



## Industrial Automation - Products & Configurations

LP30 BASIC			POWER [W]	
Basic configuration > note 1				
Basic configuration	LCD TFT 5,7" • Touch-Screen • Aluminum front panel • ARM Cortex A8, 1 GHz • 1 GB RAM • 256 MB NAND-Flash • 4GB eMMC PseudoSLC • fanless • 24V DC power supply with MicroUPS • Windows Embedded Compact 7 Pro with Datalight Reliance Nitro file system • SoftPLC CODESYS SP v3.5x WinCE/ARM • Premium HMI WinCE BASIC runtime • ASEM UBIQUITY PRO WinCE runtime • ASEM System Manager • 12 months warranty		12	
SoftPLC	A	SoftPLC CODESYS SP v3.5x for WinCE/ARM runtime		
	B	Protocols: EtherCAT Master, MODBUS TCP Master, MODBUS RTU Master Retentive variables: Automatic backup of retentive variables on eMMC at every system switch-off and/or power supply interruption	-	
HMI SOFTWARE	•	Premium HMI WinCE BASIC runtime	-	
	•	Premium HMI ADVANCED WinCE runtime	-	
REMOTE ASSISTANCE	•	ASEM UBIQUITY PRO WinCE runtime	-	
FRONT PANEL	•	Aluminum front panel • ASEM logo sticker	-	
PROCESSOR	•	ARM Cortex A8 processor • i.MX535 • 1 GHz • 400Mhz memory bus • Soldered on board		
DISPLAY & TOUCH-SCREEN	•	5,7" LCD TFT 4:3 • VGA, 640x480, 256K colors • backlight LED 500 cd/m2 • Viewing angle L:R/U:L (typ.): 70°:70°/45°:55° 5,7" touch-screen • 4 wires resistive technology • Controller integrated on board		
	•	7" LCD TFT 15:9 • WVGA, 800x480, 16M colors • backlight LED 500 cd/m2 • Viewing angle L:R/U:L (typ.): 70°:70°/60°:60° 7" WIDE touch-screen • 4 wires resistive technology • Controller integrated on board	+ 2	
	•	8,4" LCD TFT 4:3 • SVGA, 800x600, 256K colors • LED backlight, 400 cd/m2 • Viewing angle L:R/U:L (typ.): 80°:80°/80°:80° 8,4" touch-screen • 5 wires resistive technology • Controller integrated on board	+ 2	
	•	10,1" W LCD TFT 16:10 • WXGA, 1280x800, 16M colors • LED backlight, 400cd/m2 • Viewing angle L:R/U:L (typ.): 88°:88°/88°:88° 10,1" W Touch-Screen 16:10 • 5 wires resistive technology • Controller integrated on board	+ 4	
	•	10,4" LCD TFT 4:3 • SVGA, 800x600, 16M colors • LED backlight , 400 cd/m2 • Viewing angle L:R/U:L (typ): 80°:80°/70°:70° 10,4" Touch-Screen 4:3 • 5 wires resistive technology • Controller integrated on board	+ 4	
	•	12,1" LCD TFT 4:3 • SVGA, 800x600, 16M colori • backlight LED, 450 cd/m2 • Viewing angle L:R/U:L (typ): 80°:80°/65°:75° 12,1" touch-screen • 5 wires resistive technology • Controller integrated on board	+ 5	
	•	12,1" LCD TFT 4:3 • XGA, 1024x768, 16M colors • LED backlight, 600 cd/m2 • Viewing angle L:R/U:L (typ.): 80°:80°/70°:70° 12,1" touch-screen • 5 wires resistive technology • Controller integrated on board	+ 12	
	•	12,1" W LCD TFT 16:10 • WXGA, 1280x800, 16M colors • LED backlight, 400 cd/m2 • Viewing angle L:R/U:L (typ): 88°:88°/88°:88° 12,1" W Touch-Screen 16:10 • 5 wires resistive technology • Controller integrated on board	+ 9	
	•	15" LCD TFT 4:3 • XGA, 1024x768, 16M colors • LED backlight, 500 cd/m2 • Viewing angle L:R/U:L (typ.): 85°:85°/85°:85° 15" Touch-Screen 4:3 • 5 wires resistive technology • Controller integrated on board	+ 15	
	•	15,6" W LCD TFT 16:9 • 1366x768 (HD), 16M colors • LED backlight, 400 cd/m2 • Viewing angle L:R/U:L (typ): 85°:85°/80°:80° 15,6" W Touch-Screen 16:9 • 5 wires resistive technology • Controller integrated on board	+ 10	
	WARRANTY	•	12 months	-

