

AP 712

## ACCESS PANEL

### IP DESKTOP INTERCOM STATION FOR USE IN CONTROL ROOMS, CONTROL CENTERS OR MEASURING STATIONS

The compact design includes a color touch display with easy-to-use menu and dial keypad as well as mechanical keys with multi-color status indication. The device status is indicated via 3 LEDs.

Two network interfaces provide a redundant network access. If one network interface fails, data is transmitted via the second one.

The modular design allows for further flexibility: You can connect a handset and up to 4 additional keypads to the desktop intercom station at any time.

Its connection and health status is constantly monitored, logged and flexibly forwarded system-internally and to third-party systems.



- Resistive color touch display for flexible operation with finger, industrial gloves, and stylus pen
- Touch display individually configurable: 1 operating layer with 20 display buttons, dial keypad, and service layer, can be extended to up to 10 operating layers with 20 display buttons each
- 12 mechanical keys with multi-color status indication (e.g. call signaling) and 3 function keys
- Individual button labeling possible
- Audio bandwidth of up to 16 kHz
- PoE or external power supply
- Redundant network interface
- Light sensor to automatically adjust the light intensity of the touch display and keys
- Self-diagnostics by monitoring of internal electronics, microphone and network connectivity
- Red version for special applications (e.g. as hotline or alarm intercom station)



12 AP 712H



36 AP 712



36 AP 712H



12 AP 712H/RD



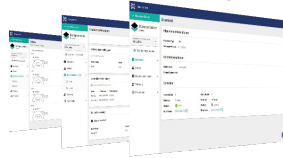
36 AP 712H/RD

## SPEAKER AND MICROPHONE REDUNDANCY

The gooseneck microphone is monitored. In case of a microphone failure, the conversation automatically switches to the integrated additional microphone. Together with the redundant speaker this ensures a reliable voice transmission even in case of a failure.

## EASY MAINTENANCE

The INTRON-X Service Tool XST enables easy commissioning and maintenance via an intuitive user interface. The tool provides various diagnostic and test functions and you can view the real-time status of the intercom station.



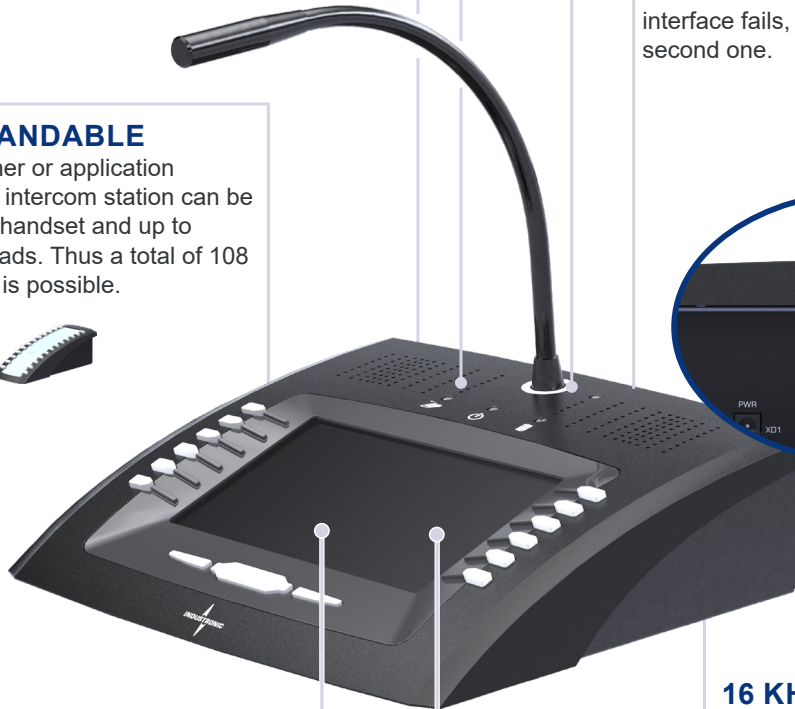
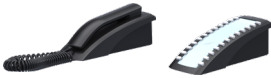
## MICROPHONE ILLUMINATED RING

The installed microphone illuminated ring indicates if the gooseneck microphone is active, inactive, or failed.



