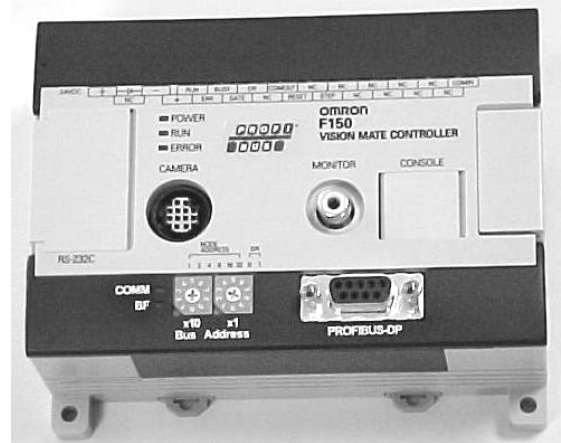


F150 Vision Controller with integrated PROFIBUS-DP unit

Main features

- PROFIBUS setting fully integrated into F150 user menu
- Auto-detection of all PROFIBUS-DP baud rates from 9,6kbit/s to 12 Mbit/s.
- Slave address setting by hardware, selectable from 00 to 99
- Support of PROFIBUS-DP broadcast functions: Sync / Freeze / Clear
- F150 typical input and output words possible:
 - Input: 1 word (basic mode)
 - 5 words (expanded mode)
 - Output: 3 words / 8 words (data output off)
 - 27 words / 32 words (data output on)



Ordering Information

Product Code	Description
F150-C15E-3-PRT	F150 Vision Controller with integrated PROFIBUS-DP unit

Specifications

■ Profibus Communication Specifications

Application standard	EN 50170 vol. 2
Station type	PROFIBUS-DP slave
Data consistency	over whole area
Bus connector	9-pin female sub-D connector (RS-485 ProfiBus)
Bus termination	external
Baud rate (auto-detect)	9.6 / 19.2 / 45.45 / 93.75 / 187.5 / 500 kbit/s, 1.5 / 3.6 / 12 Mbit/s
ProfiBus address range	00 to 99 (no remote setting)
Communication cable	type A (EN 50170 vol. 2)
Minimum slave interval time	0.5 ms
Watchdog base	1 ms / 10 ms
Supported DP functions	Data_Exchange, Slave_Diag, Set_PRM, Chk_Cfg, Global Control, Get_Cfg, RD_Inp, RD_Outp
ProfiBus-DP GSD file	OC_05EA

