



- SHARK Operator Station in “rugged design” as Panel PC / Thin Client
- Ethernet via CAT7 with additional WLAN
- For Zones 1, 21 / 2, 22 / Class I, Zone 1 / Class I, Zone 2 / Class II, Div. 2 / Class III
- ATEX, IECEX, EAC, NEC, CEC, PESO, CNEx, CCC, RCM and DNV / GL, ABS
- Extended temperature range: -40 °C ... +65 °C

## MY R. STAHL



The SHARK Panel PCs / Thin Clients in rugged design have been developed for **extreme ambient conditions**: they are shock, vibration, saltwater and salt-spray-proof and have IP66. They have a modular design, consisting of a display module and an Electronic Box. In case of repair / maintenance, one of the two modules can be easily replaced. The Panel PCs / Thin Clients transmit data via Ethernet CAT7 and additional WiFi. The sunlight-readable displays are multi-touch screens with an integrated front camera. The E-Box can be fitted with type Intel Core i5, i7 or AMD GX processors. Optional accessories include RFID readers, barcode readers and a Bluetooth interface for headsets / keyboards.

Selection Table						
HMI type Product description		Rugged Panel 15" Panel PC				
Product Type	Application range (zones)	Ethernet / Data	Interface medium	Data cable length	Art. No.	Weight
ET-438-1TX	1 2 21 22	1x 100/1000Base-TX (Ex e), Wi-Fi 2.4 / 5 GHz	CAT7 Data transmission	max. 100 m		-
MT-438-1TX	2 22	1x 100/1000Base-TX (Ex e), Wi-Fi 2.4 / 5 GHz	CAT7 Data transmission	Max. 100 m		-
HMI type Product description		Rugged Panel 15" Thin Client				
Product Type	Application range (zones)	Ethernet / Data	Interface medium	Data cable length	Art. No.	Weight
ET-538-1TX	1 2 21 22	1x 100/1000Base-TX (Ex e), Wi-Fi 2.4 / 5 GHz	CAT7 Data transmission	Max. 100 m		-
MT-538-1TX	2 22	1x 100/1000Base-TX (Ex e), Wi-Fi 2.4 / 5 GHz	CAT7 Data transmission	Max. 100 m		-
HMI type Product description		Rugged Panel 21.5" Panel PC				
Product Type	Application range (zones)	Ethernet / Data	Interface medium	Data cable length	Art. No.	Weight
ET-498-1TX	1 2 21 22	1x 100/1000Base-TX (Ex e), Wi-Fi 2.4 / 5 GHz	CAT7 Data transmission	Max. 100 m		-
MT-498-1TX	2 22	1x 100/1000Base-TX (Ex e), Wi-Fi 2.4 / 5 GHz	CAT7 Data transmission	Max. 100 m		-
HMI type Product description		Rugged Panel 21.5" Thin Client				
Product Type	Application range (zones)	Ethernet / Data	Interface medium	Data cable length	Art. No.	Weight
ET-598-1TX	1 2 21 22	1x 100/1000Base-TX (Ex e), Wi-Fi 2.4 / 5 GHz	CAT7 Data transmission	Max. 100 m		-
MT-598-1TX	2 22	1x 100/1000Base-TX (Ex e), Wi-Fi 2.4 / 5 GHz	CAT7 Data transmission	Max. 100 m		-

Technical Data		
Variant	ET-438-1TX	MT-498-1TX
<b>Explosion Protection</b>		
Application range (zones)	1 2 21 22	2 22
Application range (divisions)	Class I, Zone 1 Class I, Division 2 Class II, Division 1 and 2 Class III	Class I, Zone 2 Class I, Division 2 Class II, Division 2 Class III
IECEX certification	IECEX BVS 14.0116X	IECEX BVS 14.0116X
ATEX certification	BVS 14 ATEX E 134 X	BVS 14 ATEX E 134 X
Scope	Australia (RCM) Canada (CEC) China (CCC / CNEEx) EU (CE / ATEX) India (PESO) International (IECEX) Marine / ship certification ABS Marine / ship certification DNV-GL Russia (EAC) USA (NEC)	Australia (RCM) Canada (CEC) China (CCC / CNEEx) EU (CE / ATEX) India (PESO) International (IECEX) Marine / ship certification ABS Marine / ship certification DNV-GL Russia (EAC) USA (NEC)
<b>Electrical Data</b>		
Rated operational voltage AC	230 V	230 V
Rated operational voltage DC	24 V	24 V
<b>Ambient Conditions</b>		
Ambient temperature operation	-10 °C ... +65 °C	-10 °C ... +65 °C
Storage temperature	-40 °C ... +70 °C	-40 °C ... +70 °C
<b>Display</b>		
Display size inch	15	21.5
Total pixels	1024 x 768	1920 x 1080
Display version	TFT colour display or sunlight-readable display	Sunlight readable display
Display dimensions	4:3	16:9
Display brightness	TFT 450 cd/m <sup>2</sup> SR 1200 cd/m <sup>2</sup>	1000 cd/m <sup>2</sup>
Display contrast	TFT 500:1 SR 600:1	1100:1
Backlight	LED Technology	LED Technology
<b>Mechanical Data</b>		
Material front	Seawater resistant and coated aluminium, hardened glass	Seawater resistant and coated aluminium, hardened glass
Material back	Seawater-resistant powder coated aluminum	Seawater-resistant powder coated aluminum
Ingress protection	IP66	IP66
IP enclosure front	IP66	IP66
IP enclosure back	IP66	IP66
<b>Mounting / Installation</b>		
Mounting option	Yoke and wall-mounting, handle and feet, sun protection roof, panel mount (with xx8 Mounting-Kit)	Yoke and wall-mounting, handle and feet, sun protection roof, panel mount (with xx8 Mounting-Kit)
Enclosure design	VESA 200 Standard, VESA 200 Top Connect	VESA 200 Standard, VESA 200 Top Connect
<b>Components</b>		
Keyboard	optional, attached keyboard and pointing device (trackball, joystick or touchpad (Ex ia))	optional, attached keyboard and pointing device (trackball or joystick(Ex ia))