## EASILY EXPANDABLE

Based on customer or application requirements the intercom station can be expanded with a handset and up to 4 additional keypads. Thus a total of 108 mechanical keys is possible.



## REDUNDANT NETWORK INTERFACE

Two network interfaces provide a redundant network access. If one network interface fails, data is transmitted via the second one.



## 16 KHZ AUDIO BANDWIDTH

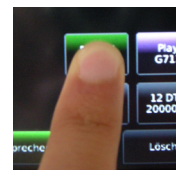
The 16 kHz audio bandwidth ensures highest intelligibility and clarity of speech, even in high ambient noise areas.

## FLEXIBLE

The basic configuration of the IP desktop intercom station has one operating layer with up to 20 freely programmable display buttons, dial keypad, and service layer. To implement more complex communication solutions, upgrade the touch display to up to 10 operating layers with up to 200 display buttons.

## TOUCH DISPLAY

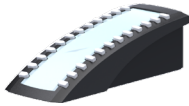
The resistive touch display responds to pressure and is used to trigger functions (e.g. trigger an alarm, make a voice announcement, establish a call to another subscriber, etc.) and can also be used with industrial gloves.



# MODULE OVERVIEW



<b>Type</b>	12 AP 712
<b>Description</b>	IP desktop intercom station with 7" color touch display, 12 mechanical keys with integrated signaling function, 3 function keys, network interface included for the connection to INDUSTRONIC systems. Display layout: 1 layer with 20 display keys, dial keypad and service layer.
<b>Type number</b>	302-053-000
<b>W x H x D</b>	267 mm x 80 mm x 242 mm (10.51" x 3.15" x 9.53")
<b>Weight</b>	Approx. 2.5 kg (approx. 5.51 lbs)
<b>Color</b>	Graphite black (RAL 9011)



<b>Type</b>	24 APK 02
<b>Description</b>	Additional keypad with 24 mechanical keys, integrated signaling function and protective labels. It is used to expand the IP desktop intercom station of the AP series. An optional key cover is available. (→ page 4).
<b>Type number</b>	302-050-400
<b>W x H x D</b>	86 mm x 80 mm x 242 mm (3.39" x 3.15" x 9.53")
<b>Weight</b>	Approx. 0.7 kg (approx. 1.54 lbs)
<b>Color</b>	Graphite black (RAL 9011)



<b>Type</b>	1 APH 02
<b>Description</b>	Handset with cradle, can be used together with the IP desktop intercom stations of the AP series
<b>Type number</b>	302-050-500
<b>W x H x D</b>	86 mm x 98 mm x 242 mm (3.39" x 3.86" x 9.53")
<b>Weight</b>	Approx. 0.8 kg (approx. 1.76 lbs)
<b>Color</b>	Graphite black (RAL 9011)

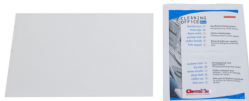
# ACCESSORIES



<b>Type</b>	Universal power adapter 48 V
<b>Description</b>	For power supply without Power-over-Ethernet (PoE), interchangeable power plugs, can be used worldwide (Asia, Australia, Europe, UK, and USA), cable length approx. 1.4 m (4.59 ft), DC plug with internal diameter 2.1 mm (0.08") and outer diameter 5.5 mm (0.22"), input voltage 90 V AC to 264 V AC / 47 Hz to 63 Hz, output voltage 48 V DC / 0.5 A
<b>Type number</b>	309-042-500



<b>Type</b>	Key cover for 8 keys
<b>Description</b>	Transparent plastic key cover for the 24 APK 02 additional keypad to protect the upper 8 keys against accidental actuation. You can only press these keys if the key cover is open.
<b>Type number</b>	302-050-050



<b>Type</b>	Screen protector
<b>Description</b>	To protect the touch display against scratches and dirt; self-adhesive, resistant to dust and grease, anti-reflection coating
<b>Type number</b>	302-051-052