OPTIONS			
WARRANTY EXTENSION	•	Warranty extension to 18 month	
	•	Warranty extension to 24 months	
	•	Warranty extension to 36 months	

NOTES
The power consumption of the configuration takes into consideration the maximum absorbed power of every component and does not include the consumption of the devices connected to the USB ports.
<b>1:</b> Price does not include Premium HMI Studio development tool licence that must be purchased one-off at the first order of a license or system that includes the Premium HMI software. See pg.350
Price does not include ASEM UBIQUITY DOMAIN that must be purchased one-off at the first order of a license or system that includes the UBIQUITY runtime. See pg.347



## Industrial Automation - Products & Configurations

LP30-TF BASIC			POWER [W]
Basic configuration > note 1			
Basic configuration	LCD TFT 5,7" • Touch-Screen • Aluminum TrueFlat front panel • ARM Cortex A8, 1 GHz • 1GMB RAM • 256 MB NAND-Flash • 4GB eMMC PseudoSLC • fanless • 24V DC power supply with MicroUPS • Windows Embedded Compact 7 Pro with Datalight Reliance Nitro file system • SoftPLC CODESYS SP v3.5x WinCE/ARM • Premium HMI WinCE BASIC runtime • ASEM UBIQUITY PRO WinCE runtime • ASEM System Manager • 12 months warranty		12
SoftPLC	A	SoftPLC CODESYS SP v3.5x for WinCE/ARM runtime	-
	B	Protocols: EtherCAT Master, MODBUS TCP Master, MODBUS RTU Master Retentive variables: Automatic backup of retentive variables on eMMC at every system switch-off and/or power supply interruption	
HMI SOFTWARE	•	Premium HMI WinCE BASIC runtime	-
	•	Premium HMI ADVANCED WinCE runtime	-
REMOTE ASSISTANCE	•	ASEM UBIQUITY PRO WinCE runtime	-
FRONT PANEL	•	Aluminum TrueFlat front panel with touch-screen overlaminated with OCA (Optical Clear Adhesive) • ASEM logo serigraph printed	-
PROCESSOR	•	ARM Cortex A8 processor • i.MX535 • 1 GHz • 400Mhz memory bus • Soldered on board	-
DISPLAY & TOUCH-SCREEN	•	5,7" LCD TFT 4:3 • VGA, 640x480, 256K colors • backlight LED 500 cd/m2 • Viewing angle L:R/U:L (typ.): 70°:70°/45°:55° 5,7" touch-screen • 4 wires resistive technology • Controller integrated on board	-
	•	7" LCD TFT 15:9 • WVGA, 800x480, 16M colors • backlight LED 500 cd/m2 • Viewing angle L:R/U:L (typ.): 70°:70°/60°:60° 7" WIDE touch-screen • 4 wires resistive technology • Controller integrated on board	+ 2
	•	8,4" LCD TFT 4:3 • SVGA, 800x600, 256K colors • LED backlight, 400 cd/m2 • Viewing angle L:R/U:L (typ.): 80°:80°/80°:80° 8,4" touch-screen • 5 wires resistive technology • Controller integrated on board	+ 2
	•	10,1" W LCD TFT 16:10 • WXGA, 1280x800, 16M colors • LED backlight, 400cd/m2 • Viewing angle L:R/U:L (typ.): 88°:88°/88°:88° 10,1" W Touch-Screen 16:10 • 5 wires resistive technology • Controller integrated on board	+ 4
	•	10,4" LCD TFT 4:3 • SVGA, 800x600, 16M colors • LED backlight , 400 cd/m2 • Viewing angle L:R/U:L (typ): 80°:80°/70°:70° 10,4" Touch-Screen 4:3 • 5 wires resistive technology • Controller integrated on board	+ 4
	•	12,1" LCD TFT 4:3 • SVGA, 800x600, 16M colors • backlight LED, 450 cd/m2 • Viewing angle L:R/U:L (typ): 80°:80°/65°:75° 12,1" touch-screen • 5 wires resistive technology • Controller integrated on board	+ 5
	•	12,1" LCD TFT 4:3 • XGA, 1024x768, 16M colors • LED backlight, 600 cd/m2 • Viewing angle L:R/U:L (typ.): 80°:80°/70°:70° 12,1" touch-screen • 5 wires resistive technology • Controller integrated on board	+ 12
	•	12,1" W LCD TFT 16:10 • WXGA, 1280x800, 16M colors • LED backlight, 400 cd/m2 • Viewing angle L:R/U:L (typ): 88°:88°/88°:88° 12,1" W Touch-Screen 16:10 • 5 wires resistive technology • Controller integrated on board	+ 9
	•	15" LCD TFT 4:3 • XGA, 1024x768, 16M colors • LED backlight, 500 cd/m2 • Viewing angle L:R/U:L (typ.): 85°:85°/85°:85° 15" Touch-Screen 4:3 • 5 wires resistive technology • Controller integrated on board	+ 15
	•	15,6" W LCD TFT 16:9 • 1366x768 (HD), 16M colors • LED backlight, 400 cd/m2 • Viewing angle L:R/U:L (typ): 85°:85°/80°:80° 15,6" W Touch-Screen 16:9 • 5 wires resistive technology • Controller integrated on board	+ 10
WARRANTY	•	12 months	-

