

FALCON SF-1 Series

All-in-One vision inspection smart camera



Features:

- ➔ 1/3" Progressive-scan CCD
- ➔ TI 400MHz DSP, 3200MIPS
- ➔ RS-232 and 100Mb Ethernet Interface
- ➔ Robust external trigger input and digital I/O
- ➔ SVGA output supported in SF-163V
- ➔ FALCON image processing configuration utility

Applications:

- ➔ Semiconductor
- ➔ Component inspection
- ➔ Manufacturing quality control
- ➔ Food and beverage inspection
- ➔ Microscopy and medical imaging
- ➔ Biometrics

Introduction:

The FALCON is a new product line of ICP DAS for vision inspection, featuring a compact and robust housing design, and it is ideal to work with PAC/PLC machine automation system. The FALCON SF-1 series with fantastic all-in-one design incorporates all image processing components, including a progressive-scan high-quality CCD sensor, a powerful DSP processor, an Ethernet interface, a RS-232 com port, and a real-time trigger input as well as PLC I/Os. In addition, the FALCON SF-163 series equip with an SVGA video output for real-time monitoring of the inspected images.

The FALCON SF-1 series are suited for a wide range of tasks in industrial applications. The FALCON series can execute all image processing routines, and then output the inspection results to the PAC/PLC. There is no PC needed anymore!

SF-1 Series Camera Specification

Model No.	SF-132	SF-163V
Sensor	1/3" SONY CCD Sensor	
Resolution	640(H) x 480(V)	
Sensor cell size	7.4um x 7.4um	
Acquisition Speed	32fps	63fps
A/D converter	10-bit	
DSP Processor	TI 400MHz DSP, 3200MIPS	
SDRAM	32MB	
Flash Memory	4MB	
Video Output	Via Ethernet SVGA (800 x 600) VESA standard, 12-pin Female	
LAN Interface	100Mb/s Ethernet x 1	
COM Port Interface	RS-232 up to 115.200 baud rate max.	
Digital I/O	4 inputs / 4 outputs optically decoupled 24V, outputs 4 x 400mA	
Supply voltage	DC 24V, max. 300mA	
Interface connections	LAN (6-pin Male) , Trig. (Trigger/RS232 via 6-pin Female) I/O (DC IN, PLC via 12-pin Male)	
Storage conditions	Temperature: -20°C to 60°C Max. Humidity: 90%, non condensing.	
Operating conditions	Temperature: 0°C to 50°C (housing temperature) Max. Humidity: 80%, non condensing.	
Dimensions	90mm x 50mm x 35mm approx. 250g	120mm x 50mm x 35mm approx. 350g
Certificated	CE	

Software Support:

FALCON Utility

The FALCON configuration utility is a simple and powerful interface designed by ICPDAS. Users can easily to setup, access, configure, test and debug all the image processing procedures to FALCON. And no programming skills are needed.

The FALCON utility is ready support OCR and Blob analysis function modules. And the Measurement and Pattern Matching function modules will be ready soon!



Ordering Information:

Model No.	Product Description
SF-132	FALCON Smart Camera without SVGA
SF-163V	FALCON Smart Camera with SVGA

Accessories

Model No.	Product Description
CA-SF1LAN	FALCON series LAN cable
CA-SF1COM	FALCON series RS-232 serial I/O port cable
CA-SF1TRIG	FALCON series Power and trigger cable
CA-SF1VGA	FALCON SF-163V SVGA output cable






Cables:

