

vSCALE D3-2

User-friendly HMI with function keys

Applications

- Mobile Cranes
- Lifting Applications
- Road Construction Machinery
- Earth Moving Machinery
- Concrete Machinery
- Agricultural Machinery

Special Features

- User-friendly HMI for mobile machinery
- Ergonomic design
- Color graphic LCD with 7" display diagonal and LED backlight
- Sixteen (16) function keys
- IP65 and IP66 protection rating according to ISO 20653
- Various interfaces available
- Numerous mounting options available

Description

User-friendly operation and visualization are the key benefits of the vSCALE D3-2 HMI. Application examples include the display of service reports, error reports, and statistical entry of data for work processes via the device's control elements. The console also provides visual and acoustic warning in the event of critical operating conditions and visualization of process sequences.



vSCALE D3-2 HMI

The vSCALE D3-2 console is characterized by its robust construction, and it has been developed especially for use under harsh conditions in mobile machinery. Installation options include in-dash or on-dash mounting and landscape or portrait orientation.

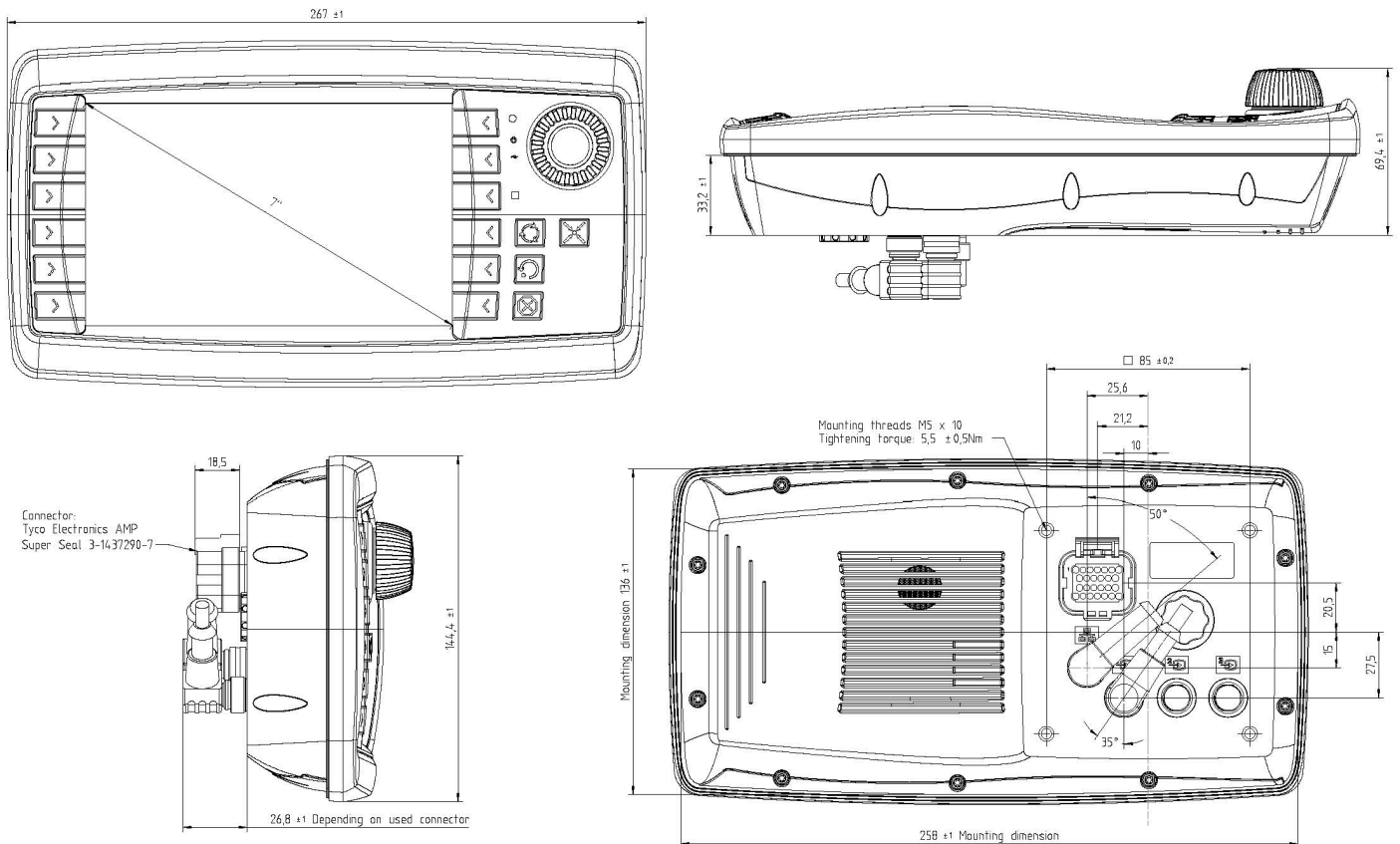
Technical Specifications

vSCALE D3-2	
Display	
Type	TFT Color Graphic LCD with LED backlight
Size	7", 152 mm (W) x 91 mm (H)
Resolution	800 x 480 px, WVGA, 15:9
Number of Colors	24bit = 16.7 Mio
Brightness	typ. 500 cd/m ²
Contrast ratio	typ. 600:1
Indicators and sensors	"1 Multicolour LED 3 Status LED" Ambient light sensor
Keys	16 keys with tactile feedback, Multicolor LED backlight 1 optical encoder with 16 mechanical detents and push function Multicolor LED backlight
Touch screen	vSCALE D3-2-C1: no vSCALE D3-2-C2: PCT
Electronics	
CPU	Freescale i.MX6, Solo, 800 MHz
RAM	512 MB
Flash-EPROM	4 GB
Real-time clock (RTC)	Buffered by gold cap
Operating voltage	9...36 VDC
Current consumption	≤ 1000 mA at 13.5 V
Audio	Speaker 80 dB @ 1 kHz in 1 m distance
Interfaces	
CAN Bus	2x CAN up to 1 Mbit/s (main connector)
RS232	1x RS232 max. 115 Kbps (main connector)
USB	Host 2.0 1x High speed (main connector) 1x High speed (on front)
Ethernet interface	1x 10/100 Mbit/s Base T
Video interface (FBAS)	3 analog video inputs
Analog / digital inputs (optional)	4 configurable analog/digital inputs
