

Flow  
reproduction

$\pm 0.1\%$   
or less  
throughout specified flow rate range

**Pump Drive Assembly (PDA)  
Requirements**

# Pump Drive Assembly (PDA) Description and Options

**I**n addition to the stand-alone pump heads and Fuji-Techno's own portable units, we are able to offer a wide range of solutions for laboratory and factory based applications.

## Pump Drive Assembly (PDA)

The PDA comprises a HY series pump mounted on a base plate with the driving elements including a gearbox, servo motor and coupling. The servo drive is typically supplied loose for integration into the local control panel.

The PDA can be supplied with pre-confectioned cable sets and the software commissioning tools for the servo drive.

### Supply options

All drive options require a rectified 24Vdc supply for the drive logic. Current rating per drive is ~1Amp.

The following supply options are available for the power stage:

- Low voltage DC (24-48V), up to HYSA-12

- Single phase 110...230Vac mains, up to HYSB-20
- Three phase 230...480Vac mains

### Control options

As standard the motor/pump speed can be controlled via an analogue signal 0...10Vdc, the CAN-bus interface, USB and EtherNET (also via the commissioning software) or digital inputs (pre-defined speeds).

Other options include:

- 0...20mA or 4...20mA via converter
- ProfiBUS
- ProfiNET
- EtherCAT
- PowerLINK (opt. on SOj)

### Decentralised drive options (not suitable for ATEX)

In addition to the separate servo drive module for integration in to a control cabinet, we also offer drives mounted on the motor, up to the HYSA-12 pump size:

- Low voltage DC, 24-48V
- Single phase, 230Vac

### Environmental options

The pump, motor, gearbox and coupling are all IP54 rated (or higher), making them suitable for exposure to low pressure, non-corrosive, liquids.

If required we can provide increased protection:

- IP67
- Washdown rated IP69k
- ATEX 3G and 2G compliant

### Additional options

We also offer associated components to aid integration of the PDA:

- 24Vdc power supplies
- Low inductance cables for increased cable length between motor and drive
- ATEX terminal boxes

## Pump Control Station (PCS)

The PDA can be supplied integrated in to our Pump Control Station (PCS) and incorporates a touch-screen panel and control electronics to enable operation of the pump.

### Typical applications include

- pharmaceutical and chemical processing
- urethane and other resins
- chromatography
- explosives,
- food processing
- film
- spraying and coating applications
- cosmetics
- line mixing for liquids
- in-feed for extruders
- water treatment

# Pump Drive Assembly (PDA) Specification Sheet

## ARS servo drive - Option 1

### Stand Alone

ø1 / 100...230Vac ☐  
ø3 / 230...415Vac ☐

## Application Area

Laboratory ☐  
Pilot Plant ☐  
Production ☐

## Environmental

ARS servo drive  
(option 1) only:

ATEX 2G (Zone 1 & 2) ☐  
ATEX 3G (Zone 2 only) ☐



## Control Options

### Analogue

0...10Vdc ☐  
0...20mA (via converter) ☐  
4...20mA (via converter) ☐

### Digital Inputs

(pre-defined speeds) ☐

### Serial Comms

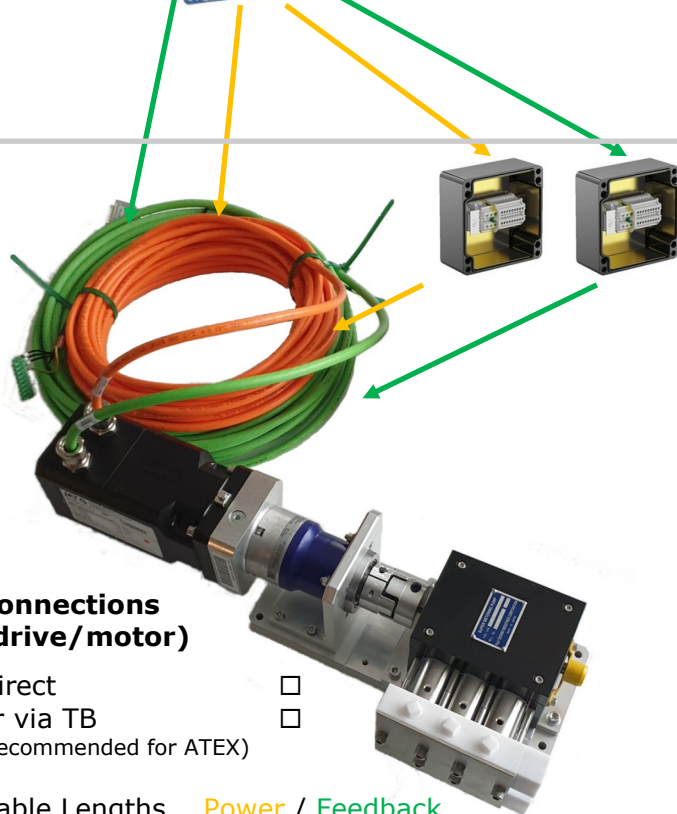
RS232 ☐  
RS485 ☐  
USB (max 2m) ☐  
EtherNET ☐

### FieldBUS

CANbus ☐  
Profibus ☐  
Profinet ☐  
EtherCAT ☐  
PowerLINK (SOj) ☐

## Connections (control to drive)

Distance \_\_\_\_\_



## Connections (drive/motor)

Direct ☐  
or via TB ☐  
(recommended for ATEX)

### Cable Lengths Power / Feedback

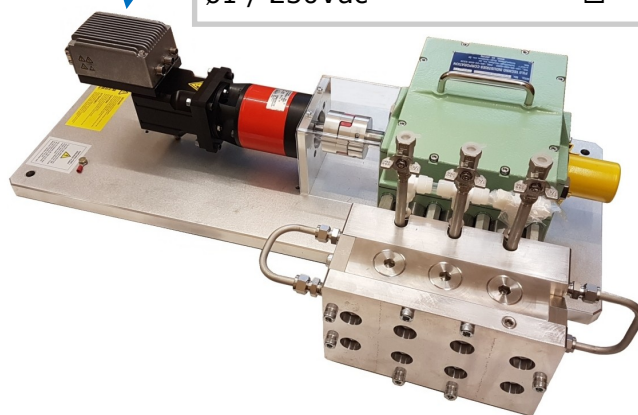
Drive to TB \_\_\_\_\_ / \_\_\_\_\_  
TB to Motor \_\_\_\_\_ / \_\_\_\_\_  
Direct \_\_\_\_\_ / \_\_\_\_\_

NOTE: For requirements with Terminal Boxes the TBs are supplied loose, with the cables pre-confectioned to the specified lengths, but not fitted.

## DIS-2 servo drive - Option 2

### Integrated (on motor)

DC, 48V ☐  
ø1 / 230Vac ☐



## HY Pump Unit

Size \_\_\_\_\_

Flow Rate \_\_\_\_\_

Pressure \_\_\_\_\_

## Additional options

24Vdc power supplies ☐  
Low inductance cables ☐

Specification agreed, date \_\_\_\_\_

Name / Signature \_\_\_\_\_



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Ancillary Components and Services

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