



Quick Guide

Article number:	AP3002
Article name:	App AC14 IOL
Version:	1.1.0
AC14 firmware version:	>= V3.1.2
URL (main page):	http://<IP-Address*>:8080/iol.htm
URL (additional pages):	-
Languages:	English
Limitations of the Demo mode:	The Scan is stopped after the second AC5225 is detected
Additional required hardware:	AC5225 and connected IO-Link devices

* IP address of the AC14 configuration interface

Short description

The ifm System Solutions App IO-Link (AP3002) provides the following functions:

- Automatic scan of an AS-i network connected to an AC14 according to connected IO-Link modules of the type AC5225 and the IO-Link devices connected to these modules.
- Graphical presentation of the devices found. Devices contained in the internal device list will be displayed with a special icon.
- The reaction of AC5225 according to IO-Link events (Event State) can be defined.
- The process data of IO-Link devices can be displayed as values.
- Process data of devices known in the internal device list are displayed with measurement units.
- Selected process data can be displayed in a trend graph.
- Important Parameters of devices, known in the internal device list, can be listed in a table. The current values in the IO-Link device can be shown and edited.
- Unknown devices are shown in a generic way.

Groundworks for using the ifm System Solutions App

At least one IO-Link module AC5225 with 1-2 connected IO-Link devices shall be connected to an AS-i master of AC14. The system shall be projected correctly.



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The user interface

Main page: http://<IP-Address*>:8080/iol.htm

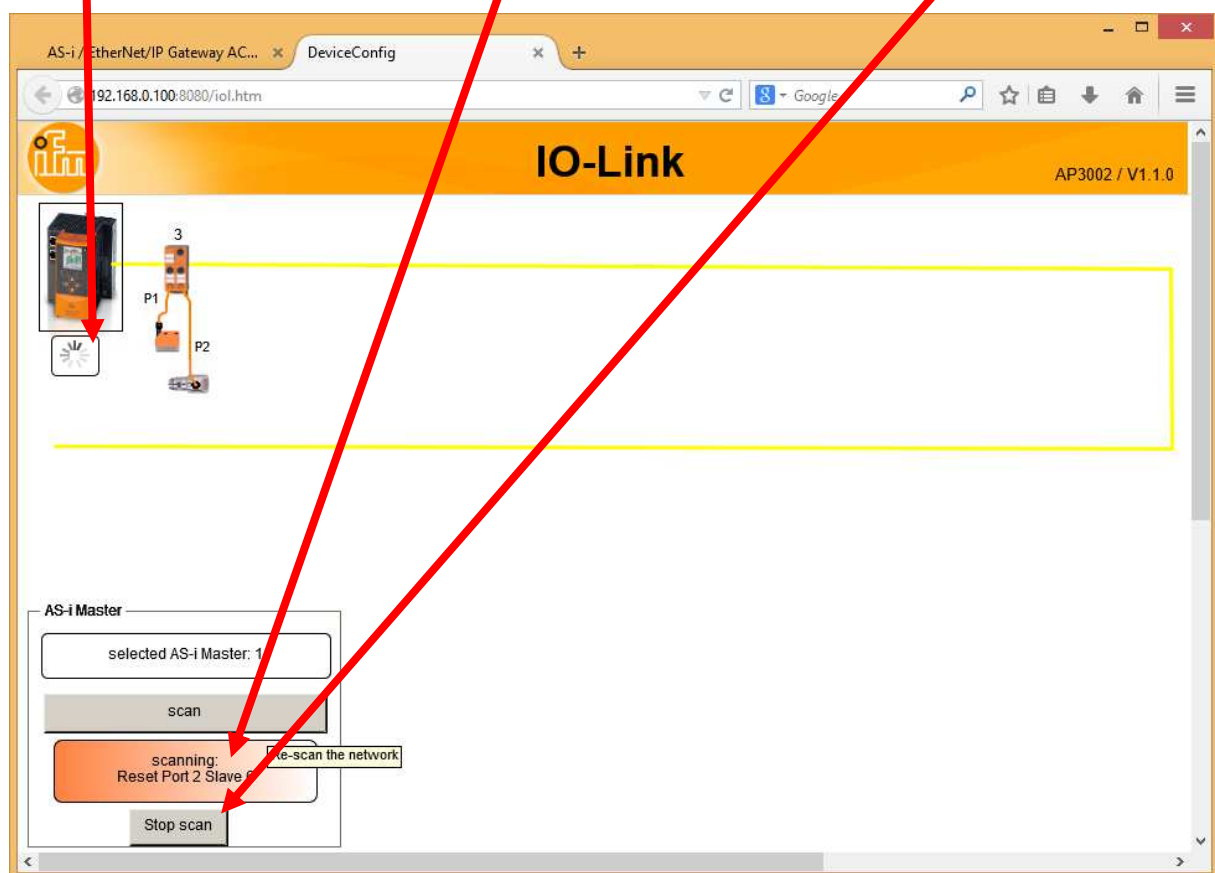
Displayed after system start: scanned system overview of AS-i master 1

