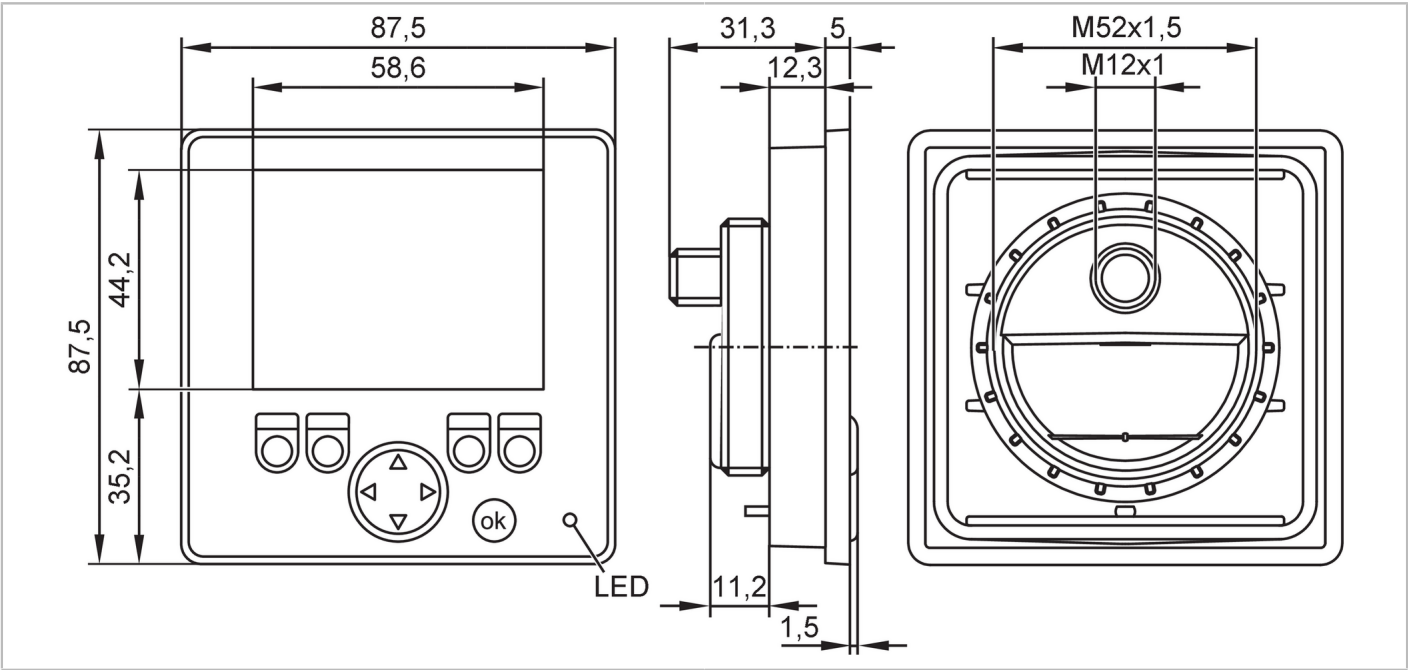




Programmable Human Machine Interface

R360/BasicDisplay



Product characteristics		
Communication interface	CAN	
Operating elements	5	freely programmable backlit function keys
	1	Navigation key with pushbutton
Display type	Color display	
Electrical data		
Operating voltage	[V]	8...32 DC; (to SELV/PELV ; For information on undervoltage limits, please refer to the operating instructions.)
Nominal voltage DC	[V]	12 / 24
Current consumption	[mA]	70; (24 V DC; background illumination: 100 %)
Power consumption	[W]	1.68
Overvoltage protection		yes; (36 V: t ≤ 10 s)
Software / programming		
Parameter setting options	CODESYS 2.3	
PLC function to IEC 61131-3	yes	
Interfaces		
Communication interface	CAN	
Number of CAN interfaces	1	
Transmission rate	20 kBit/s... 1 MBit/s	
Protocol	CANopen; SAE J1939; free protocol	
Profile	CiA DS 301 Version 4; CiA DS 401 Version 1.4	
Interface	CAN Interface 2.0 A/B ISO 11898	
Factory settings	Transmission rate: 250 kBits/s	
Operating conditions		
Ambient temperature	[°C]	-20...70



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Storage temperature	[°C]	-30...80
Max. relative air humidity	[%]	90; (non condensing)
Max. height above sea level	[m]	2000
Protection		IP 65; (on the front; when mounted: IP 67)
Pollution degree		2; (before installation and when the device is replaced)

Tests / approvals

EMC	UN/ECE-R10 Noise emission and noise interference:	100 V/m
	DIN EN 61000-6-2 ESD	
	DIN EN 61000-6-4 Burst	
	EN 61010-1	
	ISO 7637-2 pulse 1	severity level 4 / function state C (24 V)
	ISO 7637-2 pulse 2a	severity level 4 / function state A (24 V)
	ISO 7637-2 pulse 2b	severity level 4 / function state C (24 V)
	ISO 7637-2 pulse 3a	severity level 4 / function state A (24 V)
	ISO 7637-2 pulse 3b	severity level 4 / function state A (24 V)
	ISO 7637-2 pulse 4	severity level 4 / function state A (24 V)
	ISO 7637-2 pulse 5	severity level 3 / function state C (24 V)
	ISO 7637-2 pulse 4	severity level 4 / function state A (12 V)
Continuous shock resistance	ISO 16750-3	30 g 6 ms / 24000 shocks
Vibration resistance	ISO 16750-3 Test VII	random, mounting place car body
	EN 60068-2-6 sine	10...500 Hz / 10 cycles/axis, sine
Climatic tests	EN 60068-2-30 damp heat: cyclical	55 °C upper temperature limit / 6 cycles
	EN 60068-2-78 damp heat: constant	40 °C 93 % rH / test period 21 days
Salt spray test	EN 60068-2-52 Salt spray	test method 3 / motor vehicle
MTTF	[years]	232
Railway applications	DIN EN 50155 Pkt 13.3	
	EN 50121-3-2	
	EN 55016	

Mechanical data

Weight	[g]	156
Housing		rectangular
Type of mounting		panel/surf.; (panel cut-out (panel): 81,5 x 81,5 mm; panel cut-out (surface): 53 x 53 mm)
Dimensions	[mm]	87.5 x 87.5 x 37.8
Material		housing: plastics black; Display: PET; Pushbuttons: silicone
Information on service life	Pushbuttons:	≥ 750.000 activations
	Navigation key with pushbutton:	≥ 750.000 activations
	Display LED lifetime:	≥ 50.000 h (at 25 °C)

Displays / operating elements

Display	Status LED	1 LED, red/green
Operating elements	5	freely programmable backlit function keys
	1	Navigation key with pushbutton
Display resolution		320 x 240
Display type		Color display
Display size		2.8"
Aspect ratio		4:3

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Display background illumination	LED
Color depth	8 Bit
Brightness [cd/m²]	< 300; (Display; adjustable: 0...100 %; In steps of: 1 %; Operating elements; \$global)
Contrast ratio	500:1

Hardware

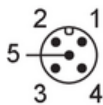
Processor	Freescall PowerPC 5517E; 50 MHz
Working memory	592 kByte RAM
Mass storage	1536 kByte Flash
Non-volatile memory	1 kByte

Remarks

Remarks	for further information please see the operating instructions
Pack quantity	1 pcs.

Electrical connection - CAN

Connector: 1 x M12; coding: A; Contacts: 5



- 1: n.c.
- 2: 8...32 V DC
- 3: GND
- 4: CAN_H
- 5: CAN_L