| Torque | 1.4 Nm |
| Control range | 0.1-10 m/min |
| Connections | RS232 connector (Hyperterminal), circular plug (16 pins) |
| Weight | 4.0 kg |
| Dimensions (L/W/H) | 220 / 170 / 136 mm |
| Mounting hole size | 200 / 150 mm, M6 |
| Keypad | 12 keys |
| Display | LC Display 4 rows, green |
| Interface | IO5 48-8 |
| Connection | Internal system bus |
| Inputs | 24 (digital) + 4 (analog) |
| Outputs | 24 (digital) + 4 (analog) |
| Dimensions (L/W/LH) | 215 / 125 / 50 mm (rail mount) |
| Systemkomponenten | |
| 10-10-20-1000 | PF5 20-1000 Expert, wire feeder with integrated process control |
| 30-10-3 | IO5 48-8 interface |
| 31-10-10 | SKS bus cable 10 m (16 pins) |

Consumables and accessories



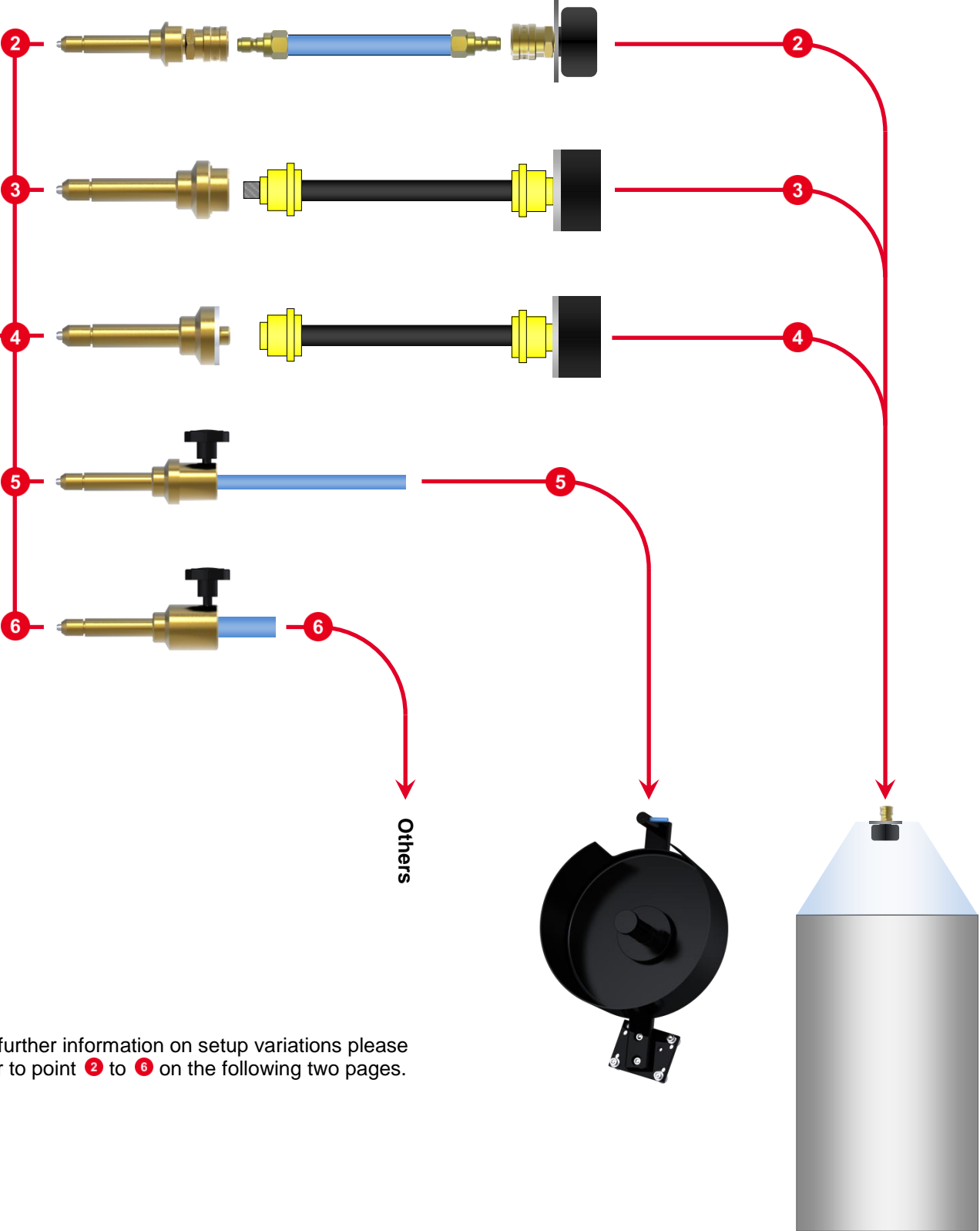
| Consumables and accessories | |
|---------------------------------------|--|
| Pressure rolls for wire feeder | |
| 12-2-3-0 | Pressure rolls for wire feeder PF5 series (2 pieces included in delivery) ¹ |
| Drive rolls (steel wires) | |
| 12-2-3-08 | Drive roll PF5 V groove for wire diameter 0.8 mm |
| 12-2-3-09 | Drive roll PF5 V groove for wire diameter 0.9 mm |
| 12-2-3-10 | Drive roll PF5 V groove for wire diameter 1.0 mm ² |
| 12-2-3-12 | Drive roll PF5 V groove for wire diameter 1.2 mm |
| Drive rolls (aluminium wires) | |
| 12-2-3-110 | Drive roll PF5 U groove for wire diameter 1.0 mm |
| 12-2-3-112 | Drive roll PF5 U groove for wire diameter 1.2 mm |
| Centre guide | |
| 12-2-1-15 | Centre guide for wire feeder PF5 series steel wires < 2 mm ³ |
| 12-2-1-17 | Centre guide for wire feeder PF5 series aluminium wires 0.8-1.0 mm |
| 12-2-1-19 | Centre guide for wire feeder PF5 series aluminium wires 1.2-1.6 mm |
| Wire inlet/outlet bodies | |
| 10-2-0-50 | Wire inlet body PF5 with M10 inner thread |
| 10-2-0-51 | Wire inlet body PF5 with 3/8" x 24 outer thread |
| 10-2-0-52 | Wire inlet body PF5 with 9.6 mm drill ⁴ |
| 10-2-0-53 | Wire inlet body PF5 with 13 mm drill |
| 10-2-0-54 | Wire in-/outlet body for PF5 9.6mm/5mm (1 piece included in delivery) ⁵ |
| 10-2-0-55 | Wire inlet body PF5 with PG6 thread |
| 10-2-0-59 | Wire inlet body PF5 with ESAB thread |
| 10-2-0-60 | Wire inlet body PF5 with 1/4" inner thread for roll liner |
| 10-2-0-61 | Wire inlet body PF5 with quick coupling |