# TECHNICAL DATA

## ELECTRICAL DATA

<b>Power supply</b>	PoE according to 802.3af, Class 3, 15 W or external power supply 42 V DC to 57 V DC, 0.3 A at 48 V DC
<b>Typical power consumption</b>	5 W
<b>Amplifier power</b>	2 x 1 W
<b>Frequency range</b>	200 Hz to 16,000 Hz
<b>Speaker</b>	2 x 8 W / 8 Ohms
<b>Sound pressure level (distance of 50 cm (19.69"))</b>	90 dB (+/-3 dB)
<b>Touch display</b>	7" (17.8 cm), 800 x 480 pixels, resistive

## INTERFACES

2 x RJ45 port 10/100 MBit/s (LAN + PoE)
1 x DC power jack (for external power supply) inner diameter: 2.1 mm (0.08"), outer diameter: 5.5 mm (0.22")
1 x USB-A interface for connecting accessories
1 x Mini USB service port

## NETWORK REQUIREMENTS

Power over Ethernet (PoE) recommended
IPv4 network
Support of UDP, SCTP, RTP and RTCP protocols
Quality of Service (QoS) Ideal latency value < 20 ms (max. 50 ms) Jitter: max. 10 ms
10Base-T/100Base-TX Ethernet (IEEE 802.3), 100 MBit/s recommended
200 kBit/s basic bandwidth and 200 kBit/s per active audio channel

## ENVIRONMENTAL REQUIREMENTS AND STANDARDS

<b>Ambient temperature during operation</b>	-10 °C to +55 °C (-14 °F to +131 °F)
<b>Storage temperature</b>	25 °C to +70 °C (+14 °F to +131 °F)
<b>Relative humidity (non-condensing)</b>	Max. 95 %
<b>Degree of protection</b>	IP42
<b>Vibration resistance</b>	2 Hz to 13.2 Hz, +/-1.5 mm, 13.2 Hz to 200 Hz, 1 g
<b>Operating altitude</b>	Max. 2,000 m (6,562 ft) above sea level
<b>Pollution degree</b>	2 (according to EN 62368-1)
<b>Electrical safety</b>	EN 62368-1
<b>EMC</b>	EN 61000-6-2, EN 61000-6-4, EN 55032 Class B, EN 55035, EN 50130-4

# SERIES OVERVIEW CHART



Type	Handset	Basic device	Additional Keypad*	Type Number
12 AP 712		x		302-053-000
36 AP 712		x	1	302-053-100
60 AP 712		x	2	302-053-200
84 AP 712		x	3	302-053-300
108 AP 712		x	4	302-053-400
12 AP 712H	x	x		302-053-500
36 AP 712H	x	x	1	302-053-600
60 AP 712H	x	x	2	302-053-700
84 AP 712H	x	x	3	302-053-800
108 AP 712H	x	x	4	302-053-900
12 AP 712/RD		X**		302-053-000/RD
12 AP 712H/RD	X**	X**		302-053-500/RD
36 AP 712H/RD	X**	X**	1	302-053-600/RD

\*All types with additional keypads can be ordered with a key cover for 8 keys (e.g.: type 36 AP 712/C8 has the type number 302-053-100/C8). Other types of intercom stations are available upon request.

\*\*red (RAL 3020)

## ACTIVATIONS

Type number	Description
101-100-002	ACT-IP Device Activation for the connection of one INDUSTRISTRONIC IP device to the INTRON-X / INTRON-D <i>plus</i> system
101-100-004	ACT-IP Device connected redundantly Activation for a redundant connection of one INDUSTRISTRONIC IP device to the INTRON-D <i>plus</i> system
101-200-201	ACT-AP 6 Operating Layers Activation of 6 operating layers with up to 120 configurable buttons for the INDUSTRISTRONIC IP intercom station of the AP series
101-200-202	ACT-AP 10 Operating Layers Activation of 10 operating layers with up to 200 configurable buttons for the INDUSTRISTRONIC IP intercom station of the AP series

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