

Electronics

QUICK REFERENCE GUIDE

EASY POWERFUL ROBUST

HydraForce offers a rugged line of electronic valve drivers, control units, operator interfaces and sensors designed specifically for the demanding mobile hydraulic equipment markets.

Electronic Valve Drivers (ExDR) – Whether you need simple closed-loop speed control, a fan control, or lift/lower, extend/retract controls, there is a HydraForce ExDR valve driver for your application. Vigorously tested and durable enough for mobile applications, complete with SAE J1939 and CANopen networking, these drivers fit into any system architecture. Choose from pre-programmed (EFDR, EGDR, ETDR, ESDR, EVDR) or custom configurable (ECDR) models. These units are configured with the HydraForce software, *HF-Impulse*.

THE ExDR FAMILY:



| Model | Part No. | Output/Input | CAN |
|------------|----------|--------------|-----|
| ECDR-0101A | 4204820 | 1/1 | - |
| EGDR-0101A | 4204850 | 1/1 | - |
| ETDR-0101A | 4204810 | 1/1 | - |
| EVDR-0101A | 4204800 | 1/1 | - |
| ECDR-0201A | 4204740 | 2/1 | 1 |

| Model | Part No. | Output/Input | CAN |
|-----------------------|----------|--------------|-----|
| EFDR-0201A | 4204710 | 2/1 | 1 |
| NEW ESDR-0201A | 4213200 | 2/1 | 1 |
| EVDR-0201A | 4204700 | 2/1 | 1 |
| ECDR-0203A | 4208230 | 2/3 | 1 |
| ECDR-0506A | 4208560 | 5/6 | 1 |

THE ECU FAMILY:



Electronic Control Units (ECU)

For more complex control functions, the HydraForce family of Electronic Control Units (ECUs) feature flexible input and output configurations. These CE-certified units are programmed with CoDeSys but the ECU-0809 can also be programmed with *HF-Impulse*.

| Model | Part No. | I/O Count | CAN Ports | CoDeSys Ver. |
|----------------------|----------|-----------|-----------|--------------|
| NEW ECU-0408A | 4002815 | 15 | 1 | 2.3 |
| ECU-0809 | 4000350 | 21 | 1 | 2.3 |
| ECU-0809A | 4002722 | 21 | 2 | 2.3 |
| NEW ECU-0814A | 4002724 | 22 | 2 | 2.3 |
| NEW ECU-1616A | 4002859 | 32 | 2 | 3.5 |
| ECU-1616B | 4002860 | 32 | 2 | 3.5 |
| ECU-2415A | 4000352 | 49 | 2 | 2.3 |
| ECU-2820A | 4000383 | 38 | 2 | 2.3 |
| ECU-2434A | 4002712 | 52 | 2 | 2.3 |
| NEW ECU-3233A | 4000343 | 65 | 4 | 2.3 |
| ECU-3435S | 4002858 | 69 | 2 | 3.5 |

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Operator Interfaces – Make your controls easy for the operator to use with a display or button panel switch.



Displays

| Model | Part No. | Touchscreen | Display Size | I/O Count | Video Inputs | Network |
|-------------------------|----------|-------------|---------------|-----------|--------------|---------------------------------|
| NEW ELD-6107A | 4002856 | Yes | 178 mm/7 in | 5 | 2 | CAN/GSM/UMTS/ WLAN/USB/RS232 |
| NEW ELD-6107B | 4002857 | Yes | 178 mm/7 in | 5 | 2 | CAN/WLAN/ USB/RS232 |
| A3S | 4000400 | No | 109 mm/4.3 in | - | - | CAN |
| A3F | 4000401 | Yes | 109 mm/4.3 in | 7 | 1 | CAN |
| A6S | 4000407 | No | 178 mm/7 in | 1 | - | CAN |
| A6F | 4000408 | Yes | 178 mm/7 in | 7 | 1 | CAN |

CAN Button Panels

| Model | Part No. | No. of Switches |
|--------|----------|-----------------|
| ECBP-4 | 4000384 | 4 |
| ECBP-5 | 4000385 | 5 |
| ECBP-6 | 4000386 | 6 |
| ECBP-7 | 4000387 | 7 |
| ECBP-8 | 4000388 | 8 |

WIRELESS NETWORKING:



Wireless CAN Gateway

| Model | Part No. | Network |
|--------|----------|------------|
| ECAN-1 | 4002768 | CAN / WLAN |

Remote Access Unit

| Model | Part No. | Network |
|-----------|----------|---------------------------------|
| ERAU-6200 | 4002818 | CAN/GSM/UMTS/ WLAN/USB/RS232 |

Display with Remote Access Features

| Model | Part No. | Touchscreen | Display Size | I/O Count | Video Inputs | Network |
|-------------------------|----------|-------------|--------------|-----------|--------------|---------------------------------|
| NEW ELD-6107A | 4002856 | Yes | 178 mm/7 in | 5 | 2 | CAN/GSM/UMTS/ WLAN/USB/RS232 |
| NEW ELD-6107B | 4002857 | Yes | 178 mm/7 in | 5 | 2 | CAN/WLAN/ USB/RS232 |

For technical information about HydraForce Electronics:
visit www.hydraforce.com/electronics or contact the following:
North America, Asia and South America: Call 1-800-682-6875
Email: ElectronicSupport@hydraforce.com
UK and Europe: Call 44-121-333-1800
Email: orders@hydraforce.com

SENSORS:



WPS Pressure Sensors

| Part No. | Sensing Port | Pressure Rating |
|----------|--------------|-------------------------|
| 4003000 | G 1/4 A | 0 to 50 bar (725 psi) |
| 4003001 | G 1/4 A | 0 to 250 bar (3625 psi) |
| 4003002 | G 1/4 A | 0 to 400 bar (5800 psi) |
| 4003003 | SAE #6 | 0 to 50 bar (725 psi) |
| 4003004 | SAE #6 | 0 to 250 bar (3625 psi) |
| 4003005 | SAE #6 | 0 to 400 bar (5800 psi) |

Temperature Sensor

| Model | Part No. | Temp Range | Output Signal |
|---------|----------|----------------------------------|---------------------|
| ERT-120 | 4206200 | -40 to 150 °C (-40 to 300 °F) | 5428 to 436 to Ω |

AC Frequency Detector

| Model | Part No. | Input Frequency Range |
|--------|----------|-----------------------|
| EACD-1 | 4002782 | 0 to 130 Hz |