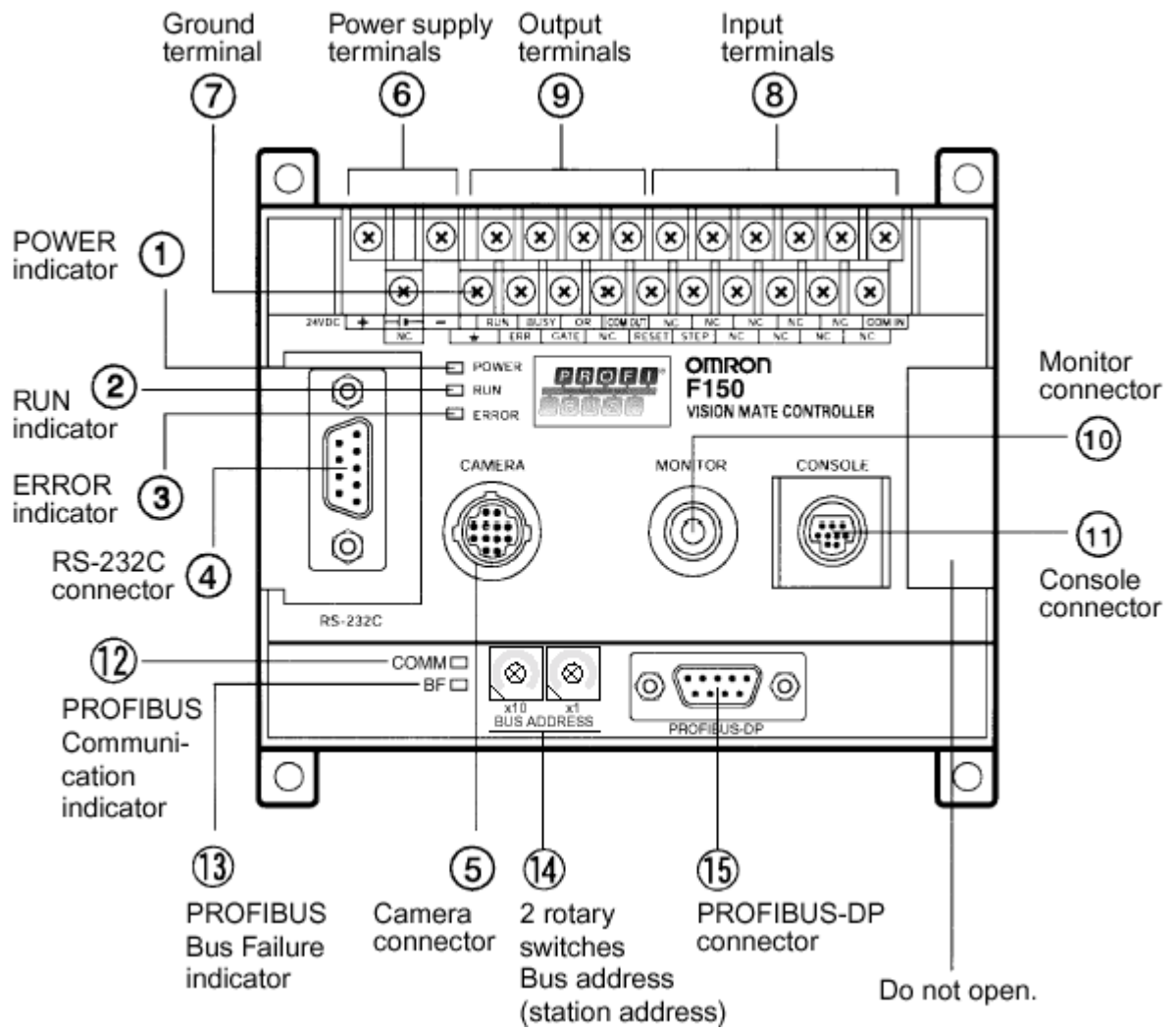
■ General Specifications

Supply voltage	20.4 to 26.4V DC (including ripple)
Current consumption	Approx. 0.5 A
Insulation resistance	20 MΩ min. between all DC external terminals and GROUND terminal
Dielectric strength	1000 V AC, 50/60Hz between all DC external terminals and GROUND terminal
Leakage current	10 mA max.
Noise resistance	1500 Vp-p ; pulse width:0.1μs / 1μs ;rising time;1 ns (pulse)
Vibration resistance	10 to 150Hz ; half –amplitude:0.5 mm; max. acceleration: 70m/s ² , 4 times for 8 min each in 3 directions
Shock resistance	200m/s ² , 3 times each in 6 directions
Ambient temperature	Operating : 0 to 50°C; storage :-25 to +65°C (with no icing or condensation)
Ambient humidity	Operating / storage : 35% to 85% (with no condensation)
Ambient environment	No corrosive gases
Protection class	Class I (with protective conductor terminal),
Degree of protection	IEC60529 IP20 (in-panel)
Case material	ABS/PC for wall and DIN rail mounting
Weight	Approx. 500g (without cable)