After starting the AC14 with the IO-Link App, automatically all AS-i slaves connected to AS-i master 1 of the AC14 are scanned and every connected AC5225 module is displayed in a graphical way. The IO-Link devices which are connected to these modules are shown as well. The demo mode stops the scan after detecting the second module. The App remembers scanned configurations remanently.

Scan is active

State of the scan

Possibility to stop the scan





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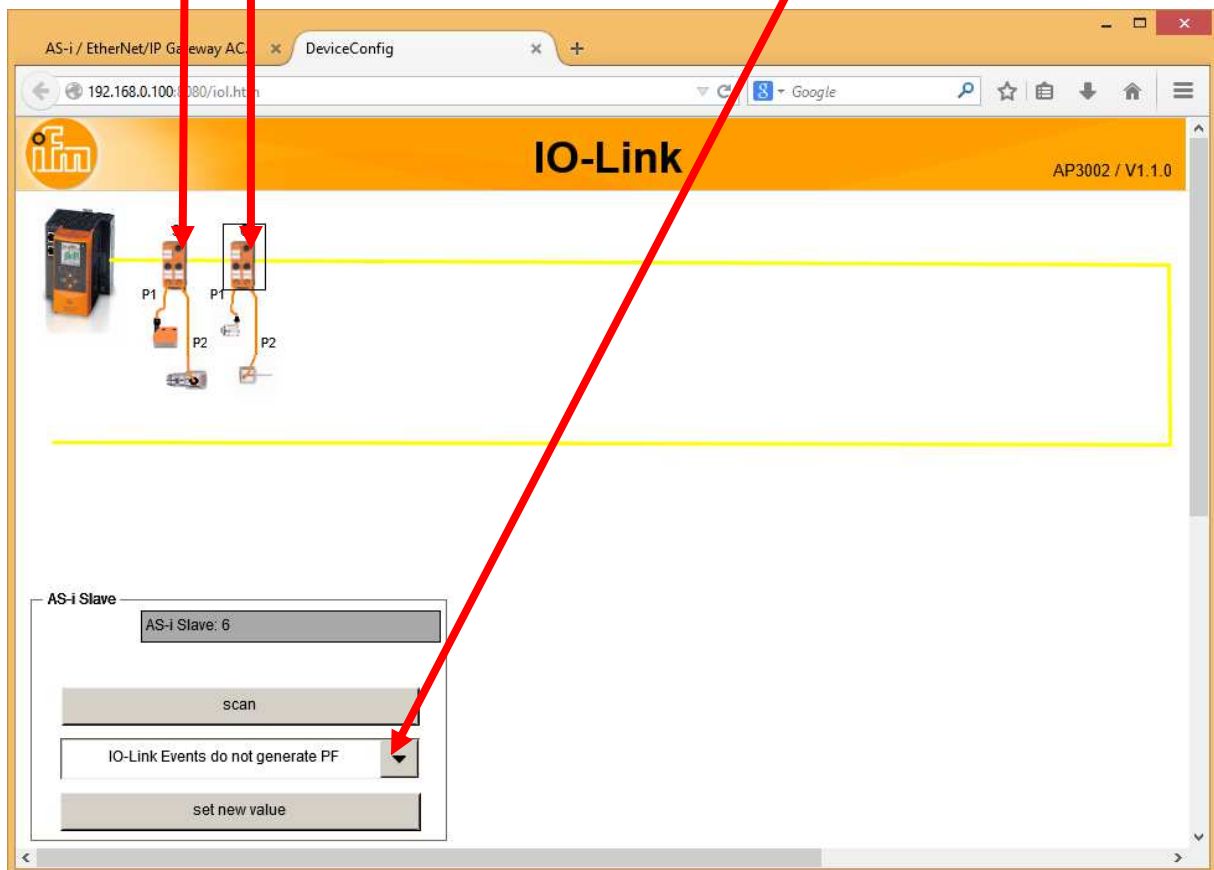
During the initial scan the event state of the detected AC5225 is set to: 'IO-Link Events do not generate PF'. With a mouse click on one of the detected IO-Link modules AC5225 the event state of this particular module can be changed in the lower part of the web site:

