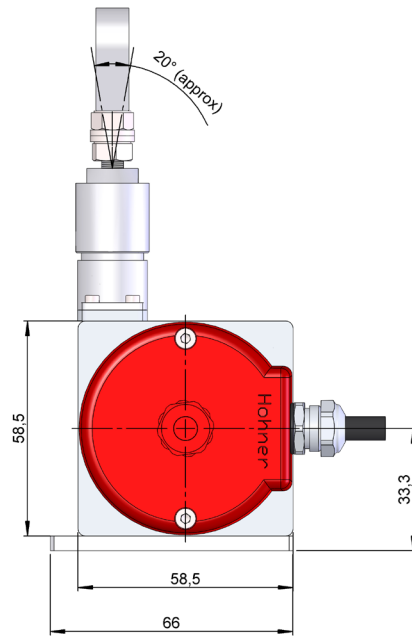
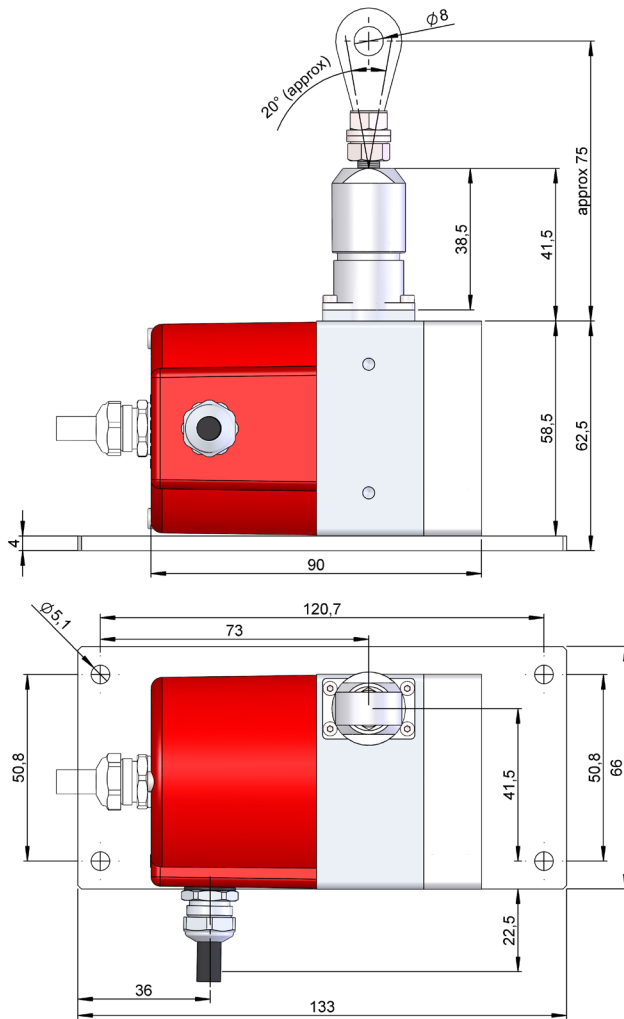
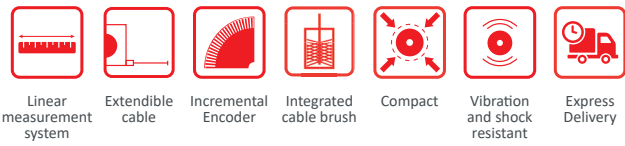


SERIE XS1 INC

DRAW WIRE INCREMENTAL ENCODER

- Incremental output
- Resolution up to 10 pulses per mm
- Measuring range up to 1250 mm
- Misalignment of the extendable cable up to 20°
- Protection class IP51 according to DIN EN 60529
- Connection by cable (other cable length available) or industrial connector M12 or M23