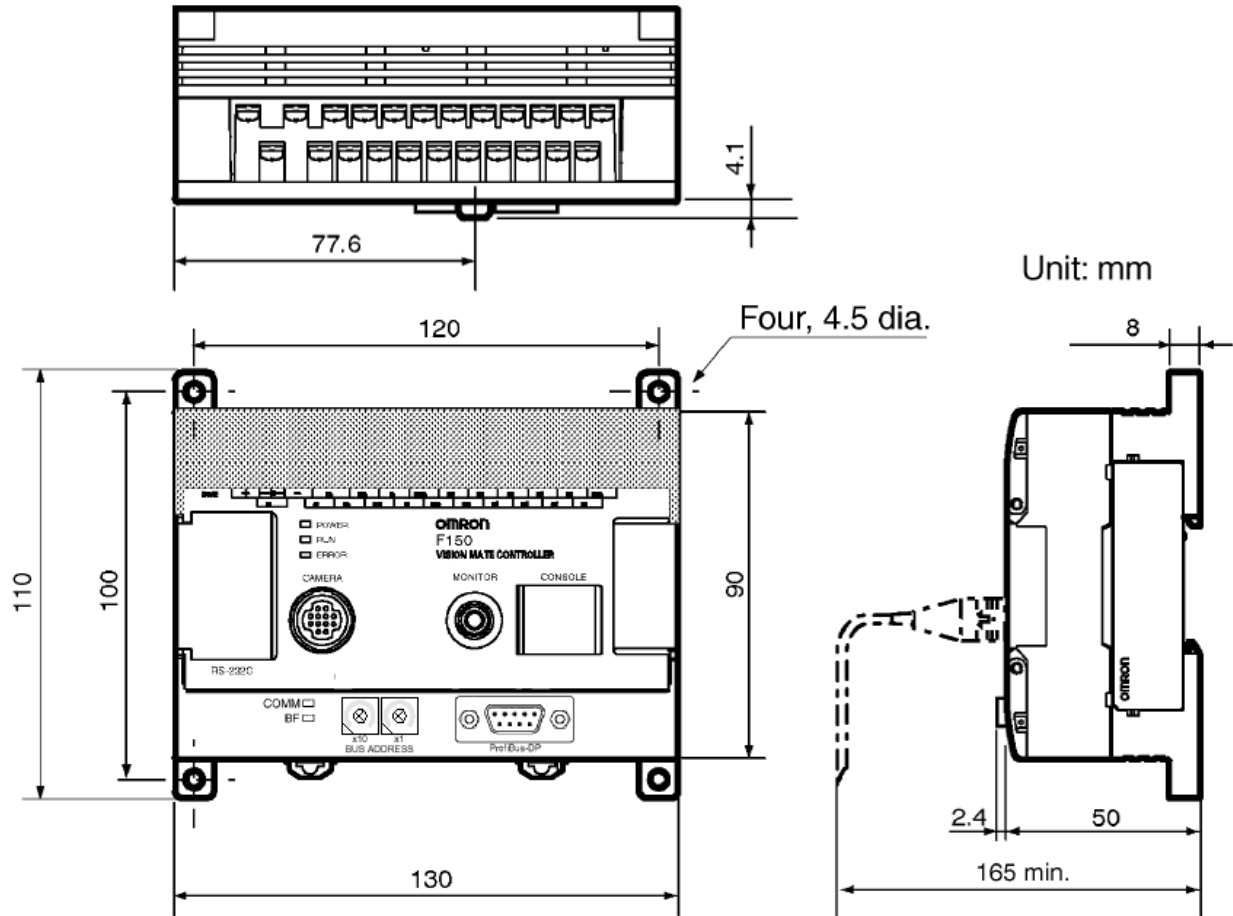
■ Vision Specifications

Number of Cameras connectable	1 or 2 (when using F150-A20)
Number of pixels	512(H)×484(V)
Number of scenes	16 (can be backed up to a personal computer via RS-232C)
Image storage function	Maximum of 23 images stored
Processing method	Gray / Binary
Filtering	Smoothing, edge enhancement, edge extraction, background suppression
Number of binary levels	256 levels per region
Position displacement compensation	Compensation directions : X,Y and θ directions: Detection methods: Binary center of gravity, axis angle, midpoint, gray search (1 model or 2 models), gray edge position
Number of measurement regions	16 regions / scene
Measurement data	Binary center of gravity and area, axis angle, correlation value, gray search position, defect, edge position, edge pitch , density averaging, relative search
Data operation functions (expressions)	Arithmetic calculation, distance, angle, maximum/minimum value, absolute value, etc.
Result outputs	Overall judgement judgements for measurement/expression results for each region, measurement/expression results (can be output via RS-232C in parallel)
Monitor interface	1 channel (pin jack, compatible with over-scan monitor)
RS-232C interface	1 channel (D-sub, 9-pin, female)
ProfiBus interface	1 channel (D-sub, 9-pin, female) DP V0
Parallel I/O	1 input and 5 outputs including control I/O points
PROFIBUS control LED	1 BF (Bus Failure Indication), 1 COMM (Data Transfer Indication)
EMC compliance	EN 61326
Extent of delivery	1 Vision mate controller F150-C15E-3-PRT 1 Manual F150-ProfiBus, 1 CD-ROM
Accessories	<ul style="list-style-type: none"> • Camera: F150-SL20A, F150-SL50A, F150-SLC20, F150-SLC50, F150-S1A • Two-camera unit: F150-A20 • Camera unit cable: F150-VA • Console: F150-KP • Camera cable: F150-VS • Monitor cable: F150-VM • Video Monitor: F300-M09, F150-M05L

Nomenclature



Dimensions



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
 To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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