- IO-Link Events generate PF
- IO-Link Events do not generate PF
- IO-Link Events set PF

The new setting can be stored permanently in the module using the button 'set new value'. For detailed explanation please refer to the operating manual of AC5225.

Selection by clicking on the icon of an AC5225

Setup of the event state





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After a mouse click on one of the displayed IO-Link devices the process data and parameter list of the selected device will be shown in the lower part of the web site. Another mouse click on one of the values in the table ,Process data' will change the variable shown in the trend graph below.

Selection of the IO-Link device

Process value shown in the trend graph

Article numbers

The screenshot shows the 'IO-Link' web interface. At the top, there is a navigation bar with the ifm logo and the text 'IO-Link' and 'A-3002 / V1.1.0'. Below this, there is a diagram of an IO-Link device connected to a PLC. A red arrow points to one of the devices in the diagram, labeled 'Selection of the IO-Link device'. Below the diagram, there is a table of 'IO-Link Device' with columns for 'Process data' and 'Value'. The 'Process data' table has three rows: 'Pressure' with a value of '0.2 bar', 'Switch state [Out2]' with a value of 'OFF', and 'Switch state [Out1]' with a value of 'OFF'. A red arrow points to the '0.2 bar' value in the 'Pressure' row, labeled 'Process value shown in the trend graph'. Below the table, there is a trend graph showing a pressure signal over time. A red arrow points to the peak of the signal in the graph, labeled 'Process value shown in the trend graph'. To the right of the table, there is a list of parameters for the selected device, including 'OU1', 'OU2', 'SP1', 'SP2', 'rP1', 'rP2', 'diS', 'Uni', 'dAP', 'dAA', and 'S.loc'. A red arrow points to the 'Uni' parameter, labeled 'Article numbers'. Below the parameter list, there is a 'Parameter values' section with a 'Current' dropdown menu set to 'bar' and a 'Default' field set to 'bar'.



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The table in the middle lower part shows the main parameters of the selected IO-Link device. With a mouse click on one of the parameters listed there, the currently set value and its limitations is displayed on the right side. Selectable parameters are shown in a drop box. The value or the selected item can be changed and will be transferred immediately into the connected IO-Link device. These settings normally are stored in the IO-Link device remanently.

Selection of a parameter

Adjustment of the current parameter in the IO-Link sensor

The screenshot shows the IO-Link configuration web interface. At the top, there is a navigation bar with the ifm logo and the text "IO-Link" and "AP3002 / V1.1.0". Below this is a diagram of the IO-Link sensor and its connections. The main content area is divided into three sections:

- IO-Link Device:** A table showing process data and their values.
- Parameter List:** A list of parameters for the selected device (PI2794, PI2894, PI2204, PI2214, PI2304, PY2794).
- Parameter Values:** A detailed view of the selected parameter, showing its current value and default value.