SERIE XS1 INC

DRAW WIRE INCREMENTAL ENCODER

REFERENCE

Reference example: XS1-INC-16-021250

Serie	Interface	Connection	Power Supply / Electronic output	Resolution	Measurement range	Special customer
XS1-	INC-	<input type="checkbox"/>	<input type="checkbox"/> -	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	INC. Incremental Encoder	<ol style="list-style-type: none"> 1. Axial cable 2. Radial cable 3. Axial M23 12p CW 4. Radial M23 12p CW 5. Axial M12 8p CCW 6. Radial M12 8p CCW 	<ol style="list-style-type: none"> 0. 11...30 VDC / NPN Open collector 11..30 VDC 1. 11...30 VDC / Line driver differential Push-Pull 11..30 VDC 2. 5 VDC / RS422 5 VDC (compatible TTL) 6. 11...30 VDC / RS422 5 VDC (compatible TTL) 	<ol style="list-style-type: none"> 01. 1 mm (1 pulse/mm) 02. 0,5 mm (2 pulse/mm) 04. 0,25 mm (4 pulse/mm) 08. 0,125mm (8 pulse/mm) 10. 0,1 mm (10 pulse/mm) 	1250. 1250mm	

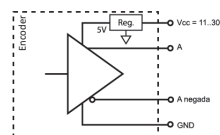
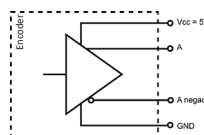
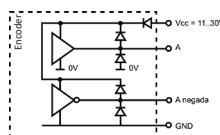
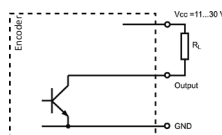
MECHANICAL SPECIFICATIONS

Materials	Cover: Aluminium Housing: Aluminium Shaft: Stainless steel
Travel	125 mm +/- 0,05 mm / per turn
Cable	Ø 0,61 stainless steel AISI316
Measurement range, up to (mm)	1250 mm.
Maximum cable extension (mm)	1260 mm
Minimum cable static tension	3 N
Maximum cable static tension	9 N
Maximum extension acceleration	35 m/s ²
Maximum recovery acceleration	10 m/s ²
Maximum speed	1 m/s
Protection against dust and splashes according to DIN EN 60529	IP51
Operating temperature range	-20°C to +80°C
Weight	0,9 kg.
Vibration according to DIN EN 60068-2-6	100 m/s ² (10Hz...2000Hz)
Shock according to DIN EN 60068-2-27	1000 m/s ² (6ms)

SERIE XS1 INC

DRAW WIRE INCREMENTAL ENCODER

OUTPUT SIGNALS



OUTPUT CIRCUIT	NPN Open Collector	Push-Pull Differential	RS422 (TTL compatible)	RS422 (TTL compatible)
Reference code	0	1	2	6
Power supply	11...30 VDC	11...30 VDC	5 VDC ±5%	11...30 VDC
Output voltage	11...30 VDC	11...30 VDC	5 VDC	5 VDC
Consumption	40 mA	Typical: 45 mA Max: 150 mA	Typical: 70 mA Max: 150 mA	Typical: 80 mA Max: 160 mA
Max. load capability / channel	40 mA	±30 mA	±20 mA	±20 mA
Length of cable allowed	50 m (24 VDC)	100 m	1200 m	1200 m
"Low" signal level	VOL < 0.4 VDC (24 VDC)	VOL < 2.5 VDC	VOL < 0.5 VDC	VOL < 0.5 VDC
"High" signal level	VOH > 22 VDC (24 VDC)	VOH > VCC - 3 VDC	VOH > 2.5 VDC	VOH > 2.5 VDC
Frequency	100 kHz	200 kHz	300 kHz	300 kHz
Short circuit protection	Not permanent	Yes	Yes	Yes
Protection polarity inversion	Yes	Yes	No	Yes

CONNECTION



	Cable 3x2x0,14+2x0,34 95.0008003	Connector M12 8p CCW	Connector M23 12p CW
GND	Black	1	1
VCC	Red	2	2
A	Yellow	3	3
B	Green	4	4
~A	Brown	5	5
~B	Blue	6	6
0 (reference)	Grey	7	7
~0	Orange	8	8