OPTIONS			
WARRANTY EXTENSION	•	Warranty extension to 18 month	
	•	Warranty extension to 24 months	
	•	Warranty extension to 36 months	

**NOTES**

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**Industrial Automation - Products & Configurations**

LP30-TFC BASIC			POWER [W]
Basic configuration > note 1			
Basic configuration	LCD TFT 7" W • P-CAP projected capacitive Touch-Screen • Aluminum and tempered glass TrueFlat front panel • ARM Cortex A8, 1 GHz • 1GMB RAM • 256 MB NAND-Flash • 4GB eMMC PseudoSLC • fanless • 24V DC power supply with MicroUPS • Windows Embedded Compact 7 Pro with Datalight Reliance Nitro file system • SoftPLC CODESYS SP v3.5x WinCE/ARM • Premium HMI WinCE BASIC runtime • ASEM UBIQUITY PRO WinCE runtime • ASEM System Manager • 12 months warranty		14
SoFPLC	A	• SofrPLC CODESYS SP v3.5x for WinCE/ARM runtime	-
	B	• Protocols: EtherCAT Master, MODBUS TCP Master, MODBUS RTU Master Retentive variables: Automatic backup of retentive variables on eMMC at every system switch-off and/or power supply interruption	
HMI SOFTWARE	•	• Premium HMI WinCE BASIC runtime	-
	•	• Premium HMI ADVANCED WinCE runtime	-
REMOTE ASSISTANCE	•	• ASEM UBIQUITY PRO WinCE runtime	-
FRONT PANEL	•	• Aluminum and glass TrueFlat front panel with P-CAP projected capacitive touch-screen	-
PROCESSOR	•	• ARM Cortex A8 processor • i.MX535 • 1 GHz • 400Mhz memory bus • Soldered on board	-
DISPLAY & TOUCH-SCREEN	•	7" LCD TFT 15:9 • WVGA, 800x480, 16M colors • backlight LED 500 cd/m2 • Viewing angle L:R/U:L (typ.): 70°:70°/60°:60°	-
	•	7" W Touch-Screen 15:9 • P-CAP projected capacitive touchscreen	
	•	10,1" W LCD TFT 16:10 • WXGA, 1280x800, 16M colors • LED backlight, 400cd/m2 • Viewing angle L:R/U:L (typ.): 88°:88°/88°:88°	+ 6
	•	10,1" W Touch-Screen 16:10 • P-CAP projected capacitive touchscreen	-
	•	12,1" W LCD TFT 16:10 • WXGA, 1280x800, 16M colors • LED backlight, 400 cd/m2 • Viewing angle L:R/U:L (typ): 88°:88°/88°:88°	
•	12,1" W Touch-Screen 16:10 • P-CAP projected capacitive touchscreen	-	
•	15,6" W LCD TFT 16:9 • 1366x768 (HD), 16M colors • LED backlight, 400 cd/m2 • Viewing angle L:R/U:L (typ): 85°:85°/80°:80°		+ 12
•	15,6" W Touch-Screen 16:9 • P-CAP projected capacitive touchscreen	-	
WARRANTY	•	• 12 months	-

OPTIONS			
WARRANTY EXTENSION	•	• Warranty extension to 18 month	-
	•	• Warranty extension to 24 months	-
	•	• Warranty extension to 36 months	-

**NOTES**

The power consumption of the configuration takes into consideration the maximum absorbed power of every component and does not include the consumption of the devices connected to the USB ports.

