# FS 12-100-1 M G8-B8-E
Colour Sensor

di-soric

- Up to 100 colour channels
- Integrated long-term stability
- Distinction of smallest shades
- Short response time
- Adjustable colour tolerance
- Parameterization by buttons and software
- Key lock function
- High ambient light compensation
- Exportable measured values for evaluations (.csv)
- For Ethernet connection

CE

BN	= brown
BU	= blue
GN	= green
GY	= grey
PK	= pink
RD	= red
WH	= white
YE	= yellow
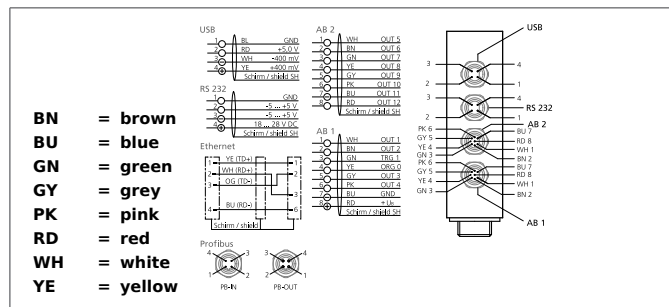
Safety instructions

The Instruments are not to be used for safety applications, in particular applications in which safety of persons depends on proper operation of the instruments.
These instruments shall exclusively be used by qualified personnel.
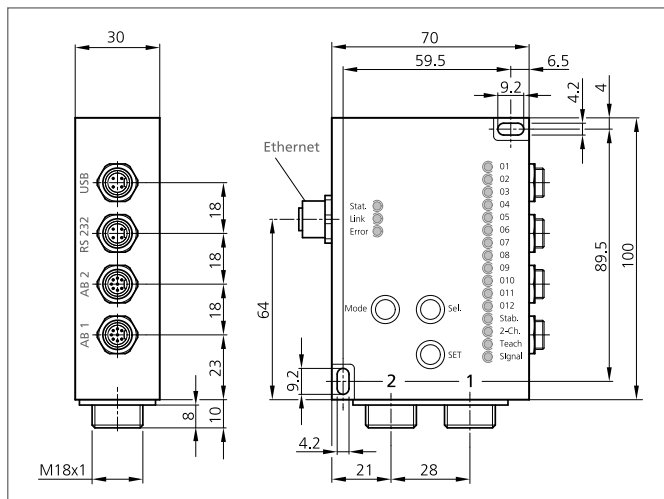
TECHNICAL INFORMATION (typ.)	+20°C, 24V DC
Service voltage	18 ... 28 V DC
No-load current	500 mA
Control elements	3
Light spot size	Dependent on focus optic
Emitting light source	white light LED, to be switched off
Fiber-optic connection	M18 x 1
Colour memory internal	100
Number of sensing channels	1
Colour channels of sensor	12 (Teachable via buttons) 15 (Binary coating) 100 (Using software, with binary coding)
Colour resolution	DE Lab < 1
Trigger input	TRG 0
Teach input	TRG 1
Switching hysteresis	0 ... 255 %
Interface	Ethernet, RS 232, USB
Shock-/vibration load	10 ... 55 Hz / 1,0 mm / 30 g
Pulse stretching	0 ... 65535 ms adjustable
Display	19 LED
Voltage drop	< 2,0 V
Response time/Scanning frequency	0,2 ms (with 5000 Hz: up to 100 colours evaluable) 0,1 ms (with 10000 Hz: up to 30 colours evaluable) 0,05 ms (with 20000 Hz: 3 colours evaluable)
Ambient temperature, operation	-10 ... +55 °C

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TECHNICAL INFORMATION (typ.)	+20°C, 24V DC
Switching output coding	12 x (pnp + npn) 100 x (binary coded = 100 output conditions)
Tolerance ranges	5 by button / using software arbitraily
Ambient light compensation	can be switched off
Protection class	IP 54
Colour space mode	XYZ / xyY / u'v'L* / L*a*b* / xyl (Non-self-shining objects) XYZ / xyY / u'v'L / xyl (Self-shining objects)
Detection modes	Minimum spacing (Assignment of measured colour to the stored colour with the smallest colour spacing) Check sphere (Check whether the measured colour is within a defined tolerance) Check cylinder (Check whether the measured colour is within a defined tolerance)
Operating mode	- (Continuous) - (Externally triggered colour sequence detection) - (External teaching) - (Self-shining objects) - (Non-self-shining objects) - (Each colour can be assigned to any output)
Casing material	Aluminium anodized