SERIE XS1 INC

DRAW WIRE INCREMENTAL ENCODER

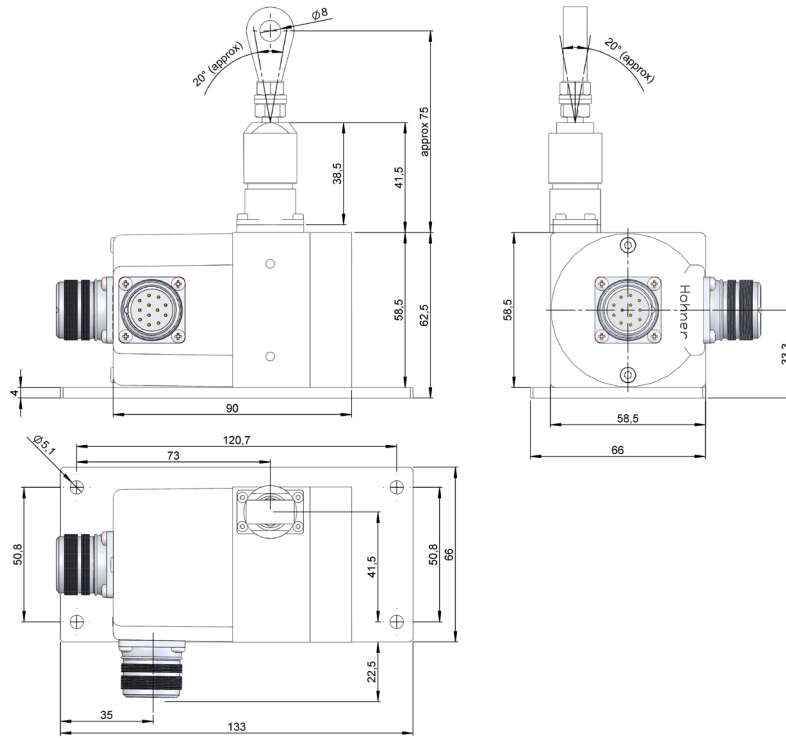
CONNECTION DIMENSIONS

Female connector not included

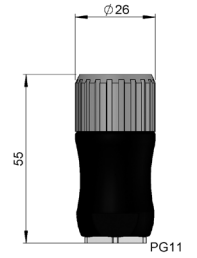
Connection 3
Axial

Connection 4
Radial

*M23 12p
male panel
clockwise*



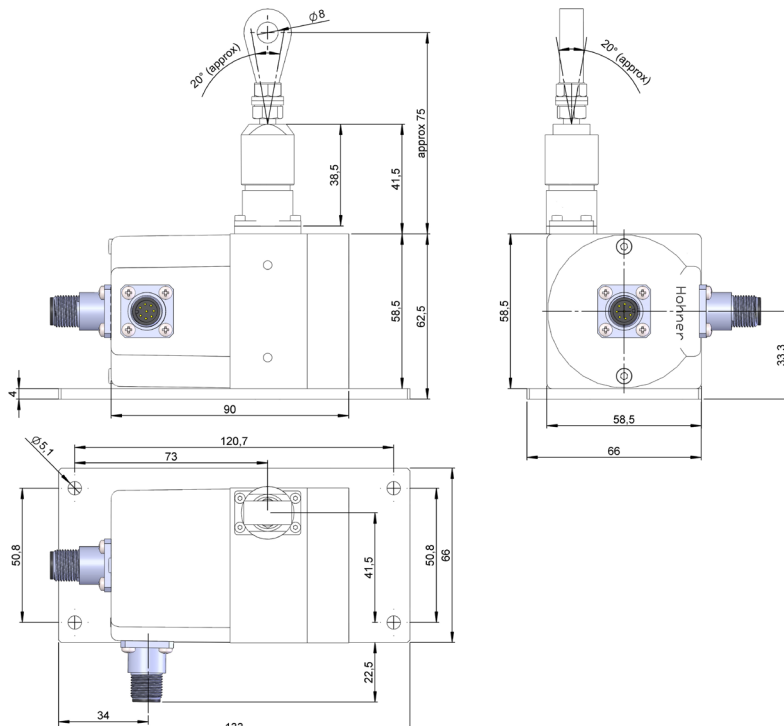
Female connector
95.0007131



Connection 5
Axial

Connection 6
Radial

*M12 8p
male panel
counter clockwise*



Female connector
95.0007152