Process data	Value
Pressure	0.2 bar
Switch state [Out2]	OFF
Switch state [Out1]	OFF

Parameter	Parameter values
OU1	Output configuration 1
OU2	Output configuration 2
SP1	Switch point 1
rP1	Reset point 1
SP2	Switch point 2
rP2	Reset point 2
diS	Display setting
Uni	Display unit
dAP	Damping SP+diS
dAA	Damping IO-Link
S.loc	Key modify lock

The "Parameter values" section for the "Uni" parameter shows:

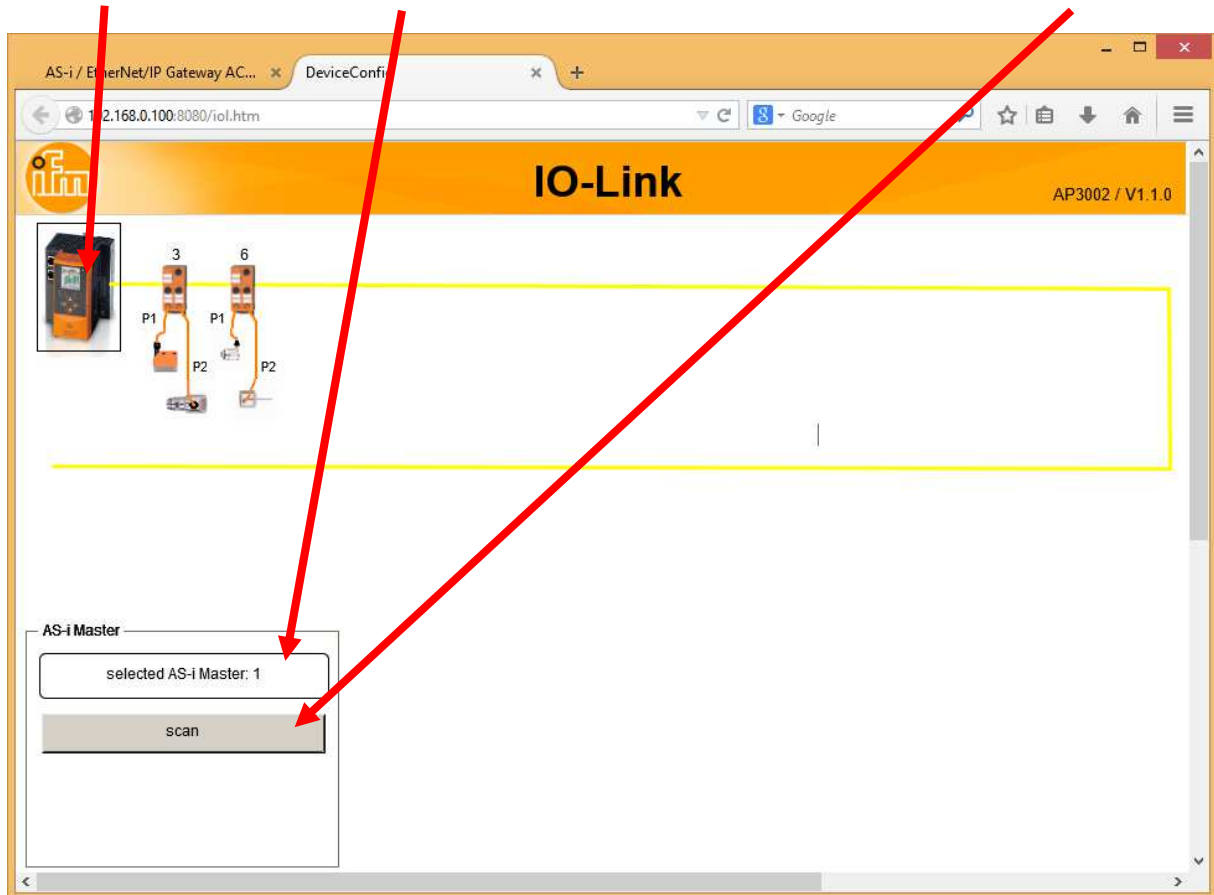
Parameter values
Current : bar
Default: bar



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In case of changes in the connected hardware the scan can again be triggered manually. Also the master 2 can be selected and scanned. This view is shown if the AC14 icon is selected.