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CODESYS SoftPLC WinCE/ARM for LP30 main features	
<b>PLC programming</b>	IEC61131-3, CODESYS SP v3.5x
<b>Supported protocols</b>	EtherCAT Master, MODBUS TCP Master, MODBUS RTU Master
<b>Variables backup</b>	Retentive 64kByte Persistent 64kByte Management Automatic backup of retentive variables on eMMC at every system switch-off and/or power supply interruption
<b>Main performances</b>	Cycle time $\geq 10$ ms Jitter $\pm 2$ ms Fieldbus Only one, no gateway admitted

For CODESYS SP details, see pg.354

Premium HMI runtimes differences	BASIC	ADVANCED
<b>RealTime DB (max, byte)</b>	1.024	8.192
<b>Alarms (max)</b>	1.024	4.096
<b>Recipes / Data Logger (ODBC)</b>	Max 2	Unlimited
<b>Communication drivers</b>	Max 2	Max 4
<b>Alarm notification (SMS, E-Mail)</b>		✓
<b>SMS notification via SMPP protocol</b>		SMS using Internet gateway
<b>Web Clients</b>		Max 4 clients connected
<b>Premium HMI Mobile</b>		✓

For Premium HMI details, see pg.350

ASEM UBIQUITY PRO main features
<b>Control Center application to access the service with intuitive and ergonomic user interface for a comprehensive machine park management</b>
<b>Optimized VPN with access limited to the remote device with Ubiquity Runtime</b>
<b>Optimized VPN with entire access to the complete remote device sub-network and serial passthrough</b>

For ASEM UBIQUITY details, see pg.347

ASM (ASEM System Manager). Control Panel utilities
<b>Backup&amp;Restore</b> - Complete system cloning or selective backup and restore of the installed softwares
<b>Antialiasing</b> - Softens the characters matrix
<b>Screensaver</b> - Display brightness control or display switch off after an inactivity period
<b>Touch Buzzer</b> - Enable touch sound-feedback
<b>eMMC Usage</b> - Check the eMMC memory usage and evaluate the expected endurance
<b>Kiosk Mode</b> - Hide the O.S. explorer interface and run PHMI runtime in 'kiosk' mode
<b>Language Settings</b> - Easy installation of not european languages characters in HMI applications
<b>Scrollbar</b> - Consente di cambiare le dimensioni delle barre di scorrimento
<b>System reboot</b> - Reboot the system without switching off the power supply