⁴ For more information regarding wire guidance please see following pages

Wire Guidance



Wire Guidance




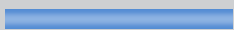
For further information on setup variations please refer to point 2 to 6 on the following two pages.

Wire Guidance

Setup variations




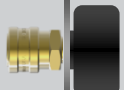
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Wire guidance to system

| Picture | Part number | Quantity | Description |
|---|-------------|----------|--|
|  | 44-7-200 | 1 | Liner 1,45 x 3,15 steel blank, grey, 2m |
|  | 44-8-200 | 1 | Polymer wire guidance, version S, blue, 2m |




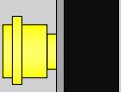
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SKS wire guidance

| Picture | Part number | Quantity | Description |
|---|-------------|-----------|---|
|  | 10-2-0-61 | 1 | Wire inlet body for PF5 with quick coupling for SKS polymer wire guidance |
|  | 44-40-3 | 2 | Connection nipple for polymer wire guidance 7.6x11.6mm |
|  | 44-9-1 | per meter | Polymer wire guidance per meter, version L, blue |
|  | 44-40-1 | 1 | Wire drum connector with ceramic inlet |




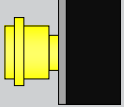
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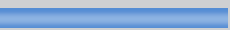
ESAB wire guidance (EU version)



| Picture | Part number | Quantity | Description |
|---|---------------|----------|---|
|  | 10-2-0-50 | 1 | Wire inlet body for PF5 with M10 inner thread |
|  | (no SKS part) | 2 | ESAB Quick coupling M10 |
|  | (no SKS part) | - | ESAB Wire guidance |
|  | (no SKS part) | 1 | ESAB Wire drum connector |

Drahtzuführung

Ausrüstungsvarianten

| 4 ESAB wire guidance (US version) | | | |
|---|---------------|----------|---|
| Picture | Part number | Quantity | Description |
|  | 10-2-0-51 | 1 | Wire inlet body with UNF 3/8" x 24 outer thread |
|  | (no SKS part) | 2 | ESAB quick coupling with UNF 3/8" x 24 inner thread |
|  | (no SKS part) | - | ESAB wire guidance |
|  | (no SKS part) | 1 | ESAB wire drum connector |

| 5 Wire guidance for systems with 9.6mm adaption | | | |
|---|-------------|-----------|--|
| Picture | Part number | Quantity | Description |
|  | 10-2-0-52 | 1 | Wire inlet body for PF5 with 9.6mm drill |
|  | 44-8-1 | Meterware | Polymer wire guidance per meter, version S, blue |

| 6 Wire guidance for systems with 13mm adaption | | | |
|---|-------------|-----------|--|
| Picture | Part number | Quantity | Description |
|  | 10-2-0-53 | 1 | Wire inlet body for PF5 with 13mm drill |
|  | 44-9-1 | Meterware | Polymer wire guidance per meter, version L, blue |



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