Digital outputs (optional)	3 digital outputs

Technical Specifications

vSCALE D3-2	
Connectors	
Main	Tyco-AMP 1437288-6 Mating connector (customer) Tyco-AMP 3-1437290-7 Mating crimp contact (customer) Tyco AMP 3-1447221-4
Video connector	M12 round connector, female, 5-pole, B-coded
Ethernet connector	M12 round connector, female, 4-pole, D-coded
Software	
Operating system	Linux Kernel 3.0.0 or higher
Application programming	CoDeSys-Tools (3.5) C/C++
Environmental conditions	
EMC	According to EN 61000-6-2: 2005 EN 61000-6-4: 2007
Temperature	Operating Temperature: -30...+65°C Storage Temperature : -40...+85°C
Protection class	IP65 and IP66 according to ISO 20653
Housing	Front cover: PC/ABS, colored blue with black rubber frame. Back cover: aluminum die cast, colored light grey
Mounting	landscape or portrait; standalone or in-dash

Dimensions



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Page 3 of 4

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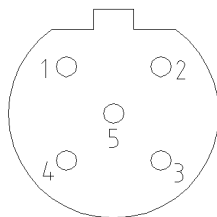
We reserve the right to make technical changes without prior notice. The individual specifications in this datasheet are warranted properties if they are expressly confirmed by us in writing in the respective case.

Pin Assignment

Video connector

Round connector, 5 pins, M12

1	VidSig+
2	n.c.
3	Camera+
4	Camera-
5	VidSig GND

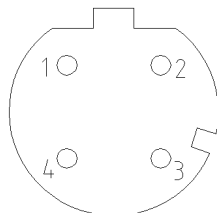


Ethernet connector

100Base-Tx

Round connector, 4 pins, M12

1	TD+
2	RD+
3	TD-
4	RD-



Main connector

Pin No.	Assignment	Description
1	VCC	supply voltage +; terminal 30
2	Ignition Input	ignition input; terminal 15
3	GND	supply voltage -; terminal 31
4	GND chassis	GND chassis
5	Audio Out L	not connected
6	Audio Out R	not connected
7	Audio Out GND	not connected
8	CAN1H	CAN1 high
9	CAN1L	CAN1 low
10	CAN2H	CAN2 high
11	CAN2L	CAN2 low
12	USB_VCC	USB +5V supply
13	USB_GND	USB supply GND
14	USB_D-	Usb data -
15	USB_D+	Usb data +
16	RS232 RxD	RS232 receive data
17	RS232 TxD	RS232 transmit data
18	RS232 GND	RS232 GND
19	A/DI3	Analog or digital Input 3
20	A/DI1	Analog or digital Input 1
21	A/DI2	Analog or digital Input 2
22	A/DI4	Analog or digital Input 4
23	SERV_EN	Service Enable
24	DO3	Digital output 3 (towards ground)
25	DO1	Digital output 1 (towards ground)
26	DO2	Digital output 2 (towards ground)