 <p>CA-3710 DB-37 Male-Male D-sub cable 1M Cable for Daughter Board(45°)</p>	 <p>CA-3720 DB-37 Male-Male D-sub cable 2M Cable for Daughter Board(45°)</p>	 <p>CA-3710DM DB-37 Male-Male D-sub cable 1M Cable for Daughter Board(180°)</p>	 <p>CA-3730DM DB-37 Male-Male D-sub cable 3M Cable for Daughter Board(180°)</p>
 <p>CA-3750DM DB-37 Male-Male D-sub cable 5M Cable for Daughter Board(180°)</p>	 <p>CA-SCSI15 SCSI II 68-pin & 68-pin Male connector cable 1.5M</p>	 <p>CA-SCSI30 SCSI II 68-pin & 68-pin Male connector cable 3M</p>	 <p>CA-SCSI50 SCSI II 68-pin & 68-pin Male connector cable 5M</p>
 <p>4PCA-MINI68-15 Mini SCSI II 68-pin to SCSI II 68-pin & 68-pin Male connector cable 1.5M</p>	 <p>CA-SCSI20-M1 SCSI II 20-pin & 20-pin Male connector cable 1M, for Mitsubishi motor</p>	 <p>CA-SCSI20-M3 SCSI II 20-pin & 20-pin Male connector cable 3M, for Mitsubishi motor</p>	 <p>CA-SCSI20-M5 SCSI II 20-pin & 20-pin Male connector cable 5M, for Mitsubishi motor</p>
 <p>CA-SCSI50-D1 SCSI II 50-pin & 50-pin Male connector cable 1M, for Delta ASDA A series motor</p>	 <p>CA-SCSI-D3 SCSI II 50-pin & 50-pin Male connector cable 3M, for Delta ASDA A series motor</p>	 <p>CA-SCSI50-D5 SCSI II 50-pin & 50-pin Male connector cable 5M, for Delta ASDA A series motor</p>	 <p>CA-SCSI50-PY1 SCSI II 50-pin & 50-pin Male connector cable 1M, for Panasonic & Yaskawa motor</p>
 <p>CA-SCSI30-PY3 SCSI II 50-pin & 50-pin Male connector cable 3M, for Panasonic & Yaskawa motor</p>	 <p>CA-SCSI50-PY5 SCSI II 50-pin & 50-pin Male connector cable 5M, for Panasonic & Yaskawa motor</p>	 <p>4PCA-2P4C-0100 2P4C cable For FRNet-Modules, Length:100M</p>	




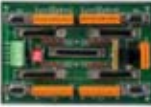


Accessories for FALCON

 <p>CA-SF1LAN 6-pin Hirose Female to RJ-45 LAN cable</p>	 <p>CA-SF1TRIG 6-pin Hirose Male to open end Trigger and power cable</p>
 <p>CA-SF1COM 12-pin Hirose Female to open end COM port serial I/O cable</p>	 <p>CA-SF1VGA 10-pin Hirose Male to VGA D-sub interface cable (SF-163V)</p>



Terminal Boards for PISO-PS200/I-8092F

 <p>DN-8237GB Photo-isolated terminal board for PISO-PS200/I-8092F</p> <ul style="list-style-type: none"> •For General Purpose Usage •High speed photo-coupling isolated. •Supporting pulse command type step motors or servo motors. •Providing power led and other status LEDs (home, limit switches, ...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet. 	 <p>DN-8237DB Photo-isolated terminal board for PISO-PS200/I-8092F</p> <ul style="list-style-type: none"> •For Delta ASDA-A Servo Amplifier •High speed photo-coupling isolated. •Supporting pulse command type step motors or servo motors. •Providing power led and other status LEDs (home, limit switches, ...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet.
 <p>DN-8237MB Photo-isolated terminal board for PISO-PS200/I-8092F</p> <ul style="list-style-type: none"> •For Mitsubishi J2 Servo Amplifier •High speed photo-coupling isolated. •Supporting pulse command type step motors or servo motors. •Providing power led and other status LEDs (home, limit switches, ...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet. 	 <p>DN-8237PB Photo-isolated terminal board for PISO-PS200/I-8092F</p> <ul style="list-style-type: none"> •For Panasonic Minus-A Servo Amplifier •High speed photo-coupling isolated. •Supporting pulse command type step motors or servo motors. •Providing power led and other status LEDs (home, limit switches, ...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet.
 <p>DN-8237YB Photo-isolated terminal board for PISO-PS200/I-8092F</p> <ul style="list-style-type: none"> •For Yaskawa Sigma Servo Amplifier •High speed photo-coupling isolated. •Supporting pulse command type step motors or servo motors. •Providing power led and other status LEDs (home, limit switches, ...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet. 	