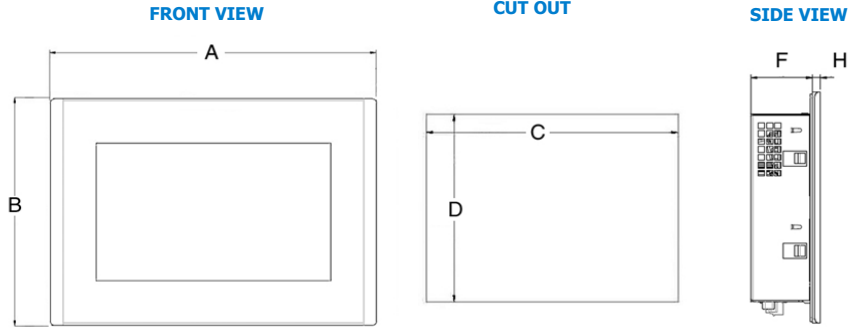
TECHNICAL SPECIFICATIONS	
Case	Panel mount
Overall dimensions & weight	See details on the related section
Front Panel	LP30 Aluminum • ASEM logo sticker
	LP30-TF Aluminum TrueFlat • Polycarbonate Pantone Cool Grey 4C color • ASEM logo serigraph printed
	LP30-TFC Aluminum and tempered glass TrueFlat
Touchscreen	LP30 4/5 wires resistive technology
	LP30-TF 4/5 wires resistive technology • overlaminated with OCA (Optical Clear Adhesive)
	LP30-TFC projective capacitive touch-screen
Frontal protection	IP66, Enclosure type 4X (Indoor use only)
Operating System	Microsoft Windows Embedded Compact 7 Pro license with Datalight Reliance Nitro file system • Microsoft olographic sticker
Software	HMI Premium HMI WinCE BASIC / ADVANCED runtime license with ASEM sticker
	Control SoftPLC CODESYS SP v3.5x for WinCE/ARM runtime • license with 3S sticker
	Remote assistance ASEM UBIQUITY WinCE PRO runtime license with ASEM sticker
	Utility ASEM System Manager • Backup&Restore, Screensaver, Antialiasing
Power supply	Input voltage 18÷36V DC • Power supply section integrated on board MicroUPS: backup for microinterruption with supercapacitors • Max interruption: 500ms • First load: 30" • Rearm time: 15"
Motherboard	"All-In-One" type • ASEM R131/A
Processor	ARM Cortex A8 • i.MX535 • 1 GHz, 400 MHz system memory bus • Soldered on board • GPU (Graphic Processor Unit) integrated
RAM memory	1GB DDR3-800 • Soldered on board
Mass storage	NAND-Flash 256MB Read-Only • for operating system and runtime
	eMMC (Solid State Disk) 4GB PseudoSLC, 8bit, file system organization • for projects and applications
SD slot	1 x Slot SD/SDHC v2.0 integrated on board • external access
Rear access interfaces	LAN1 Ethernet 100 Mbps (RJ45) • LAN2 Ethernet 10/100 Mbps (RJ45) • 2 x USB 2.0 (Type-A / host)
Rear access serial interfaces	1 x RS-232/422/485 (DB15M)
Environmental specifications	Operating temperature: 0° ÷ +50°C • Storage temperature: -20° ÷ +60°C • Humidity: 80% (non-condensing)
Approvals	CE (EN 55022, EN 61000-3-2/3, EN 55024, EN 60950-1) • cULus LISTED (UL508)
	LP30: ATEX 2014/34/UE Zone 22 II 3 D
	LP30-TF, LP30-TFC: ATEX 2014/34/UE Zone 2/22 II 3 G D
Standard warranty	12 months • Warranty management by ASEM headquarters



# LP30 family

## Technical Specifications

### DIMENSIONS (mm)



LP30 LCD TFT	CUT OUT "A"				CUT OUT "B"				H	F	Weight (Kg)
	A	B	C	D	A	B	C	D			
5,7"	175	145	164	134	-	-	-	-	5	40	0,9
7"W	215	155	204	144	204	147,6	197	140,5	5	40	1,2
8,4"	255	190	243	179	-	-	-	-	5	48,5	1,4
10,1"W	293	201,5	285	193,5	-	-	-	-	5	48,5	1,6
10,4"	295	230	283	219	-	-	-	-	5	48,5	1,8
12,1"	325	260	313	249	-	-	-	-	5	48,5	2,1
12,1"W	321	222,5	313	215	-	-	-	-	5	48,5	2,0
15"	390	305	378	294	-	-	-	-	6	48,5	3,3
15,6"W	420	265	410	255	-	-	-	-	6	48,5	3,3

LP30-TF LCD TFT	CUT OUT "A"				CUT OUT "B"				H	F	Weight (Kg)
	A	B	C	D	A	B	C	D			
5,7"	175	145	164	134	-	-	-	-	5	40	0,9
7"W	215	155	204	144	204	147,6	197	140,5	4	40	1,2
8,4"	255	190	243	179	-	-	-	-	5	48,5	1,4
10,1"W	293	201,5	285	193,5	-	-	-	-	5	48,5	1,6
10,4"	295	230	283	219	-	-	-	-	5	48,5	1,8
12,1"	325	260	313	249	-	-	-	-	5	48,5	2,1
12,1"W	321	222,5	313	215	-	-	-	-	5	48,5	2,0
15"	390	305	378	294	-	-	-	-	6	48,5	3,3
15,6"W	420	265	410	255	-	-	-	-	6	48,5	3,3

LP30-TFC LCD TFT	CUT OUT "A"				CUT OUT "B"				H	F	Weight (Kg)
	A	B	C	D	A	B	C	D			
7"W	-	-	-	-	204	147,6	197	140,5	4	40	1,2
10,1"W	293	201,5	285	193,5	-	-	-	-	5	48,5	1,6
12,1"W	331	222,5	313	215	-	-	-	-	5	48,5	2,0
15,6"W	433	267	410	255	-	-	-	-	6	48,5	3,3

### CONNECTORS VIEW (5,7")