Mouse click on AC14 selection of the AS-i master to be scanned Manual start of rescan





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The following ifm IO-Link sensors are in the device list of the version 1.0.0:

Level sensors:

LMT121, LMT102, LMT104, LMT105, LMT202, LMT302, LMC502
LMT191, LMT192, LMT194, LMT195, LMT292, LMT392

LR2050, LR2750, LR3000, LR7000, LR9020

Pressure sensors:

PI2793, PI2893, PI2203, PI2303, PI2794, PI2894, PI2204, PI2214, PI2304, PY2794, PI2795, PI2895,
PI2205, PI2305, PI2796, PI2896, PI2206, PI2306, PI2797, PI2897, PI2207, PI2307, PI2798, PI2898,
PI2799, PI2899, PI2209, PI2309, PI2789, PI2889

PN2020, PY2020, PN2021, PN2022, PN2023, PN2024, PN2026, PN2027, PN2028, PN2060,
PN2069, PN2009,
PN2070, PN2570, PN2071, PN2571, PN2092, PN2592, PN2093, PN2593, PN2094, PN2594,
PN2098, PN2598, PN2099, PN2599, PN3070, PN3570, PN3071, PN3571, PN3092, PN3592,
PN3093, PN3593, PN3094, PN3594, PN3096, PN3596, PN3097, PN3597, PN3129, PN3529,
PN3160, PN3560
PN7000, PY7000, PN7001, PY7001, PN7002, PE7002, PY7002, PN7003, PE7003, PY7003, PN7004,
PE7004, PN014A, PN7006, PE7006, PN016A, PN7007, PN7009, PE7009, PN7060, PN7070,
PN7570, PN7071, PN7571, PN7072, PN7572, PN7092, PN7592, PN7093, PN7593, PN7094,
PN7594, PN7096, PN7596, PN7097, PN7597, PN7099, PN7599, PN7160, PN7560

PP7550, PP000E, PP7551, PP001E, PP7552, PP002E, PP7553, PP003E, PP7554, PP004E, PP7556

PQ3809, PQ3834

Temperature sensors:

TA2002, TA2012, TA2212, TA2232, TA2242, TA2502, TA2512, TA2532, TA2542, TA2802, TA2812,
TA2832, TA2842

TA2405, TA2415, TA2435, TA2445, TA2105, TA2115, TA2135, TA2145, TA2303, TA2313, TA2333,
TA2343, TA2603, TA2613, TA2633, TA2643
TA2804, TA2814, TA2834, TA2844

TAD081, TAD091, TAD181, TAD191, TAD981, TAD991

TD2211, TD2231, TD2241, TD2251, TD2261, TD2271, TD2291, TD2501, TD2511, TD2531, TD2541,
TD2801, TD2811, TD2831, TD2841, TD2901, TD2911, TD2931, TD2941, TD2213, TD2233, TD2243,
TD2263, TD2273, TD2293, TD2803, TD2813, TD2833, TD2843, TD2903, TD2913, TD2933, TD2943,
TD2217, TD2237, TD2247, TD2267, TD2277, TD2297, TD2507, TD2517, TD2537, TD2547, TD2807,
TD2817, TD2837, TD2847, TD2907, TD2917, TD2937, TD2947

TN2531, TN7531

TP3231, TP3232, TP3233, TP3237, TP9237

TR2432, TR7432



i f m S y s t e m S o l u t i o n s

Flow sensors:

SD6000, SD6050, SD6100, SD8000, SD8100, SD9000, SD2000, SD5000, SD5100 (no process data communication possible!)

SI5002, SI5007, SI5010

SM2000, SM2100, SM9000, SM9100 (no process data communication possible!)

SV4200, SV4500, SV5200, SV5500, SV7200, SV7500

Capacitive sensors:

KQ6001, KQ6002, KQ6003, KQ6004, KQ6005, KQ6007, KQ6008, KQ6010, KQ6015, KQ5100, KQ5101, KQ5102

KG5065, KG5066, KG5067, KG5069, KG5071, KG5082

KI5082, KI5083, KI5084, KI5085, KI5086, KI5087, KI5090, KI5097

Optical sensors:

O5D100, O5D102, O5D150, O5D152, O5D101, O5D151

OID200, OID202, OID250, OID201, OID251, OID204, OID254

Encoder:

RA3100, RA3500, RB3100, RB3500, RO3100, RO3500, RU3100, RU3500, RV3100, RV3500