Terminal Boards for PISO-PS400/I-8094F/I-8094A/I-8094H

 <p>DN-8468GB Photo-isolated terminal board for PISO-PS400/I-8094F/I-8094A/I-8094H</p> <ul style="list-style-type: none"> •For General Purpose Usage •High speed photo-coupling isolated. •Supporting pulse command type step motors or servo motors. •Providing power led and other status LEDs (home, limit switches, ...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet. 	 <p>DN-8468DB Photo-isolated terminal board for PISO-PS400/I-8094F/I-8094A/I-8094H</p> <ul style="list-style-type: none"> •For Delta ASDA-A Servo Amplifier •High speed photo-coupling isolated. •Supporting pulse command type step motors or servo motors. •Providing power led and other status LEDs (home, limit switches, ...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet.
 <p>DN-8468MB Photo-isolated terminal board for PISO-PS400/I-8094F/I-8094A/I-8094H</p> <ul style="list-style-type: none"> •For Mitsubishi J2 Servo Amplifier •High speed photo-coupling isolated. •Supporting pulse command type step motors or servo motors. •Providing power led and other status LEDs (home, limit switches, ...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet. 	 <p>DN-8468PB Photo-isolated terminal board for PISO-PS400/I-8094F/I-8094A/I-8094H</p> <ul style="list-style-type: none"> •For Panasonic Minus-A Servo •High speed photo-coupling isolated. •Supporting pulse command type step motors or servo motors. •Providing power led and other status LEDs (home, limit switches, ...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet.
 <p>DN-8468YB Photo-isolated terminal board for PISO-PS400/I-8094F/I-8094A/I-8094H</p> <ul style="list-style-type: none"> •For Yaskawa Sigma Servo Amplifier •High speed photo-coupling isolated. •Supporting pulse command type step motors or servo motors. •Providing power led and other status LEDs (home, limit switches, ...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet. 	 <p>DN-8468FB Photo-isolated terminal board for PISO-PS400/I-8094F/I-8094A/I-8094H</p> <ul style="list-style-type: none"> •For FUJI FALDIC-W servo Amplifier •High speed photo-coupling isolation •Supporting Pulse command type stepper motors or servo motors. •Providing power led and other status LEDs (Home, Limit switch...) •Providing FRnet terminal for high-speed serial I/O expansion when the mother supports FRnet.

Terminal Boards for PISO-PS600/VS600/PMDK

 <p>DN-8368GB Photo-isolated terminal board for PISO-PS600/PISO-VS600/PISO-PMDK</p> <ul style="list-style-type: none"> •For General Purpose Usage •High speed photo-coupling isolation •Supporting Pulse command type stepper motors or servo motors. •Providing power led and other status LEDs(Home, Limit switch...) 	 <p>DN-8368MB Photo-isolated terminal board for PISO-PS600/PISO-VS600/PISO-PMDK</p> <ul style="list-style-type: none"> •For Mitsubishi J2 Servo Amplifier •High speed photo-coupling isolation •Supporting Pulse command type stepper motors or servo motors. •Providing power led and other status LEDs(Home, Limit switch...) •Providing RS-232 connector for CN3 of Mitsubishi J2 Servo Amplifier. •Providing jumper to set Encoder source from servo amplifier or expansion linear scar.
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Encoder Input Board

 <p>DN-20M Manual-Pulsar-Generator(MPG) and FRnet input board for PISO-PS600/VS600/PMDK</p> <ul style="list-style-type: none"> •MPG and FRnet connector Block with Din-Rail mounting •20-pin SCSI-II connector •Pin to Pin screw terminal for Manual Pulsar Generator connected •Screw terminals for easy field wiring •RJ-45 for FRnet connector •Dimension: 103mm x 86mm 	 <p>DN-68 Encoder Input Board for PISO-Encoder300/600</p> <ul style="list-style-type: none"> •I/O connector Block with Din-Rail Mounting •68-pin SCSI-II connector •Pin to Pin screw terminal for I/O connected •Screw terminals for easy field wiring •Dimension: 103mm x 86mm
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Accessories for MAVIS

 <p>CA-1394-45 IEEE 1394a 4.5m cable</p>	 <p>1394R3B 1394 Repeater (1port to 2ports)</p>
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Accessories for Sparrow

 <p>CA-1394AB-45 1394a to 1394b high-flex bilingual 4.5m cable</p>	 <p>CA-1394B-45 1394b high-flex 4.5m cable</p>
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Power Module

<p>DP-665 24V/2.5A, 5V/0.5A Power Supply Input voltage : 85Vac to 264Vac Input frequency : 47Hz to 63Hz Outputs : +24V/2.5A ; +5V/0.5A</p> 	<p>DP-1200 24V/5A Power Supply Input voltage : 85Vac to 264Vac Input frequency : 47Hz to 63Hz Outputs : +24V/5A